

# OWNER'S MANUAL

2022 MAZDA MX-30

## **MARNING**

## California Proposition 65 Warning

Operating, servicing and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

#### NOTE

The following two manuals are available on the website. Please read them as well (see the link on the last page).

- Mazda Connect Owner's manual
- Navigation manual

### Privacy

Mazda maintains a Privacy Statement which describes how we collect, use, share, store and secure data from your vehicle equipped with connected services. We provide you with connected services by collecting and using your personal information and vehicle location, health and driving data.

To learn more about our Privacy Statement,

please visit: https://www.mazdausa.com/site/privacy-connectedservices



## Web Owner's Manual

You can view the Web Owner's manual using a Computer, Smartphone, or Tablet.

Feel free to use the Web Owner's manual as well.

#### To Customers in U.S.A. and Puerto Rico

• Please go to the website below.

2022 MAZDA MX-30 Interactive Owner's manual

https://www.mazdausa.com/static/manuals/2022/mx-30/index.html



#### Mazda Connect Interactive Owner's manual

https://www.mazda.mx/static/manuals/mazdaconnect/index.html



### **Navigation manual**

https://www.mazdausa.com/siteassets/pdf/owners-optimized/7g-navi/navigation-owners-manual.pdf



#### To Customers in Canada

• Please go to the web site below, and select the desired material or model (model year).

https://www.mazda.ca/en/owners/manuals/



#### Limitations on use

- This Web Owner's manual may not display normally depending on the device being used and the contracted services available with the device.
- Communication fees may occur while connected (accessing).
- Access may not be available in poor network or communication environments.

Thank you for choosing a Mazda. We at Mazda design and build vehicles with complete customer satisfaction in mind.

To help ensure enjoyable and trouble-free operation of your Mazda, read this manual carefully and follow its recommendations.

An Authorized Mazda Dealer knows your vehicle best. So when maintenance or service is necessary, that's the place to go.

Our nationwide network of Mazda professionals is dedicated to providing you with the best possible service.

We assure you that all of us at Mazda have an ongoing interest in your motoring pleasure and in your full satisfaction with your Mazda product.

Mazda Motor Corporation HIROSHIMA, JAPAN

#### **Important Notes About This Manual**

Keep this manual in the glove compartment as a handy reference for the safe and enjoyable use of your Mazda. Should you resell the vehicle, leave this manual with it for the next owner.

All specifications and descriptions are accurate at the time of printing. Because improvement is a constant goal at Mazda, we reserve the right to make changes in specifications at any time without notice and without obligation.

#### Air Conditioner and the Environment

Your Mazda's genuine air conditioner is filled with a refrigerant that has been found not to damage the earth's ozone layer. If the air conditioner does not operate properly, consult an Authorized Mazda Dealer.

#### Perchlorate

Certain components of this vehicle such as [air bag modules, seat belt pretensioners, lithium batteries, ...] may contain Perchlorate Material-- Special handling may apply for service or vehicle end of life disposal. See

www.dtsc.ca.gov/hazardouswaste/perchlorate.

Please be aware that this manual applies to all models, equipment and options. As a result, you may find some explanations for equipment not installed on your vehicle.

### How to Use This Manual

We want to help you get the most driving pleasure from your vehicle. Your owner's manual, when read from beginning to end, can do that in many ways.

Illustrations complement the words of the manual to best explain how to enjoy your Mazda. By reading your manual, you can find out about the features, important safety information, and driving under various road conditions.

You'll find several WARNINGs, CAUTIONs, and NOTEs in the manual.

# **⚠** WARNING

A WARNING indicates a situation in which serious injury or death could result if the warning is ignored.



A CAUTION indicates a situation in which bodily injury or damage to your vehicle, or both, could result if the caution is ignored.

#### NOTE

A NOTE provides information and sometimes suggests how to make better use of your vehicle.

The symbol below in this manual means "Do not do this" or "Do not let this happen".



The following symbol indicates the first operation, such as a push or a turn.



The following symbol indicates the second operation, such as a push or a turn.



The following symbol indicates the location of parts.



The following symbol indicates a change of status.



The following symbol, located on some parts of the vehicle, indicates that this manual contains information related to the part.

Please refer to the manual for a detailed explanation.



**Index:** A good place to start is the Index, an alphabetical listing of all information in your manual.

# MEMO

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# Pictorial Index

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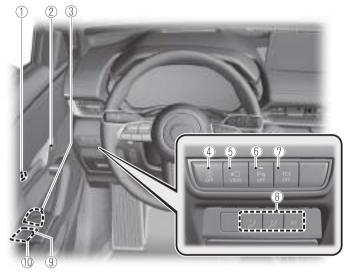
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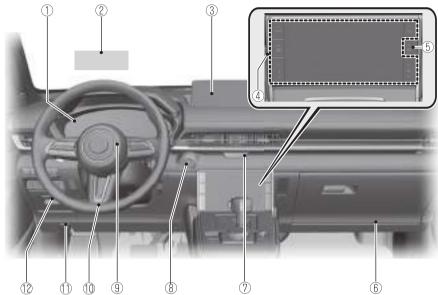
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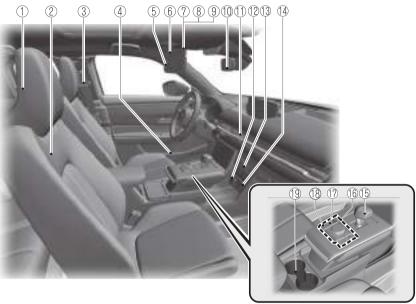
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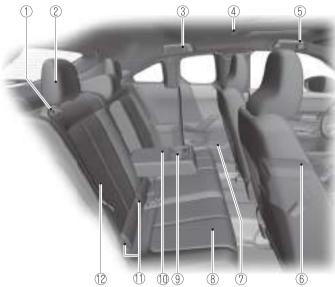
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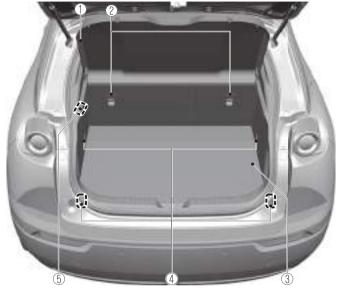
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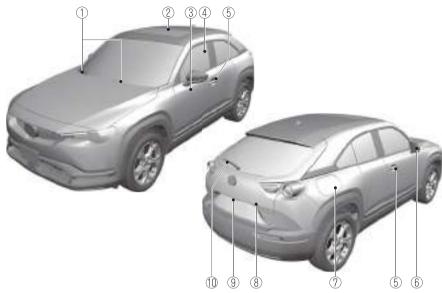
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# 2

# **Essential Safety Equipment**

Important information about safety equipment, including seats, seat belt system, child-restraint systems and SRS air bags.

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### **Seat Precautions**

#### **▼** Seat Precautions

# **♠** WARNING

# Make sure the adjustable components of a seat are locked in place:

Adjustable seats and seatbacks that are not securely locked are dangerous. In a sudden stop or collision, the seat or seatback could move, causing injury. Make sure the adjustable components of the seat are locked in place by attempting to slide the seat forward and backward and rocking the seatback.

## Never allow children to adjust a seat:

Allowing children to adjust a seat is dangerous as it could result in serious injury if a child's hands or feet become caught in the seat.

# Do not drive with the seatback unlocked:

All of the seatbacks play an important role in your protection in a vehicle. Leaving the seatback unlocked is dangerous as it can allow passengers to be ejected or thrown around and baggage to strike occupants in a sudden stop or collision, resulting in severe injury. After adjusting the seatback at any time, even when there are no other passengers, rock the seatback to make sure it is locked in place.

# Adjust a seat only when the vehicle is stopped:

If the seat is adjusted while the vehicle is being driven, the seating posture may become unstable and the seat could move unexpectedly resulting in injury.

# Do not modify or replace the front seats:

Modifying or replacing the front seats such as replacing the upholstery or loosening any bolts is dangerous. The front seats contain air bag components essential to the supplemental restraint system. Such modifications could damage the supplemental restraint system and result in serious injury. Consult an Authorized Mazda Dealer if there is any need to remove or reinstall the front seats.

# Do not drive with damaged front seats:

Driving with damaged front seats, such as seat cushions torn or damaged down to the urethane, is dangerous. A collision, even one not strong enough to inflate the air bags, could damage the front seats which contain essential air bag components. If there was a subsequent collision, an air bag may not deploy which could lead to injuries. Always have an Authorized Mazda Dealer inspect the front seats, front seat belt pretensioners and air bags after a collision.

# Do not drive with either front seats reclined:

Sitting in a reclined position while the vehicle is moving is dangerous because you do not get the full protection from seat belts. During sudden braking or a collision, you can slide under the lap belt and suffer serious internal injuries. For maximum protection, sit well back and upright.

# Do not place an object such as a cushion between the seatback and your back:

Putting an object such as a cushion between the seatback and your back is dangerous because you will be unable to maintain a safe driving posture and the seat belt cannot function at its full capacity in a collision, which could result in a serious accident, injury or death.

**Do not place objects under the seat:** The object could get stuck and cause the seat to not be fixed securely, and result in an accident.

# Do not stack cargo higher than the seatbacks:

Stacking luggage or other cargo higher than the seatbacks is dangerous. During sudden braking or a collision, objects can fly around and become projectiles that may hit and injure passengers.

# Make sure luggage and cargo is secured before driving:

Not securing cargo while driving is dangerous as it could move or be crushed during sudden braking or a collision and cause injury.
Additionally, if the air bags deploy, the cargo may scatter which could result in serious injury or death.

Never allow a passenger to sit or stand on the folded seatback while the vehicle is moving: Driving with a passenger on the folded seatback is dangerous. Allowing a child to sit up on the folded seatback while the vehicle is moving is particularly dangerous. In a sudden stop or even a minor collision, a child not in a proper seat or child-restraint system and seat belt could be thrown forward, back or even out of the vehicle resulting in serious injuries or death. The child in the baggage area could be thrown into other occupants and cause serious injury.

# **A** CAUTION

- ➤ When operating a seat, be careful not to put your hands or fingers near the moving parts of the seat or on the side trim to prevent injury.
- ➤ When moving the seats, make sure there is no cargo in the surrounding area. If the cargo gets caught it could damage the cargo.

### ➤ (Manual Seat)

When moving the seats forward and rearward or returning a rear-reclined seatback to its upright position, make sure you hold onto the seatback with your hand while operating. If the seatback is not held, the seat will move suddenly and could cause injury.

➤ When inserting your hand under the seat to clean the cabin or pick up something you dropped under the seat, be careful not to hurt yourself. If you contact the moving parts and surrounding parts around the seat rail, seat frame, and the bottom of the seat, it could result in injury.

#### NOTE

- When returning a rear seat to its original position, place the seat belt in its normal position. Verify that the seat belt pulls out and retracts.
- · (Power Seat)

The seat-bottom power adjustment is operated by motors. Avoid extended operation because excessive use can damage the motors.

- To prevent the battery from running down, avoid using the power adjustment when the EV system is stopped. The adjuster uses a large amount of electrical power.
- Do not use the switch to make more than one adjustment at a time.

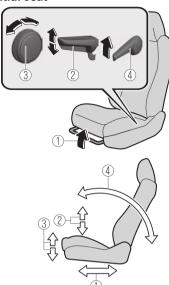
### **Front Seat**

### **▼** Adjusting the Driver's Seat

Using the driving position set up procedure recommended by Mazda allows you to maintain a relaxed posture, drive the vehicle for longer periods without feeling tired, and make quick operations naturally. Also, you can be assured of a clear view in the forward direction to help you drive more safely and comfortably. The adjustments for the driving position recommended by Mazda are done using the following procedures.

- 1. Moving the steering wheel and seat to their default positions.
- 2. Adjusting the seatback angle.
- 3. Adjusting the seat position forward and back.
- 4. Adjusting the seat height.
- 5. Adjusting the height on the front edge of the seat bottom.
- 6. Adjusting the steering wheel position.
- 7. Adjusting the head restraint position.

### Manual seat



#### 1. Seat Slide

To move a seat forward or backward, raise the lever and slide the seat to the desired position and release the lever.

Make sure the lever returns to its original position and the seat is locked in place by attempting to push it forward and backward.

#### 2. Height Adjustment

To adjust the seat height, move the lever up or down.

# 3. Height Adjustment for Front Edge of Seat Bottom

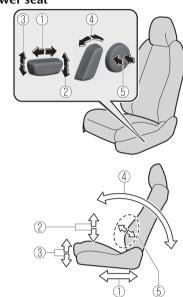
To adjust the height for front edge of the seat bottom, rotate the dial to the desired position.

#### 4. Seat Recline

To change the seatback angle, lean forward slightly while raising the lever. Then lean back to the desired position and release the lever. Make sure the lever returns to its original position and the seatback is

locked in place by attempting to push it forward and backward.

#### Power seat



#### 1. Seat Slide

To slide the seat, move the slide lifter switch on the outside of the seat to the front or back and hold it. Release the switch at the desired position.

### 2. Height Adjustment

To adjust the seat height, move the slide lifter switch up or down.

# 3. Height Adjustment for Front Edge of Seat Bottom

To adjust the front height of the seat bottom, raise or lower the front of the slide lifter switch.

#### 4. Seat Recline

To change the seatback angle, press the front or rear side of the reclining switch. Release the switch at the desired position.

### 5. Lumbar Support Adjustment

### Seats

To increase the seat firmness, press and hold the front part of the switch to the desired position, then release it.

Press the rear part of the switch to decrease firmness.

# Before making adjustments to the driving position recommended by Mazda

Before making adjustments, move the steering wheel and seat to their default positions.

How to move the steering wheel to its default position



# Never adjust the steering wheel while the vehicle is moving:

Adjusting the steering wheel while the vehicle is moving is dangerous. Moving it can very easily cause the driver to abruptly turn to the left or right. This can lead to loss of control or an accident.

# After adjusting the steering wheel position, make sure it is securely locked by trying to move it up and down:

Driving with the steering wheel not securely locked in position is dangerous. If the steering wheel moves unexpectedly while driving, you could lose control of the steering resulting in an accident.

1. Lower the lever.

Move the steering wheel to the lowest position, and then push it down and all the way back.



# How to move a driver's seat to its default position

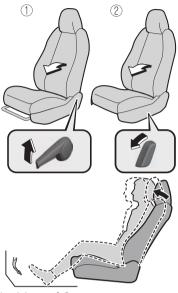
- 1. Slide the seat all the way back.
- 2. Lower the seat to its lowest height.
- 3. Lower the front edge of the seat bottom to its lowest height.
- 4. Sit squarely in the seat and rest your back against the seatback.

# Seat adjustment procedure for the driving position recommended by Mazda

# Adjusting the seatback angle (reclining)

Adjust the seatback to the angle providing a comfortable seated posture.

 With your posture slightly slouched, move the seatback forward to the angle where your waist feels slightly cramped.



- 1. Manual Seat
- 2. Power Seat
- 2. Move the seatback backward to a comfortable seated posture without

any feeling of cramping in your waist.



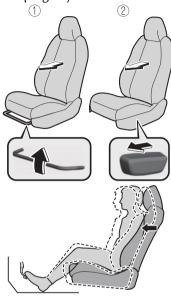
- 1. Manual Seat
- 2. Power Seat

# Adjusting the seat position forward and back (sliding)

Adjust the seat to the position best for operating the accelerator and brake pedals.

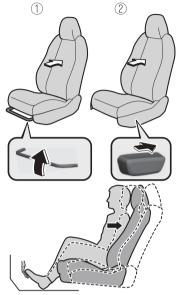
- Place your left foot on the footrest, your right foot between the accelerator and brake pedals, and position your heel to the position allowing easy switching between the pedals.
- With your heel set on the floor, set your right foot on the brake pedal and move the seat forward as far as

possible until you feel a slight cramping in your ankle.



- 1. Manual Seat
- 2. Power Seat
- 3. With your right foot set on the brake pedal, move the seat back

until you no longer feel cramping in your ankle.



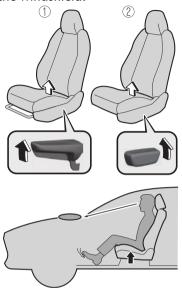
- 1. Manual Seat
- 2. Power Seat
- 4. With your heel set on the floor, make sure you can move your foot between the brake pedal and accelerator pedal smoothly.
- Depress the accelerator pedal completely with your heel set on the floor and make sure that your ankle does not feel over-stretched.

### Adjusting the seat height

Adjust the seat height to a position where you have a clear forward view and you can drive the vehicle easily.

1. With your back resting against the seatback, raise the seat to the height where you can see the rear

edge area of the hood surface from the windshield.

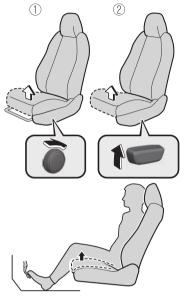


- 1. Manual Seat
- 2. Power Seat

# Adjusting the height on the front edge of the seat bottom

Adjust the height on the front edge of the seat bottom to the position where the back of your knees contacts the front edge of the seat bottom.

 With your right foot set on the accelerator pedal, adjust the height on the front edge of the seat bottom so that the back of your knees lightly contacts the front edge of the seat bottom. 2. Depress the accelerator pedal and make sure that you no longer feel cramping in the back of your knees.



- 1. Manual Seat
- 2. Power Seat

### Adjusting the steering wheel position

Adjust the steering wheel to the position where it can be operated easily and the gauges can be viewed easily.

 With your back resting against the seatback, extend both arms, place them on the top of the steering wheel, and pull the steering wheel towards you to the position of your wrists.



2. Adjust the steering wheel height so that the gauges can be viewed easily.



3. Raise the lever to securely lock the steering wheel.

### Adjusting the head restraint position

To prevent shock to the head and neck, adjust the head restraints to their correct positions.

Refer to Height Adjustment on page 2-18.

# **▼** Driving Position Memory (Power Seat)

The desired driving position can be called up after programming the position.

The following driving positions can be programmed.

 Driver's seat position (seat slide, height adjustment, front edge of seat bottom, seat recline)

- Refer to Adjusting the Driver's Seat on page 2-4.
- Active driving display (display position, brightness level, display information)
   Refer to Active Driving Display on page 4-24.
- Outside mirror angle Refer to Outside Mirrors on page 3-44.

A driving position can be programmed to the following parts.

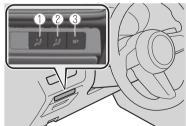
- · Position memory switch
- Transmitter used for vehicle

#### **NOTE**

· Lumbar support adjustment cannot be programmed.

### **Programming**

- 1. Make sure the parking brake is on.
- 2. Make sure the selector lever is in the P position.
- 3. Switch the power switch ON.
- 4. Adjust the following parts to the desired conditions.
  - · Driver's seat
  - · Active driving display
  - Outside mirrors
- 5. Press the SET switch continuously until a sound is activated.



- 1. 1 switch
- 2. 2 switch
- 3. SFT switch

- 6. Do the following operation within 5 seconds after the sound is activated to program the driving position.
  - · Programming to a position memory switch

Press the switch you want to program, either 1 or 2 switch.

· Programming to the transmitter Press the unlock switch on the transmitter

A sound is activated when the operation is completed correctly.

#### NOTE

- · If you do not perform the operation correctly, a sound indicating that the programming has failed is activated.
- · If the angle of the outer mirrors only changes a little, the angle of the outer mirrors may not have been programmed correctly.
- · If the angle of the outer mirrors is adjusted close to the limits of its range of motion, the driving position can be successfully programmed, but it may fail when calling up the programmed driving position.

### Calling up the programmed driving position



## **A** CAUTION

Do not place fingers or hands around the bottom of the seat while the seat memory function is operating. The seat moves automatically while the seat memory function is operating and fingers or hands could get pinched and injured.

#### NOTE

 When adjustment of the driving position is not necessary, a sound is not activated.

- · The driving position adjustment is canceled in the following cases:
  - · The seat adjustment switch on the driver's seat is operated.
  - · The angle of the outer mirrors is adjusted.
  - · The SET switch is pressed.
  - · Programming switch 1 or 2 is pressed.
  - · The lock switch or unlock switch on the transmitter is pressed.
  - · The vehicle starts moving.
  - · The active driving display is adjusted.
  - · The selector lever is shifted to a position other than P.
  - · The walk in switch is operated.

### Using the position memory switch

- 1. Make sure the parking brake is on.
- 2. Make sure the selector lever is in the P position.
- 3. Switch the power switch ON.
- 4. Press the programming switch for the driving position you want to call up (switch 1 or 2).
- 5. A sound is activated when the adjustment to the programmed driving position is completed.

### Using the transmitter

- 1. Unlock the driver's door using one of the following methods.
  - · Touch the sensing area of the door release touch sensor.
  - · Press the unlock switch on the transmitter.
- 2. When you open the driver's door within 90 seconds after unlocking the doors, the adjustment of the following parts starts.
  - Driver's seat
  - · Active driving display (When the power switch is switched ON, the

adjusted active driving display is activated.)

· Outside mirrors

A sound is activated when the adjustment is completed.

### **Erasing programmed driving positions**

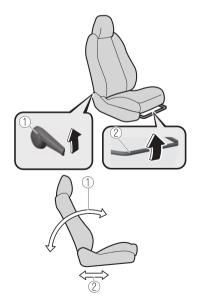
# Erasing the driving positions programmed to the key

- 1. Switch the power switch OFF.
- 2. Press the SET switch continuously until a sound is activated.
- Press the lock switch on the transmitter within 5 seconds after the sound is activated.

#### **NOTE**

If you do not perform the operation correctly, a sound indicating that the programming has failed is activated.

### ▼ Adjusting the Front Passenger's Seat



#### 1. Seat Recline

To change the seatback angle, lean forward slightly while raising the lever. Then lean back to the desired position and release the lever. Make sure the lever returns to its original position and the seatback is locked in place by attempting to push it forward and backward.

#### 2. Seat Slide

To move a seat forward or backward, raise the lever and slide the seat to the desired position and release the lever.

Make sure the lever returns to its original position and the seat is locked in place by attempting to

### **▼** Getting in or out of the Rear Seat

push it forward and backward.

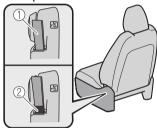


# Do not operate a front seat while an occupant is seated in it:

Folding down the seatback or operating the seat switch while an occupant is seated in the seat is dangerous because the seatback folds down or reclines suddenly, and moves to an unintended position which may affect the driving when operated which could cause an injury.

When returning the operated seat to its sitting position, make sure that the seat is firmly locked and the red indication on the walk in strap is not visible (Manual seat):

If the vehicle is driven without the seat firmly locked, the seatback could fold down suddenly and cause an accident. In addition, the seat is not locked if the red indication on the walk in strap is visible. Make sure that the seat is firmly locked and the red indication on the walk in strap is not visible.



- 1. Walk in strap
- 2. Red indication



- ➤ Be careful of the top of the door opening when getting in or out of the rear seat. Otherwise, you could hit your head or body, resulting in injury.
- ➤ Lower the head restraint when operating the front seat. If the seat is operated with the head restraint raised, the head restraint may contact the ceiling of the vehicle causing damage.

This vehicle has freestyle doors with the rear door hinged at its rear and opening in the opposite direction to the front door. While the front door is closed, the rear door cannot be opened. Refer to Freestyle Doors on page 3-39.

Before getting in or out of the rear seat, open the rear door.

Change the seatback angle and the forward-back position of the front seat to make it easier to get in or out of the rear seat.

Perform the following procedure if necessary.

### When getting in the vehicle

#### Manual seat

 Operate the angle adjustment (reclining) lever, forward/back adjustment (sliding) lever on the side of the front seat, or the walk in strap.

Pull the walk in strap to fold the seatback forward and slide the seat forward.

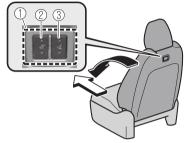


- 1. Walk in strap
- 2. Slide the seat rearward with the seatback folded forward and then raise the seatback to return the operated front seat to its sitting position after getting in the vehicle.
- 3. Make sure that the seatback and slide are firmly locked by attempting to lightly move the front seat forward and back.

#### Power seat

 Operate the angle adjustment (reclining) switch, forward/back adjustment (sliding) switch on the side of the front seat, or the walk in switch.

The seatback folds forward while the upper side of the angle switch is pressed, and the seat slides forward while the upper side of the slide switch is pressed.



- 1. Walk in switch
- 2. Angle switch
- 3. Slide switch
- Perform the following procedure to return the operated front seat to its sitting position after getting in the vehicle.
  - Press the lower side of the angle switch. The seatback reclines while the switch is being pressed.
  - Press the lower side of the slide switch. The seat slides rearward while the switch is being pressed.

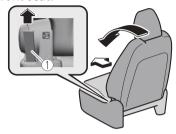
#### NOTE

After a few seconds have passed since the power switch was switched OFF, the seat cannot be moved even if the walk in switch is operated. The seat can be moved by operating the walk in switch again after a door is opened or closed or the power seat switch is operated.

### When getting out of the vehicle

#### Manual seat

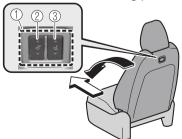
 The seatback can be folded forward and the seat can be slid forward by pulling the walk in strap on the front seat.



- 1. Walk in strap
- Slide the seat rearward with the seatback folded forward and then raise the seatback to return the operated front seat to its sitting position after getting out the vehicle.
- Make sure that the seatback and slide are firmly locked by attempting to lightly move the front seat forward and back.

#### Power seat

- 1. Press the upper side of the angle switch. The seatback folds forward while the switch is being pressed.
- Press the upper side of the slide switch. The seat slides forward while the switch is being pressed.



1. Walk in switch

- 2. Angle switch
- 3. Slide switch

#### **NOTE**

- While an occupant is not seated on the driver's seat, the seat can be moved using the walk in switch.
- · After a few seconds have passed since the power switch was switched OFF, the seat cannot be moved even if the walk in switch is operated. The seat can be moved by operating the walk in switch again after a door is opened or closed or the power seat switch is operated.
- Perform the following procedure to return the operated front seat to its sitting position after getting out the vehicle.
  - Operate the angle adjustment (reclining) switch on the side of the front seat or the angle switch on the back of the front seat to raise the seatback.
  - Operate the forward/back adjustment (seat slide) switch on the side of the front seat or the slide switch on the back of the front seat to slide the seat rearward.

### **Rear Seat**

### **▼** Split Folding

By lowering the rear seatbacks the luggage compartment space can be expanded.



# Do not drive the vehicle with occupants on folded down seatbacks or in the luggage compartment.

Putting occupants in the luggage compartment is dangerous because seat belts cannot be fastened which could lead to serious injury or death during sudden braking or a collision.

### Do not allow children to play inside the vehicle with the seatbacks lowered.

Allowing children to play in the vehicle with the seatbacks folded down is dangerous. If a child enters the luggage compartment and the seatbacks were raised back up, the child may become trapped in the luggage compartment which could lead to an accident.

# Tightly secure cargo in the luggage compartment when it is transported with the seatbacks folded down.

Driving without tightly securing cargo and luggage is dangerous as it could move and become an obstruction to driving during emergency braking or a collision resulting in an unexpected accident.

### Seats

# When transporting cargo, do not allow the cargo to exceed the height of the seatbacks.

Transporting cargo stacked higher than the seatbacks is dangerous as visibility to the rear and sides of the vehicle is reduced which could interfere with driving operations and lead to an accident.

### Lowering the seatbacks



- ➤ When folding the seatback forward, always support the seatback with your hand. If it is not supported by a hand, fingers or the hand pressing the push knob could be injured.
- Check the position of a front seat before folding a rear seatback. Depending on the position of a front seat, it may not be possible to fold a rear seatback all the way down because it may hit the seatback of the front seat which could scratch or damage the front seat or its pocket. Fold down or remove the head restraint on the rear outboard seat before folding down the seatback.

Press the push knob to fold down the seatback.



# To return the seatback to its upright position:

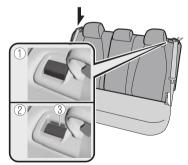
# **MARNING**

When returning a seatback to its upright position, make sure the 3-point seat belt is not caught in the seatback and the 3-point seat belt is not twisted.

If the seat belt is used while it is twisted and caught in the seatback, the seat belt cannot function at its full capacity, which could cause serious injury or death.

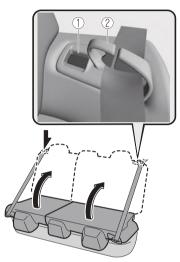
# When returning a seatback to its upright position, make sure that it is firmly locked and the red indication is not visible.

If the red indication is visible behind the push knob, it means the seatback is not locked. If the vehicle is driven without the seatback locked, it could fold down suddenly and cause an accident.



- 1. Locked position
- 2. Unlocked position
- 3. Red indication
- Make sure that the seat belt passes through the seat belt guide correctly and it is not twisted, then

raise the seatback while preventing the seat belt from being caught in the seatback.



- 1. Red indication
- 2. Seat belt guide
- 2. Press the seatback rearward and lock it in place. After returning the seatback to its upright position, make sure it is securely locked.

#### **▼** Armrest\*

The rear armrest in the center of the rear seatback can be used (no occupant in the center seat) or placed upright.



## **MARNING**

Never put your hands and fingers around the moving parts of the seat and armrest:

Putting your hands and fingers around the moving parts of the seat and armrest is dangerous as they could get injured.

## **Head Restraints**

#### ▼ Head Restraints

Your vehicle is equipped with head restraints on all outboard seats and the rear center seat. The head restraints are intended to help protect you and the passengers from neck injury.

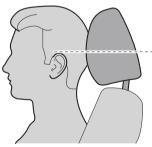
## **MARNING**

Always drive with the head restraints installed when seats are being used and make sure they are properly adjusted:

Driving with the head restraints adjusted too low or removed is dangerous. With no support behind your head, your neck could be seriously injured in a collision.

### ▼ Height Adjustment

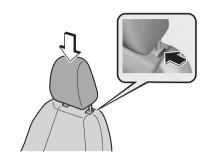
Adjust the head restraint so that the center is even with the top of the passenger's ears.



To raise a head restraint, pull it up to the desired position.

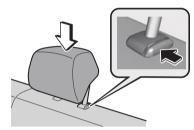
To lower the head restraint, press the stop-catch release, then push the head restraint down.

### Front seats



#### Rear seats

(Rear center seat)



#### (Rear outboard seats)

The height of the foldable head restraints equipped on the rear outboard seats cannot be adjusted.

### **▼** Removal/Installation

To remove the head restraint, pull it up while pressing the stop-catch. To install the head restraint, insert the legs into the holes while pressing the stop-catch.



Always drive with the head restraints installed when seats are being used and make sure they are properly installed:

Driving with the head restraints not installed is dangerous. With no support behind your head, your neck could be seriously injured in a collision.

# After installing a head restraint, try lifting it to make sure that it does not pull out:

Driving with an unsecured head restraint is dangerous as the effectiveness of the head restraint will be compromised which could cause it to unexpectedly detach from the seat.



- >When installing a head restraint, make sure that it is installed correctly with the front of the head restraint facing forward. If the head restraint is installed incorrectly, it could detach from the seat during a collision and result in injury.
- The head restraints on each of the front and rear seats are specialized to each seat. Do not switch around the head restraint positions. If a head restraint is not installed to its correct seat position, the effectiveness of the head restraint during a collision will be compromised which could cause injury.

# ▼ Folding/Unfolding (Rear outboard seats)

The rear outboard seats are equipped with foldable head restraints.

## **MARNING**

Always drive with the head restraints in their upright positions when the rear seats are occupied, and make sure they are securely locked in place: Driving with the head restraints folded down is dangerous. With no support behind your head, your neck could be seriously injured in a collision.

Always operate the strap to unlock and fold down the head restraint: If the head restraint is folded down without unlocking it, the lock mechanism of the head restraint may become damaged and the head restraint may not be able to stay in a secured position. Driving the vehicle with the head restraint in such a condition is dangerous as impact to the occupant's head cannot be prevented during emergency braking or in a collision, which could result in a serious injury or death.

# **A** CAUTION

- ➤ Do not place your finger in the moving parts of the head restraint when operating the head restraint. If the head restraint is operated with your finger placed in a moving part of the head restraint, your finger could get caught resulting in injury.
- Do not leave the head restraint raised up when folding a seatback. If a seatback is folded while the head restraint is left raised up, the head restraint could contact the front seat depending on the front seat position, and therefore, the front seat, seatback, and the head restraint surfaces could become damaged.

To fold the head restraint, pull the strap.



To return the head restraint to its upright position, lift it upward. After lifting up the head restraint to its original position, make sure that it is secured by lightly moving it forward and back.

### Seat Warmer\*

#### **▼** Seat Warmer

The front seats can be warmed up while the EV system is operating.

### **▲** WARNING

### Be careful when using the seat warmer:

The heat from the seat warmer may be too hot for the following people and could cause a low-temperature burn.

- ➤ Infants, small children, elderly people, and physically challenged people
- ➤ People with delicate skin
- ➤ People who are excessively fatigued
- People who are intoxicated
- People who have taken sleep-inducing medicine such as sleeping pills or cold medicine

Do not use the seat warmer with anything having high moisture-retention ability such as a blanket or cushion on the seat:
The seat may be heated excessively and cause a low-temperature burn.

## Do not use the seat warmer even when taking a short nap in the vehicle:

The seat may be heated excessively and cause a low-temperature burn.

# Do not place heavy objects with sharp projections on the seat, or insert needles or pins into it:

This could cause the seat to become excessively heated and result in injury from a minor burn.

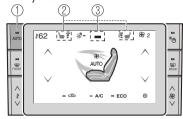
### **A** CAUTION

Do not use organic solvents such as benzene or gasoline to clean the seat. It may damage the seat surface and the heater

#### NOTE

The seat warmer cannot be used while charging the vehicle.

The seat warmer can be operated on the operation screen of the climate control system.

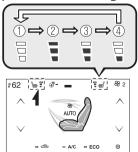


- 1. AUTO switch
- 2. Seat warmer icon
- 3. Seat warmer setting icon The seat warmer has manual mode and auto mode.

#### Manual mode

When the **\text{tm}**, **tm** is operated, the seat warmer operates in manual mode.

When the \m, \m is touched or swiped, the temperature level changes.



- 1. OFF
- 2. High

- 3. Mid
- 4. Low

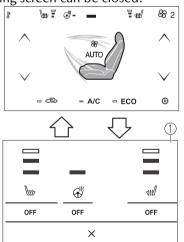
#### NOTE

- · When the w, w is swiped upward, the temperature changes to high. When it is swiped downward, the seat warmer changes to OFF.
- The seat warmer does not operate when the EV system is stopped even if the \hspace or \hspace is touched or swiped.

When the  $\equiv$  is touched or swiped, the setting screen of the seat warmer can be displayed.

When each icon for the setting screen is touched or swiped, the temperature level can also be changed on the setting screen.

When the X is touched or swiped, the setting screen can be closed.



1. Setting screen

#### NOTE

If the EV system is stopped while the seat warmer is operating in manual mode, the seat warmer does not turn on automatically the next time the EV system is started. To turn the seat warmer on, touch or swipe the icon again.

#### Auto mode

The seat warmer can be operated in conjunction with auto mode for the climate control system.

Auto mode operates when auto mode is enabled in the Mazda Connect settings.

Refer to the Settings section in the Mazda Connect Owner's Manual. Press the AUTO switch to select auto mode.

While operating in auto mode, the AUTO is displayed. The AUTO (white) for the driver's seat/front passenger's seat is displayed individually on the settings screen.

The seat temperature is automatically controlled at 4 levels (High, Mid, Low, and OFF) according to the conditions in the cabin.

#### NOTE

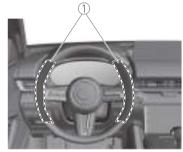
- · When auto mode is enabled using Mazda Connect and auto mode is not operating, the AUTO (gray) is displayed on the setting screen of the seat warmer.
- If the front passenger's seat belt is fastened, the front passenger's seat warmer turns on.

- · If the wor wis operated during auto mode, the seat warmer on the side where the icon was operated switches to manual mode. To return to auto mode, press the AUTO switch.
- If the power switch is switched OFF while the seat warmer is operating in auto mode, the seat warmer operates in auto mode again the next time the EV system is started.

### **Heated Steering Wheel**

#### **▼** Heated Steering Wheel

The grips on the left and right of the steering wheel can be warmed up when the power switch is switched ON.



1. Heated position

### **▲** WARNING

The following types of persons should be careful not to touch the steering wheel. Otherwise, it could cause a low-temperature burn.

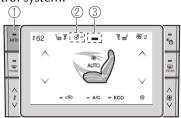
- ➤ Infants, small children, elderly people, and physically challenged people
- ➤ People with delicate skin
- ➤ People who are excessively fatigued
- > People who are intoxicated
- ➤ People who have taken sleep-inducing medicine such as sleeping pills or cold medicine

#### NOTE

The steering warmer cannot be used while charging the vehicle.

### Seat Warmer/Heated Steering Wheel

The steering warmer can be operated in the operation screen of the climate control system.



- 1. AUTO switch
- 2. Steering warmer icon
- 3. Steering warmer setting icon The steering warmer has manual mode and auto mode.

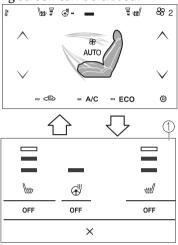
#### Manual mode

When the distribution is stouched or swiped upward, the steering warmer operates for about 30 minutes, and then automatically turns off.

To turn the steering warmer off manually, touch the  $\bigoplus^{\mathbb{R}}$  again or swipe it downward.

When the == is touched or swiped downward, the setting screen of the steering warmer can be displayed. When each icon for the setting screen is touched or swiped, the steering warmer can also be switched on/off on the setting screen.

When the X is touched or swiped, the setting screen can be closed.



#### 1. Setting screen

#### Auto mode

The steering warmer can be operated in conjunction with auto mode for the climate control system.

Auto mode operates when auto mode is enabled in the Mazda Connect settings.

Refer to the Settings section in the Mazda Connect Owner's Manual. Press the AUTO switch to select auto mode.

While in auto mode, the  $\stackrel{AUTO}{=}$  is displayed.

The AUTO (white) is displayed on the settings screen.

The steering warmer automatically operates/turns off according to the conditions in the cabin.

#### NOTE

- When auto mode is enabled using Mazda Connect and auto mode is not operating, the AUTO (gray) is displayed on the setting screen of the steering warmer.
- When the discoperated during auto mode, the steering warmer switches to manual mode. To return to auto mode, press the AUTO switch.
- If the power switch is switched OFF while the steering warmer is operating in auto mode, the steering warmer operates in auto mode again the next time the power switch is switched ON.

### **Seat Belt Precautions**

#### **▼** Seat Belt Precautions

Seat belts help to decrease the possibility of severe injury during accidents and sudden stops. Mazda recommends that the driver and all passengers always wear seat belts.

All the seats have lap/shoulder belts. These belts have retractors with inertia locks that keep them out of the way when not in use. The locks allow the belts to remain comfortable on users, but they will lock in position during a collision.

However, the front passenger's seat and all rear lap/shoulder belt retractors operate in two modes: emergency locking mode, and for child-restraint systems, automatic locking mode. While we recommend you put all children in the rear seats, if you must use the front passenger seat for a child, slide the front passenger seat as far back as possible and make sure any child-restraint system is secured properly.

### **▲** WARNING

## Always wear your seat belt and make sure all occupants are properly restrained:

Not wearing a seat belt is extremely dangerous. During a collision, occupants not wearing seat belts could hit someone or things inside the vehicle or even be thrown out of the vehicle. They could be seriously injured or even killed. In the same collision, occupants wearing seat belts would be much safer.

#### Do not wear twisted seat belts:

Twisted seat belts are dangerous. In a collision, the full width of the belt is not available to absorb the impact. This puts more force on the bones beneath the belt, which could cause serious injury or death. So, if your seat belt is twisted, you must straighten the seat belt to remove any twists and to allow the full width of the belt to be used.

### Never use one seat belt on more than one person at a time:

Using one seat belt for more than one person at a time is dangerous. A seat belt used in this way cannot spread the impact forces properly and the two passengers could be crushed together and seriously injured or even killed. Never use one belt for more than one person at a time and always operate the vehicle with each occupant properly restrained.

### Do not operate a vehicle with a damaged seat belt:

Using a damaged seat belt is dangerous. An accident could damage the belt webbing of the seat belt in use. A damaged seat belt cannot provide adequate protection in a collision. Have an Authorized Mazda Dealer inspect all seat belt systems in use during an accident before they are used again.

## Have your seat belts changed immediately if the pretensioner or load limiter has been expended:

Always have an Authorized Mazda Dealer immediately inspect the seat belt pretensioners and air bags after any collision. Like the air bags, the seat belt pretensioners and load limiters will only function once and must be replaced after any collision that caused them to deploy. A seat belt with an expended pretensioner or load limiter is still better than wearing no seat belt at all; however, if the seat belt pretensioners and load limiters are not replaced, the risk of injury in a collision will increase.

### Positioning the Shoulder Portion of the Seat Belt:

Improper positioning of the shoulder portion of the seat belt is dangerous. Always make sure the shoulder portion of the seat belt is positioned across your shoulder and near your neck, but never under your arm, on your neck, or on your upper arm.

### Do not use a front seat belt while seated in a rear seat:

Using a front seat belt, which is stored in the rear door, is dangerous as the seat belt cannot function at its full capacity during sudden braking or in a collision, which could result in serious, injury or death. In addition, using the seat belt in this manner could damage the rear seat belt buckle.

### Positioning the Lap Portion of the Seat Belt:

The lap portion of the seat belt worn too high is dangerous. In a collision, this would concentrate the impact force directly on the abdominal area, causing serious injury. Wear the lap portion of the belt snugly and as low as possible.

In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

### **A** CAUTION

Belt retraction may become difficult if the belts and rings are soiled, so try to keep them clean. For more details about cleaning the seat belts, refer to "Seat Belt Maintenance" (page 6-40).



1. Ring

### **▼** Pregnant Women and Persons with Serious Medical Conditions

Pregnant women should always wear seat belts. Ask your doctor for specific recommendations.

The lap belt should be worn SNUGLY AND AS LOW AS POSSIBLE OVER THE HIPS.

The shoulder belt should be worn across your shoulder properly, but never across the stomach area.

### Seat Belt Systems

Persons with serious medical conditions also should wear seat belts. Check with your doctor for any special instructions regarding specific medical conditions.



#### **▼** Emergency Locking Mode

When the seat belt is fastened, it will always be in the emergency locking mode.

In the emergency locking mode, the belt remains comfortable on the occupant and the retractor will lock in position during a collision. If the belt is locked and cannot be pulled out, retract the belt once, and then try pulling it out slowly. If this fails, pull the belt strongly 1 time and loosen, then pull it out again slowly. (Seat Belt with Automatic Locking Mode)

When the seat belt is fastened, it will always be in the emergency locking mode until it is switched to automatic locking mode by pulling it all the way out to its full length. If the belt feels tight and hinders comfortable movement while the vehicle is stopped or in motion, it may be in the automatic locking mode because the belt has been pulled too far out. To return the belt to the more comfortable emergency locking mode, wait until the vehicle has stopped in a safe, level area, retract the belt fully to

convert it back to emergency locking mode and then extend it around you again.

#### **▼** Automatic Locking Mode

Always use the automatic locking mode to keep the child-restraint system from shifting to an unsafe position in the event of an accident. To enable seat belt automatic locking mode, pull it all the way out and connect it as instructed on the child-restraint system. It will retract down to the child-restraint system and stay locked on it. See the section on child restraint (page 2-42).

### Seat Belt

### **▼** Fastening the Seat Belt

Insert the seat belt tongue into the buckle.



- 1. Seat belt tongue
- 2. Seat belt buckle

Position the lap belt as low as possible, not on the abdominal area, then adjust the shoulder belt so that it fits snugly against your body.



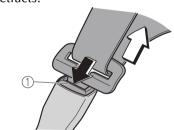
- 1. Keep low on hip bone
- 2. Take up slack
- 3. Too high

Before fastening the rear seat belt, make sure that the seat belt passes through the seat belt guide correctly and it is not twisted.



### **▼** Unfastening the Seat Belt

Depress the button on the seat belt buckle. If the belt does not fully retract, pull it out and check for kinks or twists. Then make sure it remains untwisted as it retracts.



#### 1. Button

#### NOTE

If a belt does not fully retract, inspect it for kinks and twists. If it is still not retracting properly, have it inspected at an Authorized Mazda Dealer.

### **▼** Front Shoulder Belt Adjuster

The front seat belts have a front shoulder belt adjuster. If the seat belt contacts your neck or it slips off the shoulder, adjust the seat belt height.

#### To raise

To heighten the seat belt, slide the front shoulder belt adjuster upward.



#### To lower

To lower the seat belt, slide the front shoulder belt adjuster downward with the adjuster lever pulled.



After adjusting, press the front shoulder belt adjuster downward and make sure that it is securely locked.

### **Seat Belt Warning Systems**

#### **▼** Seat Belt Warning Systems

If it detects that the occupant seat belt is unfastened, the warning light or beep alerts the occupant. Refer to Seat Belt Warning Indication/

Warning Light (Front seat) on page

Refer to Seat Belt Warning Light (Rear seat) (Red) on page 7-30. Refer to Seat Belt Warning Beep on page 7-37.

#### Seat belt indicator light (rear seat) (green)

REAR





The light turns on when the rear seat belt is fastened while the power switch is switched ON, and it turns off after a certain period.

# Front Seat Belt Pretensioner and Load Limiting Systems

### ▼ Front Seat Belt Pretensioner and Load Limiting Systems

For optimum protection, the driver and front passenger seat belts are equipped with pretensioner and load limiting systems. For both these systems to work properly you must wear the seat belt properly.

#### Pretensioners:

When a collision is detected, the pretensioners deploy simultaneously with the air bags.

The pretensioners deploy simultaneously with the air bags when a roll-over is also detected. For deployment details, refer to the SRS Air Bag Deployment Criteria (page 2-61).

The seat belt retractors remove slack quickly as the air bags are expanding. Any time the air bags and seat belt pretensioners have fired they must be replaced.

A system malfunction or operation conditions are indicated by a warning. Refer to Air Bag/Front Seat Belt Pretensioner System Warning Indication/Warning Light on page 7-27.

In addition, the pretensioner system for the front passenger, like the front and side passenger air bag, is designed to only deploy in accordance with the total seated weight on the front passenger seat.

For details, refer to the front passenger seat weight sensors (page 2-64).

#### Load limiter:

The load limiting system releases belt webbing in a controlled manner to reduce belt force on the occupant's chest. While the most severe load on a seat belt occurs in frontal collisions, the load limiter has an automatic mechanical function and can activate in any accident mode with sufficient occupant movement.

Even if the pretensioners have not fired, the load limiting function must be checked by an Authorized Mazda Dealer.

### **MARNING**

### Wear seat belts only as recommended in this owner's manual:

Incorrect positioning of the seat belts is dangerous. Without proper positioning, the pretensioner and load limiting systems cannot provide adequate protection in an accident and this could result in serious injury. For more details about wearing seat belts, refer to "Fastening the Seat Belt" (page 2-29).

### Seat Belt Systems

Have your seat belts changed immediately if the pretensioner or load limiter has been expended:

Always have an Authorized Mazda Dealer immediately inspect the seat belt pretensioners and air bags after any collision. Like the air bags, the seat belt pretensioners and load limiters will only function once and must be replaced after any collision that caused them to deploy. A seat belt with an expended pretensioner or load limiter is still better than wearing no seat belt at all; however, if the seat belt pretensioners and load limiters are not replaced, the risk of injury in a collision will increase.

Do not modify the components or wiring, or use electronic testing devices on the pretensioner system:

Modifying the components or wiring of the pretensioner system, including the use of electronic testing devices is dangerous. You could accidentally activate it or make it inoperable which would prevent it from activating in an accident. The occupants or repairers could be seriously injured.

### Properly dispose of the pretensioner system:

Improper disposal of the pretensioner system or a vehicle with non-deactivated pretensioners is dangerous. Unless all safety procedures are followed, injury could result. Have an Authorized Mazda Dealer safely dispose of the pretensioner system or scrap a pretensioner system equipped vehicle.

#### NOTE

- The pretensioner system may not operate depending on the type of the collision. For details, refer to the SRS Air Bag Deployment Criteria (page 2-61).
- · Some smoke (non-toxic gas) will be released when the air bags and pretensioners deploy. This does not indicate a fire. This gas normally has no effect on occupants, however, those with sensitive skin may experience light skin irritation. If residue from the deployment of the air bags or the pretensioner system gets on the skin or in the eyes, wash it off as soon as possible.

### Seat Belt Extender

#### **▼** Seat Belt Extender

If your seat belt is not long enough, even when fully extended, a seat belt extender may be available to you at no charge from your Authorized Mazda Dealer.

This extender will be only for you and for the particular vehicle and seat. Even if it plugs into other seat belts, it may not hold in the critical moment of a crash.

When ordering an extender, only order one that provides the necessary additional length to fasten the seat belt properly. Please contact your Authorized Mazda Dealer for more information.

### **⚠** WARNING

### Do not use a seat belt extender unless it is necessary:

Using a seat belt extender when not necessary is dangerous. The seat belt will be too long and not fit properly. In an accident, the seat belt will not provide adequate protection and you could be seriously injured. Only use the extender when it is required to fasten the seat belt properly.

#### Do not use an improper extender:

Using a seat belt extender that is for another person or a different vehicle or seat is dangerous. The seat belt will not provide adequate protection and the user could be seriously injured in an accident. Only use the extender provided for you and for the particular vehicle and seat. NEVER use the extender in a different vehicle or seat. If you sell your Mazda, do not leave your seat belt extender in the vehicle. It could be used accidentally by the new owner of the vehicle. After removing the seat belt extender. discard it. Never use the seat belt extender in any other vehicle you may own in the future.

### Do not use an extender that is too long:

Using an extender that is too long is dangerous. The seat belt will not fit properly. In an accident, the seat belt will not provide adequate protection and you could be seriously injured. Do not use the extender or choose one shorter in length if the distance between the extender's buckle and the center of the user's body is less than 15 cm (6 in).

### Do not leave a seat belt extender connected to the buckle:

Leaving a seat belt extender connected to the buckle without using the seat belt is dangerous. When the seat belt extender is connected to the driver's seat belt buckle (or front passenger's seat belt buckle), the SRS driver's (or front passenger's) air bag system will determine that the driver (or front passenger) is wearing the seat belt even if the driver (or front passenger) is not wearing it. This condition could cause the driver's (or front passenger's) air bag to not activate correctly and result in death or serious injury in the event of collision. Always wear the seat belt with the seat belt extender

# Do not use the seat belt extender when installing a child-restraint system on the front or rear passenger seat:

Using a seat belt extender to fasten a child-restraint system on any seat is dangerous. Always follow the child-restraint system manufacturer's installation instructions and never use a seat belt extender.

#### NOTE

When not in use, remove the seat belt extender and store it in the vehicle. If the seat belt extender is left connected, the seat belt extender might get damaged as it will not retract with the rest of the seat belt and can easily fall out of the door when not in use and be damaged. In addition, the seat belt warning light will not illuminate and function properly.

## Child-Restraint Precautions

#### **▼** Child-Restraint Precautions

Mazda strongly urges the use of child-restraint systems for children small enough to use them.

You are required by law to use a child-restraint system for children in the U.S. and Canada. Check your local and state or provincial laws for specific requirements regarding the safety of children riding in your vehicle.

Whatever child-restraint system you consider, please pick the appropriate one for the age and size of the child, obey the law and follow the instructions that come with the individual child-restraint system.

A child who has outgrown child-restraint systems should sit in the rear and use seat belts, both lap and shoulder. If the shoulder belt crosses the neck or face, move the child closer to the center of the vehicle in the outboard seats, and towards the buckle on the right if the child is seated on the center seat.

Statistics confirm that the rear seat is the best place for all children up to 12 years of age, and more so with a supplemental restraint system (air bags).

A rear-facing child-restraint system should **NEVER** be used on the front seat with the air bag system activated. The front passenger's seat is also the

least preferred seat for other child-restraint systems.

To reduce the chance of injuries caused by deployment of the front passenger air bag, the front passenger seat weight sensors occupant classification sensor works as a part of the supplemental restraint system. This system deactivates the front passenger front and side air bags and knee air bags, and also the front passenger seat belt pretensioner system when the front passenger air bag deactivation indicator light illuminates.

When an infant or small child sits on the front passenger seat, the system shuts off the front passenger front and side air bags and knee air bags, and seat belt pretensioner system, so make sure the front passenger air bag deactivation indicator light illuminates.

Even if the front passenger air bag is shut off, Mazda strongly recommends that children be properly restrained and child-restraint systems of all kinds are properly secured on the rear seats which are the best place for children.

For more details, refer to "Front passenger seat weight sensors" (page 2-64).

### **⚠** WARNING

### Use the correct size child-restraint system:

For effective protection in vehicle accidents and sudden stops, a child must be properly restrained using a seat belt or child-restraint system depending on age and size. If not, the child could be seriously injured or even killed in an accident.

## Follow the manufacturer's instructions and always keep the child-restraint system buckled down:

An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Make sure any child-restraint system is properly secured in place according to the child-restraint system manufacturer's instructions. When not in use, remove it from the vehicle or fasten it with a seat belt, or attach it to BOTH LATCH lower anchors for LATCH child-restraint systems and the corresponding tether anchor.

### Always secure a child in a proper child-restraint system:

Holding a child in your arms while the vehicle is moving is extremely dangerous. No matter how strong the person may be, he or she cannot hold onto a child in a sudden stop or collision and it could result in serious injury or death to the child or other occupants. Even in a moderate accident, the child may be exposed to air bag forces that could result in serious injury or death to the child, or the child may be slammed into an adult, causing injury to both child and adult.

# Never use a rear-facing child-restraint system in the front seat with an air bag that could deploy:

Rear-facing child-restraint systems on the front seat are particularly dangerous even though you may feel assured that a front passenger air bag will not deploy based on the fact that the front passenger air bag deactivation indicator light illuminates. The child-restraint system can be hit by a deploying air bag and moved violently backward resulting in serious injury or death to the child.



Vehicles with a front passenger air bag have the following warning label. The warning label reminds you not to put a rear-facing child-restraint system on the front passenger seat at any time.



# Do not install a front-facing child-restraint system on the front passenger seat unless it is unavoidable:

In a collision, the force of a deploying air bag could cause serious injury or death to the child. If installing a front-facing child-restraint system on the front passenger seat is unavoidable, move the front passenger seat as far back as possible.



Seating a child in a child-restraint system on the front passenger seat is dangerous under certain conditions: Your vehicle is equipped with front passenger seat weight sensors. Even with the front passenger seat weight sensors, if you must use the front passenger seat to seat a child, using a child-restraint system on the front passenger seat under the following conditions increases the danger of the front passenger air bag deploying and could result in serious injury or death to the child.

- ➤ The front passenger air bag deactivation indicator light does not illuminate when seating a child in the child-restraint system.
- Luggage or other items are placed on the seat with the child in the child-restraint system.
- A rear passenger or luggage pushing or pulling down on the front passenger seatback.
- Luggage or other items are placed on the seatback or hung on the head restraint.

- > The seat is washed.
- ➤ Liquids are spilled on the seat.
- > The front passenger seat is moved backward, pushing into luggage or other items placed behind it.
- ➤ The front passenger seatback contacts the rear seat.
- Luggage or other items are placed between the front passenger seat and driver seat.
- An electric device is put on the front passenger's seat.
- An additional electrical device, such as a seat warmer is installed to the surface of the front passenger seat.
- Any accessories, which might increase the total seated weight on the front passenger seat, are attached to the front passenger seat.

The designated positions with seat belts on the rear seats are the safest places for children. Always use seat belts and child restraints.

# Do not allow a child or anyone to lean over to or against the side window of a vehicle with side and curtain air bags:

It is dangerous to allow anyone to lean over to or against the side window, the area of the front passenger seat, the front and rear window pillars and the roof edge along both sides from which the side and curtain air bags deploy, even if a child-restraint system is used. The impact of inflation from a side or curtain air bag could cause serious injury or death to an out of position child. Furthermore, leaning over to or against the door could block the side and curtain air bags and eliminate the advantages of supplemental protection. Because the front seats are equipped with front air bags, the rear seat is always a better location for children. Take special care not to allow a child to lean over to or against the side window, even if the child is seated in a child-restraint system.

### Never use one seat belt on more than one person at a time:

Using one seat belt for more than one person at a time is dangerous. A seat belt used in this way cannot spread the impact forces properly and the two passengers could be crushed together and seriously injured or even killed. Never use one belt for more than one person at a time and always operate the vehicle with each occupant properly restrained.

### **A** CAUTION

A seat belt or child-restraint system can become very hot in a closed vehicle during warm weather. To avoid burning yourself or a child, check them before you or your child touches them.

#### NOTE

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems on the rear seats. When using these anchors to secure a child-restraint system, refer to "Using LATCH Lower Anchor" (page 2-47).

### Child-Restraint System Installation

### **▼** Categories of Child-Restraint Systems

#### NOTE

When purchasing, ask the manufacturer of the child-restraint system which type of child-restraint system is appropriate for your child and vehicle.

Please comply with the legal regulations concerning the use of child-restraint systems in your country.

#### **▼** Child-Restraint System Types

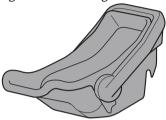
In this owner's manual, explanation of child-restraint systems is provided for the following three types of popular child-restraint systems: infant seat, child seat, booster seat.

#### NOTE

- Installation position is determined by the type of child-restraint system.
   Always read the manufacturer's instructions and this owner's manual carefully.
- Due to variations in the design of child-restraint systems, vehicle seats and seat belts, all child-restraint systems may not fit all seating positions. Before purchasing a child-restraint system, it should be tested in the specific vehicle seating position (or positions) where it is intended to be used. If a previously purchased child-restraint system does not fit, you may need to purchase a different one that will.

#### Infant seat

An infant seat provides restraint by bracing the infant's head, neck and back against the seating surface.



#### **Child seat**

A child seat restrains a child's body using the harness.



#### **Booster seat**

A booster seat is a child restraint accessory designed to improve the fit of the seat belt system around the child's body.



- 1. Full booster seat
- 2. Backless booster seat

When using a backless booster seat, always install the vehicle head restraint

to the seat where the backless booster seat is installed.

# Child-Restraint System Suitability for Various Seat Positions

### **▼** Child-Restraint System Suitability for Various Seat Positions

- Regarding child-restraint systems which can be installed to your Mazda, consult an Authorized Mazda Dealer.
- A child-restraint system with a support leg cannot be installed on the rear center seat position.
- Please comply with the legal regulations concerning the use of child-restraint systems in your country.
- For the CRS which do not carry the ISO/XX size class identification (A to G), for the applicable mass group, the child seat manufacturer shall indicate the vehicle specific LATCH child-restraint systems recommended for each position.

## Installing Child-Restraint Systems

#### **▼** Installing Child-Restraint Systems

Accident statistics reveal that a child is safer in the rear seat. The front passenger's seat is clearly the worst choice for any child under 12, and with rear-facing child-restraint systems it is clearly unsafe due to air bags.

#### NOTE

Even if your vehicle is equipped with front passenger occupant classification sensor (page 2-64), which automatically deactivates the front passenger air bag, a rear seat is the safest place for a child of any age or size.

Some child-restraint systems now come with tethers and therefore must be installed on the seats that take tethers to be effective. In your Mazda, tethered child-restraint systems can only be accommodated in the three positions on the rear seat.

Some child-restraint systems also employ specially designed LATCH attachments; refer to "Using LATCH Lower Anchor" (page 2-47).



Tethered Child-Restraint Systems Work Only on Tether-Equipped Rear Seats:

Installation of a tether equipped child-restraint system in the front passenger's seat defeats the safety design of the system and will result in an increased chance of serious injury if the child-restraint system goes forward without benefit of being tethered. Place tether equipped child-restraint systems where there are tether anchors.

#### **▼** Anchor Bracket

Anchor brackets for securing child-restraint systems are equipped in the vehicle. Locate each anchor position using the illustration.
To install a child-restraint system, remove the head restraint. Always follow the instruction manual accompanying the child-restraint system.

#### Anchor bracket location

Use the indicated anchor bracket locations when installing a child-restraint system equipped with a tether.



- 1. For right
- 2. For center
- 3. For left

### **⚠** WARNING

### Always attach the tether strap to the correct tether anchor position:

Attaching the tether strap to the incorrect tether anchor position is dangerous. In a collision, the tether strap could come off and loosen the child-restraint system. If the child-restraint system moves it could result in death or injury to the child.

### Always remove the head restraint and install child-restraint system:

Installing a child-restraint system without removing the head restraint is dangerous. The child-restraint system cannot be installed correctly which may result in death or injury to the child in a collision.





- 1. Tether strap
- 2. Anchor bracket
- 3. Forward

# Always install the head restraint and adjust it to the appropriate position after removing the child-restraint system:

Driving with the head restraint removed is dangerous as impact to the occupant's head cannot be prevented during emergency braking or in a collision, which could result in a serious accident, injury or death.

Refer to Head Restraints on page 2-18.

#### **▼** Using Automatic Locking Mode

Follow these instructions when using a child-restraint system, unless you are attaching a LATCH-equipped child-restraint system to the rear LATCH lower anchors. Refer to "Using LATCH Lower Anchor" (page 2-47).

#### NOTE

Follow the child-restraint system manufacturer's instructions carefully. If you are not sure whether you have a LATCH system or tether, check in the child-restraint system manufacturer's instructions and follow them accordingly. Depending on the type of child-restraint system, it may use LATCH system instead of seat belts or if the belt goes across the child's chest, may recommend against using automatic locking mode.

- Make sure the seatback is securely latched by pushing it back until it is fully locked.
- 2. Remove the head restraint.
  However, when installing a backless booster seat, always install the vehicle head restraint to the seat where the backless booster seat is installed.
  - Refer to Head Restraints on page 2-18.
- 3. Secure the child-restraint system with the lap portion of the lap/

- shoulder belt. See the manufacturer's instructions on the child-restraint system for belt routing instructions.
- To get the retractor into the automatic locking mode, pull the shoulder belt portion of the seat belt until the entire length of the belt is out of the retractor.



5. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. A clicking noise from the retractor will be heard during retraction if the system is in the automatic locking mode. If the belt does not lock the seat down tight, repeat this step.



#### **NOTE**

- Inspect this function before each use of the child-restraint system. You should not be able to pull the shoulder belt out of the retractor while the system is in the automatic locking mode. When you remove the child-restraint system, be sure the belt fully retracts to return the system to emergency locking mode before occupants use the seat belts.
- 6. If your child-restraint system requires the use of a tether strap, refer to the manufacturer's instructions to hook and tighten the tether strap.



### Use the tether and tether anchor only for a child-restraint system:

Using the tether or tether anchor to secure anything but a child-restraint system is dangerous. This could weaken or damage the tether or tether anchor and result in injury.

### Child Restraint

# Always remove the head restraint and install child-restraint system (except when installing a backless booster seat):

Installing a child-restraint system without removing the head restraint is dangerous. The child-restraint system cannot be installed correctly which may result in death or injury to the child in a collision.





- 1. Tether strap
- 2. Anchor bracket
- 3. Forward

### Always attach the tether strap to the correct tether anchor position:

Attaching the tether strap to the incorrect tether anchor position is dangerous. In a collision, the tether strap could come off and loosen the child-restraint system. If the child-restraint system moves it could result in death or injury to the child.

# Always install the head restraint and adjust it to the appropriate position after removing the child-restraint system:

Driving with the head restraint removed is dangerous as impact to the occupant's head cannot be prevented during emergency braking or in a collision, which could result in a serious accident, injury or death.

Refer to Head Restraints on page 2-18.

### ▼ If You Must Use the Front Seat for Children

If you cannot put all children in the rear seat, at least put the smallest children in the rear and be sure the largest child up front uses the shoulder belt over the shoulder.

NEVER put a rear-facing child-restraint system on the front passenger seat whether your vehicle is equipped with an occupant classification sensor or not.

This seat is also not set up for tethered child-restraint systems, put them in one of the rear seat positions set up with tether anchors.

Likewise the LATCH child-restraint system cannot be secured in the front passenger's seat and should be used in the rear seat.

Do not allow anyone to sleep against the side window since your vehicle has side and curtain air bags, it could cause serious injuries to an out of position occupant. As children more often sleep in cars, it is better to put them in the rear seat. If installing the child-restraint system on the front seat is unavoidable, follow these instructions when using a front-facing child-restraint system in the front passenger's seat.

#### **NOTE**

• To check if your front seats have side air bags:

Mazda vehicles equipped with side air bag will have a "SRS AIRBAG" tag on the outboard shoulder of the front seats.

• To check if your vehicle has curtain air bags:

Mazda vehicles equipped with curtain air bag will have an "SRS AIRBAG" marking on the window pillars along the roof edge.



#### Always move the front passenger seat as far back as possible if installing a front-facing child-restraint system on it is unavoidable:

As your vehicle has front air bags and doubly so because your vehicle has side air bags, a front-facing child-restraint system should be put on the front passenger seat only when it is unavoidable.

Even if the front passenger air bag deactivation indicator light illuminates, always move the seat as far back as possible, because the force of a deploying air bag could cause serious injury or death to the child.

# Never use a rear-facing child-restraint system in the front seat with an air bag that could deploy:

Rear-facing child-restraint systems on the front seat are particularly dangerous.

Even in a moderate collision, the child-restraint system can be hit by a deploying air bag and moved violently backward resulting in serious injury or death to the child. Even though you may feel assured that the front passenger air bag will not deploy based on the fact that the front passenger air bag deactivation indicator light illuminates, you should not use a rear-facing child-restraint system in the front seat.

# Do not allow a child or anyone to lean over to or against the side window of a vehicle with side and curtain air bags:

It is dangerous to allow anyone to lean over to or against the side window, the area of the front passenger seat, the front and rear window pillars and the roof edge along both sides from which the side and curtain air bags deploy, even if a child-restraint system is used. The impact of inflation from a side or curtain air bag could cause serious injury or death to an out of position child. Furthermore, leaning over to or against the door could block the side and curtain air bags and eliminate the advantages of supplemental protection. Because the front seats are equipped with front air bags, the rear seat is always a better location for children. Take special care not to allow a child to lean over to or against the side window, even if the child is seated in a child-restraint system.

# Always remove the head restraint and install child-restraint system (except when installing a backless booster seat):

Installing a child-restraint system without removing the head restraint is dangerous. The child-restraint system cannot be installed correctly which may result in death or injury to the child in a collision.

# Always install the head restraint and adjust it to the appropriate position after removing the child-restraint system:

Driving with the head restraint removed is dangerous as impact to the occupant's head cannot be prevented during emergency braking or in a collision, which could result in a serious accident, injury or death. Refer to Head Restraints on page 2-18.

### Front Passenger's Seat Child-Restraint System Installation

- Make sure the power switch is switched off.
- 2. Slide the seat as far back as possible.



3. Remove the head restraint.
However, when installing a backless booster seat, always install the vehicle head restraint to the seat where the backless booster seat is installed.

- 4. Place the child-restraint system on the seat without putting your weight on the seat and fasten the seat belt. See the manufacturer's instructions on the child-restraint system for belt routing instructions.
- To get the retractor into the automatic locking mode, pull the shoulder belt portion of the seat belt until the entire length of the belt is out of the retractor.
- 6. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. A clicking noise from the retractor will be heard during retraction if the system is in automatic locking mode. If the belt does not lock the seat down tight, repeat the previous step and also this one.

#### **NOTE**

- · Inspect this function before each use of the child-restraint system. You should not be able to pull the shoulder belt out of the retractor while the system is in the automatic locking mode. When you remove the child-restraint system, be sure the belt fully retracts to return the system to emergency locking mode before occupants use the seat belts.
- Follow the child-restraint system manufacturer's instructions carefully.
   Depending on the type of child-restraint system, it may not employ seat belts which are in automatic locking mode.
- Seat your child safely in the child-restraint system and secure the child according to the instructions from the child-restraint system manufacturer.

8. Switch the power switch ON and make sure the front passenger air bag deactivation indicator light illuminates after installing a child-restraint system on the front passenger seat.

If the front passenger air bag deactivation indicator light does not illuminate, remove the child-restraint system, switch the power switch to OFF, and then re-install the child-restraint system (page 2-64).



### **▲** WARNING

Do not seat a child in a child-restraint system on the front passenger seat if the front passenger air bag deactivation indicator light does not illuminate: While it is always better to install any child-restraint system on the rear seat, it is imperative that a child-restraint system ONLY be used on the front passenger seat if the deactivation indicator light illuminates when the child is seated in the child-restraint system (page 2-64). Seating a child in a child-restraint system installed on the front passenger seat with the front passenger air bag deactivation indicator light not illuminated is dangerous. If this indicator light does not illuminate, this means that the front passenger front and side air bags, and knee air bags, and seat belt pretensioners are ready for deployment. If an accident were to deploy an air bag, a child in a child-restraint system sitting in the front passenger seat could be seriously injured or killed. If the indicator light does not illuminate after seating a child in a child-restraint system on the front passenger seat, seat a child in a child-restraint system on the rear seat and consult an Authorized Mazda Dealer as soon as possible.

### **▼** Using LATCH Lower Anchor

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems in the rear seats. Both anchors must be used, otherwise the seat will bounce around and put the child in danger. Most LATCH child-restraint systems must also be used in conjunction with a tether to be effective. If they have a tether you must use it to better assure your child's safety.

### **⚠** WARNING

## Follow the manufacturer's instructions for the use of the child-restraint system:

An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Make sure the child-restraint system is properly secured in place according to the child-restraint system manufacturer's instructions.

## Never attach two child-restraint systems to the same LATCH lower anchor:

Attaching two child-restraint systems to the same LATCH lower anchor is dangerous. In a collision, one anchor may not be strong enough to hold two child-restraint system attachments, and it may break, causing serious injury or death. If you use the seat position for another child-restraint system when an outboard LATCH position is occupied, use the center seat belts instead, and the tether if tether-equipped.

### Make sure the child-restraint system is properly secured:

An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Follow the child-restraint system manufacturer's instructions on belt routing to secure the seat just as you would with a child in it so that nobody is tempted to put a child in an improperly secured seat later on. When not in use, remove it from the vehicle or fasten it with a seat belt, or attach it to BOTH LATCH lower anchors for LATCH child-restraint systems.

# Make sure there are no seat belts or foreign objects near or around the LATCH child-restraint system:

Not following the child-restraint system manufacturer's instructions when installing the child-restraint system is dangerous. If seat belts or a foreign object prevent the child-restraint system from being securely attached to the LATCH lower anchors and the child-restraint system is installed improperly, the child-restraint system could move in a sudden stop or collision causing serious injury or death to the child or other occupants. When installing the child-restraint system, make sure there are no seat belts or foreign objects near or around the LATCH lower anchors. Always follow the child-restraint system manufacturer's instructions.

#### Installation on rear outboard seats

 First, adjust the front seat to allow clearance between the child-restraint system and the front seat.

Refer to Adjusting the Driver's Seat on page 2-4.

- Refer to Adjusting the Front Passenger's Seat on page 2-12.
- Make sure the seatback is securely latched by pushing it back until it is fully locked.
- Remove the cover of the child-restraint system's LATCH lower anchors to verify the locations of the LATCH lower anchors.



1. Lower anchor

#### **NOTE**

- The LATCH lower anchors marking on the cover indicates the position of the LATCH lower anchors for the attachment of a child-restraint system.
- Store the removed cover so that it does not get lost.
- 4. Remove the head restraint.
  However, when installing a backless booster seat, always install the vehicle head restraint to the seat where the backless booster seat is installed.

Refer to Head Restraints on page 2-18.

 Secure the child-restraint system using BOTH LATCH lower anchors, following the child-restraint system manufacturer's instruction. Pull on the child-restraint to be sure both anchors are engaged. 6. If your child-restraint system came equipped with a tether, that means it is very important to properly secure the tether for child safety. Please carefully follow the child-restraint system manufacturer's instructions when installing tethers.

### **M** WARNING

### Use the tether and tether anchor only for a child-restraint system:

Using the tether or tether anchor to secure anything but a child-restraint system is dangerous. This could weaken or damage the tether or tether anchor and result in injury.

# Always remove the head restraint and install child-restraint system (except when installing a backless booster seat):

Installing a child-restraint system without removing the head restraint is dangerous. The child-restraint system cannot be installed correctly which may result in death or injury to the child in a collision.



- 1. Tether strap
- 2. Anchor bracket
- Forward

### Always attach the tether strap to the correct tether anchor position:

Attaching the tether strap to the incorrect tether anchor position is dangerous. In a collision, the tether strap could come off and loosen the child-restraint system. If the child-restraint system moves it could result in death or injury to the child.

# Always install the head restraint and adjust it to the appropriate position after removing the child-restraint system:

Driving with the head restraint removed is dangerous as impact to the occupant's head cannot be prevented during emergency braking or in a collision, which could result in a serious accident, injury or death.

Refer to Head Restraints on page 2-18.

#### Installation on rear center seat

The LATCH lower anchors at the center of the rear seat are much further apart than the sets of LATCH lower anchors for child-restraint system installation at other seating positions. Child-restraint systems with rigid LATCH attachments cannot be installed on the center seating position. Some LATCH equipped child-restraint systems can be placed in the center position and will reach the nearest LATCH lower anchors which are 420 mm (16.5 in) apart. LATCH compatible child-restraint systems (with attachments on belt webbing) can be used at this seating position only if the child-restraint system manufacturer's instructions state that the child-restraint system can be installed to LATCH lower anchors that are 420 mm (16.5 in) apart. Do not attach two child-restraint systems to the same

LATCH lower anchor. If your child-restraint system has a tether, it must also be used for your child's optimum safety.

The procedure is the same as the installation for the rear outboard seats.

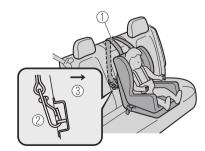
#### **LATCH** lower anchor location



### **⚠** WARNING

# Always remove the head restraint and install child-restraint system (except when installing a backless booster seat):

Installing a child-restraint system without removing the head restraint is dangerous. The child-restraint system cannot be installed correctly which may result in death or injury to the child in a collision.



- 1. Tether strap
- 2. Anchor bracket

#### 3. Forward

Always attach the tether strap to the correct tether anchor position:

Attaching the tether strap to the incorrect tether anchor position is dangerous. In a collision, the tether strap could come off and loosen the child-restraint system. If the child-restraint system moves it could result in death or injury to the child.

Always install the head restraint and adjust it to the appropriate position after removing the child-restraint system:

Driving with the head restraint removed is dangerous as impact to the occupant's head cannot be prevented during emergency braking or in a collision, which could result in a serious accident, injury or death.

Refer to Head Restraints on page 2-18.

## **Supplemental Restraint System (SRS) Precautions**

### ▼ Supplemental Restraint System (SRS) Precautions

The front and side supplemental restraint systems (SRS) include different types of air bags. Please verify the different types of air bags which are equipped on your vehicle by locating the "SRS AIRBAG" location indicators. These indicators are visible in the area where the air bags are installed. The air bags are installed in the following locations:

- The steering wheel hub (driver air bag)
- The front passenger dashboard (front passenger air bag)
- Under the instrument panel (driver and front passenger knee air bags)
- The outboard sides of the front seatbacks (side air bags)
- The front and rear window pillars, and the roof edge along both sides (curtain air bags)

The air bag supplemental restraint systems are designed to provide supplemental protection in certain situations so seat belts are always important in the following ways:

Without seat belt usage, the air bags cannot provide adequate protection during an accident. Seat belt usage is necessary to:

- Keep the occupant from being thrown into an inflating air bag.
- · Reduce the possibility of injuries during an accident that is not

- designed for air bag inflation, such as rear impact.
- Reduce the possibility of injuries in frontal, near frontal or side collisions or roll-over accidents that are not severe enough to activate the air bags.
- · Reduce the possibility of being thrown from your vehicle.
- Reduce the possibility of injuries to lower body and legs during an accident.
- Hold the driver in a position which allows better control of the vehicle.

## Refer to the Front Passenger Occupant Classification System (page 2-64) for details.

The front passenger air bag deactivation indicator light illuminates for a specified time after the power switch is switched ON.



Small children must be protected by a child-restraint system as stipulated by law in every state and province. In certain states and provinces, larger children must use a child-restraint system (page 2-35).

Carefully consider which child-restraint system is necessary for your child and follow the installation directions in this Owner's Manual as well as the

child-restraint system manufacturer's instructions.



### Seat belts must be worn in air bag equipped vehicles:

Depending only on the air bags for protection during an accident is dangerous. Alone, air bags may not prevent serious injuries. The appropriate air bags can be expected to inflate only in the first accident, such as frontal, near frontal or side collisions or roll-over accidents that are at least moderate. Vehicle occupants should always wear seat belts.

### Children should not ride in the front passenger seat:

Placing a child, 12 years or under, in the front seat is dangerous. The child could be hit by a deploying air bag and be seriously injured or even killed. A sleeping child is more likely to lean against the door and be hit by the side air bag in moderate collision to the front-passenger side of the vehicle. Whenever possible, always secure a child 12 years and under on the rear seats with an appropriate child-restraint system for the child's age and size.

Never use a rear-facing child-restraint system in the front seat with an air bag that could deploy:

Rear-facing child-restraint systems on the front seat are particularly dangerous even though you may feel assured that a front passenger air bag will not deploy based on the fact that the front passenger air bag deactivation indicator light illuminates. The child-restraint system can be hit by a deploying air bag and moved violently backward resulting in serious injury or death to the child.



### Do not sit too close to the driver and front passenger air bags:

Sitting too close to the driver and front passenger air bag modules or placing hands or feet on them is extremely dangerous. The driver and front passenger air bags inflate with great force and speed. Serious injuries could occur if someone is too close. The driver should always hold onto only the rim of the steering wheel. The front seat passenger should keep both feet on the floor. Front seat occupants should adjust their seats as far back as possible and always sit upright against the seatbacks with seat belts worn properly.

### Sit in the center of the seat and wear seat belts properly:

Sitting too close to the side air bag modules or placing hands on them, or sleeping up against the door or hanging out the windows is extremely dangerous. The side and curtain air bags inflate with great force and speed directly expanding along the door on the side the car is hit. Serious injury could occur if someone is sitting too close to the door or leaning against a window, or if rear seat occupants grab the sides of the front seatbacks. Give the side and curtain air bags room to work by sitting in the center of the seat while the vehicle is moving with seat belts worn properly.

### Do not attach objects on or around the area where air bags deploy:

Attaching objects to the air bags or placing something in the area where the air bags deploy is dangerous. In an accident, an object could interfere with air bag inflation and injure the occupants. Furthermore, the bag could be damaged causing gases to release. Always keep the deployment area of the air bag modules free of any obstructions.

For example, you should not do any of the following as it may interfere with air bag deployment.

- Do not put a covering on or lean anything against areas such as the dashboard and lower portion of the instrument panel that blocks the passenger front air bag and knee air bags.
- Do not use seat covers on the front seats and rear seats equipped with in-seat side air bags.
- Do not hang any backpacks, bags or pouches that cover the sides of the seats that block the side air bags.

Do not place any objects on the assist grips. Only hang clothes directly on the coat hooks.

## Do not touch the components of the supplemental restraint system after the air bags have inflated:

Touching the components of the supplemental restraint system after the air bags have inflated is dangerous. Immediately after inflation, they are very hot. You could get burned.

### Never install any front-end equipment to your vehicle:

Installation of front-end equipment, such as frontal protection bar (kangaroo bar, bull bar, push bar, or other similar devices), snowplow, or winches, is dangerous. The air bag crash sensor system could be affected. This could cause air bags to inflate unexpectedly, or it could prevent the air bags from inflating during an accident. Front occupants could be seriously injured.

### Do not modify the suspension:

Modifying the vehicle suspension is dangerous. If the vehicle's height or the suspension is modified, the vehicle will be unable to accurately detect a collision or roll-over accident resulting in incorrect or unexpected air bag deployment and the possibility of serious injuries.

## To prevent false detection by the air bag sensor system, heed the following:

➤ Do not use tires or wheels other than those specified for your Mazda:

Use of any tire or wheel other than those specified for your Mazda (page 9-5) is dangerous. Use of such wheels will prevent the vehicle's accident detections system from accurately detecting a collision or roll-over accident resulting in incorrect or unexpected air bag deployment and the possibility of serious injuries.

- Do not overload your vehicle:
  Overloading your vehicle is
  dangerous as it could prevent the air
  bag crash sensor system from
  accurately detecting a collision or
  roll-over accident resulting in
  incorrect or unexpected air bag
  deployment and the possibility of
  serious injuries. The gross axle
  weight rating (GAWR) and the gross
  vehicle weight rating (GVWR) for
  your vehicle are on the Motor
  Vehicle Safety Standard Label on the
  rear door on the driver's side. Do
  not exceed these ratings.
- ➤ Do not drive the vehicle off-road: Driving your Mazda off-road is dangerous because the vehicle has not been designed to do so. Driving the vehicle off-road could prevent the air bag crash sensor system from accurately detecting a collision or roll-over accident resulting in incorrect or unexpected air bag deployment and the possibility of serious injuries.

Do not modify a front door or leave any damage unrepaired. Always have an Authorized Mazda Dealer inspect a damaged front door: Modifying a front door or leaving any damage unrepaired is dangerous. Each front door has a side crash sensor as a component of the supplemental restraint system. If holes are drilled in a front door, a door speaker is left removed, or a damaged door is left unrepaired, the sensor could be adversely affected causing it to not detect the pressure of an impact correctly during a side collision. If a sensor does not detect a side impact correctly, the side and curtain air bags and the front seat belt pretensioner may not operate normally which could result in serious injury to occupants.

### Do not modify the supplemental restraint system:

Modifying the components or wiring of the supplemental restraint system is dangerous. You could accidentally activate it or make it inoperable. Do not make any modifications to the supplemental restraint system. This includes installing trim, badges, or anything else over the air bag modules. It also includes installing extra electrical equipment on or near system components or wiring. An Authorized Mazda Dealer can provide the special care needed in the removal and installation of front seats. It is important to protect the air bag wiring and connections to assure that the bags do not accidentally deploy, and that the front passenger occupant classification system and the seats retain an undamaged air bag connection.

### SRS Air Bags

## Do not place luggage or other objects under the front seats:

Placing luggage or other objects under the front seats is dangerous. The components essential to the supplemental restraint system could be damaged, and in the event of a side collision, the appropriate air bags may not deploy, which could result in death or serious injury. To prevent damage to the components essential to the supplemental restraint system, do not place luggage or other objects under the front seats.

Do not operate a vehicle with damaged air bag/seat belt pretensioner system components: Expended or damaged air bag/seat belt pretensioner system components must be replaced after any collision which caused them to deploy or damage them. Only a trained Authorized Mazda Dealer can fully evaluate these systems to see that they will work in any subsequent accident. Driving with an expended or damaged air bag or pretensioner unit will not afford you the necessary protection in the event of any subsequent accident which could result in serious injury or death.

Do not remove interior air bag parts: Removing any components such as the front seats, front dashboard, the steering wheel or parts on the front and rear window pillars and along the roof edge, containing air bag parts or sensors is dangerous. These parts contain essential air bag components. The air bag could accidentally activate and cause serious injuries. Always have an Authorized Mazda Dealer remove these parts.

## Properly dispose of the air bag system:

Improper disposal of an air bag or a vehicle with live air bags in it can be extremely dangerous. Unless all safety procedures are followed, injury could result. Have an Authorized Mazda Dealer safely dispose of the air bag system or scrap an air bag equipped vehicle.

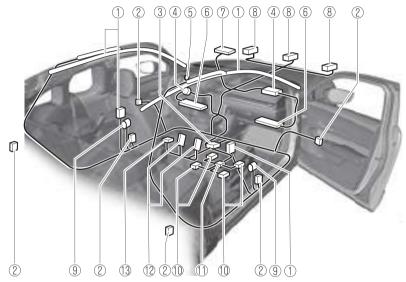
#### **NOTE**

- · If it becomes necessary to have the components or wiring system for the supplementary restraint system modified to accommodate a person with certain medical conditions in accordance with a certified physician, contact an Authorized Mazda Dealer, refer to "Customer Assistance (U.S.A.)" (page 8-2).
- When an air bag deploys, a loud inflation noise can be heard and some smoke will be released.
   Neither is likely to cause injury, however, the texture of the air bags may cause light skin injuries on body parts not covered with clothing through friction.
- Should you sell your Mazda, we urge you to tell the new owner of its air bag systems and that familiarization with all instructions about them, from the Owner's Manual, is important.
- This highly-visible label is displayed which warns against the use of a rear-facing child-restraint system on the front passenger seat.



#### **Supplemental Restraint System Components**

#### **▼** Supplemental Restraint System Components



- 1. Side and curtain inflators and air bags
- 2. Side crash sensors
- 3. Roll-over sensor, crash sensors, and diagnostic module (SAS unit)
- 4. Driver/Front passenger inflators and air bags
- 5. Air bag/front seat belt pretensioner system warning indication/warning light (page 7-27)
- 6. Driver/Front passenger knee inflators and air bags
- 7. Front passenger air bag deactivation indicator light (page 2-64)
- 8. Front air bag sensors
- 9. Seat belt pretensioners (page 2-31)
- 10. Front passenger seat weight sensors (page 2-64)
- 11. Front passenger seat weight sensor control module
- 12. Driver and front passenger seat belt buckle switches (page 2-68)
- 13. Driver seat slide position sensor (page 2-64)

#### How the SRS Air Bags Work

#### ▼ How the SRS Air Bags Work

Your Mazda is equipped with the following types of SRS air bags. SRS air bags are designed to work together with the seat belts to help to reduce injuries during an accident. The SRS air bags are designed to provide further protection for passengers in addition to the seat belt functions. Be sure to wear seat belts properly.

#### **▼** Front Seat Belt Pretensioners

The front seat belt pretensioners are designed to deploy in moderate or severe frontal, near frontal collisions. In addition, the pretensioners operate when a side collision or a roll-over accident is detected. The pretensioners operate differently depending on what types of air bags are equipped. For more details about seat belt pretensioner operation, refer to the SRS Air Bag Deployment Criteria (page 2-61).

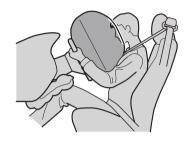
#### **▼** Driver Air Bag

The driver's air bag is mounted in the steering wheel.

When air bag crash sensors detect a frontal impact of greater than moderate force, the driver's air bag inflates quickly helping to reduce injury mainly to the driver's head or chest caused by directly hitting the steering wheel.

For more details about air bag deployment, refer to "SRS Air Bag Deployment Criteria" (page 2-61). The driver's dual-stage air bag controls air bag inflation in two energy stages. During an impact of moderate severity,

the driver's air bag deploys with lesser energy, whereas during more severe impacts, it deploys with more energy.



#### ▼ Front Passenger Air Bag

The front passenger air bag is mounted in the front passenger dashboard. The inflation mechanism for the front passenger air bag is the same as the driver's air bag.

For more details about air bag deployment, refer to "SRS Air Bag Deployment Criteria" (page 2-61). In addition, the front passenger air bag is designed to only deploy in accordance with the total seated weight on the front passenger seat. For details, refer to the driver and front passenger occupant classification system (page 2-64).



## **▼** Driver and Front Passenger Knee Air Bags

The knee air bags are equipped under the instrument panel.

If the air bag crash sensors receive a frontal impact of greater than moderate force, the knee air bags deploy immediately to reduce impact to the driver and front passenger's legs.

For more details about air bag deployment, refer to "SRS Air Bag Deployment Criteria" (page 2-61).



#### **▼** Side Air Bags

The side air bags are mounted in the outboard sides of the front seatbacks. When the air bag crash sensors detect a side impact of greater than moderate force, the system inflates the side air bag only on the side in which the vehicle was hit. The side air bag inflates quickly to reduce injury to the driver or front passenger's chest caused by directly hitting interior parts such as a door or window.

For more details about air bag deployment, refer to "SRS Air Bag Deployment Criteria" (page 2-61). In addition, the front passenger side air bag is designed to only deploy in accordance with the total seated weight on the front passenger seat. For details, refer to the driver and front

passenger occupant classification system (page 2-64).



#### **▼** Curtain Air Bags

The curtain air bags are mounted in the front and rear window pillars, and the roof edge along both sides.

When the air bag crash sensors detect a side impact of greater than moderate force, the curtain air bag inflates quickly and helps to reduce injury mainly to the driver and front and rear outboard passengers' heads caused by directly hitting interior parts such as a door or window.

For more details about air bag deployment, refer to "SRS Air Bag Deployment Criteria" (page 2-61).

#### In a side impact:

Greater than moderate impact to one side of the vehicle will cause the curtain air bag on that side only to inflate.



Only one side curtain air bag will deploy on the side of the vehicle that receives the force of an impact.

#### In a roll-over:

In response to a vehicle roll-over, both curtain air bags inflate.



Both curtain air bags will deploy after the roll-over accident is detected.

#### **▼** Warning Light/Beep

A system malfunction or operation conditions are indicated by a warning. Refer to Air Bag/Front Seat Belt Pretensioner System Warning Indication/Warning Light on page 7-27.

## SRS Air Bag Deployment Criteria

#### **▼ SRS Air Bag Deployment Criteria**

This chart indicates the applicable SRS equipment that will deploy depending on the type of collision.
(The illustrations are the representative cases of collisions.)

CDCi	Types of collision			
SRS equip- ment	A severe frontal/near frontal collision	A severe side col- lision	A roll-over/near roll-over*2	A rear collision
			DE	
	<del>-</del>			
		1		

#### SRS Air Bags

CDC aquin	Types of collision			
SRS equip- ment	A severe frontal/near frontal collision	A severe side col- lision	A roll-over/near roll-over*2	A rear collision
Front seat belt preten- sioner	χ*1	X*1	X*1	
Driver air bag	Х	_	_	
Front pas- senger air bag	χ*1	_	_	No air bag and front seat belt pretensioner will be activated in a
Knee air bag	X*1	_	_	rear collision.
Side air bag	_	X <sup>*1</sup> (impact side only)	_	
Curtain air bag	_	X (impact side only)	X (both sides)	

X: The SRS air bag equipment deploys in a collision.

#### **NOTE**

In a frontal offset collision, the equipped air bags and pretensioners may all deploy depending on the direction, angle, and rate of impact.

<sup>—:</sup> The SRS air bag equipment does not deploy in a collision.

<sup>&</sup>lt;sup>\*</sup>1 The front passenger front and side air bags, seat belt pretensioner and knee air bag are designed to deploy depending on the condition of the total seated weight on the front passenger seat.

<sup>&</sup>lt;sup>\*</sup>2 In a roll-over accident, the seat belt pretensioners and the curtain air bags deploy.

#### **Limitations to SRS Air Bag**

#### **▼** Limitations to SRS Air Bag

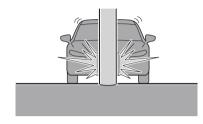
In severe collisions such as those described previously in "SRS Air Bag Deployment Criteria", the applicable SRS air bag equipment will deploy. However, in some accidents, the equipment may not deploy depending on the type of collision and its severity.

## Limitations to front/near front collision detection:

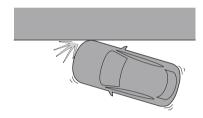
The following illustrations are examples of front/near front collisions that may not be detected as severe

enough to deploy the SRS air bag equipment.

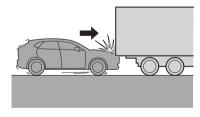
#### Impacts involving trees or poles



#### Frontal offset impact to the vehicle



## Rear-ending or running under a truck's tail gate

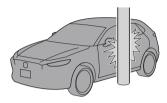


#### Limitations to side collision detection:

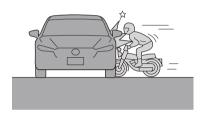
The following illustrations are examples of side collisions that may

not be detected as severe enough to deploy the SRS air bag equipment.

#### Side impacts involving trees or poles



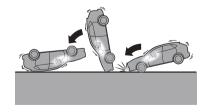
## Side impacts with two-wheeled vehicles



#### Limitations to roll-over detection:

The following illustration is an example of an accident that may not be detected as a roll-over accident. Therefore, the front seat belt pretensioners and curtain air bags may not deploy.

#### Pitch end over end



# Driver and Front Passenger Occupant Classification System

## **▼** Driver and Front Passenger Occupant Classification System

First, please read "Supplemental Restraint System (SRS) Precautions" (page 2-52) carefully.

#### **▼** Driver Seat Slide Position Sensor

Your vehicle is equipped with a driver seat slide position sensor as a part of the supplemental restraint system. The sensor is located under the driver seat. The sensor determines whether the driver seat is fore or aft of a reference position and sends the seat position to the diagnostic module (SAS unit). The SAS unit is designed to control the deployment of the driver air bag depending on how close the driver seat is to the steering wheel. The air bag/front seat belt pretensioner system warning light flashes if the sensor has a possible malfunction (page 2-60).

## ▼ Front Passenger Seat Weight Sensors

Your vehicle is equipped with a front passenger seat weight sensors as a part of the supplemental restraint system. These sensors are located under both of the front passenger seat rails. These sensors determine the total seated weight on the front passenger seat and monitor the seat belt buckle for the front passenger seat. The SAS unit is designed to prevent the front passenger front and side air bags and knee air bags, and seat belt pretensioner system from deploying if

the front passenger air bag deactivation indicator light illuminates. To reduce the chance of injuries caused by deployment of the front passenger air bag, the system deactivates the front passenger front and side air bags and knee air bags, and also the seat belt pretensioner system when the front passenger air bag deactivation indicator light illuminates. Refer to the following table for the front passenger air bag deactivation indicator light illumination conditions.

This system shuts off the front passenger front and side air bags and knee air bags, and seat belt pretensioner system, so make sure the front passenger air bag deactivation indicator light illuminates according to the following table.

The air bag/front seat belt pretensioner system warning light flashes and the front passenger air bag deactivation indicator light illuminates if the sensors have a possible malfunction. If this happens, the front passenger front and side air bags and knee air bags, and seat belt pretensioner system will not deploy.

## Front passenger air bag deactivation indicator light

This indicator light illuminates to remind you that the front passenger front and side air bags and knee air

bags, and seat belt pretensioners will not deploy during a collision.



If the front passenger weight sensors are normal, the indicator light illuminates when the power switch is switched ON. The light turns off after a few seconds. Then, the indicator light illuminates or is off under the following conditions:

## Front passenger air bag deactivation indicator light on/off condition chart

Condition detected by the front pas- senger oc- cupant classifica- tion sys- tem	Front pas- senger air bag deacti- vation indi- cator light	Front pas- senger front and side and knee air bags	Front passen- ger seat belt pre- tensioner system
Empty (Not occupied)	On	Deactivat- ed	Deacti- vated
Child or child-re- straint sys- tem*1	On	Deactivat- ed	Deacti- vated
Adult*2	Off	Ready	Ready

- \*1 If a larger child sits on the front passenger seat, the sensors might detect the child as being an adult depending on the child's physique.
- \*2 If a smaller adult sits on the front passenger seat, the sensors might detect the person as

#### SRS Air Bags

being a child depending on the person's physique.

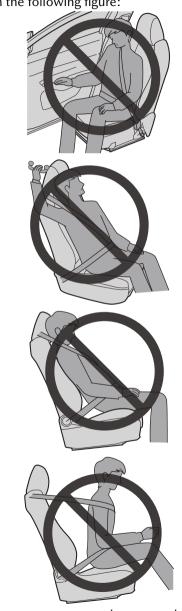
The curtain air bag is ready for inflating regardless of what the front passenger air bag deactivation indicator light on/off condition chart indicates.

If the front passenger air bag deactivation indicator light does not illuminate when the power switch is switched ON and does not illuminate as indicated in the front passenger air bag deactivation indicator light on/off condition chart, do not allow a child to sit in the front passenger seat and consult an Authorized Mazda Dealer as soon as possible. The system may not work properly in an accident.

### **MARNING**

Do not decrease the total seated weight on the front passenger seat: When an adult or large child sits on the front passenger seat, decreasing the total seated weight on the front passenger seat required for air bag deployment is dangerous. The front passenger seat weight sensors will detect the reduced total seated weight condition and the front passenger front and side air bags and knee air bags, and the seat belt pretensioner system will not deploy during an accident. The front passenger will not have the supplementary protection of the air bag, which could result in serious injury. Decreasing the total seated weight on the front passenger seat could result in an air bag not deploying under the following conditions, for example:

A front passenger is seated as shown in the following figure:



A rear passenger pushes up on the front passenger seat with their feet.

- Luggage or other items placed under the front passenger seat or between the front passenger seat and driver seat that push up the front passenger seat bottom.
- Any accessories which might decrease the total seated weight on the front passenger seat are attached to the front passenger seat.

  The front passenger front and side air bags and knee air bags, and the seat belt pretensioner system will deactivate if the front passenger air bag deactivation indicator light illuminates.

## Do not increase the total seated weight on the front passenger seat:

When an infant or small child sits on the front passenger seat, increasing the total seated weight on the front passenger seat is dangerous. The front passenger seat weight sensors will detect the increased total seated weight, which could result in the unexpected deployment of the front passenger front and side air bags and knee air bags, and seat belt pretensioner system in an accident and may cause serious injury. Increasing the total seated weight on the front passenger seat could result in the front passenger front and side air bags and knee air bags, and seat belt pretensioner system deployment in an accident under the following conditions, for example:

- Luggage or other items are placed on the seat with the child in the child-restraint system.
- The front passenger seat contacts the vehicle ceiling.

- A rear passenger or luggage push or pull down on the front passenger seatback.
- A rear passenger steps on the front passenger seat rails with their feet.
- Luggage or other items are placed on the seatback or hung on the head restraint.
- ➤ Heavy items are placed in the seatback map pocket.
- > The seat is washed.
- Liquids are spilled on the seat.
- ➤ The front passenger seat is moved backward, pushing into luggage or other items placed behind it.
- ➤ The front passenger seatback contacts the rear seat.
- Luggage or other items are placed between the front passenger seat and driver seat.
- Any accessories which might increase the total seated weight on the front passenger seat are attached to the front passenger seat.

## **A** CAUTION

- ➤ To assure proper deployment of the front air bag and to prevent damage to the sensors in the front seat bottoms:
  - Do not place sharp objects on the front seat bottoms or leave heavy luggage on them.
  - ➤ Do not spill any liquids on the front seats or under the front seats.
- ➤ To allow the sensors to function properly, always perform the following:
  - Adjust the front seats as far back as possible and always sit upright against the seatbacks with seat belts worn properly.

#### SRS Air Bags

If you place your child on the front passenger seat, secure the child-restraint system properly and slide the front passenger seat as far back as possible (page 2-44).

#### NOTE

- The system requires about 10 seconds to alternate between turning the front passenger front and side air bags and knee air bags, and seat belt pretensioner system on or off.
- The front passenger air bag deactivation indicator light may illuminate repeatedly if luggage or other items are put on the front passenger seat, or if the temperature of the vehicle's interior changes suddenly.
- The front passenger air bag deactivation indicator light may illuminate for 10 seconds if the total seated weight on the front passenger seat changes.
- The air bag/front seat belt pretensioner system warning light might illuminate if the front passenger seat receives a severe impact.
- If the front passenger air bag deactivation indicator light does not illuminate after installing a child-restraint system on the front passenger seat, first, re-install your child-restraint system according to the procedure in this owner's manual. Then, if the front passenger air bag deactivation indicator light still does not illuminate, install the child-restraint system on the rear seat and consult an Authorized Mazda Dealer as soon as possible.

· If the front passenger air bag deactivation indicator light illuminates when an adult is seated in the front passenger seat, have the passenger re-adjust their posture by sitting with their feet on the floor, and then re-fastening the seat belt. If the front passenger air bag deactivation indicator light still illuminates, move the passenger to the rear seat. If sitting in the rear seat is not possible, slide the front passenger seat as far back as possible. Consult an Authorized Mazda Dealer as soon as possible.

## **▼** Driver and Front Passenger Buckle Switches

The buckle switches on the front seat belts detect whether or not the front seat belts are securely fastened and further control the deployment of the air bags.

## **Constant Monitoring**

#### **▼** Constant Monitoring

The following components of the air bag systems are monitored by a diagnostic system:

- Front air bag sensors
- Crash sensors, and diagnostic module (SAS unit)
- · Side crash sensors
- · Air bag modules
- · Front seat belt pretensioners
- Air bag/Front seat belt pretensioner system warning light
- · Related wiring
- Driver seat slide position sensor
- Front passenger occupant classification sensor
- Front passenger occupant classification module
- Front passenger air bag deactivation indicator light
- Front passenger seat belt buckle switch

The diagnostic module continuously monitors the system's readiness. This begins when the power switch is switched ON and continues while the vehicle is being driven.

## **MEMO**

## Before Driving

Use of various features, including keys, doors, mirrors and windows.

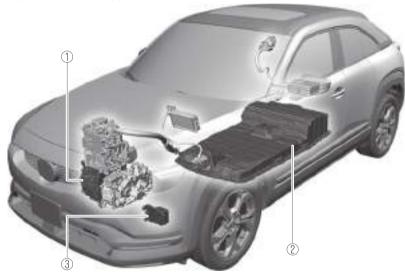
Electric Vehicles	3-2
Electric Vehicles	3-2
Charging	3-10
Keys	. 3-25
Keys	3-25
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Advanced Keyless Entry	
System	3-31
Advanced Keyless Entry	
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#### **Electric Vehicles**

#### **▼** Electric Vehicles

Electric vehicles are driven by motor power using the electrical power stored in the high voltage battery. This vehicle is an eco-friendly vehicle which emits no exhaust gas because fuel is not used.



- 1. Motor, Regenerative braking
- 2. High voltage battery
- 3. Approaching vehicle audible system

#### Motor

The motor transmits the motor power to the wheels using the electrical power of the high voltage battery.

#### Regenerative braking

Regenerative braking uses the motor to decelerate the vehicle. Power is generated by the wheels rotating the motor while decelerating and the generated power charges the high voltage battery.

Refer to Steering Wheel Paddle on page 3-7.

#### **High voltage battery**

The high voltage battery is a large-capacity battery and stores the charged power and the electrical power generated by regenerative braking.

#### Approaching vehicle audible system

The approaching vehicle audible system notifies pedestrians of the vehicle approaching using a warning sound while driving at low speeds. Refer to Approaching Vehicle Audible System on page 3-9.

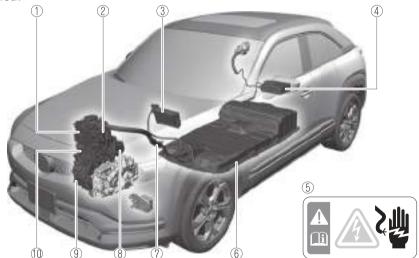
#### **▼** Cautions on Use

An electric vehicle has high voltage areas and high temperature areas. Labels indicating the cautions on use are applied to these areas. Always follow the instructions on the label and use the vehicle correctly.

## **♠** WARNING

Be very careful of high voltage areas. In addition, do not disassemble, modify, or remove any high voltage parts:

The following areas contain high voltage parts and may cause electrical shock if touched.



- 1. DC-DC Converter
- 2. Junction Box
- 3. PTC Heater
- 4. Onboard Charger
- 5. Warning Label Example
- 6. High Voltage Battery
- 7. High Voltage Cable
- 8. Electric Compressor
- 9. Motor

#### 10.Inverter

#### Be very careful of high temperature areas:

Always follow the instructions on the labels inside the motor compartment. After driving, the motor temperature may be high.

## Do not open the hood while the EV system or Climate Control Timer is operating or during timer charging, normal charging, or quick charging:

The cooling fan in the motor compartment may rotate suddenly and your hand, clothes, or accessories may touch the fan or become caught, resulting in serious injury or death.

#### **▼** Maintenance and Repairs

For vehicle maintenance or repairs, consult an Authorized Mazda Dealer. Technical knowledge and skill are necessary in handling the high voltage battery.

## **MARNING**

#### To ensure safe and correct handling of the high voltage battery, always heed the following precautions:

- Do not remove the high voltage battery.
- Do not resell, transfer, or modify the high voltage battery.
- ➤ Do not use the battery on vehicles other than those equipped with the high voltage battery.

# If the high voltage battery is not handled properly, the following may occur which could lead to serious injury or death:

➤ Touching an unattended high voltage battery may cause an electrical shock accident.

If the high voltage battery is used on a vehicle other than one equipped (including modified vehicles) with a high voltage battery, an electrical shock accident, heat generation, smoking, combustion, and explosions, or an electrolyte leakage may occur.

Heed the following instructions to prevent deterioration of the high voltage battery or damage to the high voltage battery.

- Do not leave the vehicle for a long time under extremely high or low temperature conditions.
- Do not leave the vehicle for 14 days or longer while the high voltage battery is at 0 (zero) charge.

#### NOTE

The high voltage battery has a certain battery life. The battery life differs depending on how the vehicle is used and the driving conditions.

#### Scrapping Your Vehicle and Disposing of the High Voltage Battery

The high voltage battery is collected to prevent accidents involving it. When scrapping your vehicle or replacing the high voltage battery, consult Authorized Mazda Dealer. Please

cooperate in ensuring that the vehicle's high voltage battery is collected.

## **MARNING**

## Appropriate disposal of the high voltage battery:

If the high voltage battery is not collected and disposed of appropriately, such as by leaving it unattended or illegally abandoning it, some other person may touch it which could cause an electrical shock accident leading to serious injury.

#### **▼** Accident Occurs

If the vehicle receives an impact of a certain level or greater in a collision, the EV system stops. In this case, the EV system malfunction warning indication/warning light displays/turns on and the EV system may not start. Contact an Authorized Mazda Dealer immediately.

## **MARNING**

## Never touch electrical wiring that may be protruding into or outside of the cabin:

Otherwise, it could result in electrical shock and serious injury.

## Never touch any area where electrolyte is visible or electrolyte is leaking from the area:

If any electrolyte from the high voltage battery gets in the eyes or on the skin, it could cause loss of vision or skin reactions. In the unlikely event that electrolyte comes into contact with the eyes or skin, flush with large quantities of water immediately and seek immediate medical attention.

## Never approach objects that are on fire or extremely hot:

Electrolyte in the high voltage battery may cause a fire.

If the vehicle catches fire, extinguish the fire using a fire extinguisher (type ABC, BC, or C).

Only extinguish a fire with water when a large amount of water is available such as from a fire hydrant. Otherwise, it could lead to an accident.

#### **▼** Advice for Using Electric Vehicles

## Unique sound and vibration occurring with electric vehicles

Electric vehicles have a unique sound and vibration which differ from non-electric vehicles. The following sounds or vibration may occur, however, this is unique to electric vehicles and it does not indicate a problem.

- · Motor operation sound.
- Operation sound of coolant pump and cooling fan while charging.
- Operation sound of regenerative braking.
- Relay operation sound when EV system is started or stopped.
- Brake system operation sound and vibration.

Operation sound of brake system Sound can be heard from the front of the vehicle under the following conditions:

- · The driver's door is opened.
- · The power switch is switched ON.
- · The brake pedal is operated.
- The brake system operates automatically.
- Several minutes have passed since the EV system was stopped.

#### Vibration of brake pedal

Vibration of the brake pedal might be felt under the following conditions:

- · The power switch is switched ON.
- · The brake pedal is operated.

## High voltage battery level and temperature

If the high voltage battery level is low or the high voltage battery temperature is low, the vehicle speed may not increase even if the accelerator pedal is depressed because the motor output is restricted. Drive the vehicle following the instructions displayed on the multi-information display.

#### To Extend Cruising Distance

- The electrical power consumption while driving can be reduced and the cruising distance can be extended by doing the following operations.
  - With the charging connector connected, turn on the climate control system to provide a comfortable temperature in the cabin before driving.
  - When driving during cold temperatures, use the seat warmer or steering warmer instead of the climate control system.
  - Adjust the climate control system to a moderate airflow and temperature setting.
  - · Refrain from using the defogger under conditions other than when a window is fogged or frozen.
  - · Unload unnecessary cargo to reduce the vehicle weight.
  - Avoid unnecessary sudden acceleration, rapid acceleration, and rapid deceleration. Instead,

- perform smooth starts, acceleration, and deceleration.
- Try to drive maintaining a constant speed and avoid speeding.
- Inspect the tire pressures regularly and always adjust the tire pressures to the specified inflation pressure.
- By maintaining a sufficient distance between vehicles and using the regenerative braking well, more electrical power can be charged to the high voltage battery.

#### Pointers for Maintaining Long Battery Life

The high voltage battery life changes depending on the vehicle conditions or charging method.

For maintaining a long high voltage battery life, be careful of the following: Charging the high voltage battery

- · Avoid unnecessary, frequent charging.
- Charge the battery normally and avoid quick charging as much as possible.
- Only charge the battery with as much power as needed, and do not always fully charge the battery. The maximum charge limit can be set. Refer to Charging Settings on page 3-21.

#### Parking the vehicle

- Do not park the vehicle in a place where the ambient temperature is extremely high or low.
- Do not leave the vehicle while the remaining high voltage battery power is extremely low.
- · If the Excessive Battery Temperature notification is displayed on the center display after driving the vehicle, select Start.

#### **▼** Steering Wheel Paddle

The steering wheel paddle is a function that makes it easy to adjust the vehicle speed according to the accelerator pedal operation.

Acceleration/deceleration is possible according to the various driving conditions such as on an up or down slope, during traffic jams, or high-speed driving.



## Avoid using the steering wheel paddles when driving on wet roads, snow-covered roads, or icy roads:

Otherwise, the tires will slip which could lead to an accident.

#### Setting

By operating the plus switch (+/OFF), the regenerative braking force is decreased when releasing the accelerator pedal, and the vehicle accelerates quickly when depressing the accelerator pedal.



#### 1. Plus switch (+/OFF)

By operating the minus switch (–), the regenerative braking force is increased when releasing the accelerator pedal, and the vehicle accelerates slowly when depressing the accelerator pedal.



#### 1. Minus switch (-)

#### NOTE

- · When the cruise control and the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function), or the Traffic Jam Assist (TJA) is operating, the steering wheel paddle setting cannot be changed.
- · When performing the following operations, the steering wheel paddle returns to the default setting.
  - Plus switch (+/OFF) is kept pulled for a certain period of time
  - · Selector lever is shifted to any position from D
  - Power switch is switched OFF

#### Indication

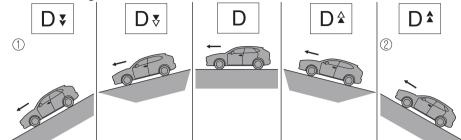
The operation condition of the steering wheel paddle is displayed on the multi-information display.



#### 1. Steering wheel paddle display

	Switch operation		Regenerative	
Indication	Plus switch (+/ OFF)	Minus switch (-)	braking force	Acceleration
D*	-	1	Weak	Quickly
Dâ	<b>†</b>	Ţ	Slightly weak	Slightly quick
D	1	Ţ	Normal	Normal
D₹	1	1	Slightly strong	Slightly slow
Dţ	1	-	Strong	Slowly

#### Particular driving situation



- 1. Driving on a downward slope or during traffic jams
- 2. Driving on an upward slope or expressways

#### NOTE

- If the high voltage battery level is high or the high voltage battery temperature is low, the indication on the multi-information display changes because regenerative braking is restricted, however, there may be a small change in the regenerative braking force or no change at all.
- The brake lights may turn on when the regenerative braking force is strong.

## **▼** Approaching vehicle audible system

The approaching vehicle audible system notifies pedestrians of the vehicle approaching using a warning sound while driving at low speeds. The approaching vehicle audible system operates under the following conditions.

- The vehicle accelerates from a stop and the vehicle speed is 30 km/h (19 mph) or slower.
- The vehicle decelerates and the vehicle speed is 25 km/h (16 mph) or slower.
- You release your foot from the brake pedal with the selector lever in a position other than P.

#### **▼** Electronic sound

Electronic sound is a system that uses a speaker to emit sound into the cabin to notify the driver of the vehicle's behavior.

The electronic sound operates when all of the following conditions are met.

- The selector lever is in a position other than N and P.
- · All the doors and the liftgate are closed.
- Emergency braking is not being performed.

#### Charging

#### **▼** Cautions Concerning Charging

## **MARNING**

For occupants who use any medical device such as an implanted-type heart pacer or defibrillator, ask a doctor or manufacturer of the device about how the medical device may be affected by the charging operation:

Otherwise, the operation of the medical device could be affected resulting in an accident.

For occupants who use any medical device such as an implanted-type heart pacer or defibrillator, do not enter the cabin including the luggage compartment while charging:

Otherwise, the operation of the medical device could be affected resulting in an accident.

Do not disassemble or modify the charge port and the charge cable: Otherwise, it could lead to an electrical shock resulting in an accident.

## Always heed the following when charging:

Otherwise, it could lead to an electrical shock resulting in an accident.

- ➤ Never allow children to charge the high voltage battery.
- > Do not charge the high voltage battery while the vehicle is covered with a car cover.

Always heed the following when charging in the rain or snow:

Otherwise, it could lead to an electrical shock resulting in an accident.

- Do not charge the high voltage battery outside if there is the possibility of heavy rain, strong winds, or lightning.
- Remove water with a clean cloth if the charge connector or charge plug is wet.
- ➤ Do not touch the charge port or charge cable with wet hands.
- If the outlet is covered with snow while charging, turn off the power such as turning off the breaker, remove the snow, and then remove the charge plug.

Do not use the charge cable if it has any of the following malfunctions: Otherwise, it could lead to an electrical shock resulting in an accident.

- ➤ The charge connector is rusted or corroded.
- The charge connector is damaged or foreign matter penetrates the charge connector.

Refer to the instruction manual accompanying the charge cable and use the charge cable correctly: If you handle the charge cable incorrectly, it could result in an unexpected accident.

## Always heed the following when using the charge cable:

Otherwise, the charge cable could be damaged resulting in an accident.

Do not pull out or bend the charge cable excessively.

- Do not step on the charge cable or drag it on the ground.
- ➤ When inserting/pulling out the charge connector and the charge plug, do not twist them excessively.
- Do not apply excessive force to the connected charge connector such as by applying your weight.
- Keep objects which generate intense heat (such as a heater or cigarette) away from the charge cable.
- Do not apply organic solvents, acid or alkaline agents to the charge cable.

## **A** CAUTION

- ➤ Do not connect the booster cable to the lead-acid battery or remove the lead-acid battery while charging the high voltage battery. Otherwise, the vehicle or charging device could be damaged.
- If the charge connector is removed after the charging is finished, close the charge port cap immediately. If the charging lid is closed with the charge port cap open, water or foreign matter may enter the charge port causing a malfunction.
- Always make sure that the charge cable is not connected to the vehicle before driving. Because the vehicle can be driven even while the charge connector is not connected completely, it could result in an accident.
- If the charge port is frozen shut, defrost the inlet using a hair dryer. If the charge cable is inserted/pulled out with the charge port frozen, it could cause damage.

#### **NOTE**

- Normal charging and quick charging cannot be performed at the same time.
- The navigation system and the climate control system can be used even while charging. However, the charging time increases because electrical power is consumed. In some cases, power consumption may exceed the charged amount and charging may not finish.
- If a power outage occurs while charging, remove the plug and the charge connector and start charging from the beginning again.
- Make sure that no water has accumulated in the charge connector and the charge port before charging.
   If any foreign matter enters the charge connector or the charge port, do not start charging and consult an Authorized Mazda Dealer.

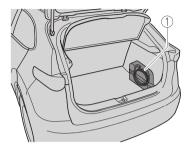
#### **▼** Preparation Before Charging

This vehicle is driven by consuming the electrical power stored in the high voltage battery. Therefore, it is necessary to charge the high voltage battery.

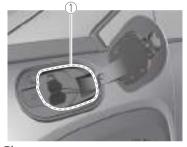
The parts related to charging are located in the following positions.



#### 1. Mazda Connect



#### 1. Charge cable



#### 1. Charge port

#### **Charge cable**

The charge cable is connected to the power supply and the vehicle to send electrical power to the vehicle. For details regarding the charge cable, refer to the instruction manual accompanying the charge cable. In general, keep the charge cable at home. If the charge cable is kept in the vehicle, firmly secure it using the following procedure.

- 1. Store the charge cable in its special storage bag.
- 2. Attach the 2 hooks of the storage bag to each of the 2 luggage hooks on the right side of the luggage compartment, and tightly secure the storage bag. At this time, make sure that the logo on the storage

bag is facing toward the center of the luggage compartment.



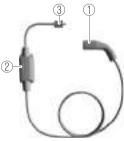
## **A** CAUTION

Be careful when handling the storage bag because the hooks on the storage bag have sharp areas. If your hands or fingers touch the sharp areas, your hands or fingers could be injured.

#### NOTE

When the storage bag hooks and the luggage hooks hit against each other, they make noise. If the noise distracts your attention while driving, wrap the included sheet around the areas the hooks make contact.

The component parts of the charge cable are as follows.



- 1. Charge connector
- 2. Control box
- 3. Charge plug

#### **Charge connector**

The charge connector is used for connecting to the normal charge port.

When the charge connector is connected to the normal charge port, a vehicle system locks the charge connector.

When the charge connector is locked by the vehicle system, it unlocks when the driver's door is unlocked. If the charge connector locked by the vehicle system is not unlocked even though the driver's door is unlocked, consult an Authorized Mazda Dealer.

The conditions for locking the system on the vehicle side can be changed. For the procedure to change the conditions, refer to Charging Settings on page 3-21.

#### Control box

The control box indicates the charge status by turning on/flashing the indicator light.

For the indicator light illumination/ flash pattern, refer to the instruction manual accompanying the charge cable.

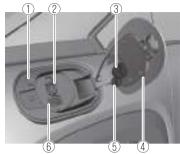
#### **Charge plug**

The charge plug is the part for connecting to the power supply.

#### **Charge port**

The charge port refers to the area where the charge connector is connected.

The component parts of the charge port are as follows.



- 1. Charge indicator
- 2. Normal charge port
- 3. Normal charge port cap
- 4. Charge lid
- 5. Quick charge port cap
- 6. Quick charge port

#### **Charge indicator**

The charging indicator indicates the charging status by turning on/flashing the light.

For the charging indicator illumination/flash pattern, refer to Checking Charging Status on page 3-18.

#### Normal charge port

The normal charge port is the part to which the connector of the charge cable is connected. This is used for normal charging.

#### Charge lid

The charge lid is locked/unlocked in conjunction with the door locking/unlocking mechanism.

When unlocking the driver's door, the charge lid is unlocked. When locking the driver's door, the charge lid is locked.

However, if the driver's door is unlocked using the auxiliary key, the charge lid is not unlocked.

#### NOTE

When the driver's door is locked using any of the following functions, the charge lid is also locked at the same time.

- Vehicle speed sensing auto door lock function
- · Auto re-lock function

#### Quick charge port

The quick charge port is the part to which the connector of the quick charger is connected. This is used for quick charging.

#### **Battery heater**

The battery heater is designed to maintain the appropriate high voltage battery temperature.

Because the driving performance and the charging performance decrease if the high voltage battery temperature decreases, decreases in their performance are reduced by maintaining the appropriate high voltage battery temperature using the battery heater.

When the high voltage battery temperature decreases significantly while parking or charging, the battery heater operates. When the temperature increases to the specified value, the heater turns off. However, when the high voltage battery level is low, the battery heater does not operate.

#### NOTE

 Because the electrical power of the high voltage battery is used by the battery heater, we recommend that the charge connector is left connected to the vehicle when parked in a location where charging is available.

- If the vehicle is not used for a long period of time, we recommend that the battery heater is turned off using [Settings] in Mazda Connect.
- · When the battery heater operates, the charging time could take longer.

#### **Battery cooling**

If the high voltage battery temperature reaches  $40 \,^{\circ}\text{C}$  ( $104 \,^{\circ}\text{F}$ ) or higher after driving the vehicle, it is possible to cool the high voltage battery while the vehicle is parked for maintaining a long high voltage battery life.

If the Excessive Battery Temperature notification is displayed on the center display after completing a trip, select Start to operate the battery cooling.

#### NOTE

Because the electrical power of the high voltage battery is used by the battery cooling, we recommend that the charge connector is connected to the vehicle while the battery cooling is operating, when parked in a location where charging is available.

#### **▼** Charging

#### **Charging type**

There are two methods of charging the high voltage battery, normal charging and quick charging.

We recommend that you use normal charging as the preferred charging method as this will help to keep the high voltage battery in optimal condition and maintain a long battery life.

The exact charging time depends on various conditions at the time of charging, such as the type of charger, battery condition, charging patterns, as well as the battery temperature and ambient temperature. In cold weather

conditions, both the battery and ambient temperature will affect the required charging time and, in certain situations, this may lead to a significant increase in the charging time.

Normal Charging can be performed at

#### Normal charging

home using either a household power source such as a wall outlet or wall box, or similar method (alternating current). Additionally, charging can be performed at a public charging facility using a charger other than a quick charger (direct current). When charging is started after the remaining high voltage battery power warning indication/warning light turns on, the time it takes to fully charge the high voltage battery at a public AC charging facility is about 5 hours. Using a household power source for charging will increase the charging time to fully charge the high voltage battery. For normal charging, the charging timer function can be used to charge automatically from start to finish. For details on how to use the charging timer function, refer to Charging Settings on page 3-21.

#### **Quick charging**

When charging is started at a quick charging station (DC with 50 kW or higher) the high voltage battery can be charged from a 20% to 80% battery charge level in about 36 minutes. The exact charging time depends on various conditions at the time of charging, such as the type of charger, battery condition, charging patterns, as well as the battery temperature and ambient temperature. In cold weather conditions, both the battery and ambient temperature will affect the required charging time and, in certain

situations, this may lead to a significant increase in the charging time.

## **♠** WARNING

## Always heed the following when using a quick charger:

Otherwise, it could lead to an accident.

- ➤ Do not use a charge cable which exceeds 30 m (98 ft).
- ➤ This vehicle is compatible with quick chargers with charge cables of 30 m (98 ft) or shorter and which do not charge other devices or vehicles at the same time.

#### How to perform normal charging

- 1. Shift the selector lever to the P position.
- 2. Switch the power switch OFF.
- 3. Press the location shown in the figure to open the charge lid.



4. Open the normal charge port cap.



1. Normal charge port cap

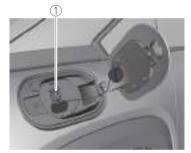
#### Electric Vehicles

- 5. Connect the charge plug to the outlet.
- 6. Connect the charge connector to the normal charge port. Charging starts after connection is completed.

Make sure to lock all the doors before leaving the vehicle while charging.

#### **NOTE**

- · When the charging timer is set, charging does not start even if the charge connector is connected.
- · When you prefer to start charging immediately, use the charging timer cancellation function.



- 1. Normal charge port
- 7. When charging is finished, remove the charge connector.
- 8. Close the normal charge port cap.
- 9. Close the charge lid.
- 10. Remove the charge plug from the power supply.

Make sure to lock all the doors before leaving the vehicle.

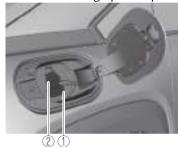
#### How to perform quick charging

- 1. Shift the selector lever to the P position.
- 2. Switch the power switch OFF.

Press the location shown in the figure to open the charge lid.



4. Open the quick charge port cap and normal charge port cap.



- 1. Quick charge port cap
- 2. Normal charge port cap
- 5. Connect the charge connector of the quick charger to the quick charge port.



- 1. Quick charge port
- 6. Operate the quick charger to start charging.

## **A** CAUTION

When operating a quick charger, always use the charger according to its instructions. If the quick charger is operated incorrectly, the quick charger or vehicle could be damaged.

Make sure to lock all the doors before leaving the vehicle while charging.

- 7. When charging is finished, remove the charge connector.
- 8. Close the quick charge port cap.
- 9. Close the charge lid.

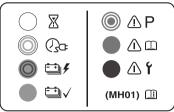
  Make sure to lock all the

Make sure to lock all the doors before leaving the vehicle.

#### **▼** Checking Charging Status

#### **Charge indicator**

The illumination/flash pattern of the charge indicator can be checked using the labels on the charge lid.



Charge indicator illumination/ flash pattern		Content	
_	OFF	Charging is possible.	
(White)	ON	Turns on when waiting for starting to charge.	
(White)	Flashes slowly	The brightness changes when the charging timer is set.	
(Green)	Flashes slowly	The brightness changes during charging.	
(Green)	ON	Turns on when charging is completed.  Turns off after a certain period of time has passed since charging was completed.	
(Amber)	Flashes	Flashes when the charging connector is connected and the selector lever is in a position other than P. Shift the selector lever to the P position.	
(Amber)	ON	Turns on if there is a problem with the charging system when the charging connector is connected.  Wait a few minutes then reconnect the charging connector.	
(Red)	ON	Turns on if there is a problem with the charging system and the charging port lid is opened or the charging connector is connected. Have your vehicle inspected by an Authorized Mazda Dealer.	

#### **Multi-information Display**

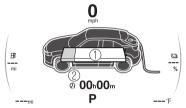
When the driver's door is opened with the charge connector connected, the charging status is displayed on the multi-information display.

#### **Power switch OFF**



- 1. High voltage battery indication
- 2. Charging completion time

#### Power switch ON



- 1. High voltage battery indication
- 2. Charging completion time

	Indication	Content
_	Preparing to Charge	Displays while the charging timer is being canceled and when the charging connector is connected.
_	Charging Scheduled	Displays while in charging timer mode and when the charging connector is connected.
7	Charging	Displays during charging.
<b>~</b>	Charging Complete	Displays when charging is completed.
	Charging Error. Shift Selector Lever Not in Park	Displays when charging is started with the selector lever in a position other than P.
<u> </u>	Charging Interrupted. See Owner's Manual for Details	Displays when charging is interrupted.
	Charging Error. Have the Vehicle Inspected	Displays when charging is not possible due to a charging system problem.

#### **NOTE**

When charging is started, the charging status screen is displayed for a while. The charging status screen turns off after a certain period of time passes or the doors or liftgate is locked.

The screen is displayed again when the doors or liftgate is unlocked.

#### **▼** Convenient Functions

#### **Timer Charging**

Timer charging is a function which charges the battery automatically according to a preset time. You can charge the battery using this function during time periods when electricity rates are low. In addition, the maximum charge limit can be set and changed.

For the setting method, refer to Charging Settings on page 3-21.

#### **Canceling the Charging Timer**

You can cancel the charging timer setting temporarily to start charging the battery immediately. For the setting method, refer to Charging Settings on page 3-21.

#### **Climate Control Timer**

The climate control timer is a function which operates the cooling or heating system automatically according to a preset time.

The power consumption of the air conditioner after starting to drive the vehicle is reduced by operating the air conditioner and providing a comfortable temperature in the cabin before driving.

For the setting method, refer to Turning On the Climate Control System Using the Timer (Climate Control Timer) on page 5-12.

#### **Charge Connector Lock**

The charge connector lock is a function which locks the charging connector connected to the vehicle so that it cannot be pulled out.

You can also select the lock conditions for the charging connector according to locations and situations. For the setting method, refer to Charging Settings on page 3-21.

#### · Locked When Connected

The charging connector is locked at the same time the charging connector is connected. The charging connector is unlocked for 1 minute after the driver's door is unlocked.

Select Locked When Connected when charging in the following locations/situations.

- · Outdoor parking lot
- Charging using your charging cable at a charging facility

· Locked When Charging

The charging connector is locked only while charging. The charging connector is unlocked when the charging is finished. In addition, the charging connector is unlocked for 1 minute after the driver's door is unlocked, even while charging. Select Locked When Charging when leaving the vehicle while charging at a public charging station where people are waiting to charge their vehicles.

#### · Off

The charging connector is not locked.
Select Off when charging in the following locations/situations.

· Indoor parking lot with a shutter

 Use of the charge connector lock is prohibited at a public charging station.

#### **Functions using a Smartphone**

You can check the remaining high voltage battery power, operate the charging, and operate the air conditioner remotely by using a Smartphone.

Please refer to local Mazda website for more Connected Service information.

#### **▼** Charging Settings

#### How to set up the charging

- 1. Select Settings from the home screen on Mazda Connect.
- 2. Select EV Settings from the setting screen.
- 3. Select the setting item you want to change from the displayed content.

#### **Charge When Connected**

Cancels charging schedule to allow immediate charging.

Available setting changes
Enable, Disable

#### NOTE

 The charging timer can also be canceled on the screen displayed on the center display when the power switch is switched OFF.  When the charging is completed using the Charge When Connected setting, the charging timer schedule is restored.

#### **Charging Schedule**

Selects desired vehicle charging days and times.

Function	Available setting changes		
1			
2			
3			
4	Enable, Disa- ble <sup>*1</sup>	Edit, Delete*2	
5	Die .		
6			
7			

- \*1 If a list selected using the cursor has been set, the item can be Enable or Disable.
- \*2 Settings can be Edit/Delete by sliding a list selected using the cursor to the right.

#### NOTE

 The charging timer does not work immediately after the lead-acid battery is removed or installed, or when no GPS signal has been received. When charging without receiving GPS, quick charging begins. When GPS signals are received, the charging timer becomes operational.  Immediately after switching to daylight savings, charging may occur at the charging timer time set before the switch to daylight savings until the power switch is switched ON.

#### Edit

Function	Available setting changes
Start Time Select the desired charging start time.	Time (10-minute inter- vals)
End Time Select the desired charging end time.	Time (10-minute inter- vals)
Repeat Select the day(s) of the week to repeat.	Monday — Sun- day
Charge Limit Select the desired charge limit method.	According to Bat- tery Charge Level, According to Esti- mated Range
Battery Charge Level <sup>*1</sup> Select the desired maximum charge level.	100% — 10% (10 levels)
Estimated Range <sup>*2</sup> Select the desired estimated range.	In 10 km incre- ments

- \*1 Can be changed when According to Battery Charge Level is selected for Charge Limit. Use when you want to charge only the amount of charging you need. This helps you save power and prevent high voltage battery deterioration.
- <sup>\*</sup>2 Can be changed when According to Estimated Range is selected for Charge Limit. Use when you want to charge according to

your planned driving distance.
The distance-to-full discharge changes
depending on the driving conditions and

surrounding environment. Check the actual remaining distance-to-full discharge. If you change the distance unit after setting the Estimated Range, the Estimated Range will be calculated in the unit after the change. (If you change the units to miles after setting the estimated range to 100 km, the charge distance will be for 60 miles.)

#### NOTE

• A charging day is set using Repeat If 1 repeat day is set, charging is repeated every week on the set day of the week.

Depending on the set days of the week, the Repeat indication is displayed as Weekdays, Weekends, and Daily. Otherwise, it is displayed as Custom.

Setting example

Function	Available setting changes
Start Time	21 : 00
End Time	6:00
Repeat	Friday
Charge Limit	According to Bat- tery Charge Level
Battery Charge Level	80 %

In this case, charging is done every week from Friday at 21:00 hours to Saturday at 6:00 hours. However, if the Battery Charge Level reaches 80%, the charging is stopped even if it is before the End Time.

No day is set using Repeat
 If no Repeat day is designated, charging is done only 1 time at the set hours.

Setting example (if settings below are made at 13:00 hours)

Function	Available setting changes
Start Time	12:00
End Time	18:00
Repeat	Once
Charge Limit	According to Esti- mated Range
Estimated Range	50 km

In this case, when the charge connector is connected, charging starts immediately for charging to 18:00 hours on the same day. However, if a charging amount allowing a 50 km trip is reached, the charging is stopped even if it is before the end time.

Setting example (if settings below are made at 13 : 00 hours)

Function	Available setting changes
Start Time	1:00
End Time	8:00
Repeat	Once
Charge Limit	According to Bat- tery Charge Level
Battery Charge Level	100 %

In this case, charging is done from the next day at 1:00 hours to 8:00 hours. However, if the Battery Charge Level reaches 100% is reached, the charging is stopped even if it is before the End Time.

### **Charge Limit for AC Charging**

Sets the charge limit when using an AC charger.

Available setting changes	
100% — 10% (10 levels)	

#### NOTE

For normal charge, set the maximum charge limit of the high voltage battery. Set the Battery Charge Level of the charging timer for each charging timer setting.

## **Charge Limit for DC Fast Charging**

Sets the charge limit when using a DC Fast charger.

Available setting changes
100% — 10% (10 levels)

# **Charge Connector Lock**

Configures when the charge connector is locked.

Available setting changes
Locked When Charging
Unlocks connector when charging is complete
or vehicle is unlocked.
Locked When Connected

Unlocks connector only when vehicle is unlocked.

## Available setting changes

Off

Charge connector remains unlocked at all times.

# **High Voltage Battery Heater**

Configures the high voltage battery heater operation.

## Available setting changes

Automatic, Off

# **Keys**

#### ▼ Keys

# **⚠** WARNING

Do not leave the key in your vehicle with children and keep them in a place where your children will not find or play with them:

Leaving children in a vehicle with the key is dangerous. This could result in someone being badly injured or even killed. Children may find these keys to be an interesting toy to play with and could cause the power windows or other controls to operate, or even make the vehicle move.

# **A** CAUTION

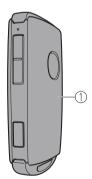
- ➤ Because the key (transmitter) uses low-intensity radio waves, it may not function correctly under the following conditions:
  - ➤ The key (transmitter) is carried with communication devices such as cellular phones.
  - ➤ The key (transmitter) contacts or is covered by a metal object.
  - ➤ The key (transmitter) is near electronic devices such as personal computers.
  - ➤ Non-Mazda genuine electronic equipment is installed in the vehicle.
  - ➤ There is equipment which discharges radio waves near the vehicle.
- The key (transmitter) may consume battery power excessively if it receives high-intensity radio waves. Do not place the key (transmitter) near electronic devices such as televisions or personal computers.

- ➤ To avoid damage to the key (transmitter), DO NOT:
  - ➤ Drop the key (transmitter).
  - ➤ Get the key (transmitter) wet.
  - Disassemble the key (transmitter).
  - Expose the key (transmitter) to high temperatures on places such as the dashboard, under direct sunlight.
  - ➤ Expose the key (transmitter) to any kind of magnetic field.
  - ➤ Place heavy objects on the key (transmitter).
  - ➤ Put the key (transmitter) in an ultrasonic cleaner.
  - ➤ Put any magnetized objects close to the key (transmitter).

#### NOTE

The driver must carry the key (transmitter) to ensure the system functions properly.

### Transmitter



1. Transmitter (page 3-28)

## **Auxiliary key**

There is a removable auxiliary key inside the transmitter.

#### Removing the auxiliary key

 Remove the lower cover while sliding the knob in the direction of the arrow.

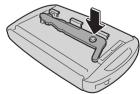


2. Remove the auxiliary key.



## Installing the auxiliary key

1. Install the auxiliary key as the illustration.



2. Insert the tabs of the lower cover into the slots of the transmitter and install the lower cover.



## Key code number plate

A code number is stamped on the plate attached to the key set; detach this plate and store it in a safe place (not in the vehicle) for use if you need to make a replacement key (auxiliary key).

Also write down the code number and keep it in a separate safe and convenient place, but not in the vehicle.

If your key (auxiliary key) is lost, consult an Authorized Mazda Dealer and have your code number ready.



1. Key code number plate

# **Keyless Entry System**

### **▼** Keyless Entry System

This system uses the key buttons to remotely lock and unlock the doors, liftgate, and charge lid.
The system can start the EV system without having to take the key out of your purse or pocket.
It can also help you signal for attention or help.

System malfunctions or warnings are indicated by the following warning lights or beeps.

Check the displayed message for more information and, if necessary, have the vehicle inspected at an Authorized Mazda Dealer, according to the indication.

- KEY Warning Indication/Warning Light (Red)
   Refer to KEY Warning Indication/ Warning Light (Red) on page 7-28.
- Power switch Not Switched Off (STOP) Warning Beep Refer to Power switch Not Switched Off (STOP) Warning Beep on page 7-37.
- Key Removed from Vehicle Warning Beep Refer to Key Removed from Vehicle Warning Beep on page 7-37.

If you have a problem with the key, consult an Authorized Mazda Dealer.

If your key is lost or stolen, consult an Authorized Mazda Dealer as soon as possible for a replacement and to make the lost or stolen key inoperative.



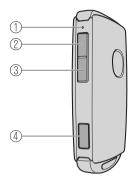
Radio equipment like this is governed by laws in the United States.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **NOTE**

- The keyless entry system operation may vary due to local conditions.
- The keyless entry system is fully operational when the power switch is switched off. The system does not operate if the power switch is switched to any position other than off.
- If the key does not operate when pressing a button or the operational range becomes too small, the battery may be weak. To install a new battery, refer to Key Battery Replacement (page 6-21).
- Battery life is about 1 year. Replace the battery with a new one if the messages are displayed in the instrument cluster. Replacing the battery about once a year is recommended because the KEY warning indication may not display depending on the rate of battery depletion.
- Additional keys can be obtained at an Authorized Mazda Dealer. Up to 6 keys can be used with the keyless functions per vehicle. Bring all keys to an Authorized Mazda Dealer when additional keys are required.

#### **▼** Transmitter



- 1. Operation indicator light
- 2. Lock button (△)
- 3. Unlock button (□)
- 4. Panic button (HOLD)

#### **NOTE**

- The headlights turn on/off by operating the transmitter. Refer to Leaving Home Light on page 4-37.
- (With the advanced keyless function)

A beep sound can be heard for confirmation when the doors, liftgate, and charge lid are locked/unlocked using the key. If you prefer, the beep sound can be turned off. The volume of the beep sound can also be changed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

The operation indicator light flashes when the buttons are pressed.

# **Lock button**

To lock the doors, liftgate, and charge lid, press the lock button and the hazard warning lights will flash once.

# (With the advanced keyless function) A beep sound will be heard once.

To confirm that all the doors, liftgate, and charge lid have been locked, press the lock button again within 5 seconds. If they are closed and locked, the horn will sound.



#### NOTE

- When any door or the liftgate is open and the lock button is pressed, the closed doors can be locked. After that, any other open door or the liftgate can be locked by closing them.
- Confirm that all the doors, liftgate, and charge lid are locked visually or audibly by use of the double click.
- Make sure all the doors, liftgate, and charge lid are locked after pressing the button.

## **Unlock button**

To unlock the driver's door and the charge lid, press the unlock button and the hazard warning lights will flash twice.

(With the advanced keyless function) A beep sound will be heard twice.

To unlock the other doors and liftgate, press the unlock button again within 5 seconds and two more beep sounds will be heard.



#### NOTE

 The system can be set to unlock all the doors, liftgate, and charge lid when pressing the unlock button once.

Refer to the Settings section in the Mazda Connect Owner's Manual.

- · (Auto re-lock function)
  After unlocking with the key, all the doors, liftgate, and charge lid will automatically lock if any of the following operations are not performed within about 60 seconds. The time required for the doors to lock automatically can be changed. Refer to the Settings section in the Mazda Connect Owner's Manual.
  - · A door or the liftgate is opened.
  - The power switch is switched to any position other than off.

#### Panic button

If you witness from a distance someone attempting to break into or damage your vehicle, press and hold the panic button to activate the vehicle's alarm. Call emergency services if necessary.



#### NOTE

The panic button will work whether any door or the liftgate is open or closed.

# (Turning on the alarm)

Pressing the panic button for 1 second or more will trigger the alarm for about 2 minutes and 30 seconds, and the following will occur:

· The horn sounds intermittently.

· The hazard warning lights flash.

### (Turning off the alarm)

The alarm stops by pressing any button on the key.

#### Power saving function

By turning on the transmitter power saving function, the advanced keyless entry<sup>\*1</sup> system functions turn off and the battery power consumption of the transmitter is restricted.

The remote control function is operational by operating the transmitter switch even while the power saving function is turned on. However, the operation indicator light of the transmitter does not turn on/flash.

#### Turning on the power saving function

After you have turned on the power saving function according to the following procedure, the hazard warning lights and sound operate\*1 one time.

- 1. Press the lock button on the transmitter 4 times within 3 seconds to turn on the operation indicator light.
- Press the lock button continuously for 1.5 seconds or longer while the operation indicator light turns on (for 5 seconds).
- Press any of the buttons on the transmitter to make sure that the operation indicator light does not turn on/flash.

## Turning off the power saving function

After you have turned off the power saving function according to the following procedure, the hazard warning lights and sound operate\*1 one time.

# **Keys**

- Press any of the buttons on the transmitter to make sure that the operation indicator light does not turn on/flash.
- 2. Press the lock button on the transmitter 4 times within 3 seconds to turn on the operation indicator light.
- Press the lock button continuously for 1.5 seconds or longer while the operation indicator light turns on (for 5 seconds).
- \*1 With the advanced keyless function

## **▼** Operational Range

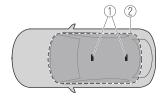
The system operates only when the driver is in the vehicle or within operational range while the key is being carried.

### Starting the EV system

#### **NOTE**

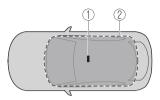
- Starting the EV system may be possible even if the key is outside of the vehicle and extremely close to a door and window, however, always start the EV system from the driver's seat.
  - If the vehicle is started and the key is not in the vehicle, the vehicle will not restart after it is shut off and the power switch is switched off.
- The luggage compartment is out of the assured operational range, however, if the key (transmitter) is operable the EV system will start.

## With the advanced keyless function



- 1. Interior antenna
- 2. Operational range

# Without the advanced keyless function



- 1. Interior antenna
- 2. Operational range

#### NOTE

The EV system may not start if the key is placed in the following areas:

- · Around the dashboard
- In the storage compartments such as the glove compartment or the center console

## **▼** Key Suspend Function

If a key is left in the vehicle, the functions of the key left in the vehicle are temporarily suspended to prevent theft of the vehicle.

To restore the functions, press the unlock button on the functions-suspended key in the vehicle.

# Advanced Keyless Entry System\*

▼ Advanced Keyless Entry System



Radio waves from the key may affect medical devices such as pacemakers: Before using the key near people who use medical devices, ask the medical device manufacturer or your physician if radio waves from the key will affect the device.

The advanced keyless function allows you to lock/unlock the door, liftgate, and charge lid, or open the liftgate while carrying the key.

System malfunctions or warnings are indicated by the following warning beeps.

- Touch Sensor Inoperable Warning Beep Refer to Touch Sensor Inoperable Warning Beep (With the advanced keyless function) on page 7-38.
- Liftgate Door-lock Switch Inoperable Warning Beep Refer to Liftgate Door-lock Switch Inoperable Warning Beep (With the advanced keyless function) on page 7-38.
- Key Left-in-luggage Compartment Warning Beep Refer to Key Left-in-luggage Compartment Warning Beep (With the advanced keyless function) on page 7-38.
- Key Left-in-vehicle Warning Beep Refer to Key Left-in-vehicle Warning Beep (With the advanced keyless function) on page 7-38.

#### NOTE

The advanced keyless entry system functions can be deactivated to prevent any possible adverse effect on a user wearing a pacemaker or other medical device. If the system is deactivated, you will be unable to start the EV system by carrying the key. Consult an Authorized Mazda Dealer for details. If the advanced keyless entry system has been deactivated, you can start the EV system by following the procedure indicated when the key battery goes dead.

Refer to Starting the EV System When the Key Battery is Dead on page 4-6.

# **Operational Range**

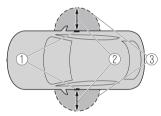
### **▼** Operational Range

The system operates only when the driver is in the vehicle or within operational range while the key is being carried.

#### NOTE

When the battery power is low, or in places where there are high-intensity radio waves or noise, the operational range may become narrower or the system may not operate. For determining battery replacement, Refer to Keyless Entry System on page 3-27.

# ▼ Locking/Unlocking Using Touch Sensor

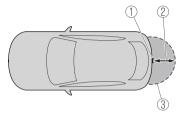


- 1. Exterior antenna
- 2. 80 cm (31 in)
- 3. Operational range

#### NOTE

- The system may not operate if you are too close to the windows or door handles.
- If the key is left in the following areas and you leave the vehicle, the doors may be locked depending on the radio wave conditions even if the key is left in the vehicle.
  - · Around the dashboard
  - In the storage compartments such as the glove compartment or the center console

- Next to a communication device such as a mobile phone
- ▼ Locking Using Door-Lock Switch/ Unlocking Using Electric Liftgate Opener



- 1. Exterior antenna
- 2. 80 cm (31 in)
- 3. Operational range

## **Door Locks**

#### **▼** Door Locks

# **⚠** WARNING

# Always take all children and pets with you or leave a responsible person with them:

Leaving a child or a pet unattended in a parked vehicle is dangerous. In hot weather, temperatures inside a vehicle can become high enough to cause brain damage or even death.

### Do not leave the key in your vehicle with children and keep them in a place where your children will not find or play with them:

Leaving children in a vehicle with the key is dangerous. This could result in someone being badly injured or even killed.

Keep all doors locked when driving: Unlocked doors in a moving vehicle are dangerous. Passengers can fall out if a door is accidentally opened and can more easily be thrown out in an accident.

# Always close all the windows and moonroof, lock the doors, charge lid, and liftgate and take the key with you when leaving your vehicle unattended:

Leaving your vehicle unlocked is dangerous as children could lock themselves in a hot vehicle, which could result in death. Also, a vehicle left unlocked becomes an easy target for thieves and intruders.

# After closing the doors and the liftgate, always verify that they are securely closed:

Doors and the liftgate not securely closed are dangerous, if the vehicle is driven with a door and the liftgate not securely closed, the door and the liftgate could open unexpectedly resulting in an accident.

# Always confirm the safety around the vehicle before opening a door and the liftgate:

Suddenly opening a door and the liftgate is dangerous. A passing vehicle or a pedestrian could be hit and cause an accident

# **A** CAUTION

Always confirm the conditions around the vehicle before opening/closing the doors and the liftgate and use caution during strong winds or when parked on an incline. Not being aware of the conditions around the vehicle is dangerous because fingers could get caught in the door and the liftgate or a passing pedestrian could be hit, resulting in an unexpected accident or injury.

#### **NOTE**

- Always stop the EV system and lock the doors. In addition, to prevent theft of valuables, do not leave them inside the cabin.
- If the key is left in the following areas and you leave the vehicle, the doors may be locked depending on the radio wave conditions even if the key is left in the vehicle.
  - · Around the dashboard

# **Doors** and Locks

- In the storage compartments such as the glove compartment or the center console
- Next to a communication device such as a mobile phone
- · When the power switch is switched to ACC or ON, the vehicle lock-out prevention feature prevents you from locking yourself out of the vehicle. All doors, charge lid, and liftgate will automatically unlock if they are locked using the power door locks with any door or the liftgate open. The vehicle lock-out prevention feature does not operate while the power switch is switched off. When all doors, charge lid, and liftgate are locked using the power door lock with any door or the liftgate open, the closed doors. charge lid, and liftgate are locked. After that, when all doors and the liftgate are closed, all doors and the liftgate are locked. However, if the key is inside the vehicle, all doors. charge lid, and liftgate are automatically unlocked.

# (With the advanced keyless function)

The beep sound is heard for about 10 seconds to notify the driver that the key has been left in the vehicle. (Without the advanced keyless function)

The horn sound is heard twice to notify the driver that the key has been left in the vehicle.

· (Door unlock (control) system with collision detection)

This system automatically unlocks the doors, charge lid, and liftgate in the event the vehicle is involved in an accident to allow passengers to get out of the vehicle immediately and prevent being trapped inside. While the power switch is switched ON and in the event the vehicle receives an impact strong enough to inflate the air bags, all the doors, charge lid, and liftgate are automatically unlocked after about 6 seconds have elapsed from the time of the accident.

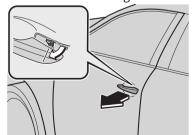
The doors, charge lid, and liftgate may not unlock depending on how an impact is applied, the force of the impact, and other conditions of the accident.

If door-related systems or the battery is malfunctioning, the doors, charge lid, and liftgate may not unlock depending on your vehicle type.

## **▼** Unlocking with Auxiliary Key

Only the driver's door can be unlocked using the auxiliary key. Refer to Keys on page 3-25.

Insert the auxiliary key while the driver's door handle is pulled and turn the key to the unlock side. Turn the auxiliary key back to its original position before removing it.



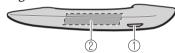
#### NOTE

If you attempt to open the driver's door using an unauthorized auxiliary key, the key cylinder will spin around but the door will not unlock.

### ▼ Locking, Unlocking with Touch Sensor, Door Handle (With the advanced keyless function)

By touching the sensing area of the touch sensor, various locking/unlocking operations can be done without taking the key out of a bag or pocket.

There are two types of touch sensors used for locking and unlocking, and each sensor is built into the outer door handle on the driver and front passenger's doors.

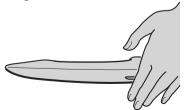


- Sensing area of door lock touch sensor (Depression on outer side of door handle)
- 2. Sensing area of door release touch sensor (Inner side of door handle)

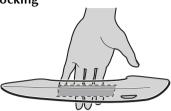
#### NOTE

 When locking/unlocking with the transmitter carried, securely touch the sensing area of the touch sensor as follows.

## Locking



#### Unlocking



- The system may not operate normally under the following conditions.
  - You touch the sensing area of the door lock touch sensor and the sensing area of the door release touch sensor at the same time.



- · You touch the sensing area of the touch sensor while wearing gloves.
- Foreign matter such as snow or dirt is stuck on the sensing area of the touch sensor.
- You pull the door handle just after touching the sensing area of the touch sensor.
- The system may operate if the outer side door handle of a front door is splashed with water by a car wash or rain while the transmitter is in the operation range.
- If the system does not operate even though you touch the sensing area of the touch sensor correctly, release the touch sensor once, and then touch the sensing area of the touch sensor again after waiting about 3 seconds.

# Doors and Locks

### Locking

When locking, touch the sensing area of the door lock touch sensor with all of the following conditions met.

- · The power switch is switched OFF.
- · All the doors are closed.
- · You are carrying the transmitter.

The following locations are locked by touching the sensing area of the door lock touch sensor.

- · All doors
- · Charge lid
- Liftgate

When locking, the hazard warning lights and sound operate one time.

### Unlocking

When unlocking, touch the sensing area of the door release touch sensor with all of the following conditions met.

- · The power switch is switched OFF.
- · The driver's door is locked.
- Three seconds or longer have passed since the doors were locked.
- · You are carrying the transmitter.

(Unlocking from the driver's door)
The following locations are unlocked
by touching the sensing area of the
door release touch sensor of the
driver's door.

- · Driver's door
- · Charge lid

#### NOTE

• The location to be unlocked can be changed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

When unlocking, the hazard warning lights and sound operate two times.

# (Unlocking from the front passenger's door)

The following locations are unlocked by touching the sensing area of the door release touch sensor of the front passenger's door.

- · All doors
- · Charge lid
- Liftgate

When unlocking, the hazard warning lights and sound operate two times.

#### NOTE

- Confirm that all the doors and liftgate are securely locked.
   For the liftgate, move it without pressing the electric liftgate opener to verify that the liftgate has not been left ajar.
- · A beep sound is heard for confirmation when the doors, charge lid, and liftgate are locked/unlocked using the touch sensor. If you prefer, the beep sound can be turned off. The volume of the beep sound can also be changed. Refer to the Settings section in the Mazda Connect Owner's Manual.
- The setting can be changed so that the doors, charge lid, and liftgate are locked automatically without touching the sensing area of the touch sensor.

Refer to the Settings section in the Mazda Connect Owner's Manual. (Walk-away auto lock function)

A beep sound is heard when all doors and the liftgate are closed while the transmitter is being carried. All the doors, charge lid, and liftgate are locked automatically when the transmitter is out of the operational range. Also, the hazard warning lights flash once. (Even if the driver is in the operational range, all the doors, charge lid, and liftgate are locked automatically after about 30 seconds.) If you are out of the operational range before the doors and the liftgate are completely closed or another transmitter is left in the vehicle, the walk-away auto lock function will not work. Always make sure that all doors and the liftgate are closed and locked before leaving the vehicle. The walk-away auto lock function does not close the power windows.

- (Auto re-lock function)

  After unlocking with the touch sensor, all the doors, charge lid, and liftgate will automatically lock if any of the following operations are not performed within about 60 seconds.
  - · Opening a door or the liftgate.
  - · Switching the power switch to any position other than off.

The time required for the doors to lock automatically can be changed. Refer to the Settings section in the Mazda Connect Owner's Manual.

# **▼** Locking, Unlocking with Transmitter

The following locations can be locked/unlocked by operating the keyless entry system transmitter. Refer to Keyless Entry System (page 3-27).

- · All doors
- · Charge lid

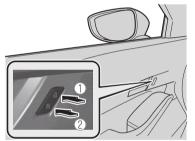
- · Liftgate
- ▼ Locking, Unlocking with Door-Lock Switch

# Door-lock switch on driver's and front passenger's door

The following locations are locked/unlocked by pressing the door-lock switch.

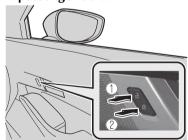
- · All doors
- · Charge lid
- · Liftgate

#### Driver's door



- 1. Unlock
- 2. Lock

## Front passenger's door



- 1. Unlock
- 2. Lock

#### NOTE

• To prevent the transmitter from being left in the vehicle, make sure that you carry the transmitter before locking.

# Doors and Locks

 After locking by pressing the door-lock switch and when the liftgate is closed last with the transmitter left in the vehicle, only the liftgate is unlocked.

# Locking from the outside using the door-lock switch

When locking from the outside using the door-lock switch, press the lock side of the door-lock switch with all of the following conditions met and then close all the doors.

- · The power switch is switched OFF.
- · Any door is open.

#### **NOTE**

After locking by pressing the door-lock switch and when all the doors are closed with the transmitter left in the vehicle, all the doors, liftgate, and charge lid are unlocked.

# Door-lock switch on liftgate (With the advanced keyless function)

All doors, charge lid, and the liftgate can be locked by pressing the door-lock switch.



When locking using the door-lock switch, press the door-lock switch with all of the following conditions met and then close the liftgate.

- · You are carrying the transmitter.
- · The power switch is switched OFF.
- · All the doors are closed.

When locking, the hazard warning lights and a beep sound operate 1 time.

#### NOTE

- To prevent the transmitter from being left in the vehicle, make sure that you carry the transmitter before locking.
- After locking by pressing the door-lock switch and when the liftgate is closed with the transmitter left in the vehicle, the liftgate is unlocked.
- **▼** Auto Lock/Unlock Function



# Do not pull the inner handle on a front door:

Pulling the inner handle on a front door while the vehicle is moving is dangerous. Passengers can fall out of the vehicle if the door opens accidentally, which could result in death or serious injury.

- When the vehicle speed exceeds 20 km/h (12 mph), all the doors, charge lid, and liftgate lock automatically.
- When the power switch is switched off, all the doors, charge lid, and liftgate unlock automatically.

The auto lock/unlock function settings can be changed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

### ▼ Locking, Unlocking with Door-Lock Knob

#### Operation from inside

To lock any door from the inside, press the door-lock knob. To unlock, pull it outward. This does not operate the other door locks.



1. Unlocked: Red indicator

2. Lock

3. Unlock

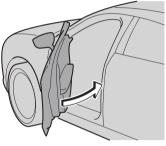
# Operation from outside

To lock any door using its door-lock knob from the outside, press the door-lock knob to the lock position and close the door (holding the door handle in the open position is not required).

This does not operate the other door locks.







#### NOTE

When locking the door this way:

- Be careful not to leave the key inside the vehicle.
- The doors cannot be locked using the driver's door lock knob if any door or liftgate is open when the power switch is switched to ACC or ON.
- All the doors, charge lid, and liftgate are unlocked when the lock knob on all the doors is pressed down to the lock side and all the doors are closed with the transmitter left in the vehicle.

## **▼** Freestyle Doors

With freestyle doors, the rear door is hinged at its rear and opens in the opposite direction to the front door.

# Doors and Locks

# **A** CAUTION

- ➤ Do not close the front door first. Closing the rear door with the front door closed first could damage or scratch the front door.
- When opening the rear door, do not close the front door. Otherwise, occupants getting in or out of the vehicle could be injured.
- > When opening the rear door, make sure that the front door does not interfere. The rear door could contact the front door and cause damage or scratches if the front door is not sufficiently clear of the rear door.

#### NOTE

- The child safety lock mechanism is not equipped on the vehicle because it is not possible to open only the rear door.
- Before opening the rear door, make sure that the front seat belt is unfastened.

# Opening the doors

1. Open the front door.



2. Pull the rear door handle and open the rear door.



1. Rear door handle

## Closing the doors

1. Close the rear door.



2. Close the front door.



# Liftgate

### **▼** Liftgate

# **M** WARNING

# Never allow a person to ride in the luggage compartment:

Allowing a person to ride in the luggage compartment is dangerous. The person in the luggage compartment could be seriously injured or killed during sudden braking or a collision.

# Do not stack or leave loaded luggage unsecured in the luggage compartment:

Otherwise, the luggage may move or collapse, resulting in injury or an accident. In addition, do not load luggage higher than the seatbacks. It may affect the side or rear field of view. Additionally, if the air bags deploy, the cargo may scatter which could result in serious injury or death.

# **A** CAUTION

- ➤ Before opening the liftgate, remove any snow and ice accumulation on it. Otherwise, the liftgate could close under the weight of the snow and ice resulting in injury.
- ➤ Be careful when opening/closing the liftgate during strong winds. If a strong gust blows against the liftgate, it could close suddenly resulting in injury.
- Fully open the liftgate and make sure that it stays open. If the liftgate is only opened partially, it could slam shut by vibration or wind gusts resulting in injury.

➤ Be careful not to apply excessive force to the damper stay on the liftgate such as by putting your hand on the stay. Otherwise, the damper stay may bend and affect the liftgate operation.



- 1. Damper stay
- ➤ Do not modify or replace the liftgate damper stay. Consult an Authorized Mazda Dealer if a liftgate damper stay is deformed or damaged for reasons such as a collision or if there is some other problem.

# **▼** Opening and Closing the Liftgate

## Opening the liftgate

# Using the electric liftgate opener

Unlock the doors and liftgate, then press the electric liftgate opener on the liftgate and raise the liftgate when the latch releases.



NOTE (With the advanced keyless function)

# **Doors and Locks**

- · A locked liftgate can also be opened while the key is being carried.
- · When opening the liftgate with the doors and the liftgate locked, it may require a few seconds for the liftgate latch to release after the electric liftgate opener is pressed.
- The liftgate can be closed when the doors are locked with the key left in the vehicle. However, to prevent locking the key in the vehicle, the liftgate can be opened by pressing the electric liftgate opener. If the liftgate cannot be opened despite doing this procedure, first push the liftgate completely closed, then press the electric liftgate opener to fully open the liftgate.
- When the liftgate latch is released by pressing the electric liftgate opener, the liftgate raises slightly. If the liftgate is not operated for a certain period of time, the liftgate cannot be raised.

#### To open

Press the electric liftgate opener again.

#### To close

To close the liftgate from its slightly raised position, open it first by pressing the electric liftgate opener, then close it after waiting at least 1 second.

 If the vehicle battery is dead or there is a malfunction in the electrical system and the liftgate cannot be unlocked, the liftgate can be opened by performing the emergency procedure.

Refer to When Liftgate Cannot be Opened on page 7-42.

# Closing the liftgate

Lower the liftgate slowly using the liftgate grip recess, then push the liftgate closed using both hands.

Do not slam it. Pull up on the liftgate to make sure it is secure.



# **▲** WARNING

# Do not drive the vehicle with the liftgate-ajar warning indication displayed:

Otherwise, the liftgate may open unexpectedly and result in an accident.

#### NOTE

Confirm that the liftgate is securely closed.

Move the liftgate without pressing the electric liftgate opener to verify that the liftgate has not been left ajar.

## **▼** Luggage Compartment

Luggage compartment cover\*



# Do not place anything on top of the cover:

Placing luggage or other cargo on top of the luggage compartment cover is dangerous. During sudden braking or a collision, the cargo could become a projectile that could hit and injure someone.

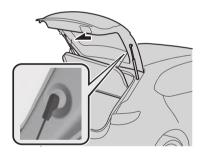
# Make sure luggage and cargo are secured before driving:

Not securing cargo while driving is dangerous as it could move or be crushed during sudden braking or a collision and cause injury.



➤ Make sure the luggage compartment cover is firmly secured. If it is not firmly secured, it could unexpectedly disengage resulting in injury.

The luggage compartment can be accessed by opening the liftgate when the straps are attached to the sides of the liftgate.

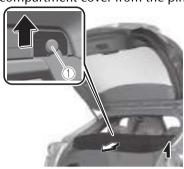


# Removing the luggage compartment cover

This cover can be removed for more room.

- 1. Remove the straps from the hooks.
- 2. Press the luggage compartment cover upward from near the pins

and remove the luggage compartment cover from the pins.



- 1. Pin
- 3. Lift the front end of the luggage compartment cover and remove it.

## **Mirrors**

#### ▼ Mirrors

Before driving, adjust the inside and outside mirrors.

#### **▼** Outside Mirrors



# Be sure to look over your shoulder before changing lanes:

Changing lanes without taking into account the actual distance of the vehicle in the convex mirror is dangerous. You could have a serious accident. What you see in the convex mirror is closer than it appears.

### Mirror type

#### Flat type (driver's side)

Flat surface mirror.

## Convex type (front passenger side)

The mirror has single curvature on its surface.

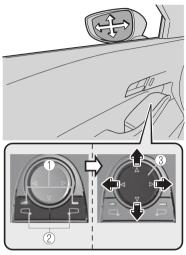
### Power mirror adjustment

The power switch must be switched to ACC or ON position.

### To adjust:

1. Press the select switch for the outside mirror to be adjusted to turn on the indicator light.

Press the adjustment switch to adjust the angle of the outside mirror.



- 1. Indicator light
- 2. Select switch
- 3. Adjustment switch

After adjusting the angle of the outside mirror, press the select switch for the outside mirror to be adjusted to turn off the indicator light.

#### NOTE

# (With driving position memory function)

The on-road outside mirror position can be programmed in conjunction with the driving position memory function.

Refer to Driving Position Memory on page 2-10.

# Power mirrors with reverse tilt down function\*

The outside mirrors tilt downward to facilitate the view of the lower area on each side of the vehicle.

1. Switch the power switch ON.

- 2. Press the select switch for the outside mirror to be tilted downward to turn on the indicator light of the select switch.
- Shift the selector lever to the R position to tilt the outer mirror on the side where the select button was pressed downward.

#### **NOTE**

When any of the following condition is met, the outer mirrors return to their normal positions.

- The power switch is switched to a position other than ON.
- The selector lever is shifted to a position other than R.
- · The select switch is pressed again.

### Folding outside mirror

# **M** WARNING

Always return the outside mirrors to the driving position before you start driving:

Driving with the outside mirrors folded in is dangerous. Your rear view will be restricted, and you could have an accident.

# Manual folding outside mirror

Fold the outside mirror rearward until it is flush with the vehicle.



Power folding outside mirror

# **MARNING**

# Do not touch a power folding outside mirror while it is moving:

Touching the power folding outside mirror when it is moving is dangerous. Your hand could be pinched and injured or the mirror could be damaged.

# Use the switch to set the mirror to the on-road position:

Setting the power folding outside mirror to the on-road position by hand is dangerous. The mirror will not lock in position and will prevent effective rearview visibility.

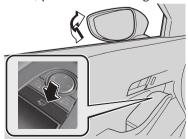
# Only operate the power folding outside mirror with the vehicle safely parked:

Operating the power folding outside mirror while the vehicle is moving is dangerous. Wind blast on the mirror will cause them to collapse and you will be unable to return it to the on-road position, preventing rearview visibility.

The power switch must be switched to ACC or ON position.

To fold the mirrors, press the outside mirror folding switch.

To return the mirrors to their on-road positions, press the switch again.



### **Automatic folding function**

When the power switch is switched to OFF, the outside mirrors automatically fold in and out when the doors are locked and unlocked.

Also, when the power switch is switched ON or the EV system is started, the outside mirrors fold out automatically.

#### NOTE

- The outside mirrors may not fold in and out automatically under cold weather conditions.
  - If the outside mirrors do not fold in and out automatically, remove any ice or snow, and then press the outside mirror folding switch to fold the outside mirrors in or out.
- The automatic folding function can be turned on or off.
   Refer to the Settings section in the Mazda Connect Owner's Manual.
- In the following cases, the outside mirrors do not fold out automatically. Press the outside mirror folding switch to fold out the outside mirrors.
  - Pressing the outside mirror folding switch to fold in the outside mirrors. \*1
  - Disconnecting the battery terminals after the outside mirrors fold in automatically.
- \*1 When the automatic folding function is changed from off to on after folding in the outside mirrors, the outside mirrors fold out automatically.

# EV system-off outside mirror operation

The outside mirrors can be operated for about 40 seconds after the power switch is switched from ON to off.

# Driver's side auto-dimming outside mirror\*

The movement of the auto-dimming outside mirror is interlocked with the auto-dimming rearview mirror in the interior to automatically reduce glare from rear on-coming vehicles.

Refer to Rearview Mirror on page 3-46.

#### **NOTE**

The front passenger-side outside mirror does not have the auto-dimming feature.

**▼** Rearview Mirror

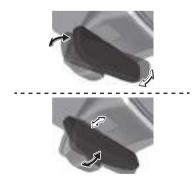


# Do not stack cargo or objects higher than the seatbacks:

Cargo stacked higher than the seatbacks is dangerous. It can block your view in the rearview mirror, which might cause you to hit another car when changing lanes.

## Rearview mirror adjustment

Before driving, adjust the rearview mirror to center on the scene through the rear window.



#### NOTE

For the manual day/night mirror, perform the adjustment with the day/night lever in the day position.

## Reducing glare from headlights

### Manual day/night mirror

Push the day/night lever forward for day driving. Pull it back to reduce glare of headlights from vehicles at the rear.



- 1. Day/Night lever
- 2. Night
- 3. Day

# **Auto-dimming mirror**

The auto-dimming mirror automatically reduces the glare of headlights from vehicles at the rear when the power switch is switched ON.

### (With ON/OFF button)

Press the ON/OFF button ( $\phi$ ) to cancel the auto-dimming function. The indicator light will turn off.

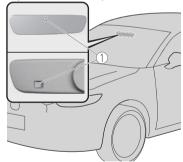
To reactivate the auto-dimming function, press the ON/OFF button (Φ). The indicator light will illuminate.



- 1. ON/OFF button
- 2. Indicator light

#### NOTE

 Do not use glass cleaner or suspend objects on or around the light sensor. Otherwise, light sensor sensitivity will be affected and may not operate normally.



- 1. Light sensor
- · (With Homelink wireless control system)

For information regarding the 3 buttons (**I,III,IIII**) on the auto-dimming mirror.
Refer to HomeLink Wireless Control System on page 4-47.

• The auto-dimming function is canceled when the power switch is switched ON and the selector lever is in the R position.

# **Power Windows**

#### **▼** Power Windows

The windows can be opened/closed by operating the power window switches.

# **MARNING**

# Make sure the opening is clear before closing a window:

Closing a power window is dangerous. A person's hands, head, or even neck could be caught by the window and result in serious injury or even death. This warning applies especially to children

# Never allow children to play with power window switches:

Power window switches that are not locked with the power window lock switch would allow children to operate power windows unintentionally, which could result in serious injury if a child's hands, head or neck becomes caught by the window.

# Make sure nothing blocks the window just before it reaches the fully closed position or while fully holding up the power window switch:

Blocking the power window just before it reaches the fully closed position or while fully holding up the power window switch is dangerous. In this case, the jam-safe function may not prevent the window from closing all the way. If fingers are caught, serious injuries could occur.

# Do not let a child put a hand or head out of the window while driving the vehicle:

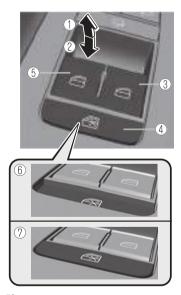
If the person's hand or head hits something outside the vehicle, or sudden braking is applied, it could result in serious injury or death.

## **▼** Opening/Closing Windows

The window opens while the switch is pressed and it closes while the switch is pulled up with the power switch switched ON.

The front passenger's window can be opened/closed when the power window lock switch on the driver's door is in the unlocked position. Keep this switch in the locked position while children are in the vehicle.

#### Master control switches



- 1. Close
- 2. Open
- 3. Passenger's window
- 4. Power window lock switch
- 5. Driver's window
- 6. Locked position

### 7. Unlocked position

### Passenger's window switch



- 1. Close
- 2. Open

#### **NOTE**

- A power window may no longer open/close if you continue to press the switch for a long time. If the power window does not open/ close, wait for a while and then operate the switch again.
- The passenger windows may be opened or closed using the master control switches on the driver's door.
- The power window can be operated for about 40 seconds after the power switch is switched from ON to ACC or off with all doors closed. If any door is opened, the power window will stop operating.

## **▼** Auto-opening/Closing

To fully open the window automatically, press the switch completely down, then release. The window will fully open automatically. To fully close the window automatically, pull the switch completely up, then release. The window will fully close automatically.

To stop the window partway, pull or press the switch in the opposite direction and then release it.

#### NOTE

# Power window system initialization procedure

If you operate the switch any number of times with the power window not fully closed, the window may no longer fully open/close automatically. The power window auto function will only resume on a power window that has been reset.

- 1. Switch the power switch ON.
- Make sure that the power window lock switch located on the driver's door is not depressed.
- 3. Press the switch and fully open the window.
- Pull up the switch to fully close the window and continue holding the switch for about 2 seconds after the window fully closed.
- Make sure that the power windows operate correctly using the door switches.

### **▼** Jam-safe Window

When the window is closing and a foreign object is detected between the window and the window frame, the window stops closing and automatically opens partway.

#### NOTE

- The jam-safe function may operate under the following conditions:
  - · A strong impact is detected while the window is closing.
  - The window is closing in very low temperatures.
- (A window cannot be closed)
   If the jam-safe function has operated and the window cannot be closed, check around the window frame for a foreign object.

If there is no foreign object around the window frame, forcibly close a window using the following procedure.

- After switching the power switch OFF, wait for 45 seconds or longer.
- 2. Switch the power switch ON.
- 3. Operate the switch in the direction to close the window until the jam-safe function operates and the window stops. Repeat this operation a total of 5 times.
- 4. Continue pulling up the switch to fully close the window.

# Moonroof\*

#### **▼** Moonroof

The moonroof can be opened or closed when operating the overhead tilt/slide switch at the front seats.

# **M** WARNING

### Do not let passengers stand up or extend part of the body through the open moonroof while the vehicle is moving:

Extending the head, arms, or other parts of the body through the moonroof is dangerous. The head or arms could hit something while the vehicle is moving. This could cause serious injury or death.

# Never allow children to play with the tilt/slide switch:

The tilt/slide switch would allow children to operate the moonroof unintentionally, which could result in serious injury if a child's hands, head or neck becomes caught by the moonroof.

# Make sure the opening is clear before closing the moonroof:

A closing moonroof is dangerous. The hands, head, or even neck of a person, especially a child, could be caught in it as it closes, causing serious injury or even death.

# Make sure nothing blocks the moonroof just before it reaches the fully closed position:

Blocking the moonroof just before it reaches the closed position is dangerous.

In this case, the jam-safe function cannot prevent the moonroof from closing. If fingers are caught, serious injuries could occur.

# **A** CAUTION

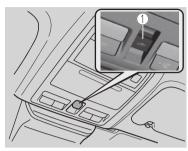
- Do not sit on or put heavy items on the area where the moonroof opens and closes. Otherwise, the moonroof could be damaged.
- Do not open or close the moonroof forcefully during freezing temperatures or snowfall. Otherwise, the moonroof could be damaged.
- The sunshade does not tilt. To avoid damaging the sunshade, do not push it up.
- Do not close the sunshade while the moonroof is opening. Trying to force the sunshade closed could damage it.

## **▼** Tilt/Slide Operation

The moonroof can be opened or closed electrically only when the power switch is switched ON.

- Before leaving the vehicle or washing your Mazda, make sure the moonroof is completely closed so that water does not get inside the cabin area.
- After washing your Mazda or after it rains, wipe the water off the moonroof before operating it to avoid water penetration which could

cause rust and water damage to your headliner.



1. Tilt/Slide switch

## **Tilt Operation**

The rear of the moonroof can be tilted open to provide more ventilation.

To fully tilt automatically, momentarily press the tilt/slide switch.

To fully close automatically, momentarily press the tilt/slide switch in the forward direction.

To stop tilting partway, press the tilt/slide switch.

When the moonroof is already slid open and you want to tilt it open, first close the moonroof and then do a tilt operation.



1. Tilt up

### 2. Close (Tilt down)

### **Slide Operation**

To fully open automatically, momentarily press the tilt/slide switch in the backward direction.

To fully close automatically, momentarily press the tilt/slide switch in the forward direction.

To stop sliding partway, press the tilt/slide switch.

When the moonroof is already tilted open and you want to slide it open, first close the moonroof and then do a slide operation.



- 1. Open
- 2. Close

#### NOTE

If the moonroof does not operate normally, do the following procedure:

- 1. Switch the power switch ON.
- 2. Press the tilt switch, to partially tilt open the rear of the moonroof.
- 3. Repeat Step 2. The rear of the moonroof tilts open to the fully open position, then closes a little.

If the reset procedure is performed while the moonroof is in the slide position (partially open) it will close before the rear tilt opens.

# **▼** Jam-safe Moonroof

If a person's hands, head or an object blocks the moonroof while it is closing,

the moonroof will stop and move in the open direction.

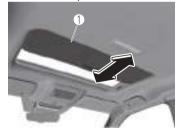
#### NOTE

- The jam-safe function may operate under the following conditions:
  - A strong impact is detected while the moonroof is closing automatically.
  - The moonroof is closing automatically during very low temperatures.
- In the event the jam-safe function activates and the moonroof cannot be closed automatically, press the tilt/slide switch and the moonroof will close.
- The jam-safe moonroof function does not operate until the system has been reset.

#### **▼** Sunshade

The sunshade can be opened and closed by hand.

The sunshade opens at the same time as the moonroof slides open, but it must be closed by hand.



1. Sunshade

# Modification and Add-On Equipment

# **▼** Modification and Add-On Equipment

Mazda cannot guarantee the immobilizer system's operation if the system has been modified or if any add-on equipment has been installed.



To avoid damage to the vehicle, do not modify the system or install any add-on equipment to the immobilizer system or the vehicle.

# **Immobilizer System**

#### **▼** Immobilizer System

The immobilizer system allows the EV system to start only with a key the system recognizes.

If someone attempts to start the EV system with an unrecognized key, the EV system will not start, thereby helping to prevent vehicle theft. If you have a problem with the immobilizer system or the key, consult an Authorized Mazda Dealer.

# **A** CAUTION

Radio equipment like this is governed by laws in the United States.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- ➤ To avoid damage to the key, do not:
  - ➤ Drop the key.
  - Get the key wet.
  - Expose the key to any kind of magnetic field.
  - Expose the key to high temperatures on places such as the dashboard, under direct sunlight.
- ➤ If the EV system does not start with the correct key, and the security indicator light keeps illuminating or flashing, the system may have a malfunction. Consult an Authorized Mazda Dealer.

#### NOTE

- The keys carry a unique electronic code. For this reason, and to assure your safety, obtaining a replacement key requires security validation, this will add some delays in supplying a replacement key. They are only available through an Authorized Mazda Dealer.
- Always keep a spare key in case one is lost. If a key is lost, consult an Authorized Mazda Dealer as soon as possible.
- · If you lose a key, an Authorized Mazda Dealer will reset the electronic codes of your remaining keys and immobilizer system. Bring all the remaining keys to an Authorized Mazda Dealer to reset. Starting the vehicle with a key that has not been reset is not possible.

#### **▼** Operation

#### NOTE

- The EV system may not start and security indicator light may illuminate or flash if the key is placed in an area where it is difficult for the system to detect the signal, such as on the dashboard or in the glove compartment. Move the key to a location within the signal range, switch the power switch off, and then restart the EV system.
- Signals from a TV or radio station, or from a transceiver or mobile telephone could interfere with your immobilizer system. If you are using the proper key and the EV system fails to start, check the security indicator light.

## Arming

The system is armed when the power switch is switched from ON to off.

The security indicator light in the instrument cluster flashes every 2 seconds until the system is disarmed.



### Disarming

The system is disarmed when the power switch is switched ON with the correct programmed key. The security indicator light illuminates for about 3 seconds and then turns off.

If the EV system does not start with the correct key, and the security indicator light remains illuminated or flashing, try the following:

Make sure the key is within the operational range for signal transmission. Switch the power switch off, and then restart the EV system. If the EV system does not start after 3 or more tries, contact an Authorized Mazda Dealer.

# **Break-In Period**

#### **▼** Break-In Period

No special break-in is necessary, but if unnecessary hard stops are avoided in the first 1,000 km (600 miles), it may add to the performance, economy, and life of the vehicle.

# **Hazardous Driving**

### **▼** Hazardous Driving



# Be careful when applying sudden regenerative braking on slippery surfaces:

The sudden change in tire speed could cause the tires to skid. This could lead to loss of vehicle control and an accident.

When driving on ice or in water, snow, mud, sand, or similar hazards:

- · Be cautious and allow extra distance for braking.
- · Avoid sudden braking and sudden maneuvering.
- Do not pump the brakes. Continue to press down on the brake pedal. Refer to Antilock Brake System (ABS) on page 4-63.
- For more traction in starting on slippery surfaces such as ice or packed snow, use sand, rock salt, chains, carpeting, or other nonslip material under the front wheels.

#### **NOTE**

Use snow chains only on the front wheels.

# Floor Mat

#### **▼** Floor Mat

We recommend the use of Genuine Mazda floor mats.

# **MARNING**

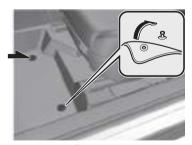
Make sure the floor mats are hooked on the retention pins to prevent them from bunching up under the foot pedals:

Using a floor mat that is not secured is dangerous as it will interfere with the accelerator and brake pedal operation, which could result in an accident.

Do not install two floor mats, one on top of the other, on the driver's side: Installing two floor mats, one on top of the other, on the driver's side is dangerous as the retention pins can only keep one floor mat from sliding forward.

Loose floor mat(s) will interfere with the foot pedals and could result in an accident.

If using an all-weather mat for winter use always remove the original floor mat.



When setting a floor mat, position the floor mat so that its grommets are inserted over the pointed end of the retention posts.

# **Rocking the Vehicle**

**▼** Rocking the Vehicle

# **⚠** WARNING

Do not spin the wheels at more than 56 km/h (35 mph), and do not allow anyone to stand behind a wheel when pushing the vehicle:

When the vehicle is stuck, spinning the wheels at high speed is dangerous. The spinning tire could overheat and explode. This could cause serious injuries.

# **A** CAUTION

Too much rocking may cause EV Transaxle failure, and tire damage.

If you must rock the vehicle to free it from snow, sand or mud, depress the accelerator slightly and slowly move the selector lever from D to R position.

## Winter Driving

### **▼** Winter Driving

Carry emergency gear, including tire chains, window scraper, flares, a small shovel, jumper cables, and a small bag of sand or salt.

Ask an Authorized Mazda Dealer to check the following:

- · Have the proper ratio of antifreeze in the radiator.
- Refer to Coolant on page 6-11.
- Inspect the lead-acid battery and its cables. Cold reduces battery capacity.
- Inspect the EV system for damage and loose connections.
- Use washer fluid made with antifreeze—but do not use coolant antifreeze for washer fluid (page 6-13).

#### NOTE

- Remove snow before driving. Snow left on the windshield is dangerous as it could obstruct vision.
- Do not apply excessive force to a window scraper when removing ice or frozen snow on the mirror glass and windshield.
- Never use warm or hot water for removing snow or ice from windows and mirrors as it could result in the glass cracking.
- Drive slowly. Braking performance can be adversely affected if snow or ice adheres to the brake components. If this situation occurs, drive the vehicle slowly, releasing the accelerator pedal and lightly applying the brakes several times until the brake performance returns to normal.

### **▼** Snow Tires

### Use snow tires on all 4 wheels

Do not go faster than 120 km/h (75 mph) while driving with snow tires. Inflate snow tires 30 kPa (0.3 kgf/cm², 4.3 psi) more than recommended on the tire pressure label (rear door on the driver's side), but never more than the maximum cold-tire pressure shown on the tires.

The vehicle is originally equipped with all season radials designed to be used all year around. In some extreme climates you may find it necessary to replace them with snow tires during the winter months to further improve traction on snow and ice covered roads.

## **MARNING**

Use only the same size and type tires (snow, radial, or non-radial) on all 4 wheels:

Using tires different in size or type is dangerous. Your vehicle's handling could be greatly affected and result in an accident.



Check local regulations before using studded tires.

#### NOTE

The tire pressure monitoring system may not function correctly when using tires with steel wire reinforcement in the sidewalls (page 4-181).

#### **▼** Tire Chains

Check local regulations before using tire chains.

## **A** CAUTION

- ➤ Chains may affect handling.
- Do not go faster than 50 km/h (30 mph) or the chain manufacturer's recommended limit, whichever is lower.
- ➤ Drive carefully and avoid bumps, holes, and sharp turns.
- ➤ Avoid locked-wheel braking.
- ➤ Do not use chains on a temporary spare tire; it may result in damage to the vehicle and to the tire. Your vehicle is not equipped with a factory installed temporary spare tire.
- ➤ Do not use chains on roads that are free of snow or ice. The tires and chains could be damaged.
- Chains may scratch or chip aluminum wheels.

### NOTE

 The tire pressure monitoring system may not function correctly when using tire chains.

Install the chains on the front tires only. Do not use chains on the rear tires. Please consult an Authorized Mazda Dealer.

## Installing the chains

- Secure the chains on the front tires as tightly as possible. Always follow the chain manufacturer's instructions.
- 2. Retighten the chains after driving 1/2—1 km (1/4—1/2 mile).

## Overloading

## **▼** Overloading

## **⚠** WARNING

## Be careful not to overload your vehicle:

The gross axle weight rating (GAWR) and the gross vehicle weight rating (GVWR) of the vehicle are on the Motor Vehicle Safety Standard Label on the driver's door frame. Exceeding these ratings can cause an accident or vehicle damage. You can estimate the weight of the load by weighing the items (or people) before putting them in the vehicle.

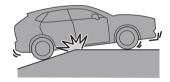
## **Driving on Uneven Road**

### **▼** Driving on Uneven Road

Your vehicle's suspension and underbody can be damaged if driven on rough/uneven roads or over speed bumps at excessive speeds. Use care and reduce speed when traveling on rough/uneven roads or over speed bumps.

Use care not to damage the vehicle's underbody, bumpers or muffler(s) when driving under the following conditions:

- Ascending or descending a slope with a sharp transition angle
- Ascending or descending a driveway or trailer ramp with a sharp transition angle





This vehicle is equipped with low profile tires allowing class-leading performance and handling. As a result, the sidewall of the tires are very thin and the tires and wheels can be damaged if driven through potholes or on rough/uneven roads at excessive speeds. Use care and reduce speed when traveling on rough/uneven roads or through potholes.

## **Trailer Towing**

## **▼** Trailer Towing

Your Mazda is not designed for towing. Never tow a trailer with your Mazda.

## **Recreational Towing**

## **▼** Recreational Towing

An example of "recreational towing" is towing your vehicle behind a motorhome.

The EV Transaxle is not designed for towing this vehicle on all 4 wheels. When doing recreational towing refer to "Towing Description" (page 7-18) and "Tiedown Hooks" (page 7-19) and carefully follow the instructions.

## **MEMO**

# 4. When Driving

Information concerning safer driving and stopping.

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## MEMO

## **Power Switch Position**

## ▼ Function of Each Power Switch Position

The power switch is switched in the order of OFF, ACC, and ON each time the power switch is pressed with the brake pedal not depressed. When pressing the power switch again from ON, it returns to OFF.



- 1. Indicator light
- 2. Power switch

Power switch	Function
SWITCH	The recover is sovitabled OFF. The
OFF	The power is switched OFF. The power switch indicator light (amber) turns off.
ACC	Some electrical accessories such as the audio can be used while the EV system is stopped (READY indi- cation is not displayed). The pow- er switch indicator light (amber) turns on.
ON	All electrical accessories can be operated while the EV system is stopped (READY indication is not displayed). The power switch indicator light (amber) turns on. (The power switch indicator light turns off while the EV system is operating (READY indication is displayed).

### NOTE

 The READY indication is displayed in the instrument cluster when the EV system is activated. The READY indication remains displayed while the EV system is operating.



- 1. READY indication
- If the power switch is left in the ACC position, the power switch switches OFF after about 25 minutes.
- The EV system starts by pressing the power switch with the brake pedal completely depressed. To switch the power switch position, press the power switch without depressing the pedal.
- The power switch is not switched OFF when the power switch indicator light turns off while the EV system is stopping. Before leaving the vehicle, always switch the power switch OFF (power switch indicator light off).

## Starting the EV System

### **▼** Before Starting the EV System

- 1. Make sure that the parking brake is applied.
- 2. Make sure that the selector lever is in the P position.

### **NOTE**

- The EV system cannot be started when the selector lever is in a position other than P.
   Shift the selector lever to the P position.
- Assume the correct driving posture to make sure that the accelerator pedal and the brake pedal can be firmly depressed with the right foot. Check the pedal positions to make sure that one cannot be depressed for the other by mistake.

### **▼** Starting the EV System

## **♠** WARNING

Radio waves from the key may affect medical devices such as pacemakers: Before using the key near people who use medical devices, ask the medical device manufacturer or your physician if radio waves from the key will affect the device.

#### **NOTE**

- The EV system can be started regardless of the power switch position (OFF, ACC, ON).
- The key must be carried by the driver.
- If this function is disabled, the EV system cannot be started even if the key is carried. Consult an Authorized Mazda Dealer for details.

- If the function to start the EV system only by carrying the key is disabled, the EV system can be started using the procedure for starting the EV system when the key battery is dead.
- When the charge connector is connected to the charge port or during charging, the EV system cannot be started.
- The vehicle can be driven while the READY indication is displayed in the instrument cluster.
- 1. Make sure you are carrying the key.
- 2. Continue to depress the brake pedal firmly.
- 3. Make sure that the KEY indicator light in the instrument cluster and power switch indicator light (green) turn on.

When the power switch indicator light (green) is flashing, the key battery might be depleted. Refer to Starting the EV System When the Key Battery is Dead on page 4-6.



- 1. Indicator light
- 2. Power switch
- 4. Press the power switch with the power switch indicator light (green) turned on.

## Starting and Stopping the EV System

## **A** CAUTION

If there is a problem with the power switch, the power switch indicator light (amber) flashes. In this case, the EV system could be started, however, consult an Authorized Mazda Dealer as soon as possible.

### **NOTE**

 Under the following conditions, the KEY warning light (red) flashes in the instrument cluster or the KEY warning indication is displayed on the multi-information display and the EV system will not start:



- · The key battery is dead.
- The key is out of operational range.
- The key is placed in areas where it is difficult for the system to detect the signal.
- A key from another manufacturer similar to the key is in the operational range.
- If the power switch indicator light (amber) flashes, the EV system may no longer be able to start using the usual starting method. Depress the brake pedal completely and continue to press the power switch until the EV system is started completely. After the EV system has started, the power switch indicator light (green) turns off and the power switch is switched ON.

- If you attempt to start the EV system while the selector lever is in a position other than P, a message is displayed on the multi-information display to urge you to shift the selector lever to the P position.

  Shift the selector lever to the P position and then start the EV
- The function to start the EV system only by carrying the key can be disabled, preventing people using a heart pacemaker or other medical device from being negatively affected.
- Make sure that the READY indication is displayed in the instrument cluster.

## READY

▼ Starting the EV System When the Key Battery is Dead



system.

Key operation

Do not allow the following conditions. Otherwise, the vehicle will not receive the signal from the key correctly and the EV system may not start.

➤ Metal parts of other keys or metal objects touch the key.



Spare keys or keys for other vehicles equipped with an immobilizer system touch or come near the key.



Devices for electronic purchases, or security passage touch or come near the key.

If the EV system cannot be started because of a dead key battery, the EV system can be started using the following procedure:

- 1. Continue to depress the brake pedal firmly.
- 2. Make sure that the KEY indicator light in the instrument cluster and power switch indicator light (green) flashes.
- Align the center area of the emblem on the transmitter with the center area of the power switch while the power switch indicator light (green) flashes.



- 1. Indicator light
- 2. Power switch
- 3. Transmitter
- 4. Fmblem
- After the power switch indicator light (green) changes to full illumination, press the power switch.

#### NOTE

- The EV system cannot start unless the brake pedal is completely depressed.
- If there is a problem with starting the EV system, the power switch indicator light (amber) flashes. In this case, the EV system could be started, however, have the vehicle inspected by an Authorized Mazda Dealer as soon as possible.
- If the power switch indicator light (green) does not turn on, perform the operation from the beginning. If it still does not turn on, have the vehicle inspected by an Authorized Mazda Dealer.
- To change the power switch position, release the brake pedal after the power switch indicator light (green) turns on, then press the power switch.
- The power switch is switched in the order of OFF, ACC, and ON each time it is pressed. Once the power switch is switched OFF, the power switch position can no longer be changed. Therefore, to start the EV system, perform the operation from the beginning.
- 5. Make sure that the READY indication is displayed in the instrument cluster.



## Starting and Stopping the EV System

## **Stopping the EV System**

### ▼ When Stopping the EV System

- 1. Shift the selector lever to the P position.
- Press the power switch. The READY indication is not displayed in the instrument cluster and the EV system stops, and then the power switch is switched OFF.

## **⚠** WARNING

Other than for an emergency situation, do not attempt to stop the EV system while driving the vehicle: If the EV system is stopped while driving the vehicle, loss of brake power and power steering functions could occur, making it difficult to control the vehicle which could result in an accident.

## **A** CAUTION

Before leaving the vehicle, make sure that the power switch is switched OFF (READY indication is not displayed).

#### NOTE

· Key battery

If the system detects that the key's remaining battery power is low when the power switch is switched from ON to ACC or OFF, the KEY indicator light (green) flashes in the instrument cluster or the KEY warning indication is displayed on the multi-information display.

Refer to Starting the EV System When the Key Battery is Dead on page 4-6.

· Selector lever position

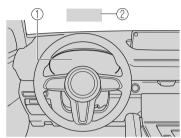
- Because the AUTO P (parking lock) function operates, the power switch can be switched OFF even with the selector lever in a position other than P, however, for reasons of safety, shift the selector lever to the P position and then switch the power switch OFF.
- If you switch the power switch OFF with the selector lever in a position other than P, a warning sound and a display indication notify you that the selector lever position and the shift position do not match.
- Power switch position
  If you leave or try to leave the vehicle without switching the power switch OFF, the KEY warning light (red) flashing, a display indication, and a warning sound notify you that the power switch is not switched OFF.

## **▼** Emergency EV System Stop

Pressing the power switch continuously or pressing it quickly any number of times even if the vehicle is not stopped, will stop the EV system. The power switch switches to ACC.

# Instrument Cluster and Display

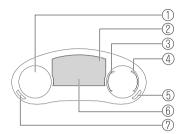
### **▼** Instrument Cluster and Display



- 1 Instrument Cluster..... page 4-9
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## Instrument Cluster

### **▼** Instrument Cluster



- ① Power Meter.....page 4-9
- 2 Multi-information Display..... page 4-11
- 3 High Voltage Battery Power Gauge.....page 4-14
- 4 High Voltage Battery Temperature Gauge.....page 4-13
- ⑤ Dashboard Illumination Switch.....page 4-14
- 6 Speedometer......page 4-14
- 7 TRIP Switch..... page 4-13

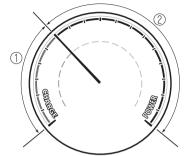
## **▼** Speedometer

The speedometer indicates the speed of the vehicle.

### **▼** Power Meter

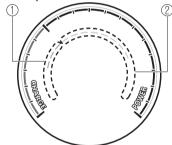
Indicates the discharge/charge status. The higher the amount of charge while the EV system is regenerating power, the more the power meter needle is in the CHARGE zone. The higher the amount of discharge while discharging, such as the accelerator pedal is

depressed, the more the power meter needle is in the POWER zone.



- 1. CHARGE zone
- 2. POWER zone

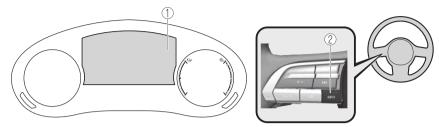
The CHARGE indicators indicate the electrical power which can be generated by regenerative braking, and the POWER indicators indicate the motor output status.



- 1. CHARGE indicators
- 2. POWER indicators

The CHARGE indicators turns off in stages when the power generated by regenerative braking cannot charge the high voltage battery. The POWER indicators turn off in stages when the motor output is restricted.

## **▼** Multi-information Display



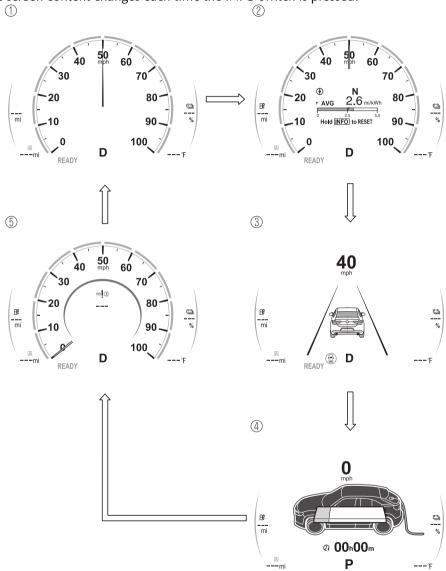
- 1. Multi-information Display
- 2. INFO switch

The multi-information display indicates the following information.

- Speedometer
- · Odometer
- · Trip meter
- · Outside temperature
- · Remaining high voltage battery power
- · Distance-to-full discharge
- · Average energy efficiency
- · Instantaneous energy efficiency
- · Charge status display
- · i-ACTIVSENSE Display
- · Compass Display
- · Door-Ajar/Liftgate-Ajar Warning Indication\*1
- · Message Display

<sup>\*1</sup> Displayed when opening door/liftgate.

The screen content changes each time the INFO switch is pressed.

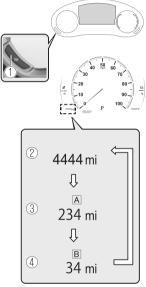


- Basic display
   Drive information display
   i-ACTIVSENSE display
   Charge status display\*1

- 5. Message display\*2
- \*1 Displays only while charge connector is connected.
- \*2 Displayed only when a warning occurs.

### **▼** Odometer, Trip Meter and Trip Meter Selector

You can switch between the odometer and trip meter display using the TRIP switch.



- 1. TRIP switch
- 2. Odometer display
- 3. Trip meter A display
- 4. Trip meter B display

## **Odometer**

The odometer records the total distance the vehicle has been driven.

## Trip meter

The driving distance for a specified interval is indicated. Two types (TRIP A, TRIP B) of interval distance can be measured.

For instance, trip meter A can record the distance from the point of origin, and trip meter B can record the distance from where the high voltage battery was charged.

When trip meter A is selected, TRIP A will be displayed. When trip meter B is selected, TRIP B will be displayed.

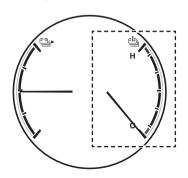
The trip meter can be reset by pressing the TRIP switch for 1.5 seconds or more while the trip meter is displayed.

### NOTE

Only the trip meters record tenths of kilometers (miles).

### **▼** High Voltage Battery Temperature Gauge

Displays the high voltage battery temperature. The blue range of the gauge indicates that the high voltage battery temperature is low and the red range indicates that it is high and overheating.



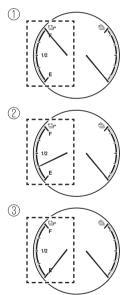
## **Instrument Cluster and Display**

#### NOTE

When the high voltage battery temperature is high or low, the output may be restricted to protect the EV system.

### **▼** High Voltage Battery Power Gauge

The remaining power of the high voltage battery is indicated when the power switch is switched ON. When the high voltage battery is fully charged, F is indicated. As the level lowers, the needle approaches E. When the high voltage battery charge decreases to 1/4 or lower, we recommend charging the battery.



- 1. F (Fully charged)
- 2. 1/4 charged
- 3. E (Fully discharged)

When the remaining charge of the high voltage battery is low, output may be restricted. If the output is restricted, charge the battery as soon as possible.

### NOTE

- · After charging, it may require some time for the needle to stabilize.
- The arrow indicates that the charging port is on the right side.

### ▼ Dashboard Illumination

When the lights are turned on with the power switch switched ON, the brightness of the dashboard illumination is dimmed. However, when the light sensor detects that the surrounding area is bright such as when the lights are turned on in the daytime, the dashboard illumination does not dim.

#### NOTE

- When the power switch is switched ON in the early evening or at dusk, the dashboard illumination is dimmed for several seconds until the light sensor detects the brightness of the surrounding area, however, the dimming may cancel after the brightness is detected.
- When the lights are turned on, the lights-on indicator light in the instrument cluster turns on.
   Refer to Headlights on page 4-35.

The brightness of the instrument panel and dashboard illuminations can be adjusted by pressing the dashboard illumination switch while the dashboard illumination is dimmed.

- The brightness increases by pressing the + switch.
- The brightness decreases by pressing the - switch. If you press the - switch while the instrument cluster is at maximum dimness, a sound is activated to notify you that the

current dimmer setting is at maximum dimness.



- 1. Bright
- 2. Dim

## Function for canceling illumination dimmer

The illumination dimmer can be canceled by pressing the + switch while the instrument cluster is at maximum dimness and while the power switch is switched ON. If you press the + switch again while the illumination dimmer is canceled, a sound is activated to notify you that it is canceled. If the instrument cluster's visibility is reduced due to glare from surrounding brightness, cancel the illumination dimmer.

#### NOTE

- When the illumination dimmer is canceled, the instrument cluster cannot be dimmed even if the lights are turned on.
- When the illumination dimmer is canceled, the screen in the center display switches to constant display of the daytime screen.

### **▼** Outside Temperature Display

When the power switch is switched ON, the outside temperature is displayed.



#### NOTE

- Under the following conditions, the outside temperature display may differ from the actual outside temperature depending on the surroundings and vehicle conditions:
  - Significantly cold or hot temperatures.
  - · Sudden changes in outside temperature.
  - · The vehicle is parked.
  - The vehicle is driven at low speeds.

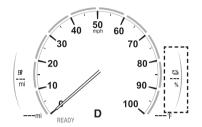
## Changing the Temperature Unit of the Outside Temperature Display

The outside temperature unit can be switched between Celsius and Fahrenheit.

Settings can be changed by operating the center display screen.
Refer to the Settings section in the Mazda Connect Owner's Manual.

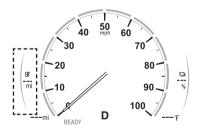
## **▼** Remaining High Voltage Battery Power Indication

The remaining amount of power in the high voltage battery is indicated by a percentage.



## **▼** Distance to full discharge

The remaining distance to full discharge is calculated and displayed based on the current, remaining charge of the high voltage battery and the energy efficiency.



### NOTE

- · The indicated remaining distance-to-full discharge is an estimate. The remaining distance-to-full discharge differs depending on conditions such as the driving conditions, surrounding environment, and the climate control system use. Also, if the needle in the remaining charge level gauge for the high voltage battery is near 0 or a message is displayed on the multi-information display, charge the battery as soon as possible even if the numerical value for the remaining distance-to-full discharge is of a sufficient level.
- If there is no past energy efficiency information, such as after first purchasing your vehicle or the information was deleted when disconnecting the lead-acid battery terminal, the actual remaining distance to full discharge range may differ from the charge level indicated.

## **▼** Average Energy Efficiency

The average energy efficiency is calculated every 30 seconds from the total traveled distance and the total electrical power consumption since the vehicle was purchased or the past data was reset, and the rate is displayed.

The average energy efficiency is also indicated by a red arrow on the instantaneous energy efficiency gauge.



To reset the displayed average energy efficiency data, press the INFO switch for 1.5 seconds or longer. After resetting the data, - - - kWh/100 km (- - - mile/kWh) is displayed before the average energy efficiency is recalculated and displayed.

### **▼** Instantaneous Energy Efficiency

The instantaneous energy efficiency while driving the vehicle is calculated from the electrical power consumption and displayed.

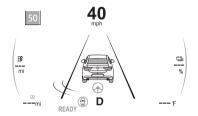


### **NOTE**

- · Indicates the 0 position when the vehicle speed is about 5 km/h (3 mph) or slower.
- The red arrow on the scale indicates the average energy efficiency.

## ▼ i-ACTIVSENSE Display\*

Displays the system status.



- · Refer to Lane Departure Warning System (LDWS) on page 4-86.
- · Refer to Blind Spot Monitoring (BSM) on page 4-90.
- · Refer to Traffic Sign Recognition System (TSR) on page 4-95.
- · Refer to Distance & Speed Alert (DSA) on page 4-99.
- · Refer to Driver Attention Alert (DAA) on page 4-101.
- · Refer to Driver Monitoring (DM) on page 4-103.
- · Refer to Front Cross Traffic Alert (FCTA) on page 4-104.
- · Refer to Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) on page 4-112.
- · Refer to Traffic Jam Assist (TJA) on page 4-119.
- · Refer to Lane-keep Assist System (LAS) on page 4-128.
- · Refer to Emergency Lane Keeping (ELK) on page 4-129.
- · Refer to Smart Brake Support (SBS) on page 4-136.
- · Refer to Cruise Control on page 4-177.

### **▼** Compass Display

The direction the vehicle is moving is displayed in one of eight directions while the vehicle is being driven.



Display	Direction
N	North
S	South
E	East
W	West
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest

## **▼** Message Display

A message such as the system operation status, a malfunction, or an abnormality is indicated.

# Warning/indicator light in instrument cluster turns on/flashes or symbol is indicated on display at same time as message

Check the information regarding the warning/indicator light or indicated symbol.

Refer to If a Warning Indication/ Warning Lights on page 4-19. Refer to If a Indication/Indicator Lights on page 4-21.

## Message only is indicated on display

Follow the instructions indicated on the display. For the display content, refer to the next page.

Refer to If a Message Indicated on Multi-information Display on page 7-33.

## **▼** Warning/Indicator Lights

Instrument Cluster varies depending on model and specifications.



- 1. Instrument Cluster
- 2. Front Center of Headliner

Warning lights will appear in any of the highlighted areas

## **▼** Warning Indication/Warning Lights

These lights turn on or flash to notify the user of the system operation status or a system malfunction.

Signal	Warning	Refer to
BRAKE	Brake System Warning Indication/Warning Light*1	7-21
(ABS)	ABS Warning Indication/Warning Light*1	Electronic Brake Force Distribution System Warn- ing 7-22
		ABS warning 7-26
- +	Lead-acid Battery Charging System Warning Indication/Warning Light <sup>*1</sup>	7-22
	EV System Problem Warning Indication/Warning Light <sup>*1</sup>	7-22
<u>-</u> \$ <del>-</del>	High Voltage Battery Temperature Warning Indication	7-23
	Remaining High Voltage Battery Power Warning Indication/Warning Light*1	7-23
<b>D</b> 2	Charging System Warning Indication/Warning Light*1	7-24
\$	Output Restriction Warning Indication/Warning Light*1	7-24
<b>!</b>	Power Steering Malfunction Indication/Indicator Light*1	7-25
0	Shift Control System Warning Indication/Warning light*1	7-25
Ţ.	Master Warning Indication	7-26
(!)	Brake Control System Warning Indication/Warning Light*1	7-26
427	Brake Override Warning Indication	7-26

## **Instrument Cluster and Display**

Signal	Warning	Refer to
OB-	Air Bag/Front Seat Belt Pretensioner System Warning Indication/ Warning Light <sup>*1</sup>	7-27
715	Tire Pressure Monitoring System (TPMS) Warning Indication/Warning	Flashing 7-27
\/	Light*1	Turns on 7-30
~ <b>!</b> ①	KEY Warning Indication/Warning Light*1	7-28
(Red)		
<b>≣</b> (A)	*High Beam Control System (HBC) Warning Indication/Warning Light*1	7-28
(Amber)		
(( )	i-ACTIVSENSE Warning Indication/Warning Light*1	7-29
-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Exterior Light Warning Indication/Warning Light*1	7-29
PASSENGER &	Seat Belt Warning Indication/Warning Light (Front seat)	7-29
REAR & & & & & & & & & & & & & & & & & & &	Seat Belt Warning Light (Rear seat)	7-30
	*Low Washer Fluid Level Warning Indication/Warning Light	7-30
8	Door-Ajar Warning Indication	7-30
	Liftgate-Ajar Warning Indication	7-30
	Door-Ajar Warning Light	7-30

<sup>1</sup> The light turns on when the power switch is switched ON for an operation check, and turns off a few seconds later or when the EV system is started. If the light does not turn on or remains on, have the vehicle inspected by an Authorized Mazda Dealer.

## **▼** Indication/Indicator Lights

These lights turn on or flash to notify the user of the system operation status or a system malfunction.

Signal	Indicator	Refer to
REAR & & & & (Green)	Seat Belt Indicator Light (Rear seat)	2-30
PASS AIRBAG OFF	Front Passenger Air Bag Deactivation Indicator Light	2-64
€Î	Security Indicator Light	
		Malfunction 7-28
(Green)	KEY Indicator Light	4-5
<u></u>	Wrench Indication/Indicator Light*1	4-23
Р	Shift Position Indication	4-26
EDQE	Lights-On Indicator Light	4-35
≣□	Headlight High-Beam Indicator Light	Headlight High-Low Beam 4-37 Flashing the
		Headlights 4-37
<b>\$\$</b>	Turn Signal/Hazard Warning Indicator Lights	Turn and Lane-Change Signals 4-39
		Hazard Warn- ing Flasher 4-47

# When Driving Instrument Cluster and Display

Signal	Indicator	Refer to
(P) PARK	Electric Parking Brake (EPB) Indication/Indicator Light*1*2	7-26
	AUTOHOLD Active Indicator Light*1	4-59
HOLD	*Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) indicator Light	4-117
	*Traffic Jam Assist (TJA) Indicator Light	4-126
		Traction Control System (TCS) 4-64
₽ ??	TCS/DSC Indication/Indicator Light <sup>*1</sup>	Dynamic Stability Control (DSC) 4-66
		Turns on 7-27
READY	READY Indication	4-4
TCS OFF	TCS OFF Indicator Light*1	4-64
(White)		
(Green)	i-ACTIVSENSE Status Symbol (Warning/Risk Avoidance Support System)	4-69
(a)		
(Amber)		
OFF	i-ACTIVSENSE OFF Symbol (Warning/Risk Avoidance Support System)	4-69
(Green)	*High Beam Control System (HBC) Indicator Light	4-83

Signal	Indicator	Refer to
<b>R</b>	*Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) Standby Indication	4-114
(White)	*Traffic Jam Assist (TJA) Standby Indication	4-122
	*Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) Set Indication	4-114
(Green)	*Traffic Jam Assist (TJA) Set Indication	4-122
⇒ Ç. OFF	*Smart Brake Support (SBS) OFF Indicator Light*1	4-143
Sit OFF	*Emergency Lane Keeping (ELK) OFF Indicator Light*1	4-135
(White)	*Cruise Standby Indication	4-176
(Green)	*Cruise Set Indication	4-176

<sup>\*1</sup> The light turns on when the power switch is switched ON for an operation check, and turns off a few seconds later or when the EV system is started. If the light does not turn on or remains on, have the vehicle inspected by an Authorized Mazda Dealer.

<sup>\*</sup>2 The light turns on continuously when the parking brake is applied.

## **▼** Wrench Indication/Indicator Light



The wrench indication/indicator light is displayed/turns on under the following conditions.

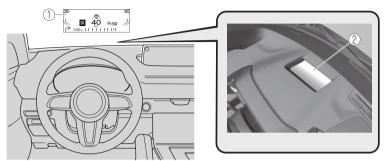
 When the preset maintenance period has arrived.
 Refer to the Information section in the Mazda Connect Owner's Manual.



>When the maintenance period arrives, have your vehicle inspected by an Authorized Mazda Dealer as soon as possible. If maintenance is neglected, a decrease in vehicle performance may occur which could cause damage. Have your vehicle inspected before the maintenance period arrives.

## **Active Driving Display**

## ▼ Active Driving Display



- 1. Display
- 2. Dust-proof sheet



Always adjust the display brightness and position with the vehicle stopped: Adjusting the display brightness and position while driving the vehicle is dangerous as doing so could distract your attention from the road ahead and lead to an accident.



- ➤ Do not place beverages near the dust-proof sheet of the active driving display. If water or other liquids are splashed on the dust-proof sheet, it could cause damage.
- Do not place objects or apply stickers above the active driving display or to the dust-proof sheet as they will cause interference.

#### NOTE

- · Wearing polarized sunglasses will reduce the visibility of the active driving display due to the characteristics of the display.
- If the battery has been removed and re-installed or the battery voltage is low, the adjusted position may deviate.
- The display may be difficult to view or temporarily affected by weather conditions such as rain, snow, light, and temperature.
- · If the audio system is removed, the active driving display cannot be operated.

The active driving display indicates the following information:

· Lane Departure Warning System (LDWS) Warnings\*

### 4-24

- Refer to Lane Departure Warning System (LDWS) on page 4-86.
- · Blind Spot Monitoring (BSM) Operation Conditions and Warnings\* Refer to Blind Spot Monitoring (BSM) on page 4-87.
- Traffic Sign Recognition System (TSR) traffic signs and Warnings\* Refer to Traffic Sign Recognition System (TSR) on page 4-93.
- Front Cross Traffic Alert (FCTA) Operation Conditions and Warning\* Refer to Front Cross Traffic Alert (FCTA) on page 4-104.
- · Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) Operation Conditions and Warnings\* Refer to Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) on page 4-111.
- Traffic Jam Assist (TJA) Operation Conditions and Warnings\* Refer to Traffic Jam Assist (TJA) on page 4-118.
- · Lane-keep Assist System (LAS) Warnings\* Refer to Lane-keep Assist System (LAS) on page 4-127.
- · Emergency Lane Keeping (ELK) Warnings\* Refer to Emergency Lane Keeping (ELK) on page 4-129.
- · Smart Brake Support (SBS) Operation Conditions and Warnings Refer to Smart Brake Support (SBS) on page 4-136.
- Cruise Control Operation Conditions Refer to Cruise Control on page 4-176.
- · Navigation Guidance (vehicles with navigation system)
- Intersection Name (vehicles with navigation system)
- · Street name (vehicles with navigation system)
- · Lane Guidance (vehicles with navigation system)
- · Speed limit indicator (vehicles with navigation system)
- · Vehicle Speed

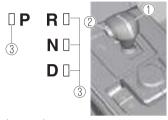
The active driving display settings can be changed or adjusted. Refer to the Settings section in the Mazda Connect Owner's Manual.

#### NOTE

- The desired driving position (display position, brightness level, display information) can be called up after programming the position. Refer to Driving Position Memory on page 2-10.
- The street name may not be displayed depending on the market and region.

# Selector Lever Position Functions

### **▼** Selector Lever Position Functions



- 1. Selector lever
- 2. Lock-release button
- 3. Shift indicator

### P (Park)

Position when parking the vehicle and when starting the EV system.

## **MARNING**

## Always set the selector lever to P position and set the parking brake:

Only setting the selector lever to the P position without using the parking brake to hold the vehicle is dangerous. If P fails to hold, the vehicle could move and cause an accident.

### NOTE

When the lead-acid battery is depleted, the parking lock does not operate even if the selector lever is shifted to the P position.

## R (Reverse)

Position for reversing the vehicle. A beep is activated to notify the driver that the shift position is in the R position.

### N (Neutral)

Position where power generated by the motor is not transmitted to the EV Transaxle.



## Do not shift into N when driving the vehicle:

If the selector lever is shifted to the N position while driving, deceleration using the regenerative braking is not possible which could result in an accident.

### **NOTE**

Apply the parking brake or depress the brake pedal before moving the selector lever from N position to prevent the vehicle from moving unexpectedly.

### D (Drive)

Position for normal driving.

## **Shift indicator**

The shift position turns on.

#### NOTE

The shift indicator turns on at the same position as the shift position indication in the instrument cluster.

### **▼** Shift Position Indication



## 1. Shift position indication

When the power switch is switched ON, the shift position is displayed in the instrument cluster.

In the following cases, the shift position is displayed in the instrument cluster even if the power switch is in a position other than ON.

- The AUTO P (parking lock) function is operating.
- Neutral hold mode (automatic car wash mode) is operating.

## Shift guide indication

When the shift position and the selector lever set position differ, the shift position and the selector lever set position are displayed.



- 1. Shift guide indication
- 2. Selector lever set position
- 3. Shift position

The shift guide indication is displayed under the following conditions.

- The selector lever is shifted to the P position while driving (vehicle speed of about 5 km/h (4 mph) or faster) with the selector lever in the D position.
- The selector lever is shifted to the R position while driving forward (vehicle speed of about 10 km/h (6.3 mph) or faster) with the selector lever in the D position.

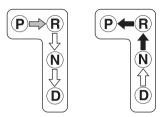
- The selector lever is shifted to the D position while driving in reverse (vehicle speed of about 10 km/h (6.3 mph) or faster) with the selector lever in the R position.
- The AUTO P (parking lock) function is operating.
- While neutral hold mode (automatic car wash mode) is operating, the selector lever is shifted from the N position to the D or R position.

### **NOTE**

- In the following cases, the shift position and the selector lever set position differ, however, the shift guide indication is not displayed.
  - The selector lever is shifted from the N position to the D or R position with the brake pedal not depressed.
- When the power switch is switched ON or from ACC to OFF, the shift guide indication displayed after operating the AUTO P (parking lock) function turns on for about 40 seconds and then it turns off.

## **Selector Lever Operation**

## **▼** Selector Lever Operation



Indication	Various Lockouts
$\Rightarrow$	Indicates that you must depress the brake pedal and hold in the lock-release button to shift (The power switch must be switched ON).
	Indicates the selector lever can be shifted freely into any position.
<b>→</b>	Indicates that you must hold in the lock-release button to shift.

## **MARNING**

When operating the selector lever, shift the selector lever with the brake pedal firmly depressed and the vehicle completely stopped:

If the selector lever is operated while the vehicle is moving, it could result in a serious accident and injury.

### **NOTE**

### · Prevention of mis-operation

When operating the selector lever, firmly shift to each shift position to prevent a mis-operation. After the operation, check the shift position using the shift position indication in the instrument cluster.

• Depress the brake pedal before operating the selector lever When shifting the selector lever from the P position, shifting may not be possible if the brake pedal is depressed with the selector lever pressed. Depress the brake pedal before operating the selector lever.

## The AUTO P (parking lock) function

If the following operations are performed with the selector lever switched to a position other than P while the vehicle is stopped, the shift position changes to the P position automatically.

 $\cdot$  The power switch is switched from ON to OFF.

• The driver's seat belt is unfastened and the driver's door is opened.

#### NOTE

When the AUTO P (parking lock) function operates, only the shift position changes to the P position automatically. The shift position indication in the instrument cluster will differ from the selector lever position because the selector lever position does not change. Check the shift position indication in the instrument cluster and shift the selector lever to the P position.

### Neutral hold mode (automatic car wash mode)

When in neutral hold mode (automatic car wash mode), a condition is maintained for about 25 minutes in which the power switch is switched to ACC, the shift position is in the N position, and the parking brake is released.

Use this mode when it is necessary to release the parking brake and change the shift position to the N position, such as in an automatic car wash that moves the vehicle by placing the front and rear tires on one side of the vehicle on a belt conveyor.

## **Operating neutral hold mode (automatic car wash mode)**

Perform any of the following operations when the selector lever is in the N position with the power switch switched ON (EV system on).

### Operation method 1

- 1. Press the power switch with the brake pedal depressed to start the EV system.
- 2. Release the parking brake.
- 3. Shift the selector lever to the N position.
- 4. Turn off the AUTOHOLD.
- 5. Press the Electric Parking Brake (EPB) switch continuously for 2 seconds or longer (until a sound is activated).
- 6. Release the EPB switch and press the power switch within 5 seconds after the sound was activated.

## Operation method 2

- 1. Press the power switch with the brake pedal depressed to start the EV system.
- 2. Release the parking brake.
- 3. Shift the selector lever to the N position.
- 4. Turn off the AUTOHOLD.
- 5. Press the power switch with the EPB switch pressed and held while the brake pedal is not depressed.

#### NOTE

When the selector lever is shifted from the N position to the D or R position while neutral hold mode (automatic car wash mode) is operating, a message is displayed on the multi-information display and the warning beep is activated.

## Canceling neutral hold mode (automatic car wash mode)

If any of the following operations is performed, neutral hold mode (automatic car wash mode) is canceled.

## Selector Lever Position Functions

- · Switch the power switch ON.
- The selector lever is shifted to the P position.

### NOTE

Neutral hold mode (automatic car wash mode) is canceled automatically after about 25 minutes have passed since it was operated, and the power switch is switched OFF

At this time, the AUTO P (parking lock) function operates and the shift position changes to the P position.

## Shift position restrictions

If you do any of the following operations, the shift position selection is restricted for the purpose of safety.

Shift posi- tion be- fore oper- ation	Operation/driving conditions	Selector lever oper- ation	Shift posi- tion after operation	Action
N	The brake pedal is not depressed while the vehicle is stopped.	Shift to R or D posi- tion	N*1	Release accelerator pedal and depress brake pedal. Shift position changes to R or D.
	The accelerator pedal is depressed while the vehicle is stopped.			
R/D	While driving (vehicle speed of about 5 km/h (4 mph) or faster)	Shift to P position	N	Method 1 for resolving problem  Depress brake pedal so that vehicle speed is less than about 5 km/h (3 mph).  Shift position changes to P.  Method 2 for resolving problem  Return selector lever to position (R or D) before operating it.  Shift position changes to position before operating selector lever.
R	While driving in reverse (vehicle speed of about 10 km/h (6.3 mph) or faster)	Shift to D position	N	Method 1 for resolving problem Depress brake pedal so that vehicle speed is less than about 10 km/h (6.2 mph). Shift position changes to D. Method 2 for resolving problem Return selector lever to position (R) before operating it. Shift position changes to position before operating selector lever.

# Selector Lever Position Functions

Shift posi- tion be- fore oper- ation	Operation/driving	Selector lever oper- ation	Shift position after operation	Action
D	While driving forward (vehicle speed of about 10 km/h (6.3 mph) or faster)	Shift to R position	N	Method 1 for resolving problem Depress brake pedal so that vehicle speed is less than about 10 km/h (6.2 mph). Shift position changes to R. Method 2 for resolving problem Return selector lever to position (D) before operating it. Shift position changes to position before operating selector lever.

The parking brake is applied automatically.

## **Shift-Lock System**

### ▼ Shift-Lock System

The shift-lock system prevents shifting out of P unless the brake pedal is depressed.

- 1. Depress and hold the brake pedal.
- 2. Press the power switch to start the EV system.
- 3. Shift the selector lever while pressing the selector lever button.

#### **NOTE**

- When the power switch is switched OFF or to ACC, or ON (EV system off), the selector lever cannot be moved from the P position.
- When canceling the shift-lock system, switch the power switch ON (EV system on) and shift the selector lever with the brake pedal depressed.
- If the selector lever cannot be shifted from the P position, the lead-acid battery could be depleted.
   Refer to Jump-Starting on page 7-12.

## **Driving Tips**

## **▼** Driving Tips

When starting to drive the vehicle or reversing the vehicle



Do not shift the selector lever with the accelerator pedal depressed when the selector lever is in the P or N position: Otherwise, the vehicle will suddenly accelerate which could lead to an accident. Shift the selector lever with the brake pedal depressed.

- 1. Shift the selector lever with the brake pedal depressed.
  - · Forward: D
  - · Reverse: R
- 2. Check the shift position indication in the instrument cluster.
- 3. Release the parking brake.
- 4. Gradually release the brake pedal and depress the accelerator pedal to start driving the vehicle.



When visually checking at the rear of the vehicle while reversing the vehicle, your body twists around to the rear. Be careful and make sure that the brake pedal can be firmly depressed.

#### NOTE

 When the shift position is in the R position, the beep is activated to notify the driver that the shift position is in the R position. • There is the possibility of forgetting that the selector lever is shifted to the R position when only reversing the vehicle a little. After reversing the vehicle, immediately shift the selector lever to the N or P position, and before starting to drive the vehicle again, check the shift position indication in the instrument cluster.

### When driving



## Do not shift the selector lever to the N position while driving:

Deceleration using the regenerative braking is not possible which could result in an accident.

#### Normal driving

Shift the selector lever to the D position to drive the vehicle. Acceleration/deceleration is performed using the accelerator and brake pedals.

## Driving on steep upslopes

Slowly depress the accelerator pedal to adjust the vehicle speed.

### **Driving on downslopes**

On long or steep downslopes, increase the amount deceleration using the regenerative braking in regenerative braking level change mode.

## **A** CAUTION

- ➤ On long downslopes, operate the regenerative braking and the foot brake together. Frequent deceleration by depressing the brake pedal could cause the disc brakes to overheat and become ineffective.
- If only strong regenerative braking is used continuously, it could stop working temporarily.

Regeneration braking is less effective the closer the high voltage battery is to a full charge, and regeneration braking will not work when the high voltage battery is fully charged.

### Stopping the vehicles

- After completely stopping the vehicle, continue to depress the brake pedal firmly.
- If necessary, apply the parking brake with the brake pedal depressed.
- 3. If the vehicle is going to be parked for a long time, shift the selector lever to the P position with the brake pedal depressed.



# Do not depress the accelerator pedal unnecessarily while the vehicle is stopped:

If the accelerator pedal is mistakenly depressed when the selector lever is in a position other than the P or N position, the vehicle could suddenly accelerate resulting in an accident.

# After stopping the vehicle, check the shift position indication in the instrument cluster before re-accelerating:

If the vehicle were to move in the unintended direction, it could lead to an accident.



Do not depress the accelerator pedal and the brake pedal at the same time, or rev the motor with the selector lever in the forward drive position while the vehicle is stopped on an upslope. The motor could overheat and lead to damage.

## Parking the vehicle

- After completely stopping the vehicle, continue to depress the brake pedal firmly.
- Shift the selector lever to the P position with the brake pedal depressed.
- Make sure that the shift position is in the P position using the shift position indication in the instrument cluster.
- 4. Apply the parking brake with the brake pedal depressed.
- 5. Press the power switch to stop the EV system.



Completely stop the vehicle before shifting the selector lever to the P position. If the selector lever is shifted to the P position before the vehicle is completely stopped, unnecessary force will be applied to the EV transaxle which could cause damage.

## Other precautions



Do not allow the vehicle to move in reverse on an upslope while the selector lever is in forward drive, or move forward on an downslope while the selector lever is in reverse drive: Otherwise, the EV system could stop, making the steering wheel difficult to control, which could result in an accident.

## **Lighting Control**

## **▼** Headlights

Turn the headlight switch to turn the headlights and other exterior lights on or off. When the taillights, parking lights, and the license plate lights are turned on, the lights-on indicator light in the instrument cluster turns on.



- Do not leave the headlights and exterior lights on while the EV system is turned off. Otherwise, the battery power could be depleted.
- Headlights do not blind drivers approaching in the opposite direction no matter what side of the road you must drive your vehicle (left-hand or right-hand traffic). Therefore, it is not necessary to adjust the optical axis of the headlights when switching temporarily to driving on the opposite side of the road (left-hand or right-hand traffic).





Power switch posi- tion	ACC or OFF			ON				
Switch Position	OFF <sup>*1</sup>	AUTO	=00=	≣D	OFF <sup>*1</sup>	AUTO	=00=	≣D
Headlights	Off	Off	Off	Off				On
Daytime running lights	Off	Off	Off	Off	Auto*2*4		Auto*3*4	Off
Taillights Parking lights License plate lights	Off	Off	On	Off			7.446	On

<sup>\*1</sup> The light switch returns to the AUTO position automatically.

## **Switches and Controls**

- <sup>2</sup> During the daytime, the daytime running lights turn on automatically. During the nighttime, the headlights, parking lights, taillights, and the license plate lights turn on automatically.
- <sup>\*</sup>3 During the daytime, the daytime running lights, parking lights, taillights, and the license plate lights turn on automatically. During the nighttime, the headlights, parking lights, taillights, and the license plate lights turn on automatically.
- '4 When the light switch is switched to the OFF position while the vehicle is stopped, all of the lights that are turned on turn off. When the light switch is switched from a position other than 5005 to the 5005 position while the vehicle is stopped, the daytime running lights or the headlights turn off. When starting to drive the vehicle, the lights that are turned off turn on again.

### Auto-light control

When the power switch is switched ON, the light sensor detects the brightness of the surrounding area and the headlights and the exterior lights turn on/off automatically according to the surrounding brightness. When the power switch is switched OFF, the headlights and the exterior lights turn off automatically.



➤ Do not shade the light sensor by adhering a sticker or a label on the windshield. Otherwise the light sensor will not operate correctly.



> The light sensor also works as a rain sensor for the auto-wiper control. If the wiper lever is in the AUTO position with the power switch switched ON, the wipers may operate automatically. Be careful not to pinch your hand or fingers. Otherwise, it could cause injury or damage to the windshield wipers. When cleaning the windshield (especially when removing snow or ice with the power switch switched ON (EV system on)), make sure that the wiper switch is turned off. If the wipers are operated, it could cause a problem with the windshield wiper or damage the wiper blade.

- The headlights and other exterior lights may not turn off immediately even if the surrounding area becomes well-lit because the light sensor determines that it is night time if the surrounding area is continuously dark for several minutes such as inside long tunnels, traffic jams inside tunnels, or in indoor parking lots.
- The sensitivity of the auto-light control may be changed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

### **▼** Headlight High-Low Beam

The headlights switch between high and low beams by moving the lever forward or backward.



- 1. High beam
- 2. Low beam

When the headlight high-beams are on, the headlight high-beam indicator light is turned on.



## **▼** Flashing the Headlights

When the power switch is switched ON, and regardless of the headlight position, the headlights switch to high beams while the lever is being pulled.



- 1. OFF
- 2. Headlight flashing

The headlight high-beam indicator light in the instrument cluster illuminates simultaneously. The lever

will return to the normal position when released.



## **▼** Coming Home Light

The coming home light turns on the headlights (low beams) when the lever is operated.

## To turn on the lights

When the lever is pulled with the power switch switched to ACC or OFF, the low beam headlights turn on. The headlights turn off after a certain period of time has elapsed after all of the doors are closed.



#### NOTE

- The time until the headlights turn off after all of the doors are closed can be changed.
- Refer to the Settings section in the Mazda Connect Owner's Manual.
- If no operations are done for 3 minutes after the lever is pulled, the headlights turn off.
- The headlights turn off if the lever is pulled again while the headlights are illuminated.

## **▼** Leaving Home Light

The leaving home light turns on the lights when the transmitter unlock

## Switches and Controls

button is pressed while away from the vehicle.

The following lights turn on when the leaving home light is operated. Low beams, Parking lights, Taillights, License plate lights.

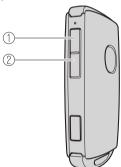
## To turn on the lights

The headlights and the exterior lights turn on when the unlock switch on the key is pressed and the vehicle receives the key signal with the power switch and the headlight switch under the following conditions:

· Power switch: OFF

· Headlight switch: AUTO, ₹00€, or ≣□

The headlights turn off after a certain period of time has elapsed (30 seconds).



- 1. Lock button
- 2. Unlock button

#### NOTE

- Operation of the leaving home light can be turned on or off.
   Refer to the Settings section in the Mazda Connect Owner's Manual.
- When the transmitter lock button is pressed and the vehicle receives the transmitter signal, the headlights turn off.

 When the headlight switch is turned to the OFF position, the headlights turn off.

### **▼** Headlight Leveling

The number of passengers and weight of cargo in the luggage compartment change the angle of the headlights.

## Auto type

The angle of the headlights will be automatically adjusted when turning on the headlights.

A system malfunction or operation conditions are indicated by a warning. Refer to Exterior Light Warning Indication/Warning Light on page 7-29.

### Manual type

When adjusting the illumination angle of the headlights, refer to the Settings section in the Mazda Connect Owner's Manual.

Select the proper headlight angle from the following chart.

Front seat				Illumi-	
Driver	Passenger	Rear seat	Load	nation angle (num- ber)	
×	_	_	_	0	
×	×	_	_	0	
×	×	×	_	1	
×	×	×	×	2	
×	_	_	×	2.5	

×: Yes

—: No

## **▼** Daytime Running Lights

Some countries require moving vehicles to have their lights on (daytime running lights) during the daytime.

The daytime running lights turn on automatically.

#### **NOTE**

(Except Canada)

The daytime running lights can be deactivated.

Refer to the Settings section in the Mazda Connect Owner's Manual.

# Turn and Lane-Change Signals

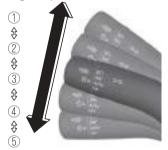
## **▼** Turn and Lane-Change Signals

The turn and lane-change signals can be used when the power switch is switched ON.

## **▼** Turn Signals

Move the signal lever down (for a left turn) or up (for a right turn) to the stop position. The signal will self-cancel after the turn is completed.

If the indicator light continues to flash after a turn, manually return the lever to its original position.



- 1. Right turn
- 2. Right lane change
- 3. OFF
- 4. Left lane change
- 5. Left turn

The turn signal indicators in the instrument cluster flash according to the operation of the turn signal lever to show which signal is working.



#### NOTE

- There may be a problem with the turn signal lights if they do not flash but remain turned on, or they flash abnormally. Have your vehicle inspected by an Authorized Mazda Dealer.
- A personalized function is available to change the turn indicator sound volume.

Refer to the Settings section in the Mazda Connect Owner's Manual.

## ▼ Lane-Change Signals

Move the lever halfway toward the direction of the lane change—until the indicator flashes— and hold it there. It will return to the off position when released.

## **▼** Three-Flash Turn Signal

After releasing the turn signal lever from the halfway point, the turn signal indicator flashes 3 times. The operation can be canceled by moving the lever in the direction opposite to which it was operated.

#### NOTE

The three-flash turn signal function can be switched to on/off using the personalization function.

Refer to the Settings section in the Mazda Connect Owner's Manual.

# Windshield Wipers and Washer

## **▼** Windshield Wipers and Washer

The windshield wipers and washer can be used when the power switch is switched ON.



## Use only windshield washer fluid or plain water in the reservoir:

Using radiator antifreeze as washer fluid is dangerous. If sprayed on the windshield, it will dirty the windshield, affect your visibility, and could result in an accident.

# Only use windshield washer fluid mixed with anti-freeze protection in freezing weather conditions:

Using windshield washer fluid without anti-freeze protection in freezing weather conditions is dangerous as it could freeze on the windshield and block your vision which could cause an accident. In addition, make sure the windshield is sufficiently warmed using the defroster before spraying the washer fluid.



➤ When the wipers are not used during freezing temperatures or for a long time, the wiper rubber may adhere to the glass. If the wipers are operated while adhered to the glass, it could damage the wiper rubber and motor.

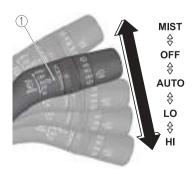
- If the wipers are operated while the glass is dry, the glass could be scratched and the wiper rubber damaged. When the glass is dry, spray washer fluid before operating the wipers.
- If the amount of washer fluid spray is insufficient, do not use the washer switch. If the washer switch continues to be operated with no washer fluid being sprayed, it could lead to pump damage.

#### NOTE

If the windshield wipers are operated under cold weather conditions or during snowfall, they could stop due to accumulated snow on the windshield. If the windshield wipers stop due to accumulated snow on the windshield, park the vehicle in a safe place, turn the wiper switch off, and then remove the accumulated snow. If the wiper switch is turned to another position other than OFF, the wipers will operate. If the wipers do not operate even though the wiper switch is turned to a position other than OFF, consult an Authorized Mazda Dealer as soon as possible.

## **▼** Windshield Wipers

Turn the wipers on by pressing the lever up or down.



### 1. Indicator light

Switch Posi- tion	Wiper operation
MIST	Operation while pulling up lever
OFF	Stop
AUTO*1	Auto control
LO	Low speed
HI	High speed

\*1 When the wiper lever is switched to the AUTO position, the indicator light turns on.

### **Auto-wiper control**

When the wiper lever is in the AUTO position, the rain sensor senses the amount of rainfall on the windshield and turns the wipers on or off automatically (off—intermittent—low speed—high speed).

The sensitivity of the rain sensor can be adjusted by turning the switch on the wiper lever.

From the center position (normal), rotate the switch upward (+ direction) for higher sensitivity (faster response) or rotate it downward (- direction) for less sensitivity (slower response).



- 1. Switch
- 2. Higher sensitivity
- 3. Center position
- 4. Less sensitivity

## **A** CAUTION

Do not shade the rain sensor by adhering a sticker or a label on the windshield. Otherwise the rain sensor will not operate correctly.



- ➤ Before lifting the windshield wiper blades off the windshield, always follow the procedure for moving the windshield wiper blades. Otherwise, a wiper blade, wiper arm, or the hood could be damaged. Refer to the Replacing Windshield Wiper Blades (page 6-15) section for the procedure on how to move the windshield wiper blades to the service position.
- ➤ When the power switch is switched ON and the wiper lever is in the AUTO position, the windshield wipers may operate automatically in the following cases:
  - The area of the windshield above the rain sensor is touched or wiped with a cloth.
  - ➤ The windshield or the rain sensor area in the cabin is hit.

When the power switch is switched ON and the wiper lever is in the AUTO position, do not touch the windshield or the windshield wipers Otherwise, the windshield wipers will operate automatically which could catch your fingers or damage the windshield wipers.

When removing ice or snow, or cleaning the windshield, always make sure the wiper lever is in the OFF position.

- Switching the auto-wiper lever from the OFF to the AUTO position while driving activates the windshield wipers once, after which they operate according to the rainfall amount.
- The auto-wiper control may not operate when the rain sensor temperature is about -10 °C (14 °F) or lower, or about 85 °C (185 °F) or higher.
- If the windshield is coated with water repellent, the rain sensor may not be able to sense the amount of rainfall correctly and the auto-wiper control may not operate properly.
- If dirt or foreign matter (such as ice or matter containing salt water) adheres to the windshield above the rain sensor, or if the windshield is iced, it could cause the wipers to move automatically. However, if the wipers cannot remove this ice, dirt or foreign matter, the auto-wiper control will stop operation. In this case, set the wiper lever to the low speed position or high speed position for manual operation, or remove the ice, dirt or foreign matter by hand to restore the auto-wiper operation.

- If the auto-wiper lever is left in the AUTO position, the wipers could operate automatically from the effect of strong light sources, electromagnetic waves, or infrared light because the rain sensor uses an optical sensor. It is recommended that the auto-wiper lever be switched to the OFF position other than when driving the vehicle under rainy conditions.
- If the headlight switch and the windshield wiper switch are in AUTO, and the wipers are operated at low or high speed by the auto wiper control for several seconds, bad weather conditions are determined and the headlights may be turned on.
- The auto-wiper control functions can be turned off.
   Refer to the Settings section in the Mazda Connect Owner's Manual.

#### **▼** Windshield Washer

Pull the wiper lever toward you to spray washer fluid and operate the windshield wipers several times. The washer fluid is sprayed only while the windshield wipers move out of their stowed positions to the point where they start reversing back.



- 1. OFF
- 2. Washer

#### NOTE

- If the windshield washer is turned on when the windshield wipers are not operating, the windshield wipers operate a few times.
- If you pull the wiper lever while the windshield wipers are reversing back to their stowed positions, the next time the washer fluid is sprayed is during the next cycle.

If the washer does not work, inspect the fluid level (page 6-13). If the fluid level is normal, consult an Authorized Mazda Dealer.

# Rear Window Wiper and Washer

## **▼** Rear Window Wiper and Washer

The rear window wiper and washer can be used when the power switch is switched ON.

## ▼ Rear Window Wiper



Turn the wiper on by turning the rear wiper/washer switch.

Switch Posi- tion	Wiper operation		
	Spray washer fluid and operate the rear wiper		
ON	Normal		
INT	Intermittent		
OFF	Stop		
4	Spray washer fluid and operate the rear wiper		

### ▼ Rear Window Washer

To spray washer fluid, turn the rear wiper/washer switch to either of the

position. After the switch is released, the washer will stop.

#### NOTE

While the windshield washers are operating (from the time the wiper lever is pulled until the washer fluid stops spraying), the rear window washer does not spray washer fluid even if you operate the switch.

If the washer does not work, inspect the fluid level (page 6-13). If the fluid level is normal and the washer still does not work, consult an Authorized Mazda Dealer.

## **Rear Window Defogger**

### ▼ Rear Window Defogger

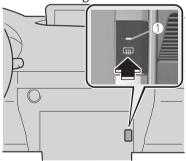
The rear window defogger clears fog from the rear window.

The rear window defogger can be used when the power switch is switched ON.

Press the switch to turn on the rear window defogger. The rear window defogger operates for about 15 minutes and then turns off automatically.

The indicator light illuminates when the defogger is operating.

To turn off the rear window defogger before the 15 minutes has elapsed, press the switch again.



Indicator light



➤ Do not use sharp instruments or window cleaners with abrasives to clean the inside of the rear window surface. They may damage the defogger grid inside the window.

#### NOTE

- This defogger is not designed for melting snow. If there is an accumulation of snow on the rear window, remove it before using the defogger.
- The rear window defogger operation time can be changed from 15 minutes to continuous operation.
   When the operation time has been switched to continuous operation, by pressing the switch, the rear window defogger will continue to operate until the power switch is switched OFF.
- Refer to the Settings section in the Mazda Connect Owner's Manual.

## **▼** Windshield Wiper De-icer\*

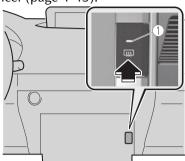
The thermal filaments at the following positions heat up and facilitate the removal of snow accumulated on the windshield.



The windshield wiper de-icer operates in conjunction with the rear window defogger.

Press the rear window defogger switch when the power switch is switched ON

to operate the windshield wiper de-icer (page 4-45).



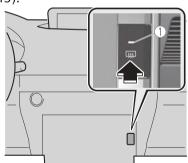
## 1. Indicator light

## **▼** Mirror Defogger\*

The mirror defoggers defrost the outside mirrors.

The mirror defoggers operate in conjunction with the rear window defogger.

Press the rear window defogger switch when the power switch is switched ON to operate the mirror defoggers (page 4-45).



1. Indicator light

## Horn

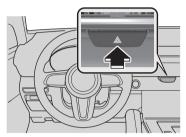
#### **▼** Horn

To sound the horn, press the mark on the steering wheel.

## **Hazard Warning Flasher**

### ▼ Hazard Warning Flasher

The hazard warning lights should always be used when you stop on or near a roadway in an emergency.



The hazard warning lights warn other drivers that your vehicle is a traffic hazard and that they must take extreme caution when near it.



Depress the hazard warning flasher and all the turn signals will flash. The hazard warning indicator lights in the instrument cluster flash simultaneously.

#### NOTE

- The turn signals do not work when the hazard warning lights are on.
- Check local regulations about the use of hazard warning lights while the vehicle is being towed to verify that it is not in violation of the law.

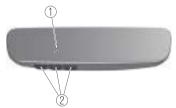
# HomeLink Wireless Control System\*

## **▼** HomeLink Wireless Control System

#### NOTE

HomeLink and HomeLink house are registered trademarks of Gentex Corporation.

The HomeLink system replaces up to 3 hand-held transmitters with a single built-in component in the auto-dimming mirror. Pressing the HomeLink button on the auto-dimming mirror activates garage doors, gates and other devices surrounding your home.



- 1. Indicator light
- 2. HomeLink button

## **MARNING**

Do not use the HomeLink system with any garage door opener that lacks the safety stop and reverse feature:

Using the HomeLink system with any garage door opener that lacks the safety stop and reverse feature as required by federal safety standards is dangerous. (This includes garage doors manufactured before April 1, 1982.)

## Switches and Controls

Using these garage door openers can increase the risk of serious injury or death. For further information, contact HomeLink at www.homelink.com or www.youtube.com/HomeLinkGentex or an Authorized Mazda Dealer.

Always check the areas surrounding garage doors and gates for people or obstructions before programming or during operation of the HomeLink system:

Programming or operating the HomeLink system without verifying the safety of areas surrounding garage doors and gates is dangerous and could result in an unexpected accident and serious injury if someone were to be hit.

#### NOTE

The programming will not be erased even if the battery is disconnected.

## ▼ Pre-programming the HomeLink System

#### NOTE

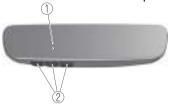
It is recommended that a new battery be placed in the hand-held transmitter of the device being programmed to HomeLink for quicker training and accurate transmission of the radio-frequency signal.

 Verify that there is a remote control transmitter available for the device you would like to program.

## ▼ Programming the HomeLink System

The HomeLink system provides 3 buttons which can be individually selected and programmed using the transmitters for current, on-market devices as follows:

 Press and release the HomeLink button you would like to program. The indicator light flashes slowly in amber when the button is pressed.



- 1. Indicator light
- 2. HomeLink button
- 2. Hold the hand-held transmitter 2.5 to 7.5 cm (1 to 3 in) away from the HomeLink button you would like to program while keeping the indicator light in view.

#### NOTE

Depending on the hand-held transmitter, it may be easier to do the programming by holding it 15 to 20 cm (6 to 7.8 in) away from the HomeLink button.

3. Press the hand-held transmitter button continuously until the indicator light changes from amber (flashing) to green (on/flashing).

#### NOTE

Some gate operators and garage door openers may require you to replace this Programming Step 3 with procedures noted in the "Gate Operator/Canadian Programming" section.

- Press the HomeLink button again to check if the programming has been completed.
  - If the indicator light remains on in green, the programming is complete and the device becomes operational.

- · If the indicator light flashes rapidly in green, firmly press and hold the Homelink button and release it after two seconds have passed. Repeat this process up to three times to complete the programming. The device becomes operational and programming is complete. If the device does not operate, go to the next step.
- At the garage door opener receiver (motor-head unit) in the garage, locate the "learn" or "smart" button. This can usually be found where the hanging antenna wire is attached to the motor-head unit.
- Firmly press and release the "learn" or "smart" button. (The name and color of the button may vary by manufacturer.)

#### NOTE

Complete the programming within 30 seconds.

7. Return to the vehicle and firmly press and hold the Homelink button, and then release it after two seconds have passed. Repeat the "press/hold/release" sequence a second time, and, depending on the brand of the garage door opener (or other rolling code equipped device), repeat this sequence a third time to complete the programming process. Press the programmed HomeLink button and make sure that the HomeLink System operates.

8. If the status indicator arrows are flashing, refer to Garage Door Two-Way Communication.



1. Indicator light

#### NOTE

To program the remaining two HomeLink buttons, go back to **Step 1** of Programming the HomeLink System and repeat the procedure.

For questions or comments, please contact HomeLink at www.homelink.com or www.youtube.com/
HomeLinkGentex, or the HomeLink toll-free hotline at 1-800-355-3515 (for calls placed outside of the USA, Canada, and Puerto Rico, international rates will apply and may differ based on landline or mobile phone).

## **▼** Gate operator/Canadian Programming

Canadian radio-frequency laws require transmitter signals to "time-out" (or quit) after several seconds of transmission — which may not be long enough for HomeLink to pick up the signal during programming. Similar to this Canadian law, some U.S. gate operators are designed to "time-out" in the same manner.

If you live in Canada or are having difficulties programming a gate operator by using the programming procedures (regardless of where you live), replace Step 3 of Programming

## Switches and Controls

## **the HomeLink System** with the following:

#### **NOTE**

If programming a garage door opener or gate operator, it is advised to unplug the device during the "cycling" process to prevent possible overheating.

While the indicator light is flashing in amber, press the button on the hand-held transmitter for 2 seconds and release it repeatedly until the indicator light changes from amber to green.

Go back to Step 4 of Programming the HomeLink System to complete the procedure.

## **▼** Operating the HomeLink System

Press the programmed HomeLink button to operate a programmed device.

## ▼ Reprogramming the HomeLink system

To program a device to HomeLink using a HomeLink button previously trained, follow these steps:

- Press and hold the desired HomeLink button. DO NOT release the button.
- 2. After 20 seconds, the indicator light flashes in amber. After the indicator light flashes, release the HomeLink button.
- 3. Go back to Step 2 of Programming the HomeLink System to complete the procedure.

#### NOTE

If the programming has not been completed, the system returns to the previous programming.

## **▼** Erasing Programmed HomeLink Buttons

#### NOTE

- · All of the programmed HomeLink buttons are reset. Individual buttons cannot be reset, however, individual buttons can be reprogrammed. For individual button reprogramming, refer to Reprogramming the HomeLink System (page 4-50).
- · Verify that the programming has been erased if you resell the vehicle.
- Press the two outer HomeLink buttons continuously at the same time until the indicator light flashes.



- 1. HomeLink button 3
- 2. HomeLink button 1
- 2. Stop pressing the HomeLink buttons.

## **▼** Garage Door Two-Way Communication

The garage door two-way communication is a function that communicates with the garage door opener and indicates whether the garages door is open or closed using the indicator lights in the rear view mirror. It can indicate the status of the garage door within a range up-to 250 m (820 ft).

#### **NOTE**

The communication range may shorten depending on obstructions.

## Programming two-way communication

Within five seconds after programming a new HomeLink button, both of the garage door status indicator lights will flash rapidly in green indicating that the garage door two-way communication has been established. If the garage door status indicator lights flash, the two-way communication programming is complete.

If the garage door status indicator lights do not flash, the two-way communication programming is not completed. For additional HomeLink information and programming videos, refer to the following Websites:

- · www.HomeLink.com
- www.youtube.com/ HomeLinkGentex

## Operating the garage door two-way communication

By pressing HomeLink buttons 1 and 2 at the same time for two seconds, the status of the garage door is indicated for about 3 seconds as follows:



- 1. HomeLink button 2
- 2. HomeLink button 1

Garage door status	Indicator light		
Closing	Amber flashes		

Garage door status	Indicator light		
	Amber flashes		
Opening			
Closed	Green turns on		
Opened	Green turns on		

#### NOTE

The programming will not be erased even if the battery is disconnected.

## **Brake System**

#### **▼** Foot Brake

This vehicle has power-assisted brakes that adjust automatically through normal use.

Should power-assist fail, you can stop by applying greater force than normal to the brake pedal. But the distance required to stop will be greater than usual.



# Do not coast with the EV system stopped and stop the vehicle in a safe place:

Coasting the vehicle with the EV system stopped is dangerous. Braking will require more effort, and the brake's power-assist could be depleted if you pump the brake. This will cause longer stopping distances or even an accident.

## Shift to a lower gear when going down steep hills:

Driving with your foot continuously on the brake pedal or steadily applying the brakes for long distances is dangerous. This causes overheated brakes, resulting in longer stopping distances or even total brake failure. This could cause loss of vehicle control and a serious accident. Avoid continuous application of the brakes.

Dry off brakes that have become wet by driving slowly, releasing the accelerator pedal and lightly applying the brakes several times until the brake performance returns to normal: Driving with wet brakes is dangerous. Increased stopping distance or the vehicle pulling to one side when braking could result in a serious accident. Light braking will indicate whether the brakes have been affected.



- Do not drive with your foot held on the brake pedal. Doing so could result in the following:
  - The brake parts will wear out more quickly.
  - The brakes can overheat and adversely affect brake performance.
- Always depress the brake pedal with the right foot. Applying the brakes with the unaccustomed left foot could slow your reaction time to an emergency situation resulting in insufficient braking operation.



➤ Wear shoes appropriate for driving in order to avoid your shoe contacting the brake pedal when depressing the accelerator pedal.

## **▼** Electric Parking Brake (EPB)

The EPB system applies the parking brake using an electric motor. The system can operate automatically and manually.

The EPB switch indicator light turns on when applying the parking brake and it

turns off when releasing the parking brake.



1. Indicator light



## Do not drive the vehicle with the parking brake applied:

If the vehicle is driven with the parking brake applied, the brake parts may generate heat and the brake system may not operate, leading to an accident.

Before driving the vehicle, release the parking brake and make sure that the EPB indicator light in the instrument cluster turns off.

## Apply the parking brake when leaving the vehicle:

Not applying the parking brake when parking the vehicle is dangerous as the vehicle may move unexpectedly and result in an accident. Before leaving the vehicle, apply the parking brake and make sure that the EPB indicator light in the instrument cluster turns on.

- The parking brake cannot be applied or released while the vehicle battery is dead.
  - Refer to Jump-Starting on page 7-12.

- · When the power switch is switched OFF while the charging system warning light in the instrument cluster turns on, the parking brake cannot be applied. Before switching the power switch OFF, apply the parking brake manually.
- The sound of the parking brake being applied or released can be heard, however, this does not indicate a problem.
- If the EPB is not used for long periods, an automatic inspection of the system is performed while the vehicle is parked. An operation sound can be heard, however, this does not indicate a problem.
- When applying the parking brake and switching the power switch OFF, an operation sound can be heard, however, this does not indicate a problem.
- The brake pedal may move while applying or releasing the parking brake, however, this does not indicate a problem.
- · If there is a problem with the brake system (foot brake) while driving the vehicle, continually pulling up the EPB switch will apply the brakes and decelerate or stop the vehicle. The parking brake on-reminder sound is activated while the brake is applied. In addition, when releasing the switch, the brake is released and the sound stops.
- If the parking brake is applied with the power switch switched OFF or in ACC, the EPB indicator light in the instrument cluster and the indicator light in the EPB switch may flash for 15 seconds.

## **Brake**

- · When using an automatic car wash which moves the vehicle with the front tires mounted, it is necessary to cancel the parking brake auto operation before the vehicle enters the automatic car wash. For details, refer to Canceling the parking brake automatic operation.
- Release the parking brake and use neutral hold mode (automatic car wash mode) when it is necessary to change the shift position to the N position for an automatic car wash.
   Refer to Selector Lever Operation on page 4-28.

## Manual operation

## Applying the parking brake manually

When the brake pedal is firmly depressed and the EPB switch is pulled up, the parking brake is applied regardless of the power switch position. When the parking brake is applied, the EPB indicator light in the instrument cluster and the EPB switch indicator light turn on.



## Releasing the parking brake manually

When the parking brake is firmly depressed and the EPB switch is pressed with the power switch switched ON, the parking brake is released. When the parking brake is released, the EPB indicator light in the

instrument cluster and the EPB switch indicator light turn off.



If the EPB switch is pressed without depressing the brake pedal, a message is displayed on the multi-information display to notify the driver to depress the brake pedal.

Refer to Message Indicated on Multi-information Display on page 7-33.

### Auto operation

## Applying the parking brake automatically

When the power switch is switched from ON to ACC or OFF, the parking brake will be applied automatically. When the parking brake is applied, the EPB indicator light in the instrument cluster and the EPB switch indicator light turn on.

- To release the parking brake when the power switch is switched OFF, it is necessary to cancel the parking brake auto operation. For details, refer to Canceling the parking brake automatic operation.
- When the power switch is switched from ON to ACC while in neutral hold mode (automatic car wash mode), the parking brake is applied automatically.

## Releasing the parking brake automatically

If the accelerator pedal is depressed with the parking brake applied and all of the following conditions met, the parking brake is released automatically. When the parking brake is released, the EPB indicator light in the instrument cluster and the EPB switch indicator light turn off.

- The power switch is switched ON (EV system on).
- · The driver's door is closed.
- · The driver's seat belt is fastened.
- The selector lever is in the D or R position.

#### NOTE

If something such as the driver's foot contacts the accelerator pedal with the power switch switched ON (EV system on) and the parking brake applied, the parking brake might be released automatically. If you do not intend to start driving the vehicle immediately, shift the selector lever to the P or N position.

## Canceling the parking brake automatic operation

The parking brake automatic operation can be canceled by doing any of the following after switching the power switch from ON to OFF.

## Auto operation cancel method 1

- 1. Switch the power switch ON.
- 2. Release the parking brake manually.
- 3. Turn off the AUTOHOLD.
- 4. Press the EPB switch continuously for 2 seconds or longer (until a sound is activated).
- 5. Release the EPB switch and switch the power switch OFF within 5

seconds after the sound was activated.

After the auto operation is canceled, a sound is activated one time, and the EPB switch indicator light switches from illumination to flashing, and then turns off after 3 seconds.

## Auto operation cancel method 2

- 1. Switch the power switch ON.
- 2. Release the parking brake manually.
- 3. Turn off the AUTOHOLD.
- 4. Switch the power switch OFF with the EPB switch pressed while the brake pedal is not depressed. When the auto operation is canceled, a sound is activated one time, and the EPB switch indicator light goes from normal flashing to faster flashing, and then turns off after 3 seconds.

#### NOTE

- When canceling the parking brake auto operation and parking the vehicle, shift the selector lever to the P position and then use wheel blocks.
- The auto operation may not cancel if the vehicle is parked on a steep slope.

When the power switch is switched ON, the parking brake auto operation is restored.

## **▼** Warning Light

The warning light turns on when the system has a malfunction.
Refer to Brake System Warning
Indication/Warning Light on page
7-21.

#### **▼** Brake Pad Wear Indicator

When the disc brake pads become worn, the built-in wear indicators contact the disc plates. This causes a screeching noise to warn that the pads should be replaced.

When you hear this noise, consult an Authorized Mazda Dealer as soon as possible.

## **MARNING**

## Do not drive with worn disc pads:

Driving with worn disc pads is dangerous. The brakes could fail and cause a serious accident. As soon as you hear a screeching noise consult an Authorized Mazda Dealer.

#### NOTE

In high humidity weather conditions, brake noises, such as brake squeak or brake squeal can be heard. It does not indicate a malfunction.

#### **▼** Brake Assist

During emergency braking situations when it is necessary to depress the brake pedal with greater force, the brake assist system provides braking assistance, thus enhancing braking performance.

When the brake pedal is depressed hard or depressed more quickly, the brakes apply more firmly.

#### NOTE

- When the brake pedal is depressed hard or depressed more quickly, the pedal will feel softer but the brakes will apply more firmly. This is a normal effect of the brake assist operation and does not indicate a malfunction.
- When the brake pedal is depressed hard or depressed more quickly, a motor/pump operation noise may be heard. This is a normal effect of the brake assist and does not indicate a malfunction.
- The brake assist equipment does not supersede the functionality of the vehicle's main braking system.

### **▼** Brake Override System

The brake override system applies the brake first for safety if the brake pedal and accelerator pedal are depressed at the same time.

#### **NOTE**

Operation of the brake override system can be turned on or off.

Refer to the Settings section in the Mazda Connect Owner's Manual.

## **AUTOHOLD**

#### **▼** AUTOHOLD

The AUTOHOLD function automatically holds the vehicle stopped, even if you take your foot off the brake pedal. This function can be best used while stopped in traffic or at a traffic light. The brakes are released when you start driving the vehicle.



#### Do not rely completely on the AUTOHOLD function:

The AUTOHOLD function is only designed to assist the brake operation while the vehicle is stopped. Neglecting to operate the brakes and relying only on the AUTOHOLD system is dangerous and could result in an unexpected accident if the vehicle were to suddenly move. Operate the brakes appropriately in accordance with the road and surrounding conditions.

## Do not release your foot from the brake pedal while the vehicle is stopped on a steep grade:

Because there is a possibility of the vehicle not being held in the stopped position by the AUTOHOLD function, the vehicle may move unexpectedly and result in an accident.

## Do not use the AUTOHOLD function on slippery roads such as icy or snow-covered roads, or unpaved roads:

Even if the vehicle is held in the stopped position by the AUTOHOLD function, the vehicle may move unexpectedly and result in an accident. Operate the accelerator pedal, brakes, or steering wheel appropriately as necessary.

## Immediately depress the brake pedal in the following cases:

Because the AUTOHOLD function is canceled forcibly, the vehicle may move unexpectedly and result in an accident.

"Depress Brake Pedal. Brake Hold Disabled" is displayed in the multi-information display and the warning sound is activated at the same time.

## Always apply the parking brake when parking the vehicle:

Not applying the parking brake when parking the vehicle is dangerous as the vehicle may move unexpectedly and result in an accident. When parking the vehicle, shift the selector lever to the P position and apply the parking brake.



If you stop operating the accelerator pedal before the vehicle starts moving, the force holding the vehicle in the stopped position may weaken. Firmly depress the brake pedal or depress the accelerator pedal to accelerate the vehicle.

#### **NOTE**

- Under the following conditions, a problem with the AUTOHOLD is occurring. Have your vehicle inspected at an Authorized Mazda Dealer as soon as possible.
  - · A message is indicated on the multi-information display and a warning sound is activated for about 5 seconds while the AUTOHOLD is operating or when you press the AUTOHOLD switch.
- · If you switch the power switch OFF while the AUTOHOLD is operating, the parking brake is applied automatically to assist you with parking the vehicle.
- The AUTOHOLD is canceled when the selector lever is shifted to R position while the vehicle is on level ground, or facing up a hill or grade (as shown below).

Vehicle p	AUTOHOLD operation status	
Vehicle tilts forward		Operates
Level ground		Does not operate, canceled
Vehicle tilts rearward		Does not operate, canceled

: Reverse driving (selector lever in the reverse (R) position)

 The brake pedal response may change, sound may occur from the brakes, or the brake pedal could vibrate from the operation of the AUTOHOLD function. However, this does not indicate a malfunction.

## **▼** To Turn On AUTOHOLD System

Press the AUTOHOLD switch and when the AUTOHOLD standby indicator light turns on, the AUTOHOLD function turns on.



1. AUTOHOLD standby indicator light

#### NOTE

When all of the following conditions are met, the AUTOHOLD standby indicator light turns on when the AUTOHOLD switch is pressed and the AUTOHOLD function turns on.

- The power switch is switched ON (EV system on).
- · The driver's seat belt is fastened.
- · The driver's door is closed.
- There is no problem with the AUTOHOLD function.

## To operate AUTOHOLD and hold the brakes

1. Depress the brake pedal and bring the vehicle to a complete stop.

2. The AUTOHOLD active indicator light in the instrument cluster turns on and the brakes are held.

## HOLD

The vehicle is held in its stopped position even with the brake pedal released.

#### NOTE

When all of the following conditions are met, the AUTOHOLD operates and the brakes are held.

- The power switch is switched ON (EV system on).
- · The vehicle is stopped.
- The brake pedal is being depressed.
- The AUTOHOLD active indicator light turns on.
- The accelerator pedal is not depressed.
- · The driver's seat belt is fastened.
- · The driver's door is closed.
- There is no problem with the AUTOHOLD function.
- The parking brake is released.
- There is no problem with the Electric Parking Brake (EPB) function.
- The selector lever is in a position other than R position or the vehicle tilts forward with the selector lever in the R position.

## To release AUTOHOLD and start driving the vehicle

If you try to resume driving the vehicle, the brakes will be released automatically and the AUTOHOLD active indicator light turns off.

## **Brake**

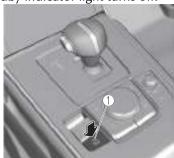
#### NOTE

- If the Electric Parking Brake (EPB) switch is pulled while the AUTOHOLD is operating, the parking brake is applied and the AUTOHOLD is released. In addition, if the parking brake is released under this condition, the AUTOHOLD operates to hold the brakes.
- Under the following conditions, the parking brake is automatically applied and the AUTOHOLD is released. The AUTOHOLD is re-enabled when the conditions before the AUTOHOLD is released are restored.
  - · The driver's seat belt is unfastened.
  - · The driver's door is opened.
- When about 10 minutes or longer have passed since the AUTOHOLD operation started, the parking brake is automatically applied. Because the AUTOHOLD is restored when releasing the parking brake, the hold on the brakes by AUTOHOLD function resumes.
- The AUTOHOLD can be canceled forcibly by fully depressing the accelerator pedal for 1 second or longer while the AUTOHOLD is operating. Forcibly cancel the AUTOHOLD only when the AUTOHOLD cannot be canceled due to a system malfunction or it is necessary to cancel the AUTOHOLD in an emergency.

## **▼** To Turn Off AUTOHOLD System

Depress the brake pedal and press the AUTOHOLD switch. The AUTOHOLD

is turned off and the AUTOHOLD standby indicator light turns off.



1. AUTOHOLD standby indicator light

- When the brakes are not held such as while driving the vehicle, the AUTOHOLD can be turned off only by pressing the AUTOHOLD switch.
- · If the AUTOHOLD switch is pressed without depressing the brake pedal while AUTOHOLD is operating (AUTOHOLD active indicator light in instrument cluster is turned on), the message "Depress Brake Pedal and Operate Switch to Release" is indicated on the multi-information display to notify the driver to depress the brake pedal.
- If any of the following conditions occurs while the AUTOHOLD function is operating (AUTOHOLD active indicator light is turned on), the parking brake is applied automatically and the AUTOHOLD function turns off. For the Electric Parking Brake (EPB) operation, refer to the Electric Parking Brake (EPB) on page 4-52.
  - · The power switch is switched OFF.
  - There is a problem with the AUTOHOLD function.

# Emergency Stop Signal System

### **▼** Emergency Stop Signal System

If you apply the brakes suddenly while driving at a speed of about 55 km/h (34 mph) or faster, the emergency stop signal system automatically and rapidly flashes all the turn signal lights to caution drivers behind your vehicle of the sudden braking situation.

#### NOTE

### · Flashing

When you bring your vehicle to a complete stop while all the turn signal lights are flashing rapidly, the rapid flashing of all the turn signal lights changes back to the normal flashing pattern. The turn signal lights turn off when you release your foot from the brake pedal.

## · Operation

- When the ABS operates, the emergency stop signal system is more likely to operate. Therefore, if the brake pedal is depressed on a slippery road, all of the turn signal lights may flash.
- The emergency stop signal system does not operate when the hazard warning light switch is pressed.

## Hill Launch Assist (HLA)

#### **▼** Hill Launch Assist (HLA)

The HLA functions to assist in accelerating the vehicle from a stop on slopes. When releasing the brake pedal and depressing the accelerator pedal to accelerate the vehicle from a stop while on a slope, the function prevents the vehicle from rolling. The HLA also operates when reversing on a slope. The braking force is maintained automatically after releasing the brake pedal on a steep slope.

The HLA operates when the vehicle is tilted rearward with the selector lever in a forward gear, and operates when the vehicle is tilted forward with the selector lever in the R position.

## **⚠** WARNING

## Do not rely completely on HLA:

HLA is an auxiliary device for accelerating from a stop on a slope. The system only operates for about 2 seconds and therefore, relying only on the system, when accelerating from a stop is dangerous because the vehicle may move (roll) unexpectedly and cause an accident.

The vehicle could roll depending on the vehicle's load.

Always confirm the safety around the vehicle before starting to drive the vehicle.

#### **NOTE**

 HLA does not operate on a gentle slope. In addition, the gradient of the slope on which the system will operate changes depending on the vehicle's load.

## **Brake**

- · HLA does not operate if the parking brake is applied, or if the vehicle has not stopped completely.
- While HLA is operating, the brake pedal may feel stiff and vibrate, however, this does not indicate a malfunction.
- HLA does not operate while the TCS/DSC indicator light is illuminated.
  - Refer to TCS/DSC Indication/ Indicator Light (Turns on) on page 7-27.
- HLA does not turn off even if the TCS OFF switch is pressed to turn off the TCS.

# Antilock Brake System (ABS)

### ▼ Antilock Brake System (ABS)

The ABS control unit continuously monitors the speed of each wheel. If one wheel is about to lock up, the ABS responds by automatically releasing and reapplying that wheel's brake.

The driver will feel a slight vibration in the brake pedal and may hear a chattering noise from the brake system. This is normal ABS system operation. Continue to depress the brake pedal without pumping the brakes.

The warning light turns on when the system has a malfunction.
Refer to ABS Warning Indication/
Warning Light on page 7-26.

## **MARNING**

## Do not rely on ABS as a substitute for safe driving:

The ABS cannot compensate for unsafe and reckless driving, excessive speed, tailgating (following another vehicle too closely), driving on ice and snow, and hydroplaning (reduced tire friction and road contact because of water on the road surface). You can still have an accident.

- Braking distances may be longer on loose surfaces (snow or gravel, for example) which usually have a hard foundation. A vehicle with a normal braking system may require less distance to stop under these conditions because the tires will build up a wedge of surface layer when the wheels skid.
- You might hear the sound of a motor when starting the EV system or immediately after starting to drive the vehicle. However, it does not indicate a problem.

# Traction Control System (TCS)

## **▼** Traction Control System (TCS)

The Traction Control System (TCS) prevents drive-wheel spinning which occurs during acceleration from a stop or acceleration during cornering on slippery roads, such as wet or snow-covered roads, and assures optimum drive force and steerability.

The warning light turns on when the system has a malfunction.
Refer to TCS/DSC Indication/
Indicator Light (Turns on) on page 7-27.

## **⚠** WARNING

# Do not rely on the Traction Control System (TCS) as a substitute for safe driving:

The Traction Control System (TCS) cannot compensate for unsafe and reckless driving, excessive speed, tailgating (following another vehicle too closely), and hydroplaning (reduced tire friction and road contact because of water on the road surface). You can still have an accident.

# Use snow tires or tire chains and drive at reduced speeds when roads are covered with ice and/or snow:

Driving without proper traction devices on snow and/or ice-covered roads is dangerous. The Traction Control System (TCS) alone cannot provide adequate traction and you could still have an accident.

#### NOTE

To turn off the TCS, press the TCS OFF switch (page 4-65).

### **▼** TCS/DSC Indicator Light



When the power switch is switched ON, the TCS/DSC indicator light turns on and then turns off after a few seconds.

If the TCS or DSC is operating, the indicator light flashes.

If the light stays on, the TCS, DSC or the brake assist system may have a malfunction and they may not operate correctly. Take your vehicle to an Authorized Mazda Dealer.

#### NOTE

- When the TCS/DSC operation indicator light flashes, a sound from the motor compartment may be heard, however, this does not indicate a problem. This indicates that the TCS/DSC is operating normally.
- On slippery road surfaces, such as freshly fallen snow, the motor rotation speed cannot be increased when the TCS is on.

## **▼** TCS OFF Indicator Light



This indicator light stays on for a few seconds when the power switch is switched ON.

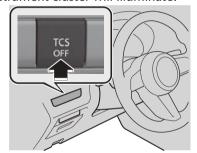
It also illuminates when the TCS OFF switch is pressed and TCS is switched off.

Refer to TCS OFF Switch on page 4-65.

If the light remains illuminated and the TCS is not switched off, take your vehicle to an Authorized Mazda Dealer. The DSC may have a malfunction.

#### **▼ TCS OFF Switch**

Press the TCS OFF switch to turn off the TCS. The TCS OFF indicator light in the instrument cluster will illuminate.



Press the switch again to turn the TCS back on. The TCS OFF indicator light\* will turn off.

- When the TCS is on and you attempt to free the vehicle from being stuck, or drive it out of freshly fallen snow, the TCS will activate. Depressing the accelerator pedal will not increase motor power and freeing the vehicle might be difficult. When this happens, turn off the TCS.
- If the EV system is turned off with the TCS turned off, the TCS becomes operational when the EV system is started the next time.

- Leaving the TCS on will provide the best traction.
- If the TCS OFF switch is pressed and held for 10 seconds or more, the TCS OFF switch malfunction detection function operates and the TCS system activates automatically. The TCS OFF indicator light turns off while the TCS system is operative.

# Dynamic Stability Control (DSC)

### **▼** Dynamic Stability Control (DSC)

The Dynamic Stability Control (DSC) automatically controls braking and motor torque in conjunction with systems such as the ABS and TCS to help control side slip when driving on slippery surfaces, or during sudden or evasive steering, which enhances vehicle stability.

Refer to ABS (page 4-63) and TCS (page 4-64).

DSC operation is possible at speeds greater than 20 km/h (12 mph).

The warning light turns on when the system has a malfunction.
Refer to TCS/DSC Indication/
Indicator Light (Turns on) on page 7-27.

## **MARNING**

# Do not rely on the Dynamic Stability Control as a substitute for safe driving:

The Dynamic Stability Control (DSC) cannot compensate for unsafe and reckless driving, excessive speed, tailgating (following another vehicle too closely), and hydroplaning (reduced tire friction and road contact because of water on the road surface). You can still have an accident.

## **A** CAUTION

➤ The DSC may not operate correctly unless the following are observed:

- Use tires of the correct size specified for your Mazda on all 4 wheels.
- ➤ Use tires of the same manufacturer, brand and tread pattern on all 4 wheels.
- Do not mix worn tires.
- The DSC may not operate correctly when tire chains are used or a temporary spare tire is installed because the tire diameter changes.

#### NOTE

If there is a problem with the DSC, the Hill Launch Assist (HLA) may not operate.

Refer to Hill Launch Assist (HLA) on page 4-61.

## **▼** TCS/DSC Indicator Light



When the power switch is switched ON, the TCS/DSC indicator light turns on and then turns off after a few seconds. If the TCS or DSC is operating, the indicator light flashes.

If the light stays on, the TCS, DSC or the brake assist system may have a malfunction and they may not operate correctly. Take your vehicle to an Authorized Mazda Dealer.

## **Power Steering**

## **▼** Power Steering

- Power steering is operable when the power switch is switched ON (EV system on). The steering wheel can still be operated even when the power switch is switched to a position other than ON (EV system on), however, the operation may feel heavy compared to normal.
   If the steering feels stiffer than usual during normal driving or the steering vibrates, consult an Authorized Mazda Dealer.
- The malfunction indication/indicator light notifies the driver of system abnormalities and operation conditions.
   Refer to Power Steering Malfunction Indication/Indicator Light on page 7-25.

# i-ACTIVSENSE

#### ▼ i-ACTIVSENSE

i-ACTIVSENSE is a collective term covering a series of advanced safety and driver support systems which make use of cameras and sensors. The systems consist of active safety and pre-crash safety systems.

These systems are designed to assist the driver in safer driving by reducing the load on the driver and helping to avert collisions or reduce their severity. However, because each system has its limitations, always drive carefully and do not rely solely on the systems.

### **▼** Active Safety Technology

Active Safety Technology supports safer driving by helping the driver to recognize potential hazards and avert accidents

### **Driver awareness support systems**

## Nighttime visibility

Adaptive Front Lighti	ing System
(AFS)	page 4-82
High Beam Control S	System
(HBC)	page 4-83

# Left/right side and rear side detection

,
Lane Departure Warning System
(LDWS) page 4-84
Blind Spot Monitoring (BSM)
nage 4-87

### Road sign recognition

Traffic Sign	Recognition	System
		page 4-93

# Inter-vehicle distance recognition

Distance & Spe	ea Alert (	DSA)
		page 4-99

# Front obstruction detection when approaching a crosswalk

Front Cross Traffi	ic Alert (FCTA)
	page 4-104

# Rear obstruction detection when leaving a parking space

Rear Cross Traffic Alert (RCTA)	
page 4-103	7

## **Full-surround recognition**

360°View Monitor..... page 4-144

### **Driver fatigue detection**

Driver Attention Alert (DAA)
page 4-100
Driver Monitoring (DM) page 4-102

### **Driver support systems**

#### Inter-vehicle distance

Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function)......page 4-111

### Lane departure

Lane-keep Assist System (LAS)
page 4-127

# Lane keeping

	g (ELK)
 	page 4-129

# Inter-vehicle distance and lane keeping

Traffic Jam Assist (TJA).....page 4-118

## **▼** Pre-Crash Safety Technology

Pre-crash safety technology is designed to assist the driver in averting collisions or reducing their severity in situations where they cannot be avoided.

# **Collision damage reduction**

Smart	Brake	Support (SBS)	
			nage 4-136

#### **▼** Camera and Sensors

i-ACTIVSENSE uses the following detection systems.

#### Vehicle front



- 1. Forward Sensing Camera (FSC) Refer to Forward Sensing Camera (FSC) on page 4-71.
- Front camera
   Refer to Front Camera/Side
   Cameras/Rear Camera on page
   4-81.
- Side cameras
   Refer to Front Camera/Side
   Cameras/Rear Camera on page
   4-81.
- 4. Front side radar sensor Refer to Front Side Radar Sensor on page 4-77.
- Front radar sensor Refer to Front Radar Sensor on page 4-75.

#### Vehicle rear



1. Rear camera

- Refer to Front Camera/Side Cameras/Rear Camera on page 4-81.
- Rear ultrasonic sensor Refer to Rear Ultrasonic Sensor on page 4-80.
- 3. Rear side radar sensor Refer to Rear Side Radar Sensor on page 4-79.

### Inside of vehicle



- Driver monitoring camera Refer to Driver Monitoring Camera on page 4-81.
- ▼ i-ACTIVSENSE Status Symbol (Warning/Risk Avoidance Support System)\*

The system notifies the driver of any of the following system status using the color or OFF indication of the i-ACTIVSENSE status symbol (Warning/risk avoidance support system).

- Lane Departure Warning System (LDWS)
- · Blind Spot Monitoring (BSM)
- · Distance & Speed Alert (DSA)
- · Front Cross Traffic Alert (FCTA)
- · Rear Cross Traffic Alert (RCTA)
- · Lane-keep Assist System (LAS)

i-ACTIVSENSE status symbol (warning/risk avoidance support system) (white)



#### System stand-by status

If none of the systems are activated or if there is a problem with the system, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (white) is displayed.

#### NOTE

For example, even when the Blind Spot Monitoring (BSM) is operating normally, if the Lane Departure Warning System (LDWS) has a problem, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (white) is displayed.

i-ACTIVSENSE status symbol (warning/risk avoidance support system) (green)



### System activated status

If any one of the systems is activated, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (green) is displayed.

#### NOTE

Even if the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (green) is displayed, systems which do not meet the operation conditions will not operate.

# i-ACTIVSENSE status symbol (warning/risk avoidance support system) (amber)



#### System warning status

If any system warning is activated, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (amber) is displayed.

i-ACTIVSENSE OFF symbol (warning/risk avoidance support system)



### **System OFF status**

If all the systems are canceled using [Settings] in Mazda Connect or the i-ACTIVSENSE OFF switch, the i-ACTIVSENSE OFF symbol (Warning/risk avoidance support system) is displayed.

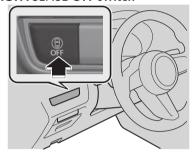
#### ▼ i-ACTIVSENSE OFF Switch\*

When the i-ACTIVSENSE OFF switch is pressed, the following systems are canceled and the i-ACTIVSENSE OFF symbol (Warning/risk avoidance support system) in the instrument cluster is displayed.

- Lane Departure Warning System (LDWS)
- · Blind Spot Monitoring (BSM)
- · Distance & Speed Alert (DSA)
- · Front Cross Traffic Alert (FCTA)
- · Rear Cross Traffic Alert (RCTA)
- · Lane-keep Assist System (LAS)

If the i-ACTIVSENSE OFF switch is pressed again, the systems return to their original operation status and the i-ACTIVSENSE OFF symbol (Warning/risk avoidance support system) turns off.

#### i-ACTIVSENSE OFF switch



i-ACTIVSENSE OFF symbol (Warning/risk avoidance support system)



If the power switch is switched OFF while you have canceled the systems using the i-ACTIVSENSE OFF switch, the systems are automatically enabled the next time the power switch is switched ON. However, if the systems are canceled using [Settings] in Mazda Connect, the systems are not automatically enabled.

#### NOTE

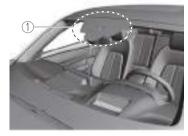
You can select systems which you want to cancel using [Settings] in Mazda Connect.

Refer to the Settings section in the Mazda Connect Owner's Manual.

# Forward Sensing Camera (FSC)\*

#### **▼** Forward Sensing Camera (FSC)

Your vehicle is equipped with a Forward Sensing Camera (FSC).



1. Forward Sensing Camera (FSC)

The following systems also use the Forward Sensing Camera (FSC).

- · High Beam Control System (HBC)
- Lane Departure Warning System (LDWS)
- · Traffic Sign Recognition System (TSR)
- · Distance & Speed Alert (DSA)
- · Driver Attention Alert (DAA)
- Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function)
- · Traffic Jam Assist (TJA)
- · Lane-keep Assist System (LAS)
- · Emergency Lane Keeping (ELK)
- Smart brake support (SBS) forward drive detection

The Forward Sensing Camera (FSC) determines the conditions ahead of the vehicle while traveling at night and detects traffic lanes. The distance in which the Forward Sensing Camera (FSC) can detect objects varies depending on the surrounding conditions.

# **A** CAUTION

Heed the following precautions to assure correct operation of each system.

- ➤ Do not hit or apply strong force to the Forward Sensing Camera (FSC) or the area around it. If the Forward Sensing Camera (FSC) is severely hit or if there are cracks or damage caused by flying gravel or debris in the area around it, stop using the following systems and consult an Authorized Mazda Dealer.
  - **≻**HBC
  - **≻LDWS**
  - **≻**TSR
  - **>** DSA
  - **≻**DAA
  - ➤ MRCC with Stop & Go function
  - **≻**TJA
  - ➤ LAS ➤ ELK
  - > SBS forward drive detection
- ➤ The Forward Sensing Camera (FSC) is installed to the windshield. Consult an Authorized Mazda Dealer for windshield repair and replacement.
- ➤ Do not remove the Forward Sensing Camera (FSC) cover.
- ➤ Be careful not to scratch the Forward Sensing Camera (FSC) lens or allow it to get dirty.
- The direction in which the Forward Sensing Camera (FSC) is pointed has been finely adjusted. Do not change the installation position of the Forward Sensing Camera (FSC) or remove it. Otherwise, it could result in damage or malfunction.
- Consult an Authorized Mazda Dealer regarding cleaning of the camera lens.
- Do not place objects on the dashboard which reflect light.

- ➤ Do not apply accessories, stickers or film to the windshield near the Forward Sensing Camera (FSC). If the area in front of the Forward Sensing Camera (FSC) lens is obstructed, it will cause the system to not operate correctly. Consequently, each system may not operate normally which could lead to an unexpected accident.
- Always keep the windshield glass around the camera clean by removing dirt or fogging. Use the windshield defroster to remove fogging on the windshield.
- The Forward Sensing Camera (FSC) includes a function for detecting a soiled windshield and informing the driver, however, depending on the conditions, it may not detect plastic shopping bags, ice or snow on the windshield. In such cases, the system cannot accurately determine a vehicle ahead and may not be able to operate normally. Always drive carefully and pay attention to the road ahead.
- ➤ When cleaning the windshield, do not allow glass cleaners or similar cleaning fluids to get on the Forward Sensing Camera (FSC) lens. In addition, do not touch the Forward Sensing Camera (FSC) lens.
- Consult an Authorized Mazda Dealer regarding cleaning the interior side of the windshield around the Forward Sensing Camera (FSC).
- ➤ If there are recognizable cracks or damage caused by flying gravel or debris on the windshield, always have the windshield replaced.

  Consult an Authorized Mazda Dealer for replacement.
- ➤ Consult an Authorized Mazda Dealer before performing repairs around the Forward Sensing Camera (FSC).

- When performing repairs around the rearview mirror, consult an Authorized Mazda Dealer.
- Always use tires for all wheels that are of the specified size, and the same manufacturer, brand, and tread pattern. In addition, do not use tires with significantly different wear patterns on the same vehicle as the system may not operate normally.

#### NOTE

- · If the Forward Sensing Camera (FSC) cannot operate normally due to rain, backlight, or fog, the system functions related to the Forward Sensing Camera (FSC) are temporarily stopped and the following warning lights turn on. However, this does not indicate a malfunction.
  - HBC warning indication/warning light (amber)
  - i-ACTIVSENSE warning indication/ warning light
- · If the Forward Sensing Camera (FSC) cannot operate normally due to high temperatures, the system functions related to the Forward Sensing Camera (FSC) are temporarily stopped and the following warning lights turn on. However, this does not indicate a malfunction. Cool down the area around the Forward Sensing Camera (FSC) such as by turning on the air conditioner.
  - HBC warning indication/warning light (amber)
  - i-ACTIVSENSE warning indication/ warning light

- · If the Forward Sensing Camera (FSC) detects that the windshield is dirty or foggy, the system functions related to the Forward Sensing Camera (FSC) are temporarily stopped and the following warning lights turn on. However, this does not indicate a problem. Remove the dirt from the windshield or press the defroster switch and defog the windshield.
  - HBC warning indication/warning light (amber)
  - · i-ACTIVSENSE warning indication/ warning light

#### **Detection of pedestrians**

The Forward Sensing Camera (FSC) detects pedestrians when all of the following conditions are met.

- The height of a pedestrian is about 1 to 2 m (3 to 6.5 ft).
- The outline of a pedestrian is recognized such as the head, both shoulders, or the feet.

The Forward Sensing Camera (FSC) may not be able to detect pedestrians when any of the following conditions is met.

- There are multiple pedestrians.
- A pedestrian is close to a separate object.
- A pedestrian is crouching, lying, or slouching.
- · A pedestrian suddenly jumps into the road.
- A pedestrian is holding something (such as an open umbrella or large baggage).
- A pedestrian blends into the background (such as in a dark location at night or by wearing clothes matching the background color).

#### **Detection of objects**

When any of the following conditions is met, the Forward Sensing Camera (FSC) may not be able to detect target objects correctly, and each system may not operate normally.

- The height of the vehicle ahead is low.
- · You are driving your vehicle at the same speed as the vehicle ahead.
- The headlights of your vehicle are not turned on during the night or in a tunnel.

When any of the following conditions is met, the Forward Sensing Camera (FSC) may not be able to detect target objects, and each system may not operate normally.

- The target object enters the blind spot of the Forward Sensing Camera (FSC).
- A person or object bursts onto the road from the shoulder or cuts right in front of you.
- The distance between your vehicle and the target object is extremely close.
- You change the course and approach a target object.
- · A vehicle ahead has a special shape (such as a vehicle carrier).
- · A vehicle ahead is a truck with a low loading platform.
- · A vehicle ahead has an extremely low or high profile.
- A vehicle ahead is outside the illumination range of the headlights.
- · A vehicle ahead is not equipped with taillights.
- The taillights of a vehicle ahead are dim or turned off.
- The headlights of an on-coming vehicle are dim or turned off.
- Under bad weather conditions (rain, fog, and snow).

- Front visibility is reduced (due to a vehicle ahead casting off water, snow, or sand).
- Strong light is directed at the front of your vehicle (such as backlight and high-beam headlights).
- There is an object which emits a lot of light.
- The surrounding area is dark (such as during the night, early evening, or early morning, or in a tunnel or indoor parking lot).
- There are light sources in the surrounding area (such as street lamps, illuminated signboards, and traffic signals).
- There are objects which reflect light (such as reflective plates and signs) in the surrounding area.
- The surrounding brightness suddenly changes (such as when entering or exiting a tunnel).
- The brightness of the headlights of your vehicle is insufficient (such as the illumination is weakened due to a dirty lens or the optical axis is deviated).
- Tires other than the specified size are used on your vehicle (such as when tire chains or temporary spare tires are used).
- The tires on your vehicle have significantly different wear.
- Foreign matter is stuck to the windshield (such as ice, fog, snow, frost, raindrops, dirt, or a piece of plastic).
- · The windshield is dirty or fogged.
- The Forward Sensing Camera (FSC) is blocked by an obstruction, causing poor forward visibility (such as when roof rails are installed to the vehicle and a long object is loaded).
- · The windshield washer is being used.
- The windshield wipers are not being used when it is raining.

- Your vehicle is tilted (such as when heavy luggage is in the luggage compartment or on the rear seat).
- · Your vehicle is towing another vehicle.
- The vehicle is making a sharp curve, or ascending or descending a steep slope.
- The vehicle is driven on roads with sharp curves or undulations.
- The vehicle is driven on uneven roads.
- The vehicle is driven next to walls with no patterning (including fences and longitudinally striped walls).
- · There are water puddles on the road.
- · The road surface is shiny.

# Front Radar Sensor

#### **▼** Front Radar Sensor

Your vehicle is equipped with a front radar sensor.



1. Front radar sensor

The following systems also use the front radar sensor.

- · Distance & Speed Alert (DSA)
- Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function)
- Traffic Jam Assist (TJA)
- Smart brake support (SBS) forward drive detection

The front radar sensor functions by detecting the radio waves reflected off a vehicle ahead or an obstruction sent from the radar sensor.

# **A** CAUTION

Heed the following precautions to assure correct operation of each system.

➤ Do not apply a sticker (including a transparent one) to the front radar sensor cover or replace the front radar sensor cover with a product other than a genuine product.

- The front radar sensor includes a function for detecting soiling of the radar sensor's front surface and informing the driver, however, depending on the conditions, it may require time to detect or it may not detect plastic shopping bags, ice or snow. If this occurs, the system may not operate correctly, therefore always keep the front radar sensor clean.
- ➤ If "Safety and Driver Support Systems Temporarily Disabled. Front Radar Obscured. Drive Safely" is displayed on the multi-information display of the instrument cluster, clean the area around the front radar sensor.
- ➤ Do not install a grille guard.
- ➤ If the front part of the vehicle has been damaged in a vehicle accident, the position of the front radar sensor may have moved. Stop the system immediately and always have the vehicle inspected at an Authorized Mazda Dealer.
- ➤ Do not use the front bumper to push other vehicles or obstructions such as when pulling out of a parking space. Otherwise, the front radar sensor could be hit and its position deviated.
- ➤ For repairs, replacement or paint work around the front radar sensor, consult an Authorized Mazda Dealer.
- Always use tires for all wheels that are of the specified size, and the same manufacturer, brand, and tread pattern. In addition, do not use tires with significantly different wear patterns on the same vehicle as the system may not operate normally.

#### NOTE

 If the lead-acid battery power is weak, the system may not operate correctly.

- When driving on roads with little traffic and few vehicles ahead or obstructions for the front radar sensor to detect, "Safety and Driver Support Systems Temporarily Disabled. Front Radar Obscured. Drive Safely" may be temporarily displayed, however, this does not indicate a problem.
- The radar sensors are regulated by the relevant radio wave laws of the country in which the vehicle is driven. If the vehicle is driven abroad, authorization from the country in which the vehicle is driven may be required.

When the vehicle is driven on roads in which there is an elevated road on one side, the front radar sensor function may be restricted temporarily. When any of the following conditions is met, the front radar sensor may not be able to detect vehicles ahead or obstructions correctly and each system may not operate normally.

- The rear surface of a vehicle ahead does not reflect radio waves effectively (such as an unloaded trailer, a vehicle with a loading platform covered by a soft top, a vehicle with a hard plastic liftgate, and a round-shaped vehicle).
- A vehicle ahead has limited areas that can reflect radio waves (such as a low profile vehicle).
- Under bad weather conditions (rain, fog, and snow).
- Front visibility is reduced (due to a vehicle ahead casting off water, snow, or sand).
- Foreign matter (ice, snow, or dirt) is on the surface of the front radar sensor cover.

- Your vehicle is tilted (such as when heavy luggage is in the luggage compartment or on the rear seat).
- The vehicle is driven near facilities or objects emitting strong radio waves.

When any of the following conditions is met, the front radar sensor may detect vehicles in the opposite lane or surrounding obstructions, or it may not be able to detect vehicles ahead or obstructions, and each system may not operate normally.

- The vehicle ahead enters the front radar sensor's blind spot.
- The distance to the vehicle ahead is extremely close.
- The vehicle ahead is being driven in an unstable condition.
- · A vehicle suddenly comes close such as by cutting into your lane.
- The vehicle is entering or exiting a curve.
- The vehicle is driven on a continuously curving road.
- The vehicle is driven on roads with repeated up and downslopes.
- The vehicle is driven on roads with narrow lanes.
- The vehicle is driven on poor roads or unpaved roads.

# Front Side Radar Sensor<sup>\*</sup>

#### **▼** Front Side Radar Sensor

Your vehicle is equipped with front side radar sensor.



1. Front side radar sensor

The following systems also use the front side radar sensor.

Front Cross Traffic Alert (FCTA)

The front side radar sensor function by detecting the radio waves reflected off a vehicle approaching from the front or an obstruction sent from the radar sensor.

# **A** CAUTION

Heed the following precautions to assure correct operation of each system.

- ➤ Always keep the surface of the front bumper near the front side radar sensors clean so that they operate normally. Also, do not apply items such as stickers. Refer to Exterior Care on page
- ➤ If the front bumper receives a severe impact, the system may no longer operate normally. Stop the system immediately and have the vehicle inspected at an Authorized Mazda Dealer.

- ➤ Vehicles are shipped with the direction of the front side radar sensor adjusted for each vehicle to a loaded vehicle condition so that the front side radar sensor detect approaching vehicles correctly. If the direction of the front side radar sensor has deviated for some reason, have the vehicle inspected at an Authorized Mazda Dealer.
- ➤ For repairs or replacement of the front side radar sensor, or bumper repairs, paintwork, and replacement near the radar sensors, consult an Authorized Mazda Dealer.

#### NOTE

The radar sensors are regulated by the relevant radio wave laws of the country in which the vehicle is driven. If the vehicle is driven abroad, authorization from the country in which the vehicle is driven may be required.

When any of the following conditions is met, the detection ability of the front side radar sensors may decrease and each system may not operate normally.

- Under bad weather conditions (rain, fog, and snow).
- The front bumper around a front side radar sensor is deformed.
- Foreign matter (such as ice, snow, and mud) is adhering to the front bumper around a front side radar sensor.

The front side radar sensors may not detect the following target objects.

- · Small motorcycles
- Bicycles
- Pedestrians
- · Animals
- · Shopping carts
- Stationary objects on the road or roadside

 Vehicles with shapes that may not reflect radar waves (such as unloaded trailers with low vehicle heights and sports cars).

# Rear Side Radar Sensor\*

#### ▼ Rear Side Radar Sensor

Your vehicle is equipped with rear side radar sensor.



#### 1. Rear side radar sensor

The following systems also use the rear side radar sensor.

- Blind Spot Monitoring (BSM)
- · Rear Cross Traffic Alert (RCTA)
- · Smart brake support (SBS) reverse drive detection
- Emergency Lane Keeping (ELK)

The rear side radar sensors emit radio waves and detect the radio waves reflected off a vehicle approaching from the rear or an obstruction.



# **A** CAUTION

Heed the following precautions to assure correct operation of each system.

➤ Always keep the surface of the rear bumper near the rear side radar sensors clean so that they operate normally. Also, do not apply items such as stickers.

Refer to Exterior Care on page 6-34.

- If the rear bumper receives a severe impact, the system may no longer operate normally. Stop the system immediately and have the vehicle inspected at an Authorized Mazda Dealer
- ➤ Vehicles are shipped with the direction of the rear side radar sensor adjusted for each vehicle to a loaded vehicle condition so that the rear side radar sensor detect approaching vehicles correctly. If the direction of the rear side radar sensor has deviated for some reason. have the vehicle inspected at an Authorized Mazda Dealer.
- For repairs or replacement of the rear side radar sensor, or bumper repairs, paintwork, and replacement near the radar sensors, consult an Authorized Mazda Dealer

#### NOTE

The radar sensors are regulated by the relevant radio wave laws of the country in which the vehicle is driven. If the vehicle is driven abroad, authorization from the country in which the vehicle is driven may be required.

When any of the following conditions is met, the detection ability of the rear side radar sensors may decrease and each system may not operate normally.

- · Under bad weather conditions (rain, fog, and snow).
- The rear bumper around a rear side radar sensor is deformed.
- · Foreign matter (such as ice, snow, and mud) is adhering to the rear bumper around a rear side radar sensor.

The rear side radar sensors may not detect the following target objects.

· Small motorcycles

- Bicycles
- · Pedestrians
- · Animals
- · Shopping carts
- · Stationary objects on the road or roadside
- · Vehicles with shapes that may not reflect radar waves (such as unloaded trailers with low vehicle heights and sports cars).

# Rear Ultrasonic Sensor\*

#### **▼** Rear Ultrasonic Sensor

Your vehicle is equipped with rear ultrasonic sensor.



#### 1. Rear ultrasonic sensor

The following systems also use the rear ultrasonic sensor.

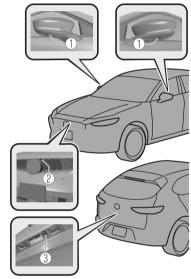
· Smart brake support (SBS) reverse drive detection

The rear ultrasonic sensors function by emitting ultrasonic waves which are reflected off obstructions at the rear and the returning ultrasonic waves are picked up by the rear ultrasonic sensors.

# Front Camera/Side Cameras/Rear Camera\*

# ▼ Front Camera/Side Cameras/Rear Camera

Your vehicle is equipped with a front camera, side cameras, and a rear camera



- 1. Side cameras
- 2. Front camera
- 3. Rear camera

Each camera is used by the following system.

· 360°View Monitor

The front camera, side cameras, and rear camera shoot images of the area surrounding the vehicle.

# Driver Monitoring Camera\*

### **▼** Driver Monitoring Camera

Your vehicle is equipped with a driver monitoring camera.



1. Driver monitoring camera

The driver monitoring camera is used by the following system.

Driver Monitoring (DM)

The driver monitoring camera detects changes in the driver's facial features and estimates the amount of accumulated fatigue and sleepiness of the driver.

#### NOTE

- DM and the earlier collision warning may not operate normally under the following conditions.
  - The driver monitoring camera is covered with something.
  - · You are driving the vehicle while leaning on the steering wheel.
  - · You are wearing glasses or sunglasses.
  - A cap or hat you are wearing partially blocks the driver monitoring camera's view of your eyes, you have long bangs partially covering your eyes, or a part of your face is invisible due to a face mask.

- The lighting conditions change significantly (such as backlight, light from the side, or direct light from the setting sun, and the headlights of on-coming vehicles).
- You are driving the vehicle with your head excessively tilted to one side or the other.
- · You are moving around extensively.
- Your face or your eyes frequently turn in direction other than straight ahead (direction of travel).
- · Your line of sight moves or directly after it has moved.
- There is a large difference between your line of sight and the direction your face is pointed.
- · You are driving the vehicle with your head largely tilted to one side.
- Free/open source software information

This product includes free/open sources. Information about the licensing and source code is available at the following URL. http://

www.embedded-carmultimedia.jp /RTOS/License/oss/DMS\_0201/

# Adaptive Front Lighting System (AFS)\*

# **▼** Adaptive Front Lighting System (AFS)

The adaptive front lighting system (AFS) automatically adjusts the headlight beams to the left or right in conjunction with the operation of the steering wheel after the headlights have been turned on and the vehicle speed is about 2 km/h (2 mph) or higher.

A system malfunction or operation conditions are indicated by a warning. Refer to Exterior Light Warning Indication/Warning Light on page 7-29.

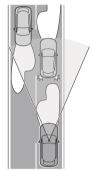
#### NOTE

The Adaptive Front Lighting System (AFS) can be switched to on/off using the personalization function.
Refer to the Settings section in the Mazda Connect Owner's Manual.

# High Beam Control System (HBC)\*

### **▼** High Beam Control System (HBC)

The HBC determines the conditions in front of the vehicle using the Forward Sensing Camera (FSC) while driving in darkness to automatically switch the headlights between high and low beams.





Do not rely excessively on the HBC and drive the vehicle while paying sufficient attention to safety. Switch the headlights between the high beams and low beams manually if necessary.

#### **NOTE**

- The distance in which the HBC can detect objects varies depending on the surrounding conditions.
- The Forward Sensing Camera (FSC) may not be able to detect target objects correctly, and the system may not operate normally.
   Refer to Forward Sensing Camera (FSC) on page 4-71.

The system switches the headlights to low beams when one of the following occurs:

- The vehicle is driven at less than about 20 km/h (12 mph).
- The system detects a vehicle or the headlights/lights of a vehicle approaching in the opposite direction.
- The vehicle is driven on roads lined with streetlamps or on roads in well-lit cities and towns.
- The headlight high-beam indicator light turns on while the high beams are on.

While driving the vehicle at a speed of about 30 km/h (19 mph) or more, the headlights are switched to high beams when there are no vehicles ahead or approaching in the opposite direction.

#### **▼** To Operate the System

The HBC operates to switch the headlights automatically between high and low beams after the power switch is switched ON and the headlight switch is in the AUTO and low beam position.

The HBC determines that it is dark based on the brightness of the surrounding area. At the same time, the HBC indicator light (green) in the instrument cluster illuminates.



#### NOTE

Operation of the HBC function can be disabled.

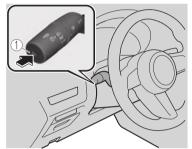
Refer to the Settings section in the Mazda Connect Owner's Manual.

#### **▼** Manual Switching

### Switching to low beams

Switch the headlight switch to the ≡○ position, or press the high beam control switch.

The HBC indicator light (green) turns off.



### 1. High beam control switch

If the HBC is turned off using the high beam control switch, press the high beam control switch again to turn the HBC back on.

# Switching to high beams

Shift the lever to the high beam position.

The HBC indicator light (green) turns off and the headlight high-beam indicator light is illuminated.

# Lane Departure Warning System (LDWS)\*

# **▼** Lane Departure Warning System (LDWS)

The LDWS notifies the driver that the vehicle might be deviating from its lane.

The LDWS detects white (yellow) lines using the Forward Sensing Camera (FSC). If your vehicle may be deviating from its lane, the lane departure warning notifies the driver.

Use the LDWS when you drive the vehicle on roads with white (yellow) lines.



# **▲** WARNING

# Do not rely completely on the LDWS and always drive carefully:

- The LDWS is not designed to compensate for a driver's lack of caution and relying too much on the system could lead to an accident.
- The functions of the LDWS have limitations. Always stay on course using the steering wheel.

#### **NOTE**

When any of the following conditions is met, the LDWS may not operate normally.

- · A condition under which the Forward Sensing Camera (FSC) cannot detect a target object is met. Refer to Forward Sensing Camera (FSC) on page 4-71.
- The visibility of white (yellow) lines is poor (due to paint flaking or dirt, or being hidden by vehicles ahead).
- There are multiple white (yellow) lines or they are interrupted.
- A misleading line on the road is picked up (such as temporary line for construction, shadow, lingering snow, or grooves filled with water).
- The shade of a guardrail parallel to a white (yellow) line is on the road.
- The width of a lane is excessively narrow.
- The vehicle is shaken after hitting a road bump.
- The vehicle is driven on a section with a closed lane or temporary lane due to construction.
- The vehicle is driven on a forked road or junction.
- The vehicle is driven through an intersection or a roundabout.

## **▼** When the System Operates

When the power switch is switched ON, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (white) turns on and the system goes on standby.



#### NOTE

If the i-ACTIVSENSE status symbol (Warning/risk avoidance support system) (white) does not turn on, the system is canceled using the i-ACTIVSENSE OFF switch or [Settings] in the Mazda Connect.

#### Operation conditions

When all of the following conditions are met, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) on the multi-information display changes from white to green and the system becomes operational.

- · The power switch is switched ON.
- The vehicle speed is about 64 km/h (40 mph) or faster.
- The system detects white (yellow) lane lines.



#### **NOTE**

When the system does not detect a white (yellow) lane line on one side only, the system does not operate on the side that is not being detected.

# When temporarily canceling the system

The LDWS goes on standby in the following cases: The LDWS operation is automatically restored when the system's operation conditions are met.

- The system cannot detect white (yellow) lane lines.
- The vehicle speed is less than about 56 km/h (35 mph).
- · The turn signal lever is operated.
- · The accelerator pedal is depressed.
- · The steering wheel is operated.

· The brake pedal is operated.

### The function is temporarily stopped.

The LDWS stops functioning in the following cases:

- The temperature in the Forward Sensing Camera (FSC) is too high or too low.
- The windshield around the Forward Sensing Camera (FSC) is foggy.
- The windshield around the Forward Sensing Camera (FSC) is blocked by an obstruction, causing poor forward visibility.
- Strong light (such as sunlight, or headlights (high-beam) of on-coming vehicles) is directed at the Forward Sensing Camera (FSC).

### System malfunction

If there is a problem with the system, the i-ACTIVSENSE status symbol (warning/risk avoidance support system) (white) and the i-ACTIVSENSE warning indication/warning light on the multi-information display turns on and a message is indicated.

Refer to i-ACTIVSENSE Status Symbol (Warning/Risk Avoidance Support System) on page 4-69.

### **▼** Lane Departure Warning

If the system determines that the vehicle may deviate from its lane, a warning (beep sound, steering wheel vibration) is activated and the direction in which the system determines that the vehicle may deviate is indicated on the multi-information display and the active driving display.

# Multi-information display 45



### Active driving display



#### **NOTE**

- The LDWS settings can be changed. Refer to the Settings section in the Mazda Connect Owner's Manual.
- You may not be able to hear the LDWS warning sound depending on the surrounding conditions such as outside noise.
- If you set the LDWS to vibrate the steering wheel, you may not feel the vibrations depending on the road surface conditions.

### **▼** Canceling the System

The LDWS can be set to inoperable.

- (If only the LDWS is turned off)
   Refer to the Settings section in the Mazda Connect Owner's Manual.
- (If the LDWS is turned off by operating the i-ACTIVSENSE OFF switch)

Refer to i-ACTIVSENSE OFF Switch on page 4-70.

#### NOTE

If the power switch is switched OFF while you have canceled the system using the i-ACTIVSENSE OFF switch, the system is automatically enabled the next time the power switch is switched ON. However, if the system is canceled using [Settings] in Mazda Connect, the system is not automatically enabled.

# Blind Spot Monitoring (BSM)\*

### **▼** Blind Spot Monitoring (BSM)

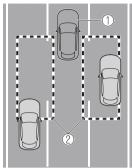
The BSM is designed to assist the driver in checking the area to the rear of the vehicle on both sides during lane changes by notifying the driver of the presence of vehicles approaching from the rear in an adjacent lane.

#### **BSM** operation

The BSM detects vehicles approaching from the rear while traveling in the forward direction at a speed of 10 km/h (6.3 mph) or faster and notifies the driver by turning on the BSM warning indicator light and displaying the vehicle detection screen. If the turn signal lever is operated to signal a turn in the direction in which the BSM warning indicator light is illuminated while the approaching vehicle is detected, the BSM notifies the driver of possible danger flashing on the BSM warning indicator light, and by activating the warning sound and the warning screen indicator display.

The detection area on this system covers the driving lanes on both sides of the vehicle and from the rear part of

the front doors to about 50 m (164 ft) behind the vehicle.



- 1. Your vehicle
- 2. Detection areas



# Always check the surrounding area visually before making an actual lane change:

The system is only designed to assist you in checking for vehicles at your rear when making a lane change. Due to certain limitations with the operation of this system, the BSM warning indicator light, the warning sound and the warning screen indicator display may not activate or they might be delayed even though a vehicle is in an adjacent driving lane. Always make it your responsibility as a driver to check the rear.

#### NOTE

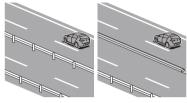
- The BSM will operate when all of the following conditions are met:
  - · The power switch is switched ON.
  - The i-ACTIVSENSE warning indication/warning light in the instrument cluster is turned off.
  - The vehicle speed is about 10 km/h (6.3 mph) or faster.

- The BSM will not operate under the following circumstances.
  - The vehicle speed falls below about 10 km/h (6.3 mph) even though the i-ACTIVSENSE warning indication/warning light is turned off.
  - The selector lever is shifted to reverse (R) and the vehicle is reversing.
  - The turning radius is small (making a sharp turn, turning at intersections).
- In the following cases, the i-ACTIVSENSE warning indication/ warning light turns on and operation of the system is stopped. If the i-ACTIVSENSE warning indication/ warning light remains illuminated, have the vehicle inspected at an Authorized Mazda Dealer as soon as possible.
  - Some problem with the system including the BSM warning indicator lights is detected.
  - A large deviation in the installation position of a rear side radar sensor on the vehicle has occurred.
  - There is a large accumulation of snow or ice on the rear bumper near a rear side radar sensor.
     Remove any snow, ice or mud on the rear bumper.
  - Driving on snow-covered roads for long periods.
  - The temperature near the rear side radar sensor becomes extremely hot due to driving for long periods on slopes during the summer.
  - The lead-acid battery voltage has decreased.
- Under the following conditions, the rear side radar sensor cannot detect target objects or it may be difficult to detect them.

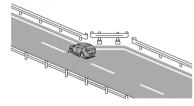
- The rear bumper around the rear side radar sensor is deformed.
- Radio wave interference from a radar sensor equipped on a nearby vehicle.
- The approaching vehicle is any of the following shapes.
  - a) The size of the vehicle body is extremely small.
  - b) The vehicle height is extremely low or high.
  - c) A special type of vehicle with a complex shape.
- A vehicle is in the detection area at the rear in an adjacent driving lane but it does not approach. The BSM determines the condition based on radar detection data.
- A vehicle is traveling alongside your vehicle at nearly the same speed for an extended period of time.
- Vehicles approaching in the opposite direction.
- A vehicle in an adjacent driving lane is attempting to pass your vehicle.
- · A vehicle is in an adjacent lane on a road with extremely wide driving lanes. The detection area of the rear side radar sensor is set at the road width of expressways.
- In the following case, the flashing of the BSM warning indicator light, and the activation of the warning sound and the warning screen indicator display may not occur or they may be delayed.
  - · A vehicle makes a lane change from a driving lane two lanes over to an adjacent lane.
  - · Driving on steep slopes.
  - · Crossing the summit of a hill or mountain pass.

- When there is a difference in the height between your driving lane and the adjacent lane.
- Directly after the BSM system becomes operable by changing the setting.
- If the road width is extremely narrow, vehicles two lanes over may be detected. The detection area of the rear side radar sensor is set according to the road width of expressways.
- The BSM warning indicator light may turn on and the vehicle detection screen may be displayed in the display in reaction to stationary objects (guardrails, tunnels, sidewalls, and parked vehicles) on the road or the roadside.

Objects such as guardrails and concrete walls running alongside the vehicle.

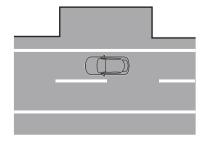


Places where the width between guardrails or walls on each side of the vehicle narrows.



The walls at the entrance and exits of tunnels, turnouts.



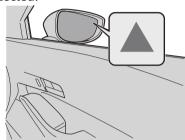


- A BSM warning indicator light may flash or the warning beep may be activated several times when making a turn at a city intersection.
- Turn off the BSM while pulling a trailer or while an accessory such as a bicycle carrier is installed to the rear of the vehicle. Otherwise, the radar's radio waves will be blocked causing the system to not operate normally.
- In the following cases, it may be difficult to view the illumination/ flashing of the BSM warning indicator lights equipped on the door mirrors.
  - Snow or ice is adhering to the door mirrors.
  - The front door glass is fogged or covered in snow, frost or dirt.
- The rear side radar sensor of the BSM may be regulated under the radio wave related laws of the country where the vehicle is driven. If this system is used abroad, it may be necessary to turn off the system. Refer to Rear Side Radar Sensor on page 4-79.
- The system switches to the Rear Cross Traffic Alert (RCTA) function when the selector lever is shifted to the reverse (R) position. Refer to Rear Cross Traffic Alert (RCTA) on page 4-107.
- ▼ Blind Spot Monitoring (BSM)
  Warning Indicator Lights/Display
  Indicator/Blind Spot Monitoring
  (BSM) Warning Beep

The BSM system notifies the driver of the presence of vehicles in adjacent lanes or at the rear of the vehicle using the BSM warning indicator light, the warning sound and the display indicator while the systems are operational.

### **BSM** warning indicator lights

The BSM warning indicator lights are equipped on the left and right door mirrors. The warning indicator lights turn on when a vehicle approaching from the rear in an adjacent lane is detected.



When the power switch is switched ON, the warning indicator light turns on momentarily and then turns off after a few seconds.

# Function for canceling illumination dimmer

If the BSM warning indicator lights turn on when the parking lights are turned on, the brightness of the BSM warning indicator lights is dimmed.

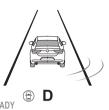
If the BSM warning indicator lights are difficult to see due to glare from surrounding brightness when traveling on snow-covered roads or under foggy conditions, press the dimmer cancellation button to cancel the dimmer and increase the brightness of BSM warning indicator lights when they turn on.

Refer to Dashboard Illumination on page 4-14.

## Display indicator

The detected approaching vehicle and warning are displayed in the multi-information display and active driving display (vehicles with active driving display).

# Multi-information Display 40



Active Driving Display (vehicles with active driving display)

40

The detected direction is displayed with a detection indicator (white) when an approaching vehicle is detected. In addition, if the turn signal lever is operated to signal a lane change while the vehicle is detected, the display changes the color (amber) of the warning indicator.

## BSM warning beep

The BSM warning beep is activated simultaneously with the flashing of a BSM warning indicator light.

# **▼** Canceling Operation of Blind Spot Monitoring (BSM)

The BSM system can be set to inoperable.

- (If only the BSM is turned off)
   Refer to the Settings section in the Mazda Connect Owner's Manual.
- (If the BSM is turned off by operating the i-ACTIVSENSE OFF switch)

Refer to i-ACTIVSENSE OFF Switch on page 4-70.

#### NOTE

If the power switch is switched OFF while you have canceled the system using the i-ACTIVSENSE OFF switch, the system is automatically enabled the next time the power switch is switched ON. However, if the system is canceled using [Settings] in Mazda Connect, the system is not automatically enabled.

# Traffic Sign Recognition System (TSR)

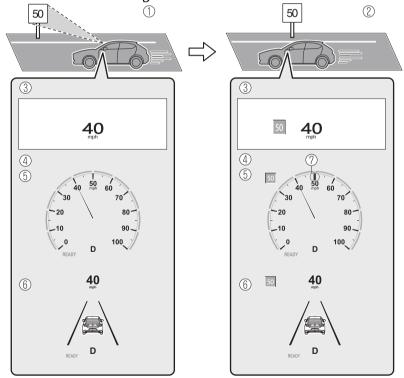
### **▼** Traffic Sign Recognition System (TSR)

The TSR helps prevent the driver from overlooking traffic signs, and provides support for safer driving by displaying traffic signs on the active driving display/instrument cluster which are recognized by the Forward Sensing Camera (FSC) or recorded in the navigation system while the vehicle is driven.

The TSR displays the speed limit (including auxiliary signs), do not enter, and traffic stop signs.

If the vehicle speed exceeds the speed limit sign indicated in the active driving display/instrument cluster while the vehicle is driven, the system notifies the driver using the indication in the active driving display/instrument cluster and a warning sound.

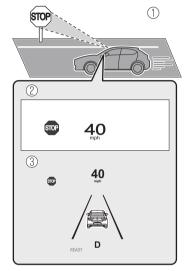
Speed limit and do not enter signs



- 1. Sign recognized
- 2. Sign displayed
- 3. Active driving display indication

- 4. Instrument cluster
- 5. Basic display
- 6. i-ACTIVSENSE display
- 7. Recognized speed limit indication color changes.

### Stop sign



- 1. Sign recognized and displayed at same time
- 2. Active driving display indication
- Instrument cluster

# **M** WARNING

### Always check the traffic signs visually while driving:

The TSR helps prevent the driver from overlooking traffic signs and provides support for safer driving. Depending on the weather conditions or problems with traffic signs, a traffic sign may not be recognized or a traffic sign different from the actual traffic sign may be displayed. Always make it your responsibility as a driver to check the actual traffic signs. Otherwise, it could result in an accident.

#### NOTE

- The TSR is not supported in some countries or regions. For information concerning the supported countries or regions, consult an Authorized Mazda Dealer.
- The TSR operates only if the navigation system SD card (Mazda genuine) is inserted in the SD card slot. Consult an Authorized Mazda Dealer for details.
- The TSR does not operate if there is a malfunction in the Forward Sensing Camera (FSC).
- · Under the following conditions, the TSR may not operate normally.

- · An object placed on the dashboard is reflected in the windshield and picked up by the camera.
- Heavy luggage is loaded in the luggage compartment or on the rear seat and the vehicle is tilted.
- The tire pressures are not adjusted to the specified pressure.
- · Tires other than standard tires are equipped.
- The vehicle is driven on the ramp and surrounding area to or from a rest area or a tollgate on a highway.
- When surrounding brightness suddenly changes such as when entering or exiting a tunnel.
- The illumination of the headlights is weakened because of dirt or the optical axis is deviated.
- · The windshield is dirty or foggy.
- The windshield and camera are fogged (water droplets).
- Strong light is directed at the front of the vehicle (such as backlight or high-beam headlights of on-coming vehicles).
- · The vehicle is making a sharp turn.
- · Strong light reflects off the road.
- · A traffic sign is in a position which makes it difficult to reflect the light from the vehicle's headlights, such as when the vehicle is driven at night or in a tunnel.
- The vehicle is driven under weather conditions such as rain, fog, or snow.
- · The stored map data for the navigation system is not current.
- · A traffic sign is obscured by mud or snow.
- · A traffic sign is concealed by trees or a vehicle.
- · A traffic sign is partially shaded.
- · A traffic sign is bent or warped.
- · A traffic sign is too low or too high.
- · A traffic sign is too bright or too dark (including electronic traffic signs).
- · A traffic sign is too big or too small.
- There is an object similar to the traffic sign being read (such as another traffic sign or other signs resembling it).
- The TSR can be set to invisible on the active driving display.
   Refer to the Settings section in the Mazda Connect Owner's Manual.

## **▼** Traffic Sign Display Indication

The following traffic signs are displayed on the active driving display/instrument cluster.

## Speed limit signs



#### Do not enter signs



# Stop signs



#### NOTE Speed limit signs

· When the vehicle speed is about 1 km/h (0.6 mph) or faster, the speed limit sign is displayed when any one of the following conditions are met.

- The Forward Sensing Camera (FSC) recognizes a speed limit sign as a sign targeted for your vehicle and the vehicle passes it.
- The speed limit sign stored in the navigation system is read.
- In the following cases, display of the speed limit sign stops.
  - Each sensor determines that the vehicle has changed direction of travel.
  - The Forward Sensing Camera (FSC) recognizes a new speed limit sign which differs from the previous one (displays the new speed limit sign).
  - The speed limit sign stored in the navigation system is not read within a certain period of time (if the Forward Sensing Camera (FSC) does not recognize a speed limit sign, the speed limit sign stored in the navigation system is displayed).
  - The vehicle speed exceeds the displayed speed limit sign by 30 km/h (19 mph) or more after a certain period of time has elapsed since the speed limit sign was displayed. (Except when there is information for the speed limit sign in the navigation system)

### Do not enter signs

- A do not enter sign is displayed when all of the following conditions are met.
  - The vehicle speed is about 60 km/h (37 mph) or slower.
  - The Forward Sensing Camera (FSC) recognizes a do not enter sign as a sign targeted for your vehicle and the vehicle passes it.

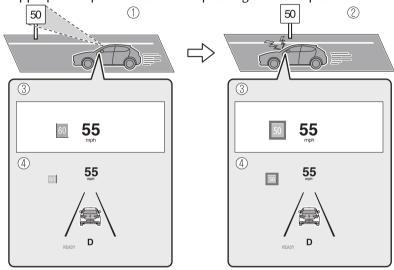
 When the Forward Sensing Camera (FSC) recognizes the do not enter sign and a certain period of time has elapsed since the vehicle passed the sign, display of the do not enter sign stops.

#### Stop sign

- A stop sign is displayed when all of the following conditions are met:
  - The vehicle speed is about 65 km/h (40 mph) or slower.
  - The Forward Sensing Camera (FSC) recognizes a stop sign as a sign targeted for your vehicle.
- When a certain period of time has elapsed since the stop sign was displayed, display of the stop sign stops.

#### **▼** Excessive Speed Warning

If the vehicle speed exceeds the speed limit sign displayed in the active driving display/instrument cluster, the area around the speed limit sign flashes in amber and the warning sound is activated at the same time. If the vehicle speed continues to exceed the displayed speed limit sign, the indication stops flashing and remains on. Check the surrounding conditions and adjust the vehicle speed to the legal speed using the appropriate operation such as depressing the brake pedal.



- 1. Vehicle is doing 55 mph when 50 mph speed limit sign is recognized.
- 2. Vehicle continues to do 55 mph after 50 mph speed limit sign is recognized.
- 3. Active driving display indication
- 4. Instrument cluster

The excessive speed warning is initially set to inoperable. If you want to activate the excessive speed warning, change the setting in the personalization features. In addition, the warning pattern and the warning activation timing differ depending on the setting contents.

Refer to the Settings section in the Mazda Connect Owner's Manual.

### Speed Limit Sign Alert setting

- $\cdot$  Off: The excessive speed warning is not activated.
- · Visual: The area around the speed limit sign displayed in the display flashes in amber, and if the vehicle speed continues to exceed the displayed speed limit sign, the indication stops flashing and remains on.
- · Visual + Audible: The area around the speed limit sign displayed in the display flashes in amber and the warning sound is activated at the same time. If the vehicle speed continues to exceed the displayed speed limit sign, the indication

stops flashing and remains on. The warning sound is activated continuously until the vehicle speed decreases below the speed limit sign.

### **Speed Limit Sign Threshold setting**

- $\cdot$  + 0 km/h (+ 0 mph): If the vehicle speed exceeds the speed limit sign displayed in the display, the excessive speed warning is activated.
- · + 5 km/h (+ 3 mph): If the vehicle speed exceeds the speed limit sign displayed in the display by 5 km/h (3 mph), the excessive speed warning is activated.
- + 10 km/h (+ 5 mph): If the vehicle speed exceeds the speed limit sign displayed in the display by 10 km/h (5 mph), the excessive speed warning is activated.

#### **NOTE**

- · In the following cases, the excessive speed warning stops operating.
  - The vehicle speed is less than the speed of the displayed speed limit sign. (If the activation timing for the excessive speed warning is changed in the personalization features, the excessive speed warning stops operating when the vehicle speed is less than the changed vehicle speed.
  - · A speed limit sign indication has been updated and the vehicle speed is lower than the updated indication.
  - · Display of the speed limit sign stops.
- The warning indication is displayed at the same time the excessive speed warning sound is activated if the vehicle speed exceeds the speed indicated on the speed limit sign.
  - Refer to Excessive Speed Warning on page 7-40.
- If the Forward Sensing Camera (FSC) or data recorded in the navigation system incorrectly recognizes the actual speed limit sign at a lower speed, the excessive speed alarm is activated even if the vehicle is driven at the legal speed.

# Distance & Speed Alert (DSA)\*

### **▼** Distance & Speed Alert (DSA)

The DSA is designed to assist your driving using the display indications so that the distance between your vehicle and a vehicle ahead can be maintained appropriately.

# **MARNING**

# Do not rely completely on the DSA and always drive carefully:

The DSA may not be able to detect a vehicle ahead depending on the type of vehicle ahead and its conditions, the weather conditions, and the road conditions. In addition, the system is not for maintaining the distance between your vehicle and a vehicle ahead. If you neglect to operate the accelerator and brake pedals correctly. it could lead to an accident. Always check the surrounding conditions and depress the brake pedal or accelerator pedal while keeping a safe distance from a vehicle ahead or a vehicle following behind you.

### **Operation conditions**

The DSA operates when all of the following conditions are met.

- · The power switch is switched ON.
- · The DSA is on.
- The selector lever is in a position other than R.
- The vehicle speed is about 30 km/h (19 mph) or faster.
- i-ACTIVSENSE status symbol (warning/risk avoidance support system) (green) is displayed.

• The vehicle ahead is a vehicle with four wheels.

#### NOTE

- The DSA may also operate in the presence of motorcycles and bicycles.
- The DSA does not operate with the following objects.
  - · On-coming vehicles
  - Pedestrians
  - Stationary objects (such as stopped vehicles, obstructions)
- If a vehicle ahead is traveling at an extremely low speed, the system may not detect it correctly.
- The DSA can be set to inoperable.
   However, when the power switch is switched OFF while the DSA is canceled, the DSA is automatically enabled the next time the power switch is switched ON.
   Refer to the Settings section in the Mazda Connect Owner's Manual.
   Refer to i-ACTIVSENSE OFF Switch on page 4-70.

# **▼** Vehicle Ahead Close Proximity Warning

When the distance between your vehicle and a vehicle ahead is close, the i-ACTIVSENSE status symbol (Warning/risk avoidance support system) changes from green to amber and the warning indication is displayed on the multi-information display.

Check the surrounding conditions and keep a safe distance from the vehicle ahead.



# **Driver Attention Alert** (DAA)\*

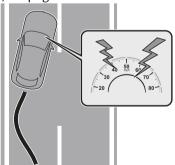
### **▼** Driver Attention Alert (DAA)

The DAA is a system which detects driver fatigue and decreased attentiveness, and encourages the driver to take a rest.

When the vehicle is driven inside traffic lane lines at about 65 to 140 km/h (41 to 86 mph), the DAA estimates the amount of accumulated fatigue and decreased attentiveness of the driver based on the information from the Forward Sensing Camera (FSC) and other vehicle information, and encourages the driver to take a rest using an indication on the multi-information display and a warning sound.

Use the DAA on expressways or highways.

Refer to Forward Sensing Camera (FSC) on page 4-71.



# **▲** WARNING

# Do not rely completely on DAA and always drive carefully:

The DAA detects driver fatigue and decreased attentiveness and encourages the driver to take a rest, however, it is not designed to prevent the vehicle from straying. If you rely too much on the DAA it could lead to an accident. Drive carefully and operate the steering wheel appropriately. In addition, the system may not be able to detect driver fatigue and decreased attentiveness correctly depending on the traffic and driving conditions. The driver must take sufficient rest in order to drive safely.

#### **NOTE**

- The DAA operates when all of the following conditions are met.
  - The vehicle speed is about 65 to 140 km/h (41 to 86 mph).
  - The system detects white (yellow) lane lines.
  - The system has completed learning of the driver's driving data after 60 minutes have passed since the driver began driving vehicle.
- The DAA does not operate under the following conditions.
  - The vehicle speed is less than about 65 km/h (41 mph).
  - The vehicle speed exceeds about 140 km/h (86 mph).
  - · The vehicle is making a sharp turn.
  - The vehicle is changing lanes.
  - The system cannot detect white (yellow) lane lines.
- The DAA may not operate normally under the following conditions.

- White (yellow) lane lines are less visible because of dirt or fading/ patchiness.
- The vehicle is jolted or swayed continuously by strong winds or rough roads.
- · The vehicle is driven aggressively.
- When making frequent lane changes.
- · The vehicle is making a curve.
- The DAA detects driver fatigue and decreased attentiveness based on the driving data when the vehicle is driven at about 65 to 140 km/h (41 to 86 mph) for about 20 minutes. The driving data will be reset under the following conditions.
  - The vehicle is stopped for 15 minutes or longer.
  - The vehicle is driven at less than about 65 km/h (41 mph) for about 30 minutes.
  - · The power switch is switched off.
- After the DAA has displayed the first message encouraging rest, it does not display the next one until 60 minutes have passed.

# **▼** Driver Attention Alert (DAA) Display

When the system detects driver fatigue or decreased attentiveness, it activates the warning sound and displays an alert in the multi-information display.



1. "Time for a Break" message is displayed

#### **▼** Canceling Driver Attention Alert (DAA)

The DAA can be set to inoperable. Refer to the Settings section in the Mazda Connect Owner's Manual.

# Driver Monitoring (DM)

### ▼ Driver Monitoring (DM)

The DM is a system which detects driver fatigue and sleepiness, and encourages the driver to take a rest. While driving the vehicle at about 5 km/h (3 mph) or faster, the DM detects changes in the driver's facial features using the driver monitoring camera. The system then estimates the amount of accumulated fatigue and sleepiness of the driver and encourages the driver to take a rest using a warning indication in the instrument cluster and a warning sound.

Two types of warning indication patterns are set for notifying the driver based on the estimated amount of accumulated fatigue and sleepiness of the driver.

- · Fatigue and sleepiness are detected: Warning pattern (caution)
- · Much more fatigue and sleepiness are detected: Warning pattern (warning)



# **⚠** WARNING

# Do not rely completely on the DM and always drive carefully:

The DM is a system which detects driver fatigue and sleepiness, and encourages the driver to take a rest. This is not designed to prevent driver fatigue and sleepiness, and over-reliance on the system could lead to an accident. Drive carefully and turn the steering wheel appropriately. In addition, the system may not be able to detect driver fatigue and sleepiness correctly depending on the traffic and driving conditions. The driver must take sufficient rest in order to drive safely.

### **Operation conditions**

The DM begins monitoring after 20 minutes have passed since the driver began driving the vehicle and when the vehicle speed is about 5 km/h (3 mph) or faster.

#### NOTE

- If the vehicle speed decreases to less than about 5 km/h (3 mph) while the DM is monitoring, the DM stops monitoring for 6 minutes even if the vehicle speed returns to about 5 km/h (3 mph) or faster.
- If the driver monitoring camera does not recognize the driver correctly, the DM may not monitor correctly.
   Refer to Driver Monitoring Camera on page 4-81.
- After the DM has displayed the first message encouraging the driver to take a rest, it does not display it again during the following periods.

- After displaying the warning pattern (caution), the next warning pattern (caution) is not displayed until 45 minutes have passed.
- After displaying the warning pattern (warning), the next warning pattern (warning) is not displayed until 15 minutes have passed.
- · After displaying the warning pattern (warning), the next warning pattern (caution) is not displayed until 45 minutes have passed.

### **▼** Driver Monitoring (DM) Display

When the Driver Monitoring (DM) detects driver fatigue or sleepiness, it activates the warning sound and displays an alert in the instrument cluster.

#### Warning pattern (caution) (white)



"Time for a Break" message is displayed

## Warning pattern (warning) (amber)



1. "Time for a Break" message is displayed

#### **▼** Canceling Driver Monitoring (DM)

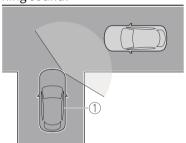
The DM can be set to inoperable. Refer to the Settings section in the Mazda Connect Owner's Manual.

### Front Cross Traffic Alert (FCTA)

#### ▼ Front Cross Traffic Alert (FCTA)

The FCTA is designed to assist the driver in checking both sides of the vehicle when the vehicle starts to drive at an intersection

The FCTA detects vehicles approaching from the blind spots on the front left and right sides of the vehicle when the vehicle starts to drive at an intersection, and notifies the driver of possible danger using the warning indication on the display and the warning sound.



#### 1. Your vehicle



#### Always check the surrounding area visually when the vehicle starts to drive at an intersection:

Due to certain limitations with the operation of this system, the warning indication on the display or the warning sound might be delayed even though there is a vehicle approaching from a blind spot. Always make it your responsibility as a driver to check the left and right sides.

#### **Operation conditions**

The system operates when all of the following conditions are met:

- · When your vehicle is driven at less than about 10 km/h (6 mph).
- · The selector lever is in the D position.
- · When a vehicle approaches from the front side of your vehicle at a vehicle speed of about 5 km/h (3 mph) or faster.

#### FCTA operation

#### When your vehicle is stopped

When a vehicle is approaching, the system notifies the driver that a vehicle is approaching on the following display (white arrow).

Multi-information display



Active driving display (vehicles with active driving display)



360°view monitor (vehicles with 360°view monitor)



#### When your vehicle is being driven

If there is a possibility of a collision with an approaching vehicle, a warning indication is displayed on the following display (amber arrow) and the warning sound is activated at the same time.

Multi-information display



Active driving display (vehicles with

active driving display)



360°view monitor (vehicles with 360°view monitor)



#### NOTE

- · The system may operate under the following conditions even if a vehicle is not approaching.
  - · An object that reflects the radio waves of the radar such as a parked vehicle, guardrail, or wall is directly next to your vehicle.
  - · Vehicles are stopped in the area around your vehicle such as during heavy traffic.
  - · A vehicle approaching from the front or side of your vehicle slows down.
  - · A vehicle approaching from the front or left side of your vehicle makes a right or left turn directly in front of your vehicle.

- A vehicle or pedestrian moves in the parking lot or on the sidewalk in the area surrounding your vehicle.
- After making a left or right turn, an on-coming vehicle is present.
- When passing an on-coming vehicle.
- A vehicle overtakes your vehicle while it is stopped.
- Your vehicle is in an area where strong radio waves or electrical noise may occur such as near a television tower or power plant.
- Under the following conditions, the front side radar sensor cannot detect approaching vehicles or it might be difficult to detect them, and the system may not operate normally.
  - The front side radar sensor detection area is obstructed by a nearby wall or vehicle.
  - Directly after the system becomes operable.
  - Radio wave interference from a radar sensor equipped on a nearby vehicle.
  - The approaching vehicle has any of the following shapes.
    - a) The size of the vehicle body is extremely small.
    - b) The vehicle height is extremely low or high.
  - c) A special type of vehicle with a complex shape
  - · A vehicle suddenly enters the detection area from the front or side of your vehicle.
  - A vehicle that has stopped suddenly starts to move.
  - Multiple objects move at the same time.
  - The vehicle is driven in bad weather conditions such as heavy rain, fog, snow, or sand storms.

- The vehicle is driven on a sharp curve or on bumpy roads.
- An object that reflects the radio waves of the radar such as a parked vehicle, guardrail, or wall is directly next to your vehicle.
- · A vehicle approaches while turning (Such as roundabout)
- The vehicle is driven at an extremely slow speed.
- In the following cases, the system turns on the i-ACTIVSENSE warning indication/warning light and operation of the system is stopped. If the i-ACTIVSENSE warning indication/warning light remains on, have the vehicle inspected by an Authorized Mazda Dealer as soon as possible.
  - Some problem with the system has occurred.
  - The front side radar sensor installation position is greatly deviated.
  - There is a large accumulation of snow or ice on the front bumper near a front side radar sensor.
  - The temperature near the radar sensors becomes extremely hot due to driving for a long time on slopes during the summer.
  - The lead-acid battery voltage has decreased.
  - The front side radar sensor of the FCTA may be regulated under the radio wave related laws of the country where the vehicle is driven. If this system is used abroad, it may be necessary to turn off the system. Refer to Front Side Radar Sensor on page 4-77.

## ▼ Canceling Operation of Front Cross Traffic Alert (FCTA)

The FCTA can be set to inoperable.

- · (If only the FCTA is turned off) Refer to the Settings section in the Mazda Connect Owner's Manual.
- · (If the FCTA is turned off by operating the i-ACTIVSENSE OFF switch)
  - Refer to i-ACTIVSENSE OFF Switch on page 4-70.

#### NOTE

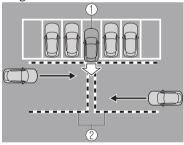
If the power switch is switched OFF while you have canceled the system using the i-ACTIVSENSE OFF switch, the system is automatically enabled the next time the power switch is switched ON. However, if the system is canceled using [Settings] in Mazda Connect, the system is not automatically enabled.

### Rear Cross Traffic Alert (RCTA)

#### **▼** Rear Cross Traffic Alert (RCTA)

The RCTA system is designed to assist the driver in checking the area to the rear left and right sides of your vehicle while your vehicle is reversing by alerting the driver to the presence of vehicles approaching the rear of your vehicle.

The RCTA system detects vehicles approaching from the rear left and right sides of your vehicle and the rear of your vehicle while your vehicle is being reversed out of a parking space, and notifies the driver of possible danger using the Blind Spot Monitoring (BSM) warning indicator lights and the warning buzzer.



- 1. Your vehicle
- Detection areas

### **M** WARNING

# Always check the surrounding area visually before actually putting the vehicle in reverse:

The system is only designed to assist you in checking for vehicles at the rear when putting the vehicle in reverse. Due to certain limitations with the operation of this system, the Blind Spot Monitoring (BSM) warning indicator lights may not flash or it might be delayed even though a vehicle is behind your vehicle. Always make it your responsibility as a driver to check the rear.

#### **RCTA** operation

- 1. The RCTA system operates when the selector lever is shifted to the reverse (R) position.
- 2. If there is the possibility of a collision with an approaching vehicle, the Blind Spot Monitoring (BSM) warning indicator lights flashes and the warning beep is activated simultaneously.

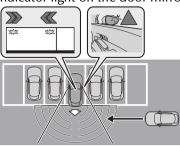
## Rear view monitor (vehicles with Rear view monitor)

The RCTA warning indication in the rearview monitor also synchronizes with the Blind Spot Monitoring (BSM) warning indicator light on the door mirrors.

## 360°view monitor (vehicles with 360°view monitor)

The RCTA warning indication in the 360° view monitor also synchronizes with the Blind Spot

Monitoring (BSM) warning indicator light on the door mirrors.



## Function for canceling illumination dimmer

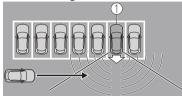
If the BSM warning indicator lights turn on when the parking lights are turned on, the brightness of the BSM warning indicator lights is dimmed. If the BSM warning indicator lights are difficult to see due to glare from surrounding brightness when traveling on snow-covered roads or under foggy conditions, press the dimmer cancellation button to cancel the dimmer and increase the brightness of BSM warning indicator lights when they turn on. Refer to Dashboard Illumination on page 4-14.

#### NOTE

- The system may operate under the following conditions even if a vehicle is not approaching.
  - · An object that reflects the radio waves of the radar such as a parked vehicle, guardrail, or wall is directly next to your vehicle.
  - A vehicle approaching from the rear left and right side of your vehicle slows down.
  - A vehicle approaching from the rear left and right side of your vehicle makes a right or left turn directly in front of your vehicle.

- · A vehicle overtakes your vehicle while it is stopped.
- Your vehicle is in an area where strong radio waves or electrical noise may occur such as near a television tower or power plant.
- In the following cases, the i-ACTIVSENSE warning indication/ warning light turns on and operation of the system is stopped. If the i-ACTIVSENSE warning indication/ warning light remains illuminated, have the vehicle inspected at an Authorized Mazda Dealer as soon as possible.
  - Some problem with the system including the Blind Spot Monitoring (BSM) warning indicator lights has occurred.
  - A large deviation in the installation position of a rear side radar sensor on the vehicle has occurred.
  - There is a large accumulation of snow or ice on the rear bumper near a rear side radar sensor.
  - · Driving on snow-covered roads for long periods.
  - The temperature near the radar sensors becomes extremely hot due to driving for long periods on slopes during the summer.
  - The lead-acid battery voltage has decreased.
- Under the following conditions, the rear side radar sensor cannot detect approaching vehicles or it might be difficult to detect them, and the system may not operate normally.
  - The vehicle speed when reversing is about 15 km/h (9 mph) or faster.

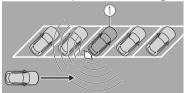
 The rear side radar sensor detection area is obstructed by a nearby wall or parked vehicle. (Reverse the vehicle to a position where the radar sensor detection area is no longer obstructed.)



- 1. Your vehicle
- · A vehicle is approaching directly from the rear of your vehicle.



- 1. Your vehicle
- · The vehicle is parked at an angle.



- 1. Your vehicle
- Directly after the RCTA system becomes operable using [Settings] in Mazda Connect.
- Radio wave interference from a radar sensor equipped on a nearby parked vehicle.

- In the following cases, it may be difficult to view the illumination/ flashing of the Blind Spot Monitoring (BSM) warning indicator lights equipped on the door mirrors.
  - Snow or ice adheres to the door mirrors.
  - The front door glass is fogged or covered in snow, frost or dirt.
- Turn off the RCTA system while pulling a trailer or while an accessory such as a bicycle carrier is installed to the rear of the vehicle. Otherwise, the radio waves emitted by the radar will be blocked causing the system to not operate normally.
- The rear side radar sensor of the RCTA may be regulated under the radio wave related laws of the country where the vehicle is driven. If this system is used abroad, it may be necessary to turn off the system. Refer to Rear Side Radar Sensor on page 4-79.

## ▼ Canceling Operation of Rear Cross Traffic Alert (RCTA)

The RCTA can be set to inoperable.

- (If only the RCTA is turned off)
   Refer to the Settings section in the Mazda Connect Owner's Manual.
- (If the RCTA is turned off by operating the i-ACTIVSENSE OFF switch)
  - Refer to i-ACTIVSENSE OFF Switch on page 4-70.

#### NOTE

If the power switch is switched OFF while you have canceled the system using the i-ACTIVSENSE OFF switch, the system is automatically enabled the next time the power switch is switched ON. However, if the system is canceled using [Settings] in Mazda Connect, the system is not automatically enabled.

### Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function)\*

▼ Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function)

The MRCC with Stop & Go function is a system designed to enable constant-speed driving at a set speed and headway control to maintain a constant distance with a vehicle ahead according to your vehicle speed. The system automatically accelerates, decelerates, and stops your vehicle without you having to depress the accelerator or brake pedal.

Also refer to the following information before using the MRCC with Stop & Go function.

- · Refer to Forward Sensing Camera (FSC) on page 4-71.
- · Refer to Front Radar Sensor on page 4-77.

### **♠** WARNING

#### Do not rely completely on the MRCC with Stop & Go function and always drive carefully:

The MRCC with Stop & Go function may not be able to detect a vehicle ahead depending on the type of vehicle and its conditions, the weather conditions, and the road conditions. Additionally, the system might be unable to decelerate sufficiently if the vehicle ahead applies the brakes suddenly or another vehicle cuts into your lane, which could result in an accident.

Always check the surrounding conditions and depress the brake pedal or accelerator pedal while keeping a safe distance from a vehicle ahead or a vehicle following behind you.

#### Do not use the system under the following conditions. Otherwise, it may result in an accident:

- The vehicle is driven on roads other than highways.
- The vehicle is driven on roads with sharp curves or with heavy traffic where sufficient distances between vehicles cannot be kept.
- The vehicle is driven on roads where acceleration and deceleration are frequently repeated.
- > The vehicle is exiting the main lane on an expressway to enter an interchange, a rest area, or a parking
- The vehicle is driven on slippery roads such as icy roads, snow-covered roads, and unpaved roads.
- The vehicle is driven on a long downslope.
- The vehicle is driven on a steep slope.
- A two-wheeled vehicle such as a motorcycle or bicycle is traveling ahead.
- The vehicle is being towed.
- Proximity warnings activate frequently.

#### Switch the MRCC with Stop & Go function off when it is not being used. Leaving the MRCC with Stop & Go function on when it is not in use is

dangerous as it could operate unexpectedly, resulting in an accident. Do not get out of the vehicle while the stop hold control is operating. Getting out of the vehicle while the stop hold control is operating is dangerous as the vehicle may move unexpectedly and result in an accident. Before leaving the vehicle, switch the MRCC with Stop & Go function off, shift the selector lever to the P position, and apply the parking brake.

#### **NOTE**

- The MRCC with Stop & Go function does not operate with the following objects.
  - · On-coming vehicles
  - Pedestrians
  - Stationary objects (such as stopped vehicles, obstructions)
- If a vehicle ahead is traveling at an extremely low speed, the system may not detect it correctly.
- A brake operation sound may be heard by the MRCC with Stop & Go function control, however it does not indicate a problem.
- The brake lights turn on while the brakes and stop hold control are operating by the MRCC with Stop & Go function control.
- If the distance between vehicles control is disabled using [Settings] in Mazda Connect, the MRCC with Stop & Go function switches to cruise control.

Refer to the Settings section in the Mazda Connect Owner's Manual.

▼ Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) Display Indication

The setting status and operation conditions of the MRCC with Stop & Go function are indicated on the

multi-information display and the active driving display.

Multi-information Display (Basic display)



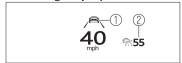
- 1. Vehicle ahead display
- MRCC with Stop & Go function set vehicle speed

Multi-information Display (i-ACTIVSENSE display)
40



- 1. Vehicle ahead display
- 2. MRCC with Stop & Go function set vehicle speed

Active driving display



1. Vehicle ahead display

2. MRCC with Stop & Go function set vehicle speed

If there is a problem with the MRCC with Stop & Go function, messages are displayed on the displays. Check the details of the problem and then have your vehicle inspected by an Authorized Mazda Dealer. Refer to If a Warning Light Turns On or Flashes on page 7-21.

#### **▼** Close Proximity Warning

If your vehicle approaches a vehicle ahead while in headway control using the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function), a warning sound is activated and a brake warning is displayed on the multi-information display. Check the surrounding conditions and keep a safe distance from the vehicle ahead.



"Depress Brake Pedal" message is displayed

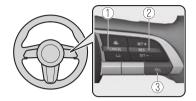
### **A** CAUTION

- While the accelerator pedal is being depressed, the warnings and brake control do not operate even if your vehicle approaches the vehicle ahead.
- In the following cases, the warnings and brakes may not operate even if your vehicle approaches the vehicle ahead.

- ➤ Your vehicle is being driven at the same speed as the vehicle ahead.
- ➤ Immediately after the MRCC with Stop & Go function is set.
- Immediately after the accelerator pedal is released.
- Another vehicle cuts into the driving lane.

#### **▼** Setting the System

#### Operation switch



- 1. CANCEL switch
- 2. RES switch
- 3. MRCC switch

#### **Operation conditions**

The MRCC with Stop & Go function operates when all of the following conditions are met.

- · The MRCC with Stop & Go function is on.
- The selector lever is in the D position.
- · The parking brake is released.
- · All the doors are closed.
- · The driver's seat belt is fastened.
- · Vehicle speed is 0 to 140 km/h (0 to 87 mph)

#### NOTE

- In the following cases, the MRCC with Stop & Go function system is canceled when the vehicle is traveling at 30 km/h (20 mph) or less and "Mazda Radar Cruise Control Disabled Under 30 km/h" is displayed in the multi-information display.
  - The Forward Sensing Camera (FSC) cannot detect target objects.
  - There is a problem with the stop hold control function.
  - There is a problem with the Electric Parking Brake (EPB).

#### Setting the vehicle speed

- 1. Press the MRCC switch to turn the system on.
- 2. Accelerate the vehicle until it reaches the desired speed using the accelerator pedal and press the RES switch up (SET+) or down (SET-) to set the speed.

#### NOTE

 When the system is turned on, the MRCC standby indication (white) turns on and the MRCC display indications are displayed on the multi-information display and the active driving display.

- · When the vehicle speed is set, the set vehicle speed is displayed on the displays and the MRCC standby indication (white) changes to the MRCC set indication (green).
- The minimum speed setting is 30 km/h (19 mph).

Travel status	Indication on multi-information display	Indication on active driving dis- play
During travel at constant speed	⊕ <b>D</b> ≈ 55	<b>5</b> 5 ≈55
During travel under headway control	READY D \$55	<b>40</b> ≈55

#### Setting the distance between vehicles

The distance between vehicles is set to a shorter distance by pressing the CANCEL switch down, and to a longer distance by pressing the CANCEL switch up. The distance between vehicles can be set to 4 levels: Long, medium, short, and extremely short distance.

The distance between vehicles increases or decreases depending on the vehicle speed.

Distance-between-vehicles guideline (at 80 km/h (50 mph) vehicle speed)	Indication on multi-information display	Indication on active driving display 1
Long (about 50 m (164 ft))		

Distance-between-vehicles guideline (at 80 km/h (50 mph) vehicle speed)	Indication on multi-information display	Indication on active driving display 1
Medium (about 40 m (131 ft))		
Short (about 30 m (98 ft))		
Extremely short (about 25 m (82 ft))		

<sup>&</sup>lt;sup>\*</sup>1 Displays a pop-up image in the active driving display only when the driver operates the switch.

#### Changing the set vehicle speed

#### How to change the set vehicle speed using the RES switch

When the RES switch is pressed up (SET+), the vehicle accelerates, and when the RES switch is pressed down (SET-), the vehicle decelerates.

- · Press and release immediately: 1 km/h (1 mph)
- · Press and hold: 10 km/h (5 mph)

#### How to change the set vehicle speed using the accelerator pedal

Depress the accelerator pedal until the vehicle speed reaches the desired speed, then press the RES switch up (SET+) or down (SET-) and release the switch.

#### **Temporary cancellation**

If any of the following conditions is met, the MRCC with Stop & Go function is canceled temporarily.

- The MRCC with Stop & Go function operation conditions are not met.
- The CANCEL switch is pressed.
- · The brake pedal is depressed.
- The front radar sensors cannot detect target objects.

- · The DSC has operated.
- The Smart Brake Support (SBS) has operated.
- The frequency of the braking operation by the MRCC with Stop & Go function is high.
- · There is a problem in the system.

#### Resuming the control

If the MRCC with Stop & Go function is temporarily canceled, it will resume operation at the previously set speed by pressing the RES switch after all of the operation conditions have been met again.

#### Turning off the system

When the MRCC switch is pressed while the MRCC is operating, the MRCC turns off

#### **▼ Stop Hold Control**

While in headway control using the MRCC with Stop & Go function, your vehicle will stop when a vehicle ahead stops. When your vehicle is stopped and the stop hold control operates, the MRCC with Stop & Go function indicator light turns on.

## HOLD

#### NOTE

 The parking brake is automatically applied and the vehicle is held in its stopped position when 10 minutes or longer have passed since the stop hold control operated. When this occurs, the MRCC with Stop & Go function is temporarily canceled.

#### **Resuming driving**

While in stop hold control, if the vehicle ahead starts moving and the distance from the vehicle increases, the stop hold control will be canceled and your vehicle will resume driving by performing any of the following operations.

- · Press the RES switch.
- · Depress the accelerator pedal.

#### NOTE

If the vehicle ahead starts moving within three seconds after your vehicle is stopped, the headway control will continue even if you do not resume driving your vehicle.

#### Resume driving information

If you do not resume driving within a few seconds after the vehicle ahead starts moving during stop hold control, the vehicle-ahead indication on the multi-information display flashes to urge you to resume driving. If you still do not resume driving after the indicator light flashes, a sound is activated to urge you to resume driving.

#### Traffic Jam Assist (TJA)\*

#### ▼ Traffic Jam Assist (TJA)

The TJA is a system designed to reduce driver fatigue during traffic jams when driving on expressways or highways. The TJA consists of a headway control function and a steering assist function.

#### **Headway control function**

The function performs headway control to maintain a constant distance between your vehicle and a vehicle ahead at a preset vehicle speed without you having to depress the accelerator or brake pedal.

#### Steering assist function

When vehicle lane lines are detected, the function assists your steering operation to follow the vehicle lane lines

When vehicle lane lines are not detected, the function assists your steering operation to follow the trajectory of the vehicle ahead.

Also refer to the following information before using the TJA.

- · Refer to Forward Sensing Camera (FSC) on page 4-71.
- · Refer to Front Radar Sensor on page 4-77.

### WARNING

#### Do not rely completely on the TJA and always drive carefully:

The TJA is not an automated driving system. Therefore, the function has limitations. Do not rely completely on the system and always stay on course using the steering wheel.

- > Set a vehicle speed within the speed limit according to the road conditions and the weather conditions
- The TIA may not be able to detect a vehicle ahead depending on the type of vehicle ahead and its conditions. the weather conditions, and the road conditions. Additionally, the system might be unable to decelerate sufficiently if the vehicle ahead applies the brakes suddenly or another vehicle cuts into your lane, which could result in an accident.

#### Do not use the system under the following conditions. Otherwise, it may result in an accident:

- The vehicle is driven on roads other than expressways and highways.
- The vehicle is driven on roads with sharp curves or with heavy traffic where sufficient distances between vehicles cannot be kept.
- The vehicle is driven on roads where acceleration and deceleration are frequently repeated.
- ➤ The vehicle is exiting the main lane on an expressway to enter an interchange, a rest area, or a parking area.
- The vehicle is driven on slippery roads such as icy roads, snow-covered roads, and unpaved
- The vehicle is driven on a long downslope.
- The vehicle is driven on a steep slope.
- >A two-wheeled vehicle such as a motorcycle or bicycle is traveling ahead.
- ➤ The vehicle is being towed.
- Proximity warnings activate frequently.

- ➤ Under bad weather conditions (rain, fog, and snow).
- Tires other than the specified size are used, such as when tire chains or temporary spare tires are used.

### Switch the TJA off when it is not being used.

Leaving the TJA on when it is not in use is dangerous as it could operate unexpectedly, resulting in an accident.

Do not get out of the vehicle while the stop hold control is operating. Getting out of the vehicle while the stop hold control is operating is dangerous as the vehicle may move unexpectedly and result in an accident. Before leaving the vehicle, switch the TJA off, shift the selector lever to the P position, and apply the parking brake.

#### NOTE

- The TJA does not operate with the following objects.
  - · On-coming vehicles
  - Pedestrians
  - Stationary objects (such as stopped vehicles, obstructions)
- If a vehicle ahead is traveling at an extremely low speed, the system may not detect it correctly.
- A brake operation sound may be heard by the TJA control, however, it does not indicate a problem.
- The brake lights turn on while the brakes and stop hold control are operating by the TJA control.
- When any of the following conditions is met, the TJA may not be able to detect white (yellow) lane lines or vehicles ahead correctly and the TJA may not operate normally.

- A condition under which the Forward Sensing Camera (FSC) cannot detect a target object is met
  - Refer to Forward Sensing Camera (FSC) on page 4-71.
- The Forward Sensing Camera (FSC) cannot recognize the area in front of the vehicle.
- The visibility of white (yellow) lane lines is poor.
- There are multiple white (yellow) lane lines.
- There is a misleading line which looks like a white (yellow) lane line.
- The distance to the vehicle ahead is close.
- The width of the vehicle lane is narrow or wide.
- · A vehicle ahead is driving erratically.
- · A vehicle ahead veers off course from your vehicle's line of travel.
- The vehicle is driven through an intersection, a junction, or a fork in the road.

## ▼ Traffic Jam Assist (TJA) Display Indication

The TJA setting status and operation conditions are indicated on the multi-information display and the active driving display.

## Multi-information display (Basic display)



- 1. Vehicle ahead display
- 2. TJA set vehicle speed

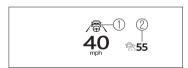
Multi-information display (i-ACTIVSENSE display)

**40** 



- 1. Vehicle ahead display
- 2. TJA set vehicle speed

#### Active driving display



- 1. Vehicle ahead display
- 2. TJA set vehicle speed

### Steering assist function display

When the steering assist function operates, the steering assist operation

display on the display changes from white to green.

40 mph



1. Steering assist operation display

#### **NOTE**

You can check if the steering assist function is following the lane lines or it is following vehicles ahead, on the multi-information display.

Inactive

**40** 



Active (vehicle ahead)
40



#### Active (lane line)

**40** 



If there is a problem with the TJA, a message is displayed on the display. Check the details of the problem and then have your vehicle inspected by an Authorized Mazda Dealer. Refer to If a Warning Light Turns On or Flashes on page 7-21.

#### **▼** Steering Assist Limit Warning

If the steering assist function cannot keep the vehicle within the lane lines, a warning sound is activated and the lane line of the direction reaching the limit is displayed on the multi-information display to urge you to operate the steering wheel.





#### **▼** Close Proximity Warning

If your vehicle approaches the vehicle ahead while traveling under headway

control using the Traffic Jam Assist (TJA), a warning sound is activated and a brake warning is indicated on the multi-information display. Check the surrounding conditions and keep a safe distance from the vehicle ahead.



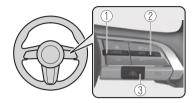
1. "Depress Brake Pedal" message is displayed



- ➤ While the accelerator pedal is being depressed, the warnings and brake control do not operate even if your vehicle approaches the vehicle ahead.
- In the following cases, the warnings and brakes may not operate even if your vehicle approaches the vehicle ahead.
  - ➤ Your vehicle is being driven at the same speed as the vehicle ahead.
  - Immediately after the Traffic Jam Assist (TJA) is set.
  - Immediately after the accelerator pedal is released.
  - Another vehicle cuts into the driving lane.

#### **▼** Setting the System

#### Operation switch



- 1. CANCEL switch
- 2. RES switch
- 3. TIA switch

#### **Operation conditions**

#### **Headway control function**

The headway control operates when all of the following conditions are met.

- · The TIA is on.
- · The selector lever is in the D position.
- · The parking brake is released.
- · All the doors are closed.
- · The driver's seat belt is fastened.
- · Vehicle speed is 0 to 140 km/h (0 to 87 mph)

#### Steering assist function

The steering assist function operates when all of the following conditions are met.

- · The headway control function is operating.
- The vehicle is being driven at a speed of less than about 56 km/h (35 mph).
- When driving near the center of the lane and the white (yellow) lane lines on both sides are detected clearly, or a vehicle ahead is detected clearly in front of your vehicle.
- · The steering wheel is not turned sharply.
- · The turn signal lever is not operated.

#### **NOTE**

- The steering operation assist is performed so that the vehicle remains near the center of the driving lane, however, depending on conditions such as the road curvature, road slope and undulations, and vehicle speed, the function might not be able to keep the vehicle near the center of the driving lane.
- · Under the following conditions, the TJA cannot be used when the vehicle speed is 30 km/h (20 mph) or slower.
  - The Forward Sensing Camera (FSC) cannot detect target objects.
  - There is a problem with the Electric Parking Brake (EPB).

• There is a problem with the stop hold control function.

#### Setting the vehicle speed

- 1. Press the TJA switch to turn the system on.
- 2. Accelerate the vehicle until it reaches the desired speed using the accelerator pedal and press the RES switch up (SET+) or down (SET-) to set the speed.

#### **NOTE**

- · When the system is turned on, the TJA standby indication (white) turns on and the TJA display indication is displayed on the multi-information display and the active driving display.
- When the vehicle speed is set, the set vehicle speed is displayed on the displays and the TJA standby indication (white) changes to the TJA set indication (green)
- The minimum speed setting is 30 km/h (19 mph).
- When the TJA switch is pressed while the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) system is operating, the MRCC with Stop & Go function switches to the TJA. In addition, when the MRCC switch is pressed while the TJA is operating, the TJA switches to the MRCC with Stop & Go function.

#### Setting the distance between vehicles

The distance between vehicles is set to a shorter distance by pressing the CANCEL switch down, and to a longer distance by pressing the CANCEL switch up. The distance between vehicles can be set to 4 levels: Long, medium, short, and extremely short distance.

The distance between vehicles increases or decreases depending on the vehicle speed.

Distance-between-vehicles	Indication	on display
guideline (at 80 km/h (50 mph) vehicle speed)	Indication on multi-information display	Indication on active driving display*1
Long (about 50 m (164 ft))		
Medium (about 40 m (131 ft))		_ <u>=</u>

Distance-between-vehicles	Indication on display	
guideline (at 80 km/h (50 mph) vehicle speed)	Indication on multi-information display	Indication on active driving display <sup>1</sup>
Short (about 30 m (98 ft))		
Extremely short (about 25 m (82 ft))		

<sup>\*1</sup> Displays a pop-up image when the CANCEL switch is operated.

#### Changing the set vehicle speed

#### How to change the set vehicle speed using the RES switch

When the RES switch is pressed up (SET+), the vehicle accelerates, and when the RES switch is pressed down (SET-), the vehicle decelerates.

- · Press and release immediately: 1 km/h (1 mph)
- · Press and hold: 10 km/h (5 mph)

#### How to change the set vehicle speed using the accelerator pedal

Depress the accelerator pedal until the vehicle speed reaches the desired speed, then press the RES switch up (SET+) or down (SET-) and release the switch.

#### **Temporary cancellation**

#### **Headway control function**

If any of the following conditions is met, the headway control function is temporarily canceled.

- · The headway control function operation conditions are not met.
- $\cdot$  The CANCEL switch is pressed.
- The brake pedal is depressed.
- $\boldsymbol{\cdot}$  The front radar sensors cannot detect target objects.
- · The DSC has operated.
- · The Smart Brake Support (SBS) has operated.
- The frequency of the braking operation by the TJA is high.
- · There is a problem in the system.

#### Steering assist function

If any of the following conditions is met, the steering assist function is temporarily canceled.

- The headway control function is canceled.
- · White (yellow) lane lines cannot be detected or a vehicle ahead cannot be recognized.
- The vehicle speed is about 64 km/h (40 mph) or faster.
- The Lane-keep Assist System (LAS) has operated.
- · The Blind Spot Assist has operated.
- · The Road Keep Assist has operated.
- The Forward Sensing Camera (FSC) cannot be used.
- · The accelerator pedal is depressed.
- · The turn signal lever is operated.
- · The steering wheel is operated abruptly
- · The driver takes his/her hands off the steering wheel.
- · The vehicle is making a sharp curve.
- · The vehicle crosses a lane line.
- · The width of the vehicle lane is narrow or wide.
- · There is a problem in the system.

#### NOTE

• If you are not holding the steering wheel properly, the warning sound is activated and warnings are displayed on the multi-information display and the active driving display.

Multi-information display





**Active driving display** 



#### **Resuming the control**

If the TJA is temporarily canceled, it will resume operation at the previously set speed by pressing the RES switch after all of the operation conditions have been met again.

#### Turning off the system

When the TJA switch is pressed while the TJA is operating, the TJA turns off.

#### **▼** Stop Hold Control

While in headway control using the Traffic Jam Assist (TJA), your vehicle will stop when a vehicle ahead stops. When the vehicle is stopped and the stop hold control operates, the TJA indicator light turns on.

## HOLD

#### **NOTE**

The parking brake is automatically applied and the vehicle is held in its stopped position when 10 minutes or longer have passed since the stop hold control operated. When this occurs, the TJA is temporarily canceled.

#### Resuming driving

While in stop hold control, if the vehicle ahead starts moving and the distance from the vehicle increases, the stop hold control will be canceled and your vehicle will resume driving by performing any of the following operations.

- · Press the RES switch.
- $\cdot$  Depress the accelerator pedal.

#### NOTE

If the vehicle ahead starts moving within three seconds after your vehicle is stopped, the headway control will continue even if you do not resume driving your vehicle.

#### Resume driving information

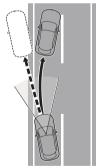
If you do not resume driving within a few seconds after the vehicle ahead starts moving during stop hold control, the vehicle-ahead indication on the multi-information display flashes to urge you to resume driving. If you still do not resume driving after the indicator light flashes, a sound is activated to urge you to resume driving.

# Lane-keep Assist System

#### ▼ Lane-keep Assist System (LAS)

The LAS provides steering assistance to help the driver stay within the vehicle lane if the vehicle might be deviating. The forward sensing camera (FSC) detects the white lines (yellow lines) of the vehicle lane in which the vehicle is traveling and if the system determines that the vehicle may deviate from its lane, it operates the electric power steering to assist the driver's steering operation. The system also alerts the driver by displaying an alert on the multi-information display and the active driving display.

Use the system when you drive the vehicle on roads with white (yellow) lines such as expressways and highways.



### WARNING

#### Do not rely completely on the LAS:

The LAS is not an automated driving system. In addition, the system is not designed to compensate for a driver's lack of caution, and over-reliance on the system could lead to an accident.

- The functions of the LAS have limitations. Always stay on course using the steering wheel and drive with care
- > Do not use the LAS under the following circumstances, otherwise it may result in an accident.
  - The vehicle is driven on slippery roads such as icy or snow-covered roads, and unpaved roads.
  - ➤ Tires of a different specified size are used, such as a temporary spare tire.
  - The vehicle is being used to tow a camper or boat trailer.
  - Tire chains are used.
  - The vehicle is driven on roads with lane lines other than white (vellow) lines, such as an expressway.

#### NOTE

The system may not operate normally under the following conditions.

- · A condition under which the forward sensing camera (FSC) cannot detect a target object is met. Refer to Forward Sensing Camera (FSC) on page 4-71.
- · The visibility of white (yellow) lines is poor (due to paint flaking or dirt, or being hidden by vehicles ahead).
- · There are multiple white (yellow) lines or they are interrupted.
- · A misleading line on the road is picked up (such as temporary line for construction, shadow, lingering snow, or grooves filled with water).
- · The width of a lane is excessively
- · The vehicle is shaken after hitting a road bump.
- · The vehicle is driven on a section with a closed lane or temporary lane due to construction.

 The vehicle is driven on a forked road or junction.

#### **▼** System Operation

#### **Operation conditions**

The Lane-keep Assist System (LAS) becomes operational when all of the following conditions are met.

- The vehicle speed is about 64 km/h (40 mph) or faster.
- The system detects white (yellow) lane lines.

#### **NOTE**

When the system does not detect a white (yellow) lane line on one side only, the system does not operate on the side that is not being detected.

## When temporarily canceling the system

The LAS goes on stand-by when any of the following conditions is met. The LAS is automatically restored when its operation conditions are met.

- The system cannot detect white (yellow) lane lines.
- The vehicle speed is less than about 56 km/h (35 mph).
- · The turn signal lever is operated.
- The accelerator pedal is depressed abruptly.
- $\cdot$  The TCS/DSC is operating.
- · The TCS is turned off.
- · The steering wheel is operated.
- · The brake pedal is operated.

#### The function is temporarily stopped.

The LAS stops functioning in the following cases:

 The temperature in the forward sensing camera (FSC) is too high or too low.

- The windshield around the forward sensing camera (FSC) is foggy.
- The windshield around the forward sensing camera (FSC) is blocked by an obstruction, causing poor forward visibility.
- Strong light (such as sunlight, or headlights (high-beam) of on-coming vehicles) is directed at the forward sensing camera (FSC).

#### **▼** Steering Wheel Operation Assist

When the system determines that the vehicle might be deviating from its lane, the steering wheel operation assist operates.

The system notifies the driver that it provided steering wheel operation assistance on the multi-information display and the active driving display. Multi-information display (Basic display)



Multi-information display (i-ACTIVSENSE display)

/ ⊕ N READY ⊕ **D** ≈ 55

#### Active driving display



#### **NOTE**

- · When the driver operates the steering wheel while the steering wheel operation assist is operating, the steering wheel operation assistance is canceled.
- · When the steering wheel operation assist is performed several times within a certain period of time, the warning sound is activated.

#### **▼** System Canceling

The Lane-keep Assist System (LAS) can be set to inoperable.

- · (If only the LAS is turned off) Refer to the Settings section in the Mazda Connect Owner's Manual.
- · (If the LAS is turned off by operating the i-ACTIVSENSE OFF switch) Refer to i-ACTIVSENSE OFF Switch on page 4-70.

#### NOTE

If the power switch is switched OFF while you have canceled the system using the i-ACTIVSENSE OFF switch, the LAS is automatically enabled the next time the power switch is switched ON. However, if the system is canceled using [Settings] in Mazda Connect, the LAS is not automatically enabled.

# **Emergency Lane Keeping**

#### **▼** Emergency Lane Keeping (ELK)

The ELK is a system designed to assist the driver's steering wheel operation to avoid danger.

The ELK consists of the Blind Spot Assist function to prevent your vehicle from colliding with vehicles on adjacent lanes, and the Road Keep Assist function to prevent your vehicle from deviating from the road. Refer to Blind Spot Assist on page 4-129.

Refer to Road Keep Assist on page 4-133.

#### ▼ Blind Spot Assist\*

The Blind Spot Assist function assists the driver in avoiding collisions with vehicles in adjacent lanes (excluding vehicles approaching in the opposite direction).

The Blind Spot Assist function detects white lines (yellow lines) on the vehicle lane using the Forward Sensing Camera (FSC) and detects vehicles on adjacent lanes using the rear side radar sensors. If there is a possibility of a collision with a vehicle in an adjacent lane when you try to change lanes or if you may deviate from your lane, it assists your steering wheel operation to keep you in the driving lane.

When the steering wheel operation assist operates, a warning sound and warning indications on displays alert the driver of the possibility of a collision. Furthermore, if the possibility of a collision increases, a warning

sound and display indications alert the driver of the danger.



### **MARNING**

Do not rely completely on the Blind Spot Assist function and always drive carefully:

- The Blind Spot Assist function has limitations. Do not rely completely on the system and always stay on course using the steering wheel.
- ➤ The Blind Spot Assist function is not an autonomous driving system. In addition, the system is not designed to compensate for a driver's lack of caution, and over-reliance on the system could lead to an accident.

The detection area of the camera and sensors is limited. If the steering wheel operation assist is operated without detecting a two-wheeled vehicle near the detecting vehicle, it could result in an accident.



# Do not use the system under the following conditions. Otherwise, it may result in an accident:

- ➤ The vehicle is driven on slippery roads such as icy roads, snow-covered roads, and unpaved roads.
- Tires other than the specified size are used, such as when tire chains or temporary spare tires are used.
- The vehicle is towing a camping trailer or boat trailer.
- ➤ The vehicle is driven on roads other than expressways and highways.
- The rear bumper around a rear side radar sensor is deformed.

#### **Operation conditions**

The Blind Spot Assist function becomes operational when all of the following conditions are met.

- The vehicle speed is about 64 km/h
   (40 mph) or faster.
- The vehicle is driven on a straight road or gentle curve.

- The system detects white (yellow) lane lines on both sides.
- · There is a vehicle on the rear sides.

#### NOTE

- The Blind Spot Assist function may not operate normally when any of the following conditions is met.
  - A condition under which the Forward Sensing Camera (FSC) cannot detect a target object is met.
     Refer to Forward Sensing Camera
  - (FSC) on page 4-71.• The visibility of vehicles in adjacent
  - lanes is poor.

     A vehicle in an adjacent lane rapidly approaches at a high
  - speed.Vehicles in adjacent lanes have any of the following shapes.
    - · The vehicle size is very small.
    - The vehicle height is extremely low or high.
    - · A special type of vehicle with a complex shape.
  - The visibility of white lines (yellow lines) is poor (due to paint flaking or dirt, or being hidden by vehicles ahead).
  - There are multiple white lines (yellow lines) or they are interrupted.
  - A misleading line on the road is picked up (such as temporary line for construction, shadow, lingering snow, or grooves filled with water).
  - The width of the vehicle lane is narrow or wide.
  - The vehicle is shaken after hitting a road bump.
  - The vehicle is driven on a section with a closed lane or temporary lane due to construction.

- The vehicle is driven on a forked road or junction.
- When the ELK OFF indicator light is on, the system is canceled according to a Mazda Connect setting.
   Refer to the Settings section in the Mazda Connect Owner's Manual.



## Temporary cancellation of the function

The Blind Spot Assist function goes on stand-by when any of the following conditions is met. The Blind Spot Assist function is automatically restored when its operation conditions are met.

- The vehicle speed is less than about 56 km/h (35 mph).
- The system cannot detect white (yellow) lane lines.
- The accelerator pedal is depressed abruptly.
- · The brake pedal is depressed.
- The steering wheel is operated abruptly.
- The TCS/DSC is operating.
- · The TCS/DSC is turned off.
- Multiple vehicles are traveling in the detecting area near your vehicle.

#### Cancellation of the function

The Blind Spot Assist function is canceled when any of the following conditions is met.

- The temperature in the Forward Sensing Camera (FSC) is high or low.
- The windshield around the Forward Sensing Camera (FSC) is foggy.
- The windshield around the Forward Sensing Camera (FSC) is blocked by an obstruction, causing poor forward visibility.

- · Snow, ice, or mud is adhering around a rear side radar sensor.
- The temperature around a rear side radar sensor is high.
- · There is a problem with the system.

#### System problem

If there is a problem with the system, the i-ACTIVSENSE warning indication/warning light turns on and a message is indicated.

Refer to i-ACTIVSENSE Warning Indication/Warning Light on page 7-29.

#### Steering wheel operation assist

If there is a possibility of collision with a vehicle in an adjacent lane when you try to change lanes or if you may deviate from the lane, the steering wheel operation assist operates. While the steering wheel operation assist is operating, the system notifies the driver using a warning sound, multi-information display, and the active driving display that it is assisting the steering wheel operation.

Multi-information display (Basic display)



## Multi-information display (i-ACTIVSENSE display)

**40** 



#### Active driving display



#### **NOTE**

- If the driver operates the steering wheel while the steering wheel operation assist is operating, the steering wheel operation assist is canceled.
- When the steering wheel operation assist is performed several times within a certain period of time, the warning sound is activated.

#### **Collision warning**

If the possibility of a collision with a vehicle in an adjacent lane increases, the direction to which the steering wheel needs to be turned to avoid a collision is displayed on the multi-information display and the active driving display, together with a warning sound activated.

#### Multi-information display



#### Active driving display



#### **▼** Road Keep Assist

The Road Keep Assist function assists the driver in avoiding a departure from the road while driving.

The Road Keep Assist function recognizes the outside of the road using the Forward Sensing Camera (FSC). If your vehicle may be deviating from the road, it provides steering assistance to avoid departure from the road.

When the steering wheel operation assist operates, display indications alert the driver of the possibility of a road departure. Furthermore, if the possibility of a road departure increases, a warning sound and display indications alert the driver of the danger.



### **MARNING**

#### Do not rely completely on the Road Keep Assist function and always drive carefully:

- The Road Keep Assist function has limitations. Do not rely completely on the system and always stay on course using the steering wheel.
- ➤ The Road Keep Assist function is not an autonomous driving system. In addition, the system is not designed to compensate for a driver's lack of caution, and over-reliance on the system could lead to an accident.

# Do not use the system under the following conditions. Otherwise, it may result in an accident:

- The vehicle is driven on slippery roads such as icy roads, snow-covered roads, and unpaved roads.
- ➤ Tires other than the specified size are used, such as when tire chains or temporary spare tires are used.
- ➤ The vehicle is towing a camping trailer or boat trailer.

#### **Operation conditions**

The Road Keep Assist function becomes operational when all of the following conditions are met.

- The vehicle speed is about 64 km/h (40 mph) or faster.
- The vehicle is driven on a straight road or gentle curve.
- The function recognizes the outside of the road by detecting target objects (such as gravel, grass, street gutters, road curbs, guardrails, or walls).

#### NOTE

- The Road Keep Assist function may not operate normally when any of the following conditions is met.
  - A condition under which the Forward Sensing Camera (FSC) cannot detect a target is met.
     Refer to Forward Sensing Camera (FSC) on page 4-71.
  - The target objects are difficult to detect (due to low road curb, no contrast between the inside and outside of the road, or being hidden by vehicles ahead).
  - A misleading line (such as temporary line for construction, shadow, lingering snow, or grooves filled with water) is recognized as a target object.
  - · The road width is narrow.
  - The vehicle is shaken after hitting a road bump.
- When the ELK OFF indicator light is on, the system is canceled according to a Mazda Connect setting.
   Refer to the Settings section in the Mazda Connect Owner's Manual.



 When the system detects target objects on one side only, the system does not operate to avoid a road departure in the direction of the side that is not being detected.

## Temporary cancellation of the function

The Road Keep Assist function goes on stand-by when any of the following conditions is met. The Road Keep Assist function is automatically restored when its operation conditions are met.

- The vehicle speed is less than about 56 km/h (35 mph).
- · Target objects cannot be detected.
- · The turn signal lever is operated.
- The accelerator pedal is depressed abruptly.
- · The brake pedal is depressed.
- The steering wheel is operated abruptly.
- · The TCS/DSC is operating.
- · The TCS/DSC is turned off.

#### Cancellation of the function

The Road Keep Assist function is canceled when any of the following conditions is met.

- The temperature in the Forward Sensing Camera (FSC) is high or low.
- The windshield around the Forward Sensing Camera (FSC) is foggy.
- The windshield around the Forward Sensing Camera (FSC) is blocked by an obstruction, causing poor forward visibility.
- · There is a problem with the system.

#### System problem

If there is a problem with the system, the i-ACTIVSENSE warning indication/warning light turns on and a message is indicated.

Refer to i-ACTIVSENSE Warning Indication/Warning Light on page 7-29.

#### Steering wheel operation assist

If your vehicle may be deviating from the road, the steering wheel operation assist operates.

While the steering wheel operation assist is operating, the system notifies the driver on the multi-information display and the active driving display that it is assisting the steering wheel operation.

## Multi-information display (Basic display)



Multi-information display (i-ACTIVSENSE display)

**40** 



Active driving display



#### **NOTE**

- If the driver operates the steering wheel while the steering wheel operation assist is operating, the steering wheel operation assist is canceled.
- · When the steering wheel operation assist is performed several times within a certain period of time, the warning sound is activated.

#### Road departure warning

If the possibility of a road departure increases, the direction to which the

steering wheel needs to be turned to avoid a road departure is displayed on the multi-information display and the active driving display, together with a warning sound.

Multi-information display



Active driving display



▼ Stopping the Emergency Lane Keeping (ELK) System Operation

The ELK can be set to inoperable. Refer to the Settings section in the Mazda Connect Owner's Manual.

When the ELK is canceled, the ELK OFF indicator light turns on.



### **Smart Brake Support** (SBS)

#### **▼** Smart Brake Support (SBS)

The SBS is a system designed to detect target objects using sensors and cameras equipped on the vehicle, and to reduce damage in the event of a collision by operating the brake control if there is the possibility of your vehicle colliding with a target object.

One part of the SBS functions when you are driving forward and the other part functions when you are driving in reverse.

Refer to Forward drive detection on page 4-136.

Refer to Reverse drive detection on page 4-138.

#### ▼ Forward drive detection

When you are driving forward, the following functions of the Smart Brake Support (SBS) operate.

· Forward detection function

### • WARNING

#### Do not rely completely on the SBS:

The SBS is only designed to reduce damage in the event of a collision. The system may not operate normally depending on the target object, weather conditions, or traffic conditions. Over reliance on the system leading to the accelerator pedal or brake pedal being mistakenly operated could result in an accident.



In the following cases, turn the SBS off to prevent a mis-operation.

- The vehicle is being towed.
- The vehicle is driven on rough roads such as in areas where there is grass and foliage or off-road. Refer to Stopping the Smart Brake Support (SBS) System Operation on page 4-143.

#### Forward detection function

The forward detection function is designed to reduce damage in the event of a collision with target objects at the front

The forward detection function detects target objects (vehicles ahead, pedestrians, and bicycles) using the front radar sensor and the Forward Sensing Camera (FSC). If there is a possibility of your vehicle colliding with a target object at the front, you are notified of possible danger by a warning sound and a warning indication on the display. Furthermore, if the possibility of a collision increases, the brake control is performed to reduce damage in the event of a collision. In addition, when the driver depresses the brake pedal, the brakes are applied firmly and quickly to assist.

#### (Vehicles with Driver Monitoring (DM))

If the system determines that the driver is not paying attention to the road, it activates the collision warning earlier than normal.

#### Operation conditions

The forward detection function operates when all of the following conditions are met.

- · The power switch is switched ON.
- · The SBS is on.
- · (Object is vehicle ahead)

- The vehicle speed is about 4 km/h (3 mph) or higher.
- · (Object is a pedestrian or bicycle)
  The vehicle speed is between about 10 and 80 km/h (6.3 to 49 mph).
- · The DSC does not operate.

#### **NOTE**

- When any of the following conditions is met, the forward detection function may not operate.
  - If there is the possibility of hitting only a part of a vehicle or obstruction ahead.
  - · You are driving your vehicle at the same speed as the vehicle ahead.
  - When the driver deliberately performs driving operations (accelerator operation, steering wheel operation).
  - The accelerator pedal is depressed abruptly.
  - · The brake pedal is depressed.
  - The steering wheel is being operated.
  - · The selector lever is being shifted.
  - The turn signal lever is being operated.
  - Warnings and messages, such as a dirty windshield, related to the Forward Sensing Camera (FSC) or front radar sensor are being displayed on the multi-information display.
- When any of the following conditions is met, the forward detection function may operate.
  - There is an object in the road at the entrance to a curve (including guardrails and snow banks).
  - Passing an approaching vehicle while rounding a curve.

- When crossing a narrow bridge, going under a low overhang, or passing through a narrow gate, a car washing machine, or tunnel.
- · When passing through a toll gate.
- · When entering an underground parking area.
- There is a metal object, bump, or a protruding object on the road.
- · If you suddenly come close to a vehicle ahead.
- · An animal, wall, or standing tree is detected.
- While the system is operating, the driver is notified by the multi-information display and the active driving display.
- If a malfunction is detected or the system temporarily stops the function due to dirt on the sensors or cameras, the i-ACTIVSENSE warning light turns on and a message is displayed on the multi-information display.
- If the system performs brake control and the vehicle is stopped, the system will continue to hold the brakes for a brief time unless there is an operation performed by the driver.

#### **Collision warning**

If there is the possibility of your vehicle colliding with a target object at the front, the warning sound is activated continuously and a warning is displayed on the multi-information display and the active driving display.

#### Multi-information display



1. "BRAKE!" message is displayed

#### Active driving display



1. "BRAKE!" message is displayed

#### NOTE

- · During brake control and brake assist operation, the collision warning sound is activated intermittently.
- · The operation distance and volume of the collision warning can be changed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

#### ▼ Reverse drive detection\*

When you are driving in reverse, the following functions of the Smart Brake Support (SBS) operate.

- Rearward detection function
- · Rear crossing

## WARNING

Do not rely completely on the SBS:

The SBS is only designed to reduce damage in the event of a collision. Over reliance on the system leading to the accelerator pedal or brake pedal being mistakenly operated could result in an accident.

#### Heed the following cautions so that the SBS can operate normally:

- ➤ Do not apply stickers (including transparent stickers) to the areas around the rear side radar sensors and the rear ultrasonic sensors. Otherwise, a rear side radar sensor and a rear ultrasonic sensor may not be able to detect vehicles and obstructions correctly which could result in an accident.
- If you recognize scratches around the rear side radar sensors and rear ultrasonic sensors, stop using the SBS immediately and always have the vehicle inspected by an Authorized Mazda Dealer. Refer to Stopping the Smart Brake Support (SBS) System Operation on
- Consult an Authorized Mazda Dealer for rear bumper removal/ installation.

Do not hit the rear side radar sensors and rear ultrasonic sensors forcefully: When washing the vehicle, do not spray highly pressurized water against the rear side radar sensors and the rear ultrasonic sensors, or rub them strongly. In addition, do not hit the rear bumper forcefully when loading and unloading cargo. Otherwise, the system will be unable to detect obstructions correctly and the SBS may not operate normally.



page 4-143.

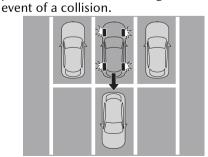
- In the following cases, turn the SBS off to prevent a mis-operation.
  - A trailer is pulled or an accessory such as a bicycle carrier is installed to the rear of the vehicle.

- ➤ The vehicle is driven on rough roads such as in areas where there is grass and foliage or off-road. Refer to Stopping the Smart Brake Support (SBS) System Operation on page 4-143.
- Always use tires for all wheels that are of the specified size, and the same manufacture, brand, and tread pattern. In addition, do not use tires with significantly different wear patterns on the same vehicle. If such improper tires are used, the SBS may not operate normally.

#### Rearward detection function

The rearward detection function is designed to reduce damage in the event of a collision with a target object when reversing.

The rearward detection function detects obstructions using the rear ultrasonic sensors. In addition, if there is the possibility of your vehicle colliding with a target object at the rear while you are driving in reverse, you are notified of possible danger by a warning sound and a warning indication on the display. Furthermore, if the possibility of a collision increases, brake control is performed to reduce damage in the



### **MARNING**

Always check the surrounding area visually when reversing the vehicle:

The operation of the rearward detection function has certain limitations. Therefore, the function might not operate or it might be delayed even if there is a target object at the rear of your vehicle. Always make it your responsibility as a driver to check the rear.

#### **Operation conditions**

The rearward detection function operates when all of the following conditions are met.

- · The EV system is operating.
- · The SBS is on.
- · The selector lever is in the R position.
- The vehicle speed is about 2 km/h (2 mph) to 8 km/h (4 mph).
- · There is no problem with the DSC.
- The Electric Parking Brake (EPB) is not operating.

#### NOTE

- When any of the following conditions is met, the rearward detection function may not operate.
  - · Directly after the EV system starts.
  - The height of the obstruction is low such as low walls or trucks with low loading platforms.
  - The height of the obstruction is high such as trucks with high loading platforms.
  - The obstruction is not as large as a vehicle or wall.
  - The obstruction is thin such as a signpost.
  - The surface of the obstruction is not pointed vertically relative to your vehicle.

- The obstruction is soft such as a hanging curtain or snow stuck to a vehicle.
- The obstruction is shaped irregularly.
- · The obstruction is extremely close.
- When any of the following conditions is met, the rearward detection function may not operate normally.
  - Snow, ice, or mud adheres to the area around a rear ultrasonic sensor.
  - The vehicle posture is unstable due to sudden operation of the steering wheel, accelerator pedal, or brake pedal.
  - There is another obstruction near one obstruction.
  - · During inclement weather such as rain, fog, and snow.
  - · High or low humidity.
  - · High or low temperatures.
  - Strong winds.
  - · The path of travel is not flat.
  - Heavy luggage is loaded in the luggage compartment or on the rear seat and the vehicle is tilted.
  - Objects such as a wireless antenna, fog light, or illuminated license plate is installed near a rear ultrasonic sensor.
  - The orientation of a rear ultrasonic sensor has deviated for reasons such as a collision.
  - The vehicle is affected by other sound waves such as the horn, engine noise, or rear ultrasonic sensor of another vehicle.
- When any of the following conditions is met, the rearward detection function may operate.
  - Reversing towards a steep ascending slope.
  - There are grating, wheel blocks, a road curb, or a bump.

- There is a hanging curtain or railroad crossing gate.
- Reversing near objects such as foliage, barriers, vehicles, walls, or fences.
- The vehicle is driven on rough roads such as in areas where there is grass and foliage or off-road.
- When reversing through low gates, narrow gates, car washing machines, tunnels, or into a mechanical parking garage.
- A towing bar is installed or a trailer is connected.
- If the system performs brake control and the vehicle is stopped, the system will continue to hold the brakes for a brief time unless there is an operation performed by the driver.

## **Collision warning**

If there is the possibility of your vehicle colliding with a vehicle approaching from the rear on the left or right, or from the rear while you are driving in reverse, a warning sound is activated continuously and a warning is displayed on the multi-information display and the active driving display.

## Multi-information display



1. "BRAKE!" message is displayed

## Active driving display



1. "BRAKE!" message is displayed

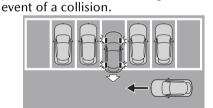
#### NOTE

During brake control, the collision warning sound is activated intermittently.

#### Rear crossing

The Rear Crossing detection function is designed to reduce the damage in the event of a collision with a vehicle approaching from the rear sides while driving in reverse.

The Rear Crossing detection function detects approaching vehicles using the rear side radar sensors. If there is the possibility of your vehicle colliding with a vehicle approaching from the rear sides while you are driving in reverse, you are notified of possible danger by a warning sound and a warning indication on the display. Furthermore, if the possibility of a collision increases, brake control is



performed to reduce damage in the

# **⚠** WARNING

Always check the surrounding area visually when reversing the vehicle: The operation of the Rear Crossing detection function has certain

The operation of the Rear Crossing detection function has certain limitations. Therefore, the function might not operate or it might be delayed even if there is a vehicle passing through the rear of your vehicle. Always make it your responsibility as a driver to check the rear.

# Do not rely completely on the Rear Crossing detection function:

The Rear Crossing detection function operates on vehicles while you are driving in reverse. It will not operate on walls, pedestrians, or animals.

## **Operation conditions**

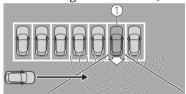
The Rear Crossing detection function operates when all of the following conditions are met.

- · The EV system is operating.
- · The SBS is on.
- · The selector lever is in the R position.
- The vehicle speed is about 10 km/h (6.2 mph) or slower.
- The vehicle speed of an approaching vehicle is about 3 km/h (2 mph) or faster.
- · There is no problem with the DSC.

#### NOTE

- · When any of the following conditions is met, the i-ACTIVSENSE warning indication/warning light is turned on and the system operation is stopped. If the i-ACTIVSENSE warning indication/warning light remains on, have the vehicle inspected by an Authorized Mazda Dealer as soon as possible.
  - There is a problem with the system.
  - A large deviation in the installation position of a rear side radar sensor on the vehicle has occurred.
  - · Snow, ice, or mud is adhering around a rear side radar sensor.
  - The temperature around a rear side radar sensor is high.
  - Driving on snow-covered roads for long periods.
  - The lead-acid battery voltage has decreased.

- When any of the following conditions is met, the Rear Crossing detection function will not detect approaching vehicles or they may be difficult to detect.
  - The rear side radar sensor detection area is obstructed by a nearby wall or parked vehicle. (Reverse the vehicle to a position where the radar sensor detection area is no longer obstructed.)



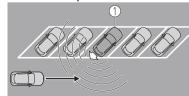
#### 1. Your vehicle

· A vehicle is approaching directly from the rear of your vehicle.



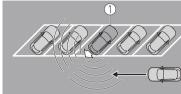
#### 1. Your vehicle

· The vehicle is parked on a slant.



1. Your vehicle

 A vehicle is approaching from the opposite direction on a steep gradient.



#### 1. Your vehicle

- · Directly after the EV system starts.
- Just after the SBS operation has been enabled using [Settings] in Mazda Connect.
- Radio wave interference from a radar sensor equipped on a vehicle parked nearby.
- When any of the following conditions is met, the Rear Crossing may operate.
  - There is a hanging curtain or railroad crossing gate.
  - Reversing near objects such as foliage, barriers, vehicles, walls, or fences.
  - The vehicle is driven on rough roads such as in areas where there is grass and foliage or off-road.
  - When reversing through low gates, narrow gates, car washing machines, or tunnels.
  - · A towing bar is installed or a trailer is connected.
- If the system performs brake control and the vehicle is stopped, the system will continue to hold the brakes for a brief time unless there is an operation performed by the driver.

## **Collision warning**

If there is the possibility of your vehicle colliding with a vehicle approaching from the rear on the left or right, or from the rear while you are driving in reverse, a warning sound is activated continuously and a warning is displayed on the multi-information display and the active driving display. **Multi-information display** 



1. "BRAKE!" message is displayed

## Active driving display



1. "BRAKE!" message is displayed

#### NOTE

During brake control, the collision warning sound is activated intermittently.

# ▼ Stopping the Smart Brake Support (SBS) System Operation

The SBS can be changed to inoperable. Refer to the Settings section in the Mazda Connect Owner's Manual.

When the SBS is canceled, the SBS OFF indicator light turns on.



#### NOTE

When the power switch is switched OFF while the SBS forward drive detection is canceled, the SBS forward drive detection is automatically enabled the next time the power switch is switched ON.

# 360° View Monitor\*

#### **▼** 360° View Monitor

The 360°View Monitor consists of the following functions which assist the driver in checking the area surrounding the vehicle using various indications in the center display and a warning sound while the vehicle is being driven at low speeds or while parking.

## · Top view

The top view displays an image of the vehicle from directly above on the center display by combining the images taken from the 4 cameras set on all sides of the vehicle. The top view displays on the right side of the screen when the front view or rear view screen is being displayed. The top view assists the driver in checking the area surrounding the vehicle when the vehicle is moving forward or in reverse.

• Front view/front wide view
The image from the front of the vehicle is displayed on the center display.

The view from the front assists the driver in checking the front of the vehicle by displaying guide lines on the displayed image taken from the front of the vehicle.

## · Side view

The images taken from the front left and right sides of the vehicle are displayed on the center display. The side view assists the driver in checking the front sides of the vehicle by displaying guide lines on the displayed image taken from the front left and right sides of the vehicle.

· Rear view/rear wide view

The image from the rear of the vehicle is displayed on the center display.

The image from the rear assists the driver in checking the rear of the vehicle by displaying guide lines on the displayed image taken from the rear of the vehicle.

## · Parking sensor

If there are any obstructions near the vehicle while the top view/side view is displayed, an obstruction detection indication turns on around the bumper in the center display. The parking sensors use ultrasonic sensors to detect obstructions around the vehicle when the vehicle is driven at low speeds, such as during garage or parallel parking, and notifies the driver of the approximate distance from the vehicle to the surrounding obstruction using sound and an obstruction detection indication. Refer to Parking Sensor System on page 4-198.

## · Front Cross Traffic Alert (FCTA)

If there is the possibility of a collision with an approaching vehicle while the front view/front wide view/side view is displayed, a warning is displayed on the center display. The Front Cross Traffic Alert (FCTA) is designed to assist the driver in checking both sides of the vehicle when the vehicle starts to drive at an intersection.

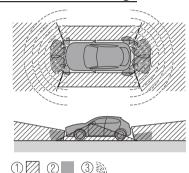
Refer to Front Cross Traffic Alert (FCTA) on page 4-104.

Rear Cross Traffic Alert (RCTA)
 If there is the possibility of a collision with an approaching vehicle while the rear view/rear wide view is displayed, a warning is displayed on the center display.

The Rear Cross Traffic Alert (RCTA) uses rear side radar sensor to detect vehicles approaching from the rear left and right sides of the vehicle, and it assists the driver in checking the rear of the vehicle while reversing by flashing the Blind Spot Monitoring (BSM) warning lights and activating the warning sound.

Refer to Rear Cross Traffic Alert (RCTA) on page 4-107.

## 360°View Monitor Range



- 1. Cameras
- 2. Ultrasonic sensors
- 3. Front/Rear side radar sensors

# **▲** WARNING

Always confirm the safety of the area around the vehicle with the mirrors and directly with your eyes when driving:

The 360°View Monitor is an auxiliary device which assists the driver in checking the safety of the area around the vehicle.

The shooting range of the cameras and detection range of the sensors are limited. For example, the areas in black at the front and rear of the vehicle image and the seams where each of the camera images merge are blind spots where an obstruction may not be visible. In addition, the extended vehicle width lines and projected vehicle path lines are only to be used as references, and the images on the screen may differ from the actual conditions.

# **A** CAUTION

- Do not use the 360°View Monitor under any of the following conditions.
  - ➤ Icy or snow-covered roads.
  - Tire chains or a temporary spare tire is installed.
  - The front or rear doors are not fully closed.
  - > The vehicle is on a road incline.
  - The door mirrors are retracted.
- Do not hit the front/rear camera, front bumper, liftgate, and door mirrors forcefully. The camera position or installation angle may shift.
- The cameras are waterproof. Do not disassemble, modify, or remove a camera.
- The camera cover is made of hard plastic, therefore do not apply oil film remover, organic solvents, wax, or coating agents. If any such agent gets on the camera cover, wipe it off using a soft cloth immediately.
- ➤ Do not rub the camera lens forcefully, or clean it with an abrasive or hard brush. Otherwise, it could scratch the camera lens and negatively affect the images.

- ➤ Consult an Authorized Mazda Dealer for repair, painting, or replacement of the front/rear camera, front bumper, liftgate and door mirrors.
- ➤ Heed the following cautions to assure that the 360°View Monitor operates normally.
  - ➤ Do not modify the vehicle suspensions or lower/raise the vehicle body, or both.
  - Always use tires of the specified type and size for the front and rear wheels. Consult an Authorized Mazda Dealer for tire replacement.
- ➤ When the display is cold, images may leave trails or the screen might be darker than usual, making it difficult to check the vehicle surroundings. Always confirm the safety at the front and around the vehicle visually when driving.
- The method for parking/stopping the vehicle using the 360°View Monitor differs depending on the road circumstances/conditions and the vehicle conditions. When and how much you turn the steering wheel will differ depending on the situation, therefore always check the vehicle surroundings directly with your eyes while using the system. Also, before using the system, always make sure that the vehicle can be parked/stopped in the parking/stopping space.

#### NOTE

 If there are water droplets, snow, or mud on the camera lens, wipe it off using a soft cloth. If the camera lens is especially dirty, wash it off with mild detergent.

- If the camera lens is touched or there is any dirt on it, it could affect the screen image. Wipe the lens using a soft cloth.
- · If the area where the camera is installed, such as the front bumper, liftgate or door mirrors, has been damaged in a vehicle accident, the camera (position, installation angle) may have shifted. Always consult an Authorized Mazda Dealer to have the vehicle inspected.
- If the camera is subjected to excessive changes in temperature such as by pouring hot water on the camera during cold weather, the 360°View Monitor may not operate normally.
- If the vehicle is driven during cold temperatures and the camera temperature decreases, the top view and the side view may become unclear. However, this does not indicate a problem. If the vehicle is stopped for a while and the camera temperature increases, the top view and the side view will return to the normal condition.
- If the lead-acid battery voltage is low, the screen might be temporarily difficult to view, however, this does not indicate a problem.
- The 360°View Monitor has limitations. Objects under the bumper or near both ends of the bumper cannot be displayed.
- Obstructions above the upper image range of the camera are not displayed.
- Under the following conditions, the screen might be difficult to view, however this does not indicate a problem.
  - The temperature near the lens is high/low.

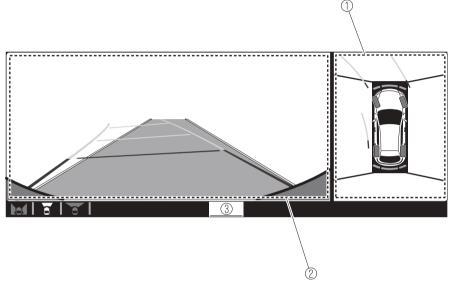
- · Rainy conditions, water droplets on the camera, or high humidity.
- · Mud or foreign matter near the camera.
- Extremely bright light such as sunlight or headlights hitting the camera lens directly.
- The surroundings are illuminated by vehicle lights, fluorescent lights, or LED lights (display may flicker).
- Extremely small dark or white dots appear on the screen (dots may flicker).
- Because the 360°View Monitor camera uses a special lens, the distance displayed on the screen differs from the actual distance.
- Obstructions displayed on the screen may appear differently than in actuality. (Obstructions may appear fallen, larger, or longer than they actually are.)
- Do not apply stickers to a camera or the area around it. In addition, do not install accessories or an illuminated number/character license plate to the area around a camera. Otherwise, the camera may not correctly display the surrounding conditions.
- Only rear and rear wide images displayed on the monitor from the 360° view monitor camera are reversed images (mirror images).
- Free/open source software information

This product includes free/open sources. Information about the licensing and source code is available at the following URL. https://www.denso.com/global/en/opensource/svss/mazda/

# **▼** Types of Images Displayed on the Screen

# Top view/Front view

Displays the image of the area around the vehicle and the vehicle front.

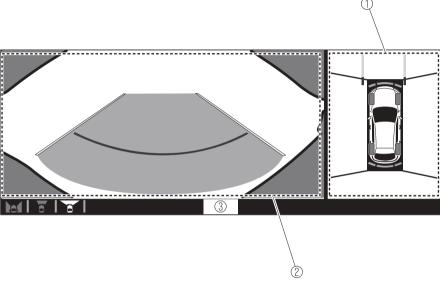


- Top view screen
   Front view screen

3. "Check surroundings for safety." message is displayed

## Top view/Front wide view

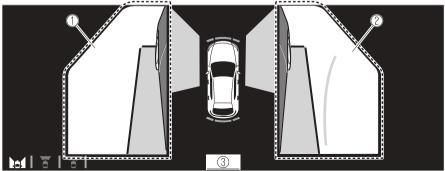
Displays the image of the area around the vehicle and the front of the vehicle (wide-area).



- 1. Top view screen
- 2. Front wide view screen
- 3. "Check surroundings for safety." message is displayed

### Side view

Displays the image of the left and right sides of the vehicle.

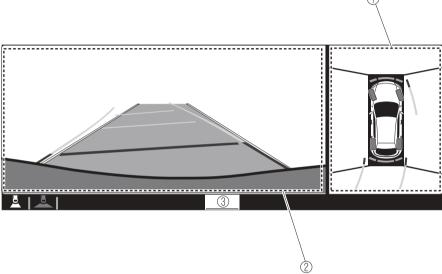


1. Left side view screen

- 2. Right side view screen3. "Check surroundings for safety." message is displayed

# Top view/Rear view

Displays the image of the area around the vehicle and the rear of the vehicle.

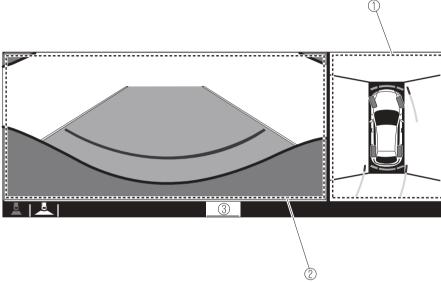


- 1. Top view screen
- 2. Rear view screen

3. "Check surroundings for safety." message is displayed

## Top view/Rear wide view

Displays the image of the area around the vehicle and the rear of the vehicle (wide-area).



- 1. Top view screen
- 2. Rear wide view screen
- 3. "Check surroundings for safety." message is displayed

# **▼** How to Use the System

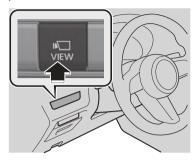
# Top view/Front view, Top view/Front wide view, Side view

#### Indication

Images are displayed on the screen when the  $360^{\circ}$ View Monitor switch is pressed with all of the following conditions met.

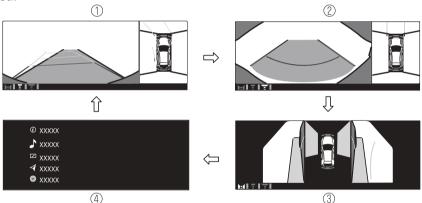
· The power switch is switched ON.

· The selector lever is in a position other than R.



## **Display switching**

The displayed screen can be changed each time the 360° view monitor switch is pressed.



- 1. Top view/Front view
- 2. Top view/Front wide view
- 3. Side view
- 4. Home screen

#### NOTE

- When the selector lever is in R position, the displayed screen does not switch to the top view/front view, top view/front wide view, or the side view.
- Display of the top view/front view, top view/front wide view, or the side view stops even with the display conditions met if any of the following conditions occurs.
  - · When a switch around the commander knob is pressed.
  - The selector lever is shifted to P position (displayed when the selector lever is in a position other than P).
  - · (Displayed when vehicle speed is less than 15 km/h (9.3 mph))

- · 4 minutes and 30 seconds have passed.
- The vehicle speed is about 15 km/h (9.3 mph) or faster.
- · (Displayed when the vehicle speed is about 15 km/h (9.3 mph) or faster)
  - The vehicle speed is about 15 km/h (9.3 mph) or faster after 8 seconds have passed since pressing the 360°View Monitor switch.
  - 4 minutes and 22 seconds have passed from the point when the vehicle speed was less than 15 km/h (9.3 mph) after 8 seconds have passed since pressing the 360°View Monitor switch.
- The 360°View Monitor settings can be changed as follows. Refer to the Settings section in the Mazda Connect Owner's Manual.
  - Automatic display of the 360°View Monitor when the ultrasonic sensor detects an obstruction.
  - $\cdot$  Automatic display of the 360°View Monitor when the power switch is switched ON.
  - · Screen priority level when the system launches.

## Top view/Rear view, Top view/Rear wide view

The top view/rear view, top view/rear wide view displays when all of the following conditions are met.

- · The power switch is switched ON.
- · Selector lever is in R position.

## **Display switching**

The displayed screen can be changed each time the 360° view monitor switch is pressed.



- 1. Top view/Rear view
- 2. Top view/Rear wide view

#### **NOTE**

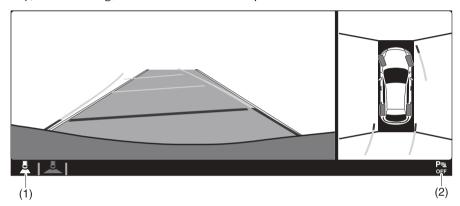
- The top view/rear view and top view/rear wide view automatically display whether or not the 360°View Monitor switch is turned on or off when shifting the selector lever to R position.
- The top view/rear view and top view/rear wide view displays the previously displayed screen.
- $\cdot$  The setting can be changed to display the top view/front view when shifting from reverse to a forward gear without operating the 360°View Monitor switch to check the front of the vehicle while parallel parking.

Refer to the Settings section in the Mazda Connect Owner's Manual.

# Screen operation/icon



Always stop the vehicle when adjusting the 360°View Monitor image quality. Do not adjust the 360°View Monitor image quality while driving. If you adjust the 360°View Monitor image quality (such as brightness, contrast, tone, and color density) while driving, it could lead to an unexpected accident.

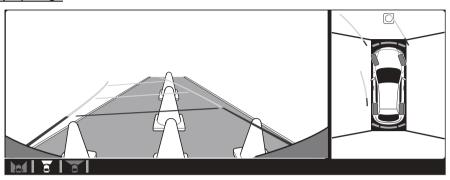


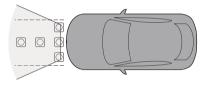
	Display/Icon	Content	
(1)	View status icon	Indicates which image is displayed among the front view/front wide view/side view/rear view/rear wide view.	
(2)	Parking sensor status icon	Indicates that the parking sensor has a problem or it is switched off.	

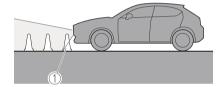
# **▼** Top View/Front View

Use the top view/front view to assist in checking the safety of the surrounding area when accelerating from a stop, parking, or stopping the vehicle.

## Display range





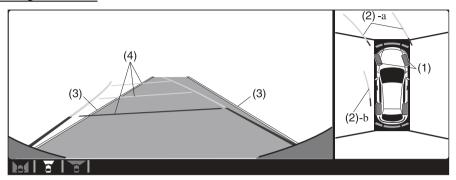


# 1. Target object

#### **NOTE**

- In the top view screen, the areas in black at the front and rear of the vehicle image and the seams where each of the camera images merge are blind spots.
- Because images displayed in the top view screen are processed from each camera, the top view screen may display in the following ways.
  - · If an image containing an object with a conspicuous color is picked up by any of the cameras, the screen area for each camera may be affected and it may display in that color.
  - · Obstructions displayed in the front view may not display on the top view screen.
  - · If the position or angle of each camera changes due to tilting of the vehicle, the image may appear distorted.
  - · Lines on the road may appear distorted at the seams where each of the camera images merge.
  - The screen area for each camera may appear bright/dark depending on the illumination level around any of the cameras.

## Viewing the screen



	Display/Icon	Content	
(1)	Tire icon	Indicates the tire direction. Moves in conjunction with the steering wheel operation.	
(2)	Projected vehicle path lines (yellow & red)	Indicates the approximate projected path of the vehicle. Moves in conjunction with the steering wheel operation. a) Indicates the path where the edge of the front bumper is expected to travel. b) Indicates the path where the inner side of the vehicle is expected to travel.	
(3)	Extended vehicle width lines (blue)	Indicates the approximate width of the vehicle.	
(4)	Projected vehicle path distance guide lines (yellow & red)	Indicates the distance (from front end of bumper) in front of the vehicle.  • The red line indicates the point about 0.5 m (19 in) from the front end of the bumper.  • The yellow lines indicate the points about 1.0 m (39 in) and 2.0 m (78 in) from the front end of the bumper.	



The parking sensor detection range has limitations. For example, obstructions closing in from the side and objects short in height may not be detected. Always confirm the safety around the vehicle visually when driving.

For details, refer to the parking sensor obstruction detection indication and warning sound.

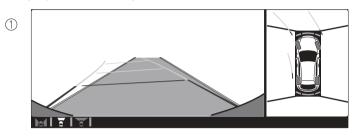
Refer to Parking Sensor System on page 4-198.

#### NOTE

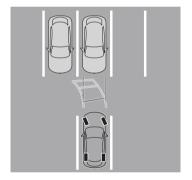
The setting can be changed so that the projected vehicle path lines are not displayed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

## How to use the projected vehicle path line function







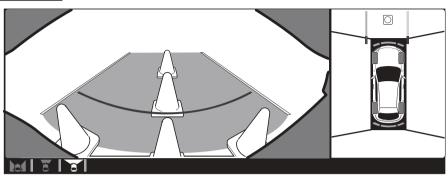
- 1. (Screen display)
- 2. (Actual condition)

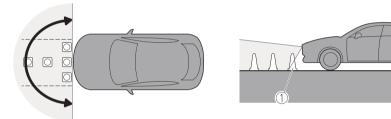
Make sure that there are no obstructions within the projected vehicle path lines. Drive the vehicle forward while turning the steering wheel so that no obstructions come within the projected vehicle path lines.

# **▼** Top View/Front Wide View

Use the top view/front wide view to assist in checking the safety of the surrounding area when accelerating from a stop or entering a T-shaped intersection and intersection.

## Display range



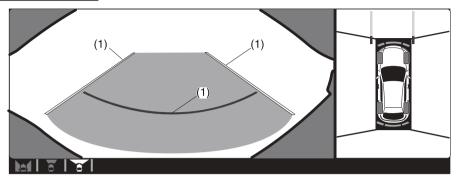


### 1. Target object

#### **NOTE**

- In the top view screen, the areas in black at the front and rear of the vehicle image and the seams where each of the camera images merge are blind spots.
- · Because images displayed in the top view screen are processed from each camera, the top view screen may display in the following ways.
  - · If an image containing an object with a conspicuous color is picked up by any of the cameras, the screen area for each camera may be affected and it may display in that color.
  - $\cdot$  Obstructions displayed in the front view may not display on the top view screen.
  - · If the position or angle of each camera changes due to tilting of the vehicle, the image may appear distorted.
  - Lines on the road may appear distorted at the seams where each of the camera images merge.
  - The screen area for each camera may appear bright/dark depending on the illumination level around any of the cameras.

# Viewing the screen



	Display/Icon	Content
(1)	Extended vehicle width lines and distance guide lines (blue & red)	Indicates the approximate width of the vehicle and the distance (from front end of bumper) in front of the vehicle.
		The red lines indicate the points up to about 0.5 m (19 in) from the front end of the bumper.

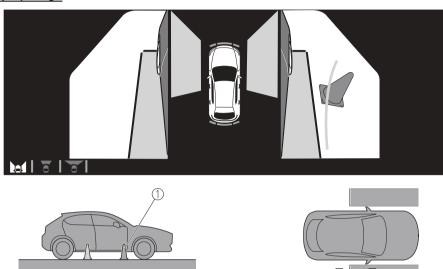
#### NOTE

The front wide view screen displays the image in front of the vehicle at a wide angle and corrects the image to help detect approaching obstructions from the side. Therefore, it differs from the actual view.

#### **▼** Side View

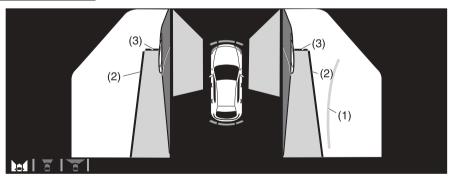
Use the side view to assist in checking the safety of the surrounding area when accelerating from a stop, parking, or stopping the vehicle.

# Display range



# 1. Target object

# Viewing the screen



	Display/Icon	Content	
(1)	Projected vehicle path lines (yellow)	ndicates the approximate projected path of the vehicle.	
		Moves in conjunction with the steering wheel operation.	
		The projected vehicle path lines (yellow) indicate the	
		path the inner side of the vehicle is expected to travel.	
(2)	Vehicle parallel guide lines (blue)	Indicates the approximate vehicle width including the	
		door mirrors.	

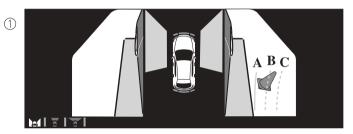
	Display/Icon	Content	
(3)	, ,	Indicates the point about 0.25 m (9.84 in) from the front	
		edge of the vehicle (front edge of the bumper).	

#### NOTE

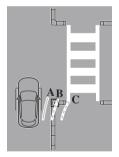
The setting can be changed so that the projected vehicle path lines are not displayed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

## How to use the projected vehicle path line function



2



- 1. (Screen display)
- 2. (Actual condition)

Make sure that there are no obstructions within the projected vehicle path lines. Turn the steering wheel so that the projected vehicle path lines travel inside of the obstruction (A), and drive the vehicle forward until it passes the obstruction. If the projected vehicle path lines are on an obstruction (B) or outside of the obstruction (C), the vehicle may contact the obstruction when turning the vehicle sharply.

# **A** CAUTION

- The parking sensor detection range has limitations. For example, obstructions closing in from the side and objects short in height may not be detected. Always confirm the safety around the vehicle visually when driving. For details, refer to the parking sensor obstruction detection indication and warning sound.
  - Refer to Parking Sensor System on page 4-198.
- Do not turn the steering wheel any more until the vehicle has passed the obstruction, even if the obstruction is not visible on the side view image. If the steering wheel is turned even more, the vehicle may contact the obstruction if it is turned sharply.

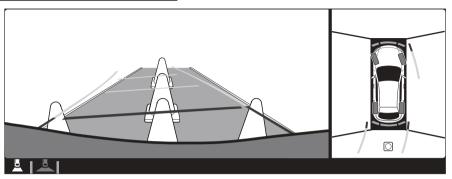
#### NOTE

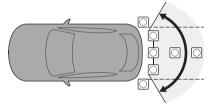
- Because there might be a difference between the image displayed on the screen and the actual conditions, always check the safety of the surrounding area using the mirrors and directly with your eyes when driving.
- Even though the object displayed on the screen, such as a road curb or a division line of a parking space, and the vehicle parallel guide lines appear parallel, they may not actually be parallel.

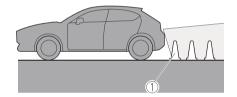
## **▼** Top View/Rear View

Use the top view/rear view to assist in checking the safety of the surrounding area when accelerating from a stop, parking, or stopping the vehicle.

# Range of displayed screen image





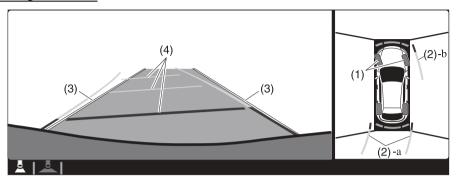


## 1. Target object

#### NOTE

- In the top view screen, the areas in black at the front and rear of the vehicle image and the seams where each of the camera images merge are blind spots.
- · Because images displayed in the top view screen are processed from each camera, the top view screen may display in the following ways.
  - · If an image containing an object with a conspicuous color is picked up by any of the cameras, the screen area for each camera may be affected and it may display in that color.
  - $\cdot$  Obstructions displayed in the rear view may not display on the top view screen.
  - · If the position or angle of each camera changes due to tilting of the vehicle, the image may appear distorted.
  - · Lines on the road may appear distorted at the seams where each of the camera images merge.
  - The screen area for each camera may appear bright/dark depending on the illumination level around any of the cameras.

## Viewing the screen



	Display/Icon	Content	
(1)	Tire icon	Indicates the tire direction. Moves in conjunction with the steering wheel operation.	
(2)	Projected vehicle path lines (yellow & red)	Indicates the approximate projected path of the vehicle. Moves in conjunction with the steering wheel operation. a) Indicates the path where the edge of the rear bumper is expected to travel. b) Indicates the path where the outer side of the vehicle is expected to travel.	
(3)	Extended vehicle width lines (blue)	These guide lines indicate the approximate width of the vehicle.	
(4)	Projected vehicle path distance guide lines (yellow & red)	<ul> <li>These guide lines indicate the approximate distance to a point measured from the rear of the vehicle (from the end of the bumper).</li> <li>The red line indicates the point about 0.5 m (19 in) from the rear end of the bumper.</li> <li>The yellow lines indicate the points about 1.0 m (39 in) and 2.0 m (78 in) from the rear end of the bumper.</li> </ul>	

#### NOTE

The setting can be changed so that the projected vehicle path lines are not displayed.

Refer to the Settings section in the Mazda Connect Owner's Manual.

How to use the projected vehicle path line function

# **A** CAUTION

- The front of the vehicle swings out wide when turning the steering wheel while reversing. Maintain sufficient distance between the vehicle and an obstruction.
- The parking sensor detection range has limitations. For example, obstructions closing in from the side and objects short in height may not be detected. Always confirm the safety around the vehicle visually when driving. For details, refer to the parking sensor obstruction detection indication and

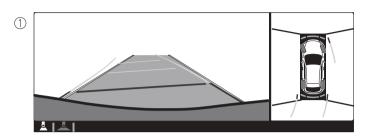
warning sound.

Refer to Parking Sensor System on page 4-198.

#### NOTE

- Because there might be a difference between the image displayed on the screen, such as indicated in the following, and the actual conditions when parking, always check the safety at the rear of the vehicle and the surrounding area directly with your eyes.
  - Even though the back end of the parking space (or garage) displayed on the screen and distance guide lines appear parallel, they may not actually be parallel.
  - · When parking in a space with a division line on only one side of the parking space, even though the division line and the vehicle width guide line appear parallel, they may not actually be parallel.
- The following shows an example of vehicle parking with the steering wheel turned to the left while backing up the vehicle. When backing into a parking space from the opposite direction, the steering operation is reversed.

1. Back the vehicle into the parking space by turning the steering wheel so that the vehicle enters the center of the parking space.

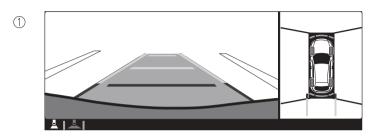






- 1. (Screen display)
- 2. (Actual condition)
- 2. After the vehicle starts entering the parking space, stop and adjust the steering wheel so that the distance between the vehicle width lines and the sides of the parking space on the left and right are roughly equal, and then continue backing up slowly.
- 3. Once the vehicle width lines and the sides of the parking space on the left and right are parallel, straighten the wheels and back the vehicle slowly into the parking space. Continue checking the vehicle's surroundings and then stop the

vehicle in the best possible position. (If the parking space has division lines, check whether the vehicle width guide lines are parallel to them.)





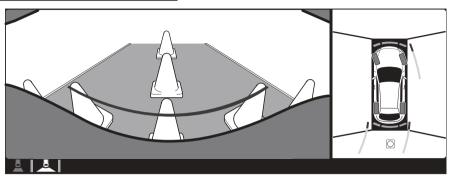


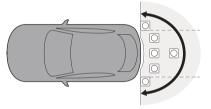
- 1. (Screen display)
- 2. (Actual condition)

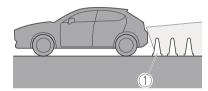
# **▼** Top View/Rear Wide View

Use the top view/rear wide view to assist in checking the safety of the surrounding area when accelerating from a stop, parking, or stopping the vehicle.

# Range of displayed screen image





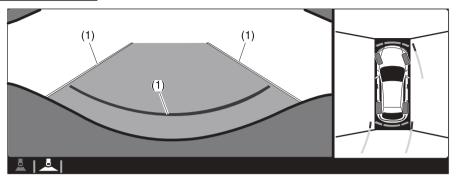


#### 1. Target object

#### **NOTE**

- In the top view screen, the areas in black at the front and rear of the vehicle image and the seams where each of the camera images merge are blind spots.
- Because images displayed in the top view screen are processed from each camera, the top view screen may display in the following ways.
  - · If an image containing an object with a conspicuous color is picked up by any of the cameras, the screen area for each camera may be affected and it may display in that color.
  - $\cdot$  Obstructions displayed in the front view may not display on the top view screen.
  - · If the position or angle of each camera changes due to tilting of the vehicle, the image may appear distorted.
  - · Lines on the road may appear distorted at the seams where each of the camera images merge.
  - The screen area for each camera may appear bright/dark depending on the illumination level around any of the cameras.

# Viewing the screen



	Display/Icon	Content	
(1)	tended vehicle width lines and stance guide lines (blue & red)  These guide lines indicate the approximate width vehicle and distance to a point measured from the of the vehicle (from the end of the bumper).		
		• The red lines indicate the points up to about 0.5 m (19 in) from the rear end of the bumper.	

#### NOTE

The top view/rear wide view screen displays the image at the rear of the vehicle at a wide angle and corrects the image to help detect approaching obstructions from the side. Therefore, it differs from the actual view.

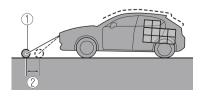
# **▼** Margin of Error Between Road Surface on Screen and Actual Road Surface

There might be some margin of error between the road surface appearing on the screen and the actual road surface. A margin of error in the perceived distance could lead to an accident, therefore be aware of the following conditions which can more easily produce errors in the perceived distance.

# The vehicle tilts due to weight of passengers and cargo.

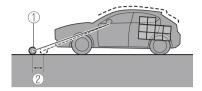
If the vehicle is tilted, obstructions picked up by a camera can appear farther or closer than the actual distance from the vehicle.

#### Front camera



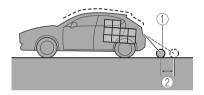
- 1. Obstruction
- 2. Margin of error

#### Side camera



- 1. Obstruction
- 2. Margin of error

#### Rear camera

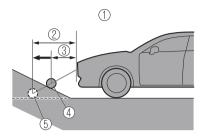


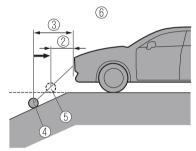
- 1. Obstruction
- 2. Margin of error

## There is a steep up or down grade in the road at the front or rear of the vehicle

If there is a steep up or down grade in the road at the front or rear of the vehicle, obstructions picked up by the camera can appear farther or closer than the actual distance from the vehicle.

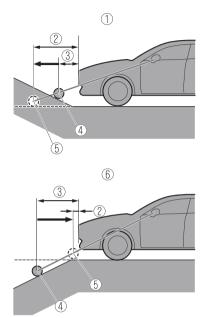
## Front camera





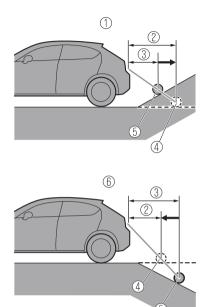
- Appears further than actual distance
   Distance of obstruction being viewed on screen
   Actual distance of obstruction from vehicle
- 4. Actual obstruction
- 5. Obstruction appearing on screen6. Appears closer than actual distance

### Side camera



- Appears further than actual distance
   Distance of obstruction being viewed on screen
   Actual distance of obstruction from vehicle
- 4. Actual obstruction
- 5. Obstruction appearing on screen6. Appears closer than actual distance

#### Rear camera



- 1. Appears further than actual distance
- 2. Distance of obstruction being viewed on screen
- 3. Actual distance of obstruction from vehicle
- 4. Obstruction appearing on screen
- 5. Actual obstruction
- 6. Appears closer than actual distance

#### NOTE

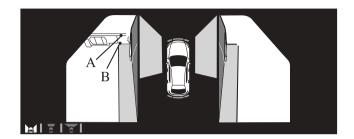
If the vehicle is on a slope, obstructions taken by the camera can appear farther or closer than the actual distance from the vehicle.

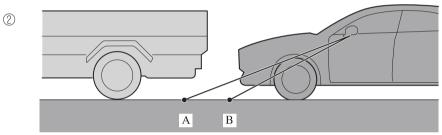
## Three-dimensional object at vehicle front or rear

Because the vehicle front end guide lines (side camera) or the distance guide lines (rear camera) are displayed based on a flat surface, the distance to the three-dimensional object displayed on the screen is different from the actual distance.

# Side camera

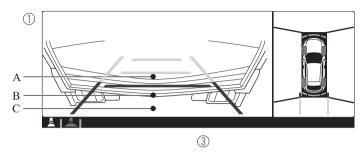
(1)

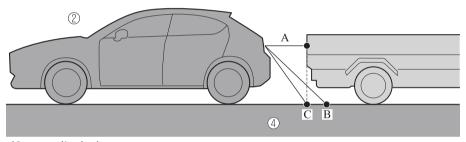




- (Screen display)
   (Actual condition)

## Rear camera





- (Screen display)
   (Actual condition)
   Sensed distance on screen A>B>C
- 4. Actual distance B>C=A

# **▼** System Problem Indication

Center display indication	Cause	Action to be taken
"No camera signal." is displayed	The control unit might be damaged.	
Screen is pitch-black and blank	The comers might be demaged	by an Authorized Mazda Dealer.

# **Cruise Control**

#### **▼** Cruise Control

With cruise control, you can set and automatically maintain any speed of more than about 30 km/h (19 mph).

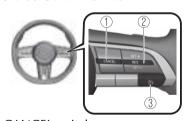
# **⚠** WARNING

# Do not use the cruise control under the following conditions:

Using the cruise control under the following conditions is dangerous and could result in loss of vehicle control.

- ➤ Hilly terrain
- ➤ Steep inclines
- ➤ Heavy or unsteady traffic
- ➤ Slippery or winding roads
- ➤ Similar restrictions that require inconsistent speed
- ➤ The vehicle speed may exceed the set speed during sudden acceleration or on steep down slopes. In this case, depress the brake pedal to adjust the vehicle speed.

#### **▼** Cruise Control Switch



- 1. CANCEL switch
- 2. RES switch
- 3. Cruise switch

#### NOTE

If your Mazda has the following steering switch, your Mazda is equipped with the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) system.



Refer to Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) on page 4-111. If the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) is set to inoperable using the personalization feature, the system switches to the cruise control function. In this case, the MRCC functions as the cruise switch. In addition, if the power switch is switched OFF with the headway control disabled using the personalization features, the headway control is enabled when the power switch is switched ON the next time.

**▼** Cruise Standby Indication (White)/Cruise Set Indication (Green)

## **Cruise standby Indication (White)**

The indication turns on (white) when the cruise control system is activated.



### **Cruise Set Indication (Green)**

The indication turns on (green) when a cruising speed has been set.



#### **▼** Activation/Deactivation



# Always turn off the cruise control system when it is not in use:

Leaving the cruise control system in an activation-ready state while the cruise control is not in use is dangerous as the cruise control could unexpectedly activate if the activation button is accidentally pressed, and result in loss of vehicle control and an accident.

If the headway control function is disabled using a Mazda Connect setting, the system switches to cruise control.

## **Activation**

To activate the system, press the cruise switch. The cruise standby indication (white) turns on.

## Deactivation

To deactivate the system, press the cruise switch again.

The cruise standby indication (white) turns off.

## **▼** To Set Speed

 Activate the cruise control system by pressing the cruise switch. The cruise standby indication (white) turns on.

- Accelerate to the desired speed, which must be more than 25 km/h (16 mph).
- 3. Adjust the system to the desired vehicle speed using the accelerator pedal. Press the RES switch up (SET+) or down (SET-) to start cruise control. The cruise control indication (green) in the instrument cluster turns on at the same time. Quickly release the switch when the cruise control indication (green) turns on.

#### NOTE

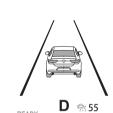
- If the RES switch is operated up (SET +) or down (SET-) while the vehicle speed is between 25 and 30 km/h (16 to 19 mph), the set speed is set to 30 km/h (19 mph).
- The cruise control speed setting cannot be performed under the following conditions:
  - · Any of the doors is opened.
  - · The driver's seat belt is unfastened.
  - · The brake pedal is depressed.
  - · The parking brake is applied.
  - The selector lever is in the P, N, or R position.
- On a steep grade, the vehicle may momentarily slow down while ascending or speed up while descending.
- The cruise control will cancel if the vehicle speed decreases below 20 km/h (12 mph) when the cruise control is activated, such as when climbing a steep grade.

The vehicle speed preset using the cruise control is displayed in the instrument cluster and the active driving display (vehicles with active driving display).

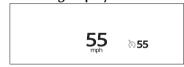
#### Instrument cluster (Basic display)



# Instrument cluster (i-ACTIVSENSE display)



### Active driving display



## **▼** Changing the Set Vehicle Speed

Follow either of these procedures.

# To increase/decrease speed using cruise control switch

When the RES switch is pressed up (SET+), the vehicle accelerates and when the RES switch is pressed down (SET-), it decelerates.

- Press and release immediately: 1 km/h (1 mph)
- · Press and hold: 10 km/h (5 mph)

#### NOTE

Even after releasing the RES switch, the cruise control accelerates/decelerates continuously until the set speed displayed in the instrument cluster and on the active driving display is reached. If you want to stop accelerating/decelerating, change the set speed or cancel the system (such as by depressing the brake pedal).

# To increase speed using accelerator pedal

Depress the accelerator pedal and press the RES switch up (SET+) or down (SET-) at the desired speed. If the switch is not operated, the system returns to the set speed after you release your foot from the accelerator pedal.

#### NOTE

Accelerate if you want to speed up temporarily when the cruise control is on. Greater speed will not interfere with or change the set speed. Take your foot off the accelerator to return to the set speed.

# ▼ To Resume Cruising Speed at More Than 30 km/h (19 mph)

If the cruise control system is temporarily canceled (such as by applying the brake pedal) and the system is still activated, the most recent set speed will automatically resume when the RES switch is pressed.

If vehicle speed is below 30 km/h (19 mph), increase the vehicle speed up to 30 km/h (19 mph) or more and press the RES switch.

## **▼** To Temporarily Cancel

To temporarily cancel the system, use one of these methods:

- · Slightly depress the brake pedal.
- · Press the CANCEL switch.

If the RES switch is pressed when the vehicle speed is 30 km/h (19 mph) or higher, the system reverts to the previously set speed.

#### NOTE

- If any of the following conditions occur, the cruise control system is temporarily canceled.
  - Even when the brake pedal is slightly depressed.
  - · The DSC is operating.
  - · There is a problem in the system.
  - · Any of the doors is opened.
  - The driver's seat belt is unfastened.
  - · The parking brake is applied.
  - The selector lever is in the P, N, or R position.
- When the cruise control system is temporarily canceled by even one of the applicable cancel conditions, the speed cannot be re-set.

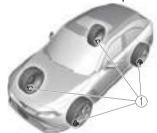
#### **▼** To Deactivate

Press the cruise switch again.

# Tire Pressure Monitoring System (TPMS)

# ▼ Tire Pressure Monitoring System (TPMS)

The TPMS monitors the air pressure of each tire and if it decreases below the specified value, the system notifies the driver by turning on the TPMS warning light in the instrument cluster and indicating a message on the multi-information display. For the TPMS, the air pressure data sent from the tire pressure sensors installed on each wheel via radio signal is received by the receiver unit in the vehicle to monitor the tire pressures.



### 1. Tire pressure sensors

In addition, the current tire pressures can be checked using the center display.

Refer to the Vehicle Status Monitor section in the Mazda Connect Owner's Manual.

#### NOTE

 When the ambient temperature is low, the tire temperatures also decrease. If the tire temperatures decrease, the air pressure in the tires will also decrease which could turn on the TPMS warning light.  Before driving, visually inspect the tires for abnormalities. Additionally, inspect the tire pressures monthly. A digital type air pressure gauge is recommended for inspecting the tire pressures.

The TPMS is not a substitute for your own periodic inspection of the tires. Always inspect the tires yourself periodically.

# **A** CAUTION

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.) As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly.

The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the malfunction indicator is illuminated. the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

➤ To avoid false readings, the system samples for a little while before indicating a problem. As a result it will not instantaneously register a rapid tire deflation or blow out.

#### ▼ If there is a problem with the Tire Pressure Monitoring System (TPMS)

If the TPMS warning light flashes, there may be a problem with the system. Consult an Authorized Mazda Dealer to have the system inspected. Refer to Tire Pressure Monitoring System (TPMS) Warning Indication/Warning Light (Flashing) on page 7-27.

In the following cases, the system cannot recognize the tire pressures correctly and the TPMS warning light may flash.

- There is equipment or a device nearby emitting radio signals the same as a tire pressure sensor.
- A metallic object such as a non-genuine electronic device is installed near the center of the dashboard (obstructs the radio signals from the tire pressure sensors to the receiver).
- A device such as one of the following is used in the cabin.
  - · Electronic devices such as a computer.
  - Converter devices such as a DC-AC converter.
- There is a large accumulation of snow or ice around the vehicle tires.
- The battery in a tire pressure sensor is dead.
- · A wheel not equipped with a tire pressure sensor is used.
- Tires employing steel in the sidewall of the tire are installed.
- · Tire chains are used.

### **▼** When a tire pressure decreases

If the TPMS warning light turns on, a tire pressure may be low. Inspect the tire pressures and adjust them to the correct inflation pressure.

# Tire Pressure Monitoring System (TPMS)

Refer to Tire Pressure Monitoring System (TPMS) Warning Indication/ Warning Light (Turns on) on page 7-30.

#### **▼** Tires and Wheels



When inspecting/adjusting the tire pressures, do not apply excessive force to the air valve of the tire pressure sensor. Otherwise, the tire pressure sensor could be damaged.

#### When changing tires and wheels

When changing the tires or wheels (such as installing winter tires), it will be necessary to register the ID signal code of the tire pressure sensor to the TPMS.

Have an Authorized Mazda Dealer do the registration or register the ID signal codes of the tire pressure sensors using the following procedure.

#### NOTE

The tire pressure sensors on each wheel have a unique ID signal code. For the TPMS to operate correctly, the ID signal codes of the tire pressure sensors need to be registered to the system.

- 1. Wait more than 19 minutes after changing a tire or wheel.
- 2. After more than 19 minutes have passed, drive the vehicle at a speed of about 25 km/h (16 mph) or faster for 3 minutes or longer. While driving, the ID signal codes of the tire pressure sensors are automatically registered.

#### NOTE

If you drive the vehicle within 19 minutes of changing a tire or wheel, the TPMS warning light will flash because the ID signal codes for the tire pressure sensors were not registered. In this case, stop the vehicle and register the ID signal codes of the tire pressure sensors following the procedure.

## When replacing tires and wheels



- When replacing the tires and wheels, consult an Authorized Mazda Dealer Otherwise, the tire pressure sensors could be damaged when replacing them.
- ➤ Do not install non-genuine wheels. If wheels other than genuine ones are installed, it may not be possible to install the tire pressure sensors.

When replacing a tire or wheel, always install the tire pressure sensor. The following combinations of tires, wheels, or tires and wheels are possible.

- The tire pressure sensor from the old wheel is removed and it is installed to the new wheel.
- Only a tire is replaced without replacing the tire pressure sensor and wheel.
- · A new tire pressure sensor is installed to a new wheel.

#### NOTE

When installing a new tire pressure sensor, the ID signal code for the tire pressure sensor needs to be registered. For details on purchasing a tire pressure sensor and registering the ID signal of the tire pressure sensor, consult an Authorized Mazda Dealer.

# Rear View Monitor\*

#### ▼ Rear View Monitor

The rear view monitor provides visual images of the rear of the vehicle when reversing.

# **⚠** WARNING

Always drive carefully confirming the safety of the rear and the surrounding conditions by looking directly with vour eves:

Reversing the vehicle by only looking at the screen is dangerous as it may cause an accident or a collision with an object. The rear view monitor is only a visual assist device when reversing the vehicle. The images on the screen may be different from the actual conditions.

# **A** CAUTION

- ➤ Do not use the rear view monitor under the following conditions: Using the rear view monitor under the following conditions is dangerous and could result in injury or vehicle damage or both.
  - ➤ Icy or snow-covered roads.
  - Tire chains or a temporary spare tire is installed.
  - The trunk lid is not fully closed.
  - The vehicle is on a road incline.
- ➤ When the display is cold, images may course across the monitor or the screen and may be dimmer than usual, which could cause difficulty in confirming the surrounding conditions of the vehicle. Always drive carefully confirming the safety of the rear and the surrounding conditions by looking directly with your eyes.

- > Do not apply excessive force to the camera. The camera position and angle may deviate.
- Do not disassemble, modify, or remove it as it may no longer be waterproof.
- The camera cover is made of plastic. Do not apply degreasing agents, organic solvents, wax, or glass coating agents to the camera cover. If any are spilled on the cover, wipe off with a soft cloth immediately.
- Do not rub the camera cover forcefully with an abrasive or hard brush. The camera cover or lens may be scratched which might affect the images.

#### NOTE

- · If water, snow, or mud is stuck on the camera lens, wipe it off using a soft cloth. If it cannot be wiped off, use a mild detergent.
- · If the camera temperature changes rapidly (Hot to cold, cold to hot), the rear view monitor may not operate correctly.
- · When replacing the tires, consult an Authorized Mazda Dealer, Replacing the tires could result in deviation of the guide lines which appear on the display.
- · If the vehicle's front, side, or rear has been involved in a collision, the alignment of the rear view parking camera (location, installation angle) may have deviated. Always consult an Authorized Mazda Dealer to have the vehicle inspected.
- · If "No camera signal." is indicated in the display, there could be a problem with the camera. Have your vehicle inspected at an Authorized Mazda Dealer.
- · (Predicted vehicle path assist lines display type)

If force is applied to the steering wheel, the guide lines may not display. Loosen your grip on the steering wheel to allow the guide lines to display.

# ▼ Rear View Parking Camera Location



1. Rear view parking camera

# **▼** Switching to the Rear View Monitor Display

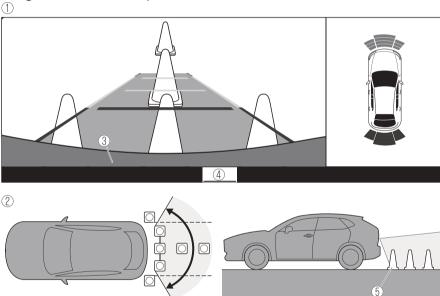
The system switches to the rear view monitor when the power switch is switched ON and shifting the selector lever to the reverse (R) position.

#### NOTE

When the selector lever is shifted from reverse (R) position to another selector lever position, the screen returns to the previous display.

### **▼** Displayable Range on the Screen

The images on the screen may be different from the actual conditions.



- 1. (Screen display)
- 2. (Actual view)
- 3. Bumper
- 4. "Check surroundings for safety." message is displayed
- 5. Object

#### NOTE

- $\cdot$  The displayable range varies depending on the vehicle and road conditions.
- If the camera lens is touched or there is any dirt on it, it could affect the screen image. Wipe the lens using a soft cloth.
- The displayable range is limited. Objects under the bumper or around the bumper ends cannot be displayed.
- The distance appearing in the displayed image is different from the actual distance because the rear view parking camera is equipped with a specific lens.

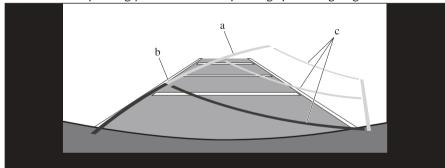
- · Images displayed on the monitor from the rear view parking camera are reversed images (mirror images).
- Some optionally installed vehicle accessories may be picked up by the camera. Do not install any optional parts that can interfere with the camera view, such as illuminating parts or parts made of reflective material.
- It may be difficult to see the display under the following conditions, however, it does not indicate a malfunction.
  - · In darkened areas.
  - · When the temperature around the lens is high/low.
  - · When the camera is wet such as on a rainy day or during periods of high humidity.
  - · When foreign material such as mud is stuck around the camera.
  - · When the camera lens reflects sunlight or headlight beams.
  - The surroundings are illuminated by vehicle lights, fluorescent lights, or LED lights (display may flicker).
  - Extremely small dark or white dots appear on the screen (dots may flicker).
- · Image display may be delayed if the temperature around the camera is low.

# **▼** Viewing the Display

#### Predicted vehicle path assist lines display type

The projected path guidance mode displays the predicted path of the vehicle after you turn the steering wheel.

Use this mode for parking your vehicle in a parking space or garage.



- a) Projected vehicle path (yellow)
  These lines are displayed as a reference for the projected path of the vehicle.
  The lines displaying the projected vehicle path change after you turn the steering wheel.
- b) Extended vehicle width lines (blue)
  These lines indicate the vehicle's extended width.
  These lines are not displayed when the vehicle's wheels are in the straight-ahead position.
- c) Distance guide lines (red)

These lines indicate the approximate distance to a point measured from the vehicle's rear (from the end of the bumper).

The blue line indicates the point about 0.5 m (19 in) from the rear bumper. The red and yellow lines, which change position after you turn the steering wheel, indicate the points about 0.5 m (19 in) for the red line and 1.0 m (39 in) and 2.0 m (78 in) for the yellow lines from the rear bumper (at the center point of each of the lines).

A degree of error occurs when the wheels are not in the straight-ahead position. In the above illustration, the right side of the vehicle is in a position closer to the actual distance displayed by the distance guide lines (red: about 0.5 m (19 in) point, yellow: about 1.0 m (39 in), and yellow: about 2.0 m (78 in) point behind the rear bumper), whereas the left side is in a position farther away.



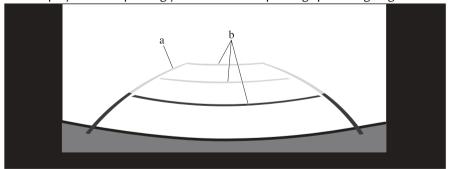
The indicated position of the guide lines on the display changes depending on the vehicle conditions (such as the number of occupants/cargo load) and the road conditions (such as a steep gradient to the rear of the vehicle).

Always check the area to the vehicle's rear and the surrounding area directly with your eyes while backing up.

### Fixed assist lines display type

Guide lines which indicate the width of the vehicle are displayed on the screen as a reference to the approximate width of the vehicle in comparison to the width of the parking space you are about to back into.

Use this display view for parking your vehicle in a parking space or garage.



a) Vehicle width guide lines

Guide lines serve as a reference to the approximate width of the vehicle.

b) Distance guide lines

These guide lines indicate the approximate distance to a point measured from the vehicle's rear (from the end of the bumper).

The red line indicates the point about 0.5 m (19 in) from the rear bumper. The yellow lines indicate the points about 1.0 m (39 in) and 2.0 m (78 in) from the rear bumper.

# **A** CAUTION

The guide lines on the screen are fixed lines. They are not synced to the driver's turning of the steering wheel. Always be careful and check the area to the vehicle's rear and the surrounding area directly with your eyes while backing up.

#### **▼** Rear View Monitor Operation

The operation of the rear view monitor when reversing the vehicle varies depending on the traffic, road, and vehicle conditions. The amount of steering and the timing also varies depending on conditions, so confirm the surrounding conditions directly with your eyes and steer the vehicle in accordance with the conditions. Be well aware of the above cautions prior to using the rear view monitor.

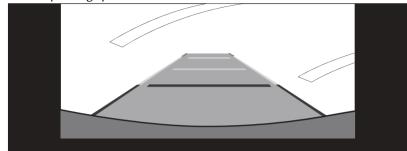
### Predicted vehicle path assist lines display type

#### NOTE

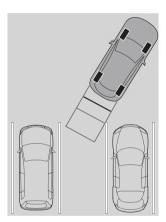
The following shows an example of vehicle parking in which the steering wheel is turned to the right when backing up the vehicle. The operation is reversed when backing up the vehicle from the opposite direction.

1. Shift the selector lever to reverse (R) position to switch the display to the rear view monitor display.

2. Before backing the vehicle into the parking space, turn the steering wheel while referring to the projected vehicle path display so that the vehicle enters the center of the parking space.

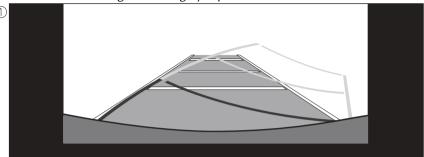




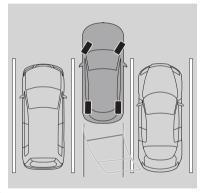


- (Display condition)
   (Vehicle condition)

3. After your vehicle begins entering the parking space, continue backing up slowly so that the distance between the vehicle width lines and the sides of the parking space on the left and right are roughly equal.

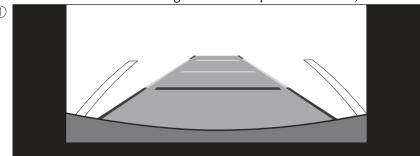




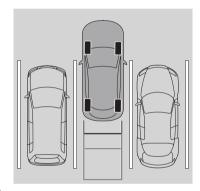


- 1. (Display condition)
- 2. (Vehicle condition)
- 4. Continue to adjust the steering wheel until the vehicle width guide lines are parallel to the left and right sides of the parking space.
- 5. Once they are parallel, straighten the wheels and back your vehicle slowly into the parking space. Continue checking the vehicle's surroundings and then stop

the vehicle in the best possible position. (If the parking space has division lines, check whether the vehicle width guide lines are parallel to them.)







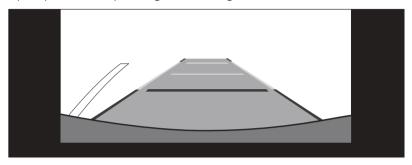
- 1. (Display condition)
- 2. (Vehicle condition)
- 6. When the selector lever is shifted from reverse (R) position to another selector lever position, the screen returns to the previous display.

#### **NOTE**

Because there may be a difference between the displayed image, such as indicated below, and the actual conditions when parking, always verify the safety at the rear of the vehicle and the surrounding area directly with your eyes.

• In the image of the parking space (or garage) displayed on the screen, the back end and distance guide lines may appear aligned in the monitor, but they may not actually be aligned on the ground.

· When parking in a space with a division line on only one side of the parking space, the division line and the vehicle width guide line appear aligned in the monitor, but they may not actually be aligned on the ground.



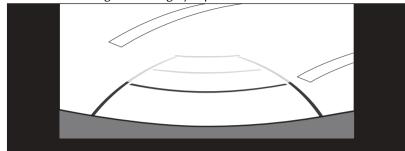
### Fixed assist lines display type

#### NOTE

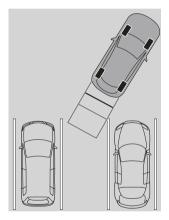
Images displayed on the monitor from the rear view parking camera are reversed images (mirror images).

- 1. Shift the selector lever to reverse (R) position to switch the display to the rear view monitor display.
- 2. Confirming the surrounding conditions, reverse the vehicle.

3. After your vehicle begins entering the parking space, continue backing up slowly so that the distance between the vehicle width lines and the sides of the parking space on the left and right are roughly equal.

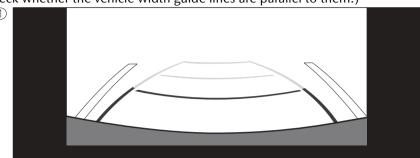




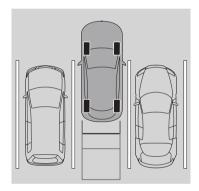


- 1. (Display condition)
- 2. (Vehicle condition)
- 4. Continue to adjust the steering wheel until the vehicle width guide lines are parallel to the left and right sides of the parking space.
- 5. Once they are parallel, straighten the wheels and back your vehicle slowly into the parking space. Continue checking the vehicle's surroundings and then stop

the vehicle in the best possible position. (If the parking space has division lines, check whether the vehicle width guide lines are parallel to them.)







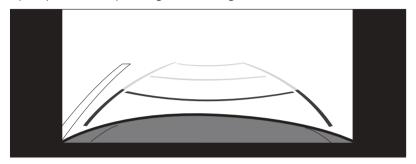
- 1. (Display condition)
- 2. (Vehicle condition)
- 6. When the selector lever is shifted from reverse (R) position to another selector lever position, the screen returns to the previous display.

#### **NOTE**

Because there may be a difference between the displayed image, such as indicated below, and the actual conditions when parking, always verify the safety at the rear of the vehicle and the surrounding area directly with your eyes.

• In the image of the parking space (or garage) displayed on the screen, the back end and distance guide lines may appear aligned in the monitor, but they may not actually be aligned on the ground.

· When parking in a space with a division line on only one side of the parking space, the division line and the vehicle width guide line appear aligned in the monitor, but they may not actually be aligned on the ground.

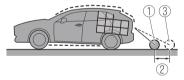


#### ▼ Variance Between Actual Road Conditions and Displayed Image

Some variance occurs between the actual road and the displayed road. Such variance in distance perspective could lead to an accident. Note the following conditions that may cause a variance in distance perspective.

#### When the vehicle is tilted due to the weight of passengers and load

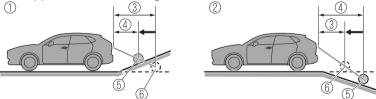
When the vehicle rear is lowered, the object displayed on the screen appears farther than the actual distance.



- 1. Object
- 2. Variance
- 3. Object on screen

### When there is a steep grade behind the vehicle

When there is a steep upgrade (downgrade) behind the vehicle, the object displayed on the screen appears farther (downgrade: closer) than the actual distance.

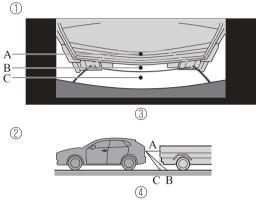


- 1. Appears farther than actual distance
- 2. Appears closer than actual distance
- 3. Distance between the vehicle and object displayed on the screen.

- 4. Actual distance between the vehicle and object.
- 5. Object at actual position
- 6. Object on screen

### Three-dimensional object on vehicle rear

Because the distance guide lines are displayed based on a flat surface, the distance to the three-dimensional object displayed on the screen is different from the actual distance.

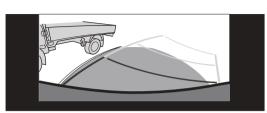


- 1. (Screen display)
- 2. (Actual condition)
- 3. Sensed distance on screen A>B>C
- 4. Actual distance B>C=A

(Predicted vehicle path assist lines display type)

# When reversing near a three-dimensional object

When reversing near an overhanging object, the vehicle may hit the object even if the anticipated course line does not contact the object on the screen. The position of the object displayed on the screen is different from the actual position because the anticipated course lines on the screen are displayed based on a horizontal road surface. When backing up near an overhanging object, confirm the rear and surrounding conditions directly with your eyes. 1





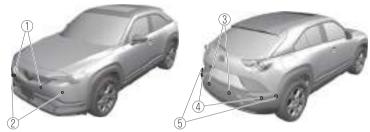


- (Screen display)
   (Actual view)

# **Parking Sensor System**

#### ▼ Parking Sensor System

The parking sensors use ultrasonic sensors which detect obstructions around the vehicle when the vehicle is driven at low speeds, such as during garage or parallel parking, and a buzzer sound and detection indicator notify the driver of the approximate distance from the vehicle to the surrounding obstruction.



- Front ultrasonic sensor\*
- Front corner ultrasonic sensor\*
- 3. Rear ultrasonic sensor
- 4. Rear corner ultrasonic sensor
- Rear side ultrasonic sensor\*

# WARNING

Do not rely completely on the parking sensor system and be sure to confirm the safety around your vehicle visually when driving:

This system can assist the driver in operating the vehicle in the forward and backward directions while parking. The detection ranges of the sensors are limited, therefore, driving the vehicle while relying only on the system may cause an accident. Always confirm the safety around your vehicle visually when driving.



- > Do not install any accessories within the detection ranges of the sensors. It may affect the system operation.
- Depending on the type of obstruction and the surrounding conditions, the detection range of a sensor may narrow, or the sensors may not be able to detect obstructions.
- ➤ When washing the vehicle, do not spray highly pressurized water against the sensor area, or rub it strongly. Otherwise, it may not be able to detect obstructions correctly and the system may not operate normally.

#### NOTE

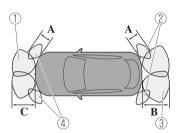
- When the power switch is switched OFF, the system status before it was turned off is maintained. For example, if the power switch is switched OFF while the parking sensor is activated, the system will be activated when the power switch is switched ON the next time.
- The system may not operate normally under the following conditions:
  - · Mud, ice, or snow is adhering to the sensor area (Returns to normal operation when removed).
  - The sensor area is frozen (Returns to normal operation when the ice is thawed).
  - · The sensor is covered by a hand.
  - · The sensor is excessively shocked.
  - · The vehicle is excessively tilted.
  - · Under extremely hot or cold weather conditions.
  - The vehicle is driven on bumps, inclines, gravel, grating, or grass covered roads.
  - Anything which generates ultrasonic waves such as another vehicle's horn, the engine sound of a motorcycle, the air brake sound of a large-sized vehicle, or another vehicle's sensors approaches the vehicle.
  - The vehicle is driven in heavy rain or in road conditions causing water-splash.
  - A commercially-available fender pole or an antenna for a radio transmitter is installed to the vehicle.
  - The vehicle is moving towards a tall or square curbstone, or a steep grade.
  - · An obstruction is too close to the sensor.
  - · The vehicle is moving towards an uneven wall or stairs.
  - · There are multiple obstructions.
  - The vehicle is driven in a place with low ceilings.
- Obstructions under the bumper cannot be detected. Obstructions which are lower than the sensor or thin may not be detected even though they were detected once.
- The following types of obstructions may not be detected:
  - · Thin objects such as wire, rope or poles
  - · Things which absorb sonic waves easily such as cotton or snow
  - Angular shaped objects
  - · Very tall objects, and those which are wide at the top
  - · Small, short objects
- · Always have the system inspected at an Authorized Mazda Dealer if any shock is applied to the bumpers, even in a minor accident. If the sensors are deviated, they cannot detect obstructions.
- The system may have a malfunction if a sound is not activated or the detection indication is not displayed even when the parking sensor OFF switch is pressed and the parking sensor is operable. Have your vehicle inspected by an Authorized Mazda Dealer.
- The system may have a malfunction if the indicator light does not turn on even when the parking sensor OFF switch is turned on. Have your vehicle inspected by an Authorized Mazda Dealer.

# Parking Sensor System

- · The system may have a malfunction if a message indicating a system malfunction is displayed. Have your vehicle inspected by an Authorized Mazda Dealer.
- A message may be displayed even when the ambient temperature is extremely cold, or mud, ice, or snow adheres to the sensor area. Remove any foreign matter from the sensor area.

#### **▼** Sensor Detection Range

The sensors detect obstructions within the following range.



- 1. Front ultrasonic sensor detection range
- 2. Rear corner/Rear side ultrasonic sensor detection range
- 3. Rear ultrasonic sensor detection range
- 4. Front corner ultrasonic sensor detection range
- A: About 55.0 cm (About 21.6 in)
- B: About 150 cm (About 59.0 in)
- C: About 100 cm (About 39.3 in)

### Viewing distance display

Display			Distance between vehicle and obstruction	
Without 360° Without front ultrasonic sensor and front corner ultrasonic sensor	wiew monitor  With front ultrasonic sensor and front corner ultrasonic sensor	With 360° view monitor	Front ultrasonic sensor*/Front cor- ner ultrasonic sen- sor*	Rear ultrasonic sen- sor/Rear corner ul- trasonic sensor/ Rear side ultrasonic sensor*
		Green	''	Rear ultrasonic sensor: Approx. 150—60.0 cm (59.0—23.6 in)

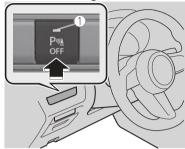
Display			Distance between vehicle and obstruction		
Without 360° Without front ultrasonic sensor and front corner ultrasonic sensor	wiew monitor  With front ultrasonic sensor and front corner ultrasonic sensor	With 360° view monitor	Front ultrasonic sensor*/Front cor- ner ultrasonic sen- sor*	Rear ultrasonic sen- sor/Rear corner ul- trasonic sensor/ Rear side ultrasonic sensor*	
		Yellow	Front ultrasonic sensor: Approx. 60.0—45.0 cm (23.6—17.7 in) Front corner ultrasonic sensor: Approx. 55.0—38.0 cm (21.6—14.9 in)	Rear ultrasonic sensor: Approx. 60.0—45.0 cm (23.6—17.7 in) Rear corner ultrasonic sensor/Rear side ultrasonic sensor: Approx. 55.0—38.0 cm (21.6—14.9 in)	
		Amber	Front ultrasonic sensor: Approx. 45.0—35.0 cm (17.7—13.7 in) Front corner ultrasonic sensor: Approx. 38.0—25 cm (14.9—9.8 in)	Rear ultrasonic sensor: Approx. 45.0—35.0 cm (17.7—13.7 in) Rear corner ultrasonic sensor/Rear side ultrasonic sensor: Approx. 38.0—25 cm (14.9—9.8 in)	
		Red	Front ultrasonic sensor: Within approx. 35.0 cm (13.7 in) Front corner ultrasonic sensor: Within approx. 25 cm (9.8 in)	Rear ultrasonic sensor: Within approx. 35.0 cm (13.7 in) Rear corner ultrasonic sensor/Rear side ultrasonic sensor: Within approx. 25 cm (9.8 in)	

# **▼** Parking Sensor OFF Switch

When the parking sensor OFF switch is pressed with the power switch switched ON, the parking sensor system is stopped and the parking

sensor OFF switch indicator light turns on.

If the switch is pressed again, the parking sensor becomes operational and the indicator light turns off.



#### 1. Indicator light

#### NOTE

- · The detection indicator and buzzer of the front ultrasonic sensors / front corner ultrasonic sensors do not operate when the selector lever is in the P position.
- · The detection indicator and buzzer sound do not activate when the parking brake is applied.

#### **▼** Obstruction Detection Indication

The position of a sensor which has detected an obstruction is indicated. The gauge illuminates in different areas depending on the distance to an obstruction detected by the sensor. As the vehicle approaches closer to an obstruction, the zone in the gauge closer to the vehicle illuminates.

#### Without 360°view monitor



- 1. Front ultrasonic sensor gauge\*
- 2. Right front corner ultrasonic sensor gauge\*
- 3. Right rear corner ultrasonic sensor gauge/Right rear side ultrasonic sensor gauge\*
- 4. Rear ultrasonic sensor gauge
- 5. Left rear corner ultrasonic sensor gauge/Left rear side ultrasonic sensor gauge\*
- 6. Left front corner ultrasonic sensor gauge\*

#### With 360°view monitor



- 1. Front ultrasonic sensor gauge
- 2. Right front corner ultrasonic sensor gauge
- 3. Right rear corner ultrasonic sensor gauge/Right rear side ultrasonic sensor gauge\*
- 4. Rear ultrasonic sensor gauge

- 5. Left rear corner ultrasonic sensor gauge/Left rear side ultrasonic sensor gauge\*
- 6. Left front corner ultrasonic sensor

#### NOTE

The detection indicator can be switched between display and non-display and the buzzer volume can be changed.

Refer to the Settings section in the Mazda Connect Owner's Manual. (Vehicles with 360° View Monitor) When the detection indicator is set to "Display", even with the 360° view monitor not displayed, if a front sensor or a front corner sensor detects an obstruction, the 360° view monitor switches automatically to display. When an obstruction is no longer detected, the display switches to the display before the obstruction was detected. However, while the 360° view monitor is displayed, it continues to display no matter if an obstruction is detected or not.

## System problem notification

The indication displays if the system has a malfunction.

Without 360°view monitor



#### With 360°view monitor



Check the reason for the indication displaying on the center display or multi-information display. Refer to If a Warning Light Turns On or Flashes on page 7-21.

### **▼** Parking Sensor Warning Beep

Informs the driver of the approximate distance from the vehicle to the obstruction using warning beeps depending on the distance. If multiple obstructions are detected at the same time, warning beeps are activated according to the distance to the nearest obstruction. The warning beeps are activated as follows while the system is operating. However, the warning beeps are not activated while the seat belt reminder is operating.

# Front ultrasonic sensor\*, Rear ultrasonic sensor

Distance De-	hicle and obstruction	Beeper sound*1	
tection area	Front ultrasonic sensor Rear ultrasonic sensor		
Farthest dis-	Approx. 100—60.0 cm	Approx. 150—60.0 cm	Slow intermittent sound
tance	(39.3—23.6 in)	(59.0—23.6 in)	
Far distance	Approx. 60.0—45.0 cm	Approx. 60.0—45.0 cm	Medium intermit-
	(23.6—17.7 in)	(23.6—17.7 in)	tent sound
Middle dis-	Approx. 45.0—35.0 cm	Approx. 45.0—35.0 cm	Fast intermittent sound
tance	(17.7—13.7 in)	(17.7—13.7 in)	
Close distance	Within approx. 35.0 cm (13.7 in)	Within approx. 35.0 cm (13.7 in)	Continuous sound

<sup>&</sup>lt;sup>\*</sup>1 The rate at which the intermittent sound beeps increases as the vehicle approaches the obstruction.

# 4-204 \*Some models.

# Front corner ultrasonic sensor\*, Rear corner/Rear side\* ultrasonic sensor

Distance Detection	Distance between vehicle and obstruction		
area	Front corner ultrasonic sensor/Rear corner, Rear side ultrasonic sensor	Beeper sound*1	
Far distance	Approx. 55.0—38.0 cm (21.6—14.9 in)	Medium intermittent sound	
Middle distance	Approx. 38.0—25 cm (14.9—9.8 in)	Fast intermittent sound	
Close distance	Within approx. 25 cm (9.8 in)	Continuous sound	

The rate at which the intermittent sound beeps increases as the vehicle approaches the obstruction.

#### NOTE

- · If an obstruction in the same area excluding the close area is detected continuously for 6 seconds or longer, only the warning beeps stop activating. (Detection is indicated) If the detection area changes to the close side, the warning beeps resumes. (If the detection area changes to the far side, the warning beeps remain off)
- The sound volume (each of front and rear) can be changed. Refer to the Settings section in the Mazda Connect Owner's Manual.

## **▼** When Warning Indicator/Beep is Activated

The system notifies the driver of an abnormality by activating the beep sound and the indicator light.

Indicator/Beep	How to check			
A message indicating a system malfunction or sensor malfunction is displayed.	There may be a problem with the system. Have your vehicle inspected by an Authorized Mazda Dealer as soon as possible.			
0	Remove any foreign matter from the sensor area. If the system does not recover, have the vehicle inspected by an Authorized Mazda Dealer.			
A certain obstruction detection indication is continuously displayed.	Foreign matter may have gotten on the sensor area corresponding to the detection indicator. If the system does not recover, have the vehicle inspected by an Authorized Mazda Dealer.			

# 5

# **Interior Features**

Use of various features for ride comfort, including airconditioning system and audio system.

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For Your Ride Comfort 5-	-2
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	ear Coat Hooksorage Compartments	

# Climate Control System

# For Your Ride Comfort

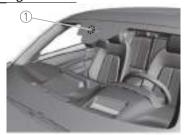
#### **▼** For Your Ride Comfort

- If the vehicle has been parked in direct sunlight during hot weather, open the windows to let warm air escape, then run the climate control system.
- The climate control system measures inside and outside temperatures, humidity and sunlight using the sunlight/temperature sensor. It sets temperatures inside the cabin accordingly.



Do not obstruct both sensors, otherwise the climate control system will not operate properly.

#### Sunlight sensor



### Sunlight sensor Interior temperature sensor



1. Interior temperature sensor

 Clear all obstructions such as leaves, snow and ice from the hood and the air inlet in the cowl grille to improve the system efficiency.

#### NOTE

If the airflow of the climate control system significantly decreases, the air filter may be clogged. Replace the air filter

- Use the climate control system to defog the windows and dehumidify the air.
- Run the air conditioner about 10 minutes at least once a month to keep internal parts lubricated.
- Have the air conditioner checked before the weather gets hot. Lack of refrigerant may make the air conditioner less efficient.
   The refrigerant specifications are indicated on a label attached to the inside of the motor compartment. If the wrong type of refrigerant is used, it could result in a serious malfunction of the air conditioner.
   Consult a professional, government certified repairer for the inspection or repair because a special device is required for the air conditioner maintenance.

For details, consult an Authorized Mazda Dealer.



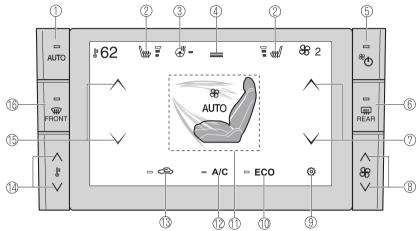
1. Label

# **Climate Control System Operation Area**

# **▼** List of Climate Control System Switches/Icons

Climate control system information is displayed on the display.

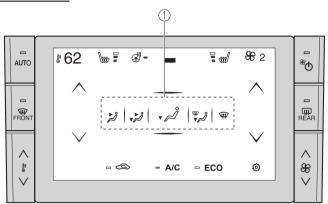
## Auto operation screen



	(U)	(U)	(3)	
① AUTO switch	 			page 5-4
② Seat warmer icon*	 			page 2-21
3 Steering warmer icon*	 			page 2-23
4 Seat warmer setting icon*	 			page 2-21
Steering warmer setting icon*.	 			page 2-23
⑤ Climate control power switch.	 			page 5-5
6 Rear window defogger switch.	 			page 5-5
7 Fan control icon	 			page 5-5
8 Fan control switch	 			page 5-5
Display setting icon				
10 ECO icon	 			page 5-6
(1) Auto and manual operation so				
① A/C icon	 			page 5-6
(13) Air intake selector icon	 			page 5-6
(4) Temperature control switch	 			page 5-5
(15) Temperature control icon	 			page 5-5
16 Windshield defroster switch	 			page 5-6

# Climate Control System

#### Manual operation screen



#### NOTE

#### Free/open source software information

This product includes free/open sources. Information about the licensing and source code is available at the following URL.

https://www.alpine.com/m/e/oss/download/

### **▼** Touch Panel Basic Operation



Do not press the screen strongly or press it with a sharp-pointed object. Otherwise, the screen could be damaged.

## **Touch panel operation**

You can do three types of icon operations on the touch panel using your finger including, touch, touch and hold, and swipe operations.

# Switching between auto and manual operation screens

Touch the seat indication in the center of the screen to switch from the auto operation screen to the manual operation screen. Press the AUTO switch to switch from the manual

operation screen to the auto operation screen.

#### **▼** AUTO Switch

By pressing the AUTO switch the following functions will be automatically controlled in accordance with the selected set temperature:

- · Airflow temperature
- · Amount of airflow
- Selection of airflow mode
- · Outside/Recirculated air selection
- Air conditioner (cooling, defrosting functions) operation
- \*Seat warmer level selection\*1
- · \*Heated steering wheel operation\*1
- \*1 Auto mode operates when auto mode is enabled in the Mazda Connect settings. Refer to the Settings section in the Mazda Connect Owner's Manual.

#### NOTE

#### AUTO switch indicator light

ON
 The indicator light turns on during auto operation.

· OFF

When any switch or icon is operated during auto operation, including the  $\begin{subarray}{c} \begin{subarray}{c} \begin{subar$ 

### **▼** Temperature Control Switch/Icon

The temperature setting can be adjusted between 15 °C (60 °F) and 29 °C (84 °F) by pressing the temperature setting switch, or touching the  $\bigwedge$  (red) or  $\bigvee$  (blue). The temperature setting can be quickly adjusted by pressing and holding the temperature setting switch, or touching and holding the  $\bigwedge$  (red) or  $\bigvee$  (blue).

#### NOTE

- When you set the temperature to the lower or upper limit, "LO" or "HI" is displayed.
- The temperature units for the temperature setting display can be changed in conjunction with the temperature units for the outside temperature display.
- · When swiping the \( \) (red) or \( \) (blue) up/down, the temperature can be adjusted up or down in increments of 3 °C (6 °F).

 To reduce power consumption by the climate control system, warm airflow may not be supplied when the ambient temperature is 25 °C (77 °F) or more.

#### ▼ Fan Control Switch/Icon

The airflow amount can be adjusted to 7 levels.

The airflow amount can be adjusted by pressing the fan control switch, or by touching the  $\bigwedge$  or  $\bigvee$ . In addition, when the fan control switch,  $\bigwedge$ , or  $\bigvee$  is pressed and held, the airflow amount can be adjusted quickly.

#### NOTE

· When the or vis swiped upward, the airflow amount can be increased at 3 levels. When swiped downward, the airflow amount can be decreased at 3 levels.

# ▼ Climate Control Power Switch (System On/Off)

The climate control system turns on and off each time the climate control power switch is pressed.

### **▼** Rear Window Defogger Switch

Press the rear window defogger switch to defrost the rear window. When the defroster is operated, the outside mirror defogger\* and the windshield wiper de-icer\* operate in conjunction.

## **▼** Display Setting Icon

Touch the to display the display setting screen.
You can adjust the brightness (41 levels), select the screen from

# Climate Control System

Auto/Day/Night, and adjust the operation volume (mute or 3 levels). Touch the X to close the screen.

#### NOTE

For safety reasons, the setting screen is not displayed while driving the vehicle.

#### **▼** ECO Icon

ECO mode switches on/off each time the icon is touched.

The operation frequency of the air conditioner in ECO mode is less than in normal mode, making driving more economical.

# ▼ Auto and Manual Operation Screen Switching Icon

Touch the seat indication in the center of the screen to switch to the manual operation screen.

The 🎜 , 🎜 , 🎜 , 📆 , and 🗰 can be operated.

# **▼** A/C Icon

Touch the A/C while the AUTO switch is turned on will turn off the air conditioner (cooling, defrosting functions).

The on/off of the air conditioner switches each time the A/C is touched.

While the air conditioner is operating, the indicator light next to the A/C turns on.

#### NOTE

- The air conditioner operates when the A/C is touched while the air conditioner is turned off.
- The air conditioner may not function when the outside temperature approaches 0 °C (32 °F).

#### **▼** Air Intake Selector Icon

Outside or recirculated air positions can be selected. Touch the to select outside/recirculated air positions.

# • WARNING

# Do not recirculate the air in the cabin during cold or rainy weather:

Recirculating the air in the cabin during cold and rainy weather is dangerous as it will cause the windows to fog up. Your vision will be hampered, which could lead to a serious accident.

# Recirculated air position (Indicator light next to the turns on)

Outside air is shut off. Use this position when going through tunnels, driving in congested traffic (high engine exhaust areas) or when quick cooling is desired.

# Outside air position (Indicator light next to the turns off)

Outside air is allowed to enter the cabin. Use this mode for ventilation or windshield defrosting.

#### **▼** Windshield Defroster Switch

Press the switch to defrost the windshield and front door windows.

#### NOTE

The defroster can also be used by touching the \( \frac{\pmathref{th}}{\pmathref{th}} \).

#### **▼** Mode Selector Icon

When the  $\cancel{k}$ ,  $\cancel{k}$ ,  $\cancel{k}$ ,  $\cancel{k}$ ,  $\cancel{k}$ , or  $\cancel{k}$  is touched, the airflow mode can be selected according to the purpose of use.

#### **NOTE**

- When on the auto operation screen, touch the seat indication in the center of the screen to display the  $\mathring{\mathcal{L}}$ ,  $\mathring{\mathcal{L}}$ ,  $\mathring{\mathcal{L}}$ ,  $\mathring{\mathcal{L}}$ ,  $\mathring{\mathcal{L}}$ , and  $\mathring{\mathcal{L}}$  icons.
- When swiping the  $\begin{subarray}{c} \begin{subarray}{c} \begin$

# Basic Climate Control System Operation

# **▼** Air Conditioner Basic Operation

Operate the air conditioner (cooling, defrosting functions) with the EV system started. The air conditioner can be used while charging when the power switch is switched ON. In addition, Cabin preconditioning can also be used when the power switch is switched OFF.

#### NOTE

When the charging is completed with the power switch switched ON, the air conditioner (cooling, heating, defrosting functions) stops automatically.

- Press the AUTO switch. Selection of the airflow mode, air intake selector and amount of airflow will be automatically controlled.
- 2. Operate the temperature setting switch/ (red) or (blue) to set the desired temperature.

#### NOTE

- The recommended set temperature is 22 °C (72 °F).
- Setting the temperature to maximum hot or cold will not provide the desired temperature at a faster rate.
- The power consumption of the air conditioner changes depending on the set temperature and the ambient temperature. If the set temperature is too low or high, the remaining distance to full discharge shortens.
- 3. To turn off the system, press the climate control power switch.

# **Climate Control System**

# **▼** Adjusting the Vents

# **Directing airflow**

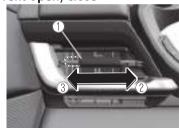
To adjust the direction of airflow, move the adjustment knob.

#### NOTE

- When using the air conditioner under humid ambient temperature conditions, the system may blow fog from the vents. This is not a sign of trouble but a result of humid air being suddenly cooled.
- The air vents can be fully opened and closed by operating the knob.

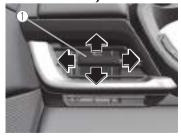
#### **Side Vents**

Air vent open/close



- 1. Knob
- 2. Open
- 3. Close

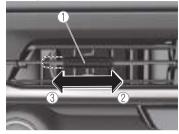
Airflow direction adjustment



#### 1. Knob

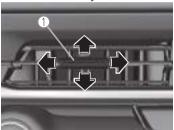
#### Center Vents

Air vent open/close



- 1. Knob
- 2. Close
- 3. Open

# Airflow direction adjustment



- 1. Knob
- **▼** Selecting the Airflow Mode

# **Dashboard Vents**



### **Dashboard and Floor Vents**



Floor Vents



**Defroster and Floor Vents** 



**Defroster Vents** 



#### NOTE

The location airflow exits the air vents and the airflow amount may change depending on the open or close status of the air vents.

**▼** Windshield Defrosting and Defogging

# **M** WARNING

Set the temperature control to the hot or warm position when defogging (\frac{\frac{\frac{1}}{1000}}{1000} position):

Using the position with the temperature control set to the cold position is dangerous as it will cause the outside of the windshield to fog up. Your vision will be hampered, which could lead to a serious accident.

Press the windshield defroster switch, or touch the \(\pm\).

In this position, the outside air position is automatically selected, and the air conditioner automatically turns on. The air conditioner will directly dehumidify the air to the front windshield and side windows. Airflow amount will be increased.

#### NOTE

- If any of the following operations is done, the window glass will fog up more easily:
  - · Switching to recirculate mode
  - Turning off the air conditioner (cooling, defrosting functions)
- · For faster defrosting, do any of the following operations
  - Operate the fan control switch/\(\triangle
    \) to increase the airflow amount

# Climate Control System

- Operate the temperature setting switch/ (red) to increase the airflow temperature
- Only use the defroster when the window glass needs to be defogged.
   The power consumption of the air conditioner is suppressed, making driving more economical.
- For defrost mode, warm airflow is supplied for defrost even if the set temperature is decreased, however, this does not indicate a problem.

# Convenient Ways to Use the Climate Control System

# **▼** Cautions Concerning Cabin Preconditioning

Cabin preconditioning is a collective term regarding use of the Climate Control Timer and the remote climate control.

You can cool or warm the cabin, or defog the window glass before getting in the vehicle by setting your departure time in advance (Climate Control Timer) or by a remote operation (remote climate control) using your Smartphone.

# **⚠** WARNING

# Do not operate the cabin preconditioning with people or pets in the vehicle:

The cabin preconditioning may stop automatically due to the vehicle conditions and the surrounding environment. If the climate control system stops and the temperature inside the vehicle increases or decreases, it could cause a serious medical condition such as heat exhaustion and dehydration or even death.

# **A** CAUTION

➤ If any of the following conditions are met, the cabin preconditioning will not operate. In addition, if the cabin preconditioning is operating, it will stop. However, if the liftgate is opened while the cabin preconditioning is operating, the cabin preconditioning will not stop.

- ➤ The high voltage battery or the lead-acid battery charge is low
- ➤ The doors/liftgate are open
- ➤ The power switch is switched to a position other than OFF
- ➤ There is a problem with the vehicle
- ➤ If the operation conditions are not met 30 minutes before the departure time set by the climate control timer, the climate control timer will not operate.
- ➤ If any of the following conditions is met, the climate control system will not operate effectively and the cabin temperature may not reach the set temperature:
  - ➤ Your power consumption is high
  - Extremely high or low temperatures
- The climate control system stops at the departure time. The cabin temperature may not reach the set temperature if you get in the vehicle earlier or later than the set departure time.
- ➤ If you operate the cabin preconditioning while charging the vehicle, it could take more time to charge the high voltage battery.
- ➤ During the cabin preconditioning operation, the cooling fan, the compressor, and the cabin fans operate, but this does not indicate a problem.
- ➤ The climate control system functions you can use differ depending on the power switch position.

	Power switch position			
Function	OFF	ACC	ON (EV sys- tem off)	ON (EV sys- tem on)
Air circulation	_	_	X	X

	Power switch position			
Function	OFF	ACC	ON (EV sys- tem off)	ON (EV sys- tem on)
Cooling/heating	_	_	X*1	Х
Climate Control Timer	Х	_	_	_
Remote climate control	Х	_	_	_

- X: Available
- -: Not available
- \*1 The cooling/heating function can be used only while charging.

#### NOTE

- The recommended set temperature is 22 °C (72 °F). If you set an extremely high or low temperature, power consumption will increase and the charging time will take longer.
- If you operate the cabin preconditioning while the charging connector is connected, you can reduce the electric power consumption of the high voltage battery. Cabin preconditioning can be operated even without connecting the charging connector, however, the electrical power of the high voltage battery will decrease.
- If quick charge is started during cabin preconditioning, the cabin preconditioning is stopped.
- While the cabin preconditioning is operating, the indicator light for the climate control power switch turns on.

# Climate Control System

- The cabin preconditioning operates for 30 minutes. If you set the departure time using the Climate Control Timer, set it 30 minutes or later from the current time and if you want to make several settings, space them out at intervals of 30 minutes or longer.
- Enabling the defroster setting will aid you in defrosting and removing ice or snow from the window glass. The defroster performance changes according to the set temperature.
- The Climate Control Timer does not work immediately after the lead-acid battery is removed or installed, or when no GPS signal has been received. When GPS signals are received, the Climate Control Timer becomes operational.

# ▼ Turning On the Climate Control System Using the Timer (Climate Control Timer)

By setting the departure time using Mazda Connect, the climate control system operates and adjusts the cabin temperature by the departure time. The departure time, day, set temperature, and defroster operation/non-operation can be personalized, and 7 types of patterns can be programmed in advance. You can check the cabin temperature and the setting status using your Smartphone while the Climate Control Timer is operating.

To operate the Climate Control Timer, switch the power switch OFF.

#### NOTE

 The Climate Control Timer does not operate while the remote climate control is operating.

- The Climate Control Timer can be stopped by a Smartphone remote operation.
- When programming days for the Climate Control Timer, you do not have to set it every time because the programming continues into the following weeks.

#### **How to set the Climate Control Timer**

#### NOTE

Place a check in the check box for the function you want to enable ( $\square$ ) or uncheck it to disable ( $\square$ ) the function.

- 1. Select "Settings" from the Mazda Connect home screen.
- 2. Select "EV Settings".
- 3. Select "Climate Control Timer".
- 4. Select the item setting you would like to change from the displayed content.

### **Climate Control Timer**

Allows climate control to adjust cabin temperature before driving.

Function	Available set	ting changes
1		
2		
3	For this	E dia
4	Enable, Disable*1	Edit, Delete <sup>*2</sup>
5	Disable	Delete
6		
7		

- \*1 If an item selected using the cursor has been set, the item can be enabled or disabled.
- \*2 Settings can be "Edit"/"Delete" by sliding an item selected using the cursor to the right.

#### **Edit**

The Climate Control Timer settings can be edited.

Function	Available setting changes
Departure Time	Time (10-minute inter- vals)
Repeat	Monday — Sun- day
Temperature	15.5°C (61 °F) — 28.5°C (83 °F)
Front Defroster	Enable, Disable
Rear Defroster	Enable, Disable

# ▼ Turning On the Climate Control System from A Remote Location (Remote Climate Control)

Using your Smartphone, you can turn on the climate control system remotely before departing. You can check the cabin temperature and the setting status using your Smartphone while the remote climate control is operating. To operate the remote climate control, switch the power switch OFF. Please refer to local Mazda website for more Connected Service information.

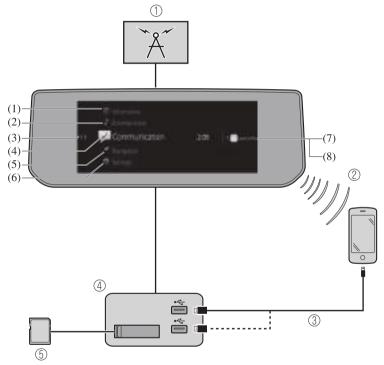
# **A** CAUTION

- ➤ To use the remote climate control, it is necessary to subscribe to Connected Service.
- The remote climate control can be used when your Smartphone is connected to your vehicle using the Connected Service.
- ➤ The remote climate control may not be available depending on the model of the Smartphone you are using. Please check in advance.

# What is Mazda Connect?

#### ▼ What is Mazda Connect ?

This manual only indicates a part of the information for Mazda Connect. For details, check the Web owner's manual at the Mazda site for each country and region.



- 1. Radio
- 2. Bluetooth® Audio/Hands-Free Call/SMS (Short Message Service)
- 3. USB Audio/USB Video
- 4. USB port\*1/SD card slot\*2
- 5. SD card (Navigation system)\*
- \*1 The location of the USB slot differs depending on the specifications.
- \*2 The SD card slot is for the navigation system only. For vehicles with the navigation system, the SD card (Mazda genuine) with stored map data is inserted into the SD card slot and used.

No.	Menu	Explanation
		Energy Efficiency History:
		Monitor energy efficiency in real time and view energy efficiency history.
		High Voltage Battery Monitor:
		View high voltage battery charge level, charging schedule, and more.
(1)	Information	SiriusXM Travel Link*:
		Access traffic information, weather, fuel prices, parking information and sports scores.
		Vehicle Status Monitor:
		View important vehicle maintenance messages, information, and intervals.
(2)	Entertainment	FM SiriusXM* Pandora* Bluetooth USB1 Audio/USB2 Audio USB1 Video/USB2 Video Smartphone Apps*/Apple CarPlay*/Android Auto* Audio Off
(3)	Notifications	Displays text messages received by the mobile device paired to Mazda Connect and notifications from the vehicle. The number of notifications is displayed, and if they exceed 100, 99+ is displayed. If a serious problem occurs, the background color changes to amber or red.
(4)	Communication	By connecting your mobile device, such as a Smartphone, to Mazda Connect via Bluetooth®, you can use the hands-free call and short message functions.
		The navigation system (vehicles with navigation system) can be used when the SD card for the navigation system is inserted.
(5)	Navigation	If the SD card for the navigation system is not inserted, the compass indicating the direction in which the vehicle is moving is displayed. The compass may not indicate the correct bearing when the vehicle is stopped or traveling at a slow speed.  For the navigation system operation, refer to the navigation system manual.

No.	Menu	Explanation
		You can change the settings for the Mazda Connect screen, sound settings, and the vehicle functions.
		EV Settings:
		Configures charging schedule, climate control timer, and more.
		In-Vehicle Displays:
		Configures settings and content for all in-vehicle displays.
		Sound Settings:
(6)	Settings	Configures the in-vehicle listening experience.
		Safety Settings:
		Configures safety and driver assistance features.
		Vehicle Settings:
		Configures vehicle convenience features.
		Connectivity Settings:
		Configures Bluetooth and other device connectivity settings.
		System Settings:
		Configures language, time, and other general settings.
(7)	Apple CarPlay	You can use Apple CarPlay™ by connecting an iPhone® compatible with Apple CarPlay™ to the USB slot.
(8)	Android Auto	You can use Android Auto™ by connecting an Android™ Smartphone compatible with Android Auto™ to the USB port.

# **MARNING**

# Always adjust Mazda Connect while the vehicle is stopped:

Do not adjust Mazda Connect with the Commander switch while driving the vehicle. Adjusting Mazda Connect with the Commander switch while driving the vehicle is dangerous as it could distract your attention from the vehicle operation which could lead to a serious accident.

Even if the audio remote control switches are equipped on the steering wheel, learn to use the switches without looking down at them so that you can keep your maximum attention on the road while driving the vehicle.

# Do not allow the connection plug cord to get tangled with the selector lever:

Allowing the plug cord to become tangled with the selector lever is dangerous as it could interfere with driving, resulting in an accident.

Do not adjust a mobile device or a similar product while driving the vehicle:

Adjusting a mobile device or a similar product while driving the vehicle is dangerous as it could distract your attention from the vehicle operation which could lead to a serious accident. Always adjust a mobile device or a similar product while the vehicle is stopped.



For the purposes of safe driving, adjust the audio volume to a level that allows you to hear sounds outside of the vehicle including car horns and particularly emergency vehicle sirens.

#### NOTE

- Do not use Mazda Connect for a long time with the EV system stopped. Otherwise, the lead-acid battery power could be depleted.
- If a mobile phone or CB radio is used in or near the vehicle, it could cause noise to occur from the audio system. However, this does not indicate a problem.

# **Mazda Connect Basic Operations**

### **▼** Mazda Connect Basic Operations

#### **NOTE**

The explanation of functions described in this manual may differ from the actual operation, and the shapes of screens and buttons and the letters and characters displayed may also differ from the actual appearance.

Additionally, depending on future software updates, the content may successively change without notice.

# **▼** Commander Switch Operation

The commander switch can be used to switch to each function and to operate each function.

Set the palm of your hand on the commander knob so that your fingers can touch each of the switches.

You can switch the screens without having to look down at your hand.

#### **NOTE**

For safety reasons, some operations are disabled while driving the vehicle.



The shape of the switches varies depending on the specifications.

No.	Item	Explanation
		Commander knob (selection):
1		Rotate or slide the commander knob to highlight/select the on-screen functions you want to use.

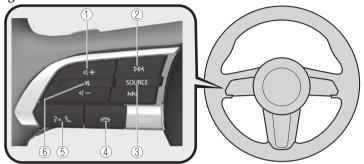
No.	Item	Explanation
		Commander knob (select):
2		Depress the commander knob to select the desired on-screen function you want to use.
		Entertainment button:
3	A.	The audio source screen last used is displayed.
		(During Apple CarPlay™ or Android Auto™ music playback) Displays the Apple CarPlay™ or Android Auto™ now playing screen.

No.	Item	Explanation
		Volume knob:
		Volume adjustment
		Adjust the volume by turning the volume knob. If you adjust the volume during voice guidance, the volume of the voice guidance will change. If you adjust the volume during a hands-free call, the conversation volume will change. Press the volume knob to mute/pause the audio. Press the knob again to resume.
		Power off/on
		Press and hold to turn off the Mazda Connect power and turn off the screen.  Press and hold again to turn on the Mazda Connect power.
4		NOTE  If you press the volume knob to mute an audio source which can be paused, such as Apple CarPlay™, USB audio, or Bluetooth® audio, while it is playing, the song playback pauses. Press the volume knob again to cancel the mute and the pause at the same time.
		Selecting a radio station
		Radio stations saved to your Favorites can be selected by sliding the volume knob left (SEEK DOWN)/right (SEEK UP) while listening to FM/SiriusXM*. The station will change each time you slide the volume knob.  If you want to manually tune to the next available station before or after the currently selected station, slide and hold the volume knob left (SEEK DOWN) or right (SEEK UP) until you hear a beep and the tuner will select the next available station.
		Playback Control
		Music and video files can be cued when listening to stored content via USB, Bluetooth*, and SiriusXM*, audio, or video. Slide the volume knob right to skip to the next track or slide it to the left to go back to the previous track. You can also slide and hold the volume knob to fast forward or rewind the track.

No.	Item	Explanation
		Favorites button:
5	☆	Displays the favorites screen.  Press and hold to register FM/SiriusXM® stations, contacts, navigation destinations, or any highlighted menu items to create easily accessible shortcuts.
		Home button:
		Displays the home screen.
6		(While Apple CarPlay™ or Android Auto™ is displayed) Displays the Apple CarPlay™ or Android Auto™ home screen.
		(While Apple CarPlay™ or Android Auto™ is connected)  Press and hold while the Mazda Connect screen is displayed to switch the screen from Mazda Connect to Apple CarPlay™ or Mazda Connect to Android Auto™. In addition, press and hold while the Apple CarPlay™ or Android Auto™ screen is displayed to switch to the Mazda Connect screen.
7	<b>5</b>	Back button:  Returns to previous screen.
		Map button:
8	4	Displays the navigation screen (vehicles with navigation system). In order for the navigation system to function, the SD card for the navigation system is required. If the SD card for the navigation system is not inserted, the compass indicating the direction in which the vehicle is moving is displayed. For the navigation system operation, refer to the navigation system manual.
		(During Apple CarPlay™ or Android Auto™ route guidance) Displays the Apple CarPlay™ or Android Auto™ map screen.
		NOTE With an active Mazda Navigation route, pressing the Map button will repeat the navigation voice guidance.

# **▼** Audio Remote Control Switch Operation

The audio remote control switch is on the left side of the steering wheel. You can operate basic audio functions, pick up/hang up the phone, or activate voice control using the switch.

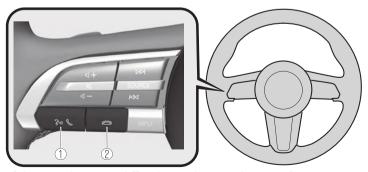


The shape of the switches may differ depending on the specifications.

No.	Item	Explanation
	<b>41</b>	Volume adjustment button:
	-V 1	Press the (+) or (-) button to adjust the volume.
1		If you adjust the volume during voice guidance, the volume of the
	<b>4 1 1</b>	voice guidance will change.  If you adjust the volume during a hands-free call, the conversation vol-
		ume will change.
	N/A	Seek Switch:
	(SEEK UP)	Selecting a radio station
2	М	Radio stations saved to your Favorites can be selected by pressing the seek switch while listening to FM/AM radio. The station will change to the previous or next favorite station each time you press the seek switch. If you want to manually tune to the next available station before or after the currently selected station, press and hold the seek switch until it beeps and the tuner will select the next available station.
	(SEEK DOWN)	Playback Control
		Music and video files can be cued when listening to stored content via
		USB, Bluetooth <sup>®</sup> , and SiriusXM <sup>®</sup> , audio, or video.
		Slide the volume knob right to skip to the next track or slide it to the left to go back to the previous track. You can also slide and hold the volume knob to fast forward or rewind the track.

No.	Item	Explanation
3	SOURCE	The audio source can be switched each time the button is pressed. In addition, when the button is pressed and held, the current audio source is muted and the audio source selection screen is displayed.  (During Apple CarPlay™ or Android Auto™ playback) Press and hold the SOURCE button to mute the current audio source.
4		Hang-up button: (During a call) Press the button to end the call. (While receiving a call) Press the button to refuse a call.
5	3/11 8	Talk/Pick-up button:  (While receiving a call) Press the button to answer the call.
6	K.	Mute button:  Press the button to mute.  Press it again to cancel the mute.  NOTE  If you press the mute button to mute an audio source which can be paused, such as Apple CarPlay™, USB audio, or Bluetooth® audio, while it is playing, the song playback pauses. Press the mute button again to cancel the mute and the pause at the same time.

# **▼** Operation Using Voice Recognition Function



The shape of the switches may differ depending on the specifications.

No.	Item	Explanation
		Talk/Pick-up button:
1	کی اللہ ج	When the button is pressed, the voice recognition top screen is displayed and the voice recognition is activated.
		(While voice guidance is being announced) Press the button to skip the voice guidance.
2		Hang-up button:  Press the button to end the voice recognition.

### Voice recognition activation

When the talk/pick-up button on the audio remote control switch is pressed, top screen of the voice recognition will be displayed.

#### NOTE

When an Apple CarPlay<sup>™</sup> or Android Auto<sup>™</sup> compatible device is connected, the Mazda Connect voice recognition system is disabled to allow the use of Siri® or Android Auto<sup>™</sup> voice recognition at any time with the talk/pick-up button.

### Commands usable at any time

"Help" - Can be used to check for usable voice commands.

"Back" - Returns to the previous screen. When a voice command is spoken while on the telephone number input screen, the content that was previously input is deleted. "Cancel"- The voice recognition is ended.

# **Ending voice recognition**

Do any one of the following operations:

- · Press the hang-up button.
- · Press and hold the talk/Pick-up button.
- · Say the word, "Cancel".

# Convenient operating tips for using the voice recognition function

Examples of effective voice commands in various categories are displayed on top screen of the voice recognition.



#### **NOTE**

- The voice command examples shown in this manual are only a partial list of the available commands. Some commands may be unusable depending on the specifications.
- Some commands cannot be used depending on the device connection conditions and the use conditions.
- When the Barge-In setting is on, voice commands can be made even while the voice guidance is being announced. For details on Barge-In, refer to the System Settings section in the Mazda Connect Owner's Manual.
- For details on voice commands which can be used on the navigation screen, refer to the navigation system manual.

To prevent misunderstood voice commands, be aware of the following points:

- Connect your mobile phone to Bluetooth® before operating the mobile phone using voice recognition.
- After pressing the talk/pick-up button, wait for the beep before speaking a command.
- Speaking in a slightly louder voice will improve voice recognition, but an excessively loud voice is unnecessary. Try to speak in a slightly louder voice than when talking to other passengers in the vehicle.
- · You do not need to speak slowly. Speak at a normal speed.
- When calling a person in the device's phone book, the recognition rate increases the longer the name is. Errors may occur with names that are short such as "Mama", "Home", or "Wife".
- · Speak clearly, without pausing between words or numbers.
- Voice commands other than those specified, cannot be recognized. Speak in the wording specified by the voice commands.
- It is not necessary to face the microphone or approach it. Speak the voice commands while maintaining a safe driving position.
- Close the windows and the moonroof\* to reduce loud noises from outside the vehicle and to prevent the airflow of the air-conditioning system from being a disturbance when using Bluetooth® Hands-Free.
- · Make sure that the air flow from the air conditioner is not blowing on the microphone.
- If the voice recognition is poor with the guidance volume set to high, set the Barge-In to OFF.

# **Examples of available voice commands**

The specified name and number are put into the {}.

#### Common

- Back
- · Help (You can listen to help guidance at each screen.)
- · {Line Number} (You can select the line number on the screen.)
- Next Page
- · Previous Page

# Mazda Connect

· Cancel

#### Menu

- · All
- Navigation
- · Entertainment
- Communication

### Setting

- · Voice Recognition Settings
- · Display Off

#### Music

- · Play Artist (You can also use "Play Artist {Artist name}".)
- · Play Album (You can also use "Play Album {Album Name}".)
- · Play Playlist (You can also use "Play Playlist {Playlist Name}".)
- · Play Song (You can also use "Play Song (Song Name)".)
- · Play Audiobook (You can also use "Play Audiobook {Audiobook Name}".)
- · Play Podcast (You can also use "Play Podcast {Podcast Name}".)

#### Radio

- · Tune to {Frequency} FM
- · Tune to {Frequency} HD {Sub Channel}
- · SiriusXM Channel {Channel Number}
- · SiriusXM {Station Name}
- · SiriusXM Genre (You can also use "SiriusXM {Genre Name}".)

#### Source

- · Change Source (You can also use "Change Source to USB"\*1 and "USB"\*1.)
- · Audio OFF (You can also use "Change Source to Audio OFF".)

#### Phone

- · Dial Phone Number (You can also use "Dial {Phone Number}".)
- · Call History
- Call a Contact (You can also use "Call {Contact Name}" and "Call {Contact Name} at {Number Type}".)
- Redial
- \*1 : Audio source names other than "USB" can also be used as follows: Bluetooth/FM/SiriusXM/Pandora/USB1 Audio/USB2 Audio/USB1 Video/ USB2 Video

# **▼** Appendix

# Gracenote® Database

When connecting a USB audio device or Bluetooth® audio device to this unit and playing audio, the unit searches the database stored in the vehicle for the album art.

If there is a match in the vehicle's database compilation to the music being played, the album art is displayed. The database information stored in this device uses database information in the Gracenote® music recognitions service.

#### SiriusXM Travel Link®\*



#### **ADVISORY ONLY**

The weather information is subject to service interruptions and may contain errors or inaccuracies and consequently should not be relied upon exclusively. You are urged to check alternate weather information sources prior to making safety related decisions. You acknowledge and agree that you shall be solely responsible for use of the information and all decisions taken with respect thereto. By using this weather service, you release and waive any claims against Sirius XM Radio Inc. and Mazda Motor Corporation and all of their respective affiliates with regard to this service.

# SiriusXM® Satellite Radio\*



Products/applications shall display "Call [Appropriate Phone Number] to Enable Services" for any unsubscribed SiriusXM Data Service(s).

This shall be shown on the same screen as the Radio ID and the service subscription status:

Contact your SiriusXM Representative for the appropriate call center phone number.

U.S.A.: 1-877-447-0011Canada: 1-877-438-9677

# SiriusXM® All Access Subscription

Hopefully, you're already loving SiriusXM in your new Mazda. But don't stop there — you can also listen on the app and online. All Access is the very best subscription package — with the most channels and the most flexibility. With All Access, you get every channel available on your vehicle, plus you can listen on the app, online, and in your home on a variety of connected devices. — so you can enjoy SiriusXM wherever you are. Here's what's included:

- · Over 150 satellite channels to enjoy in your car, coast-to-coast, 24/7.
- All kinds of commercial-free music, plus every major sport, world-class news and the biggest names in talk & entertainment.
- · All of our premium programming, including Howard Stern, every NFL, MLB®, and NBA game, NHL® games, every NASCAR® race, 24/7 talk channels dedicated to the biggest leagues, and much more.

All SiriusXM services require a subscription, sold separately or as a package by SiriusXM Radio Inc. (or, in Canada, SiriusXM Canada Inc.), after any trial subscription which may be included with your vehicle purchase or lease. To

Mazda Connect

subscribe after your trial subscription, call 1-877-447-0011 (U.S.A.) or 1-877-438-9677 (Canada).



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#### NOTE

SiriusXM Satellite Radio Service is available in the 48 contiguous United States and the District of Columbia. The service is not available in Alaska, Hawaii or Puerto Rico.

### **HD Radio™**

# What is HD Radio™ Technology and how does it work?

HD Radio™ Technology is the digital evolution of analog AM/FM radio.

Your radio product has a special receiver which allows it to receive digital broadcasts (where available) in addition to the analog broadcasts it already receives.

Digital broadcasts have better sound quality than analog broadcasts as digital broadcasts provide free, crystal clear audio.

For more information, and a guide to available radio stations and programming, please visit www.hdradio.com.

# Benefits of HD Radio™ Technology

# (Information)

The song title, artist name, album name will appear on the screen when available by the radio station.

# (Multicast)

On the FM radio frequency most digital stations have "multiple" or supplemental programs on each FM station.

HD Radio Technology manufactured under license from iBiquity Digital Corporation. U.S. and Foreign Patents.

For patents see http://dts.com/patents.

# Apple CarPlay™



> YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF APPLE CARPLAY™ ("THE APPLICATION") IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY AND EFFORT IS WITH YOU TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, AND THAT THE APPLICATION AND INFORMATION ON THE APPLICATION IS PROVIDED "AS IS" AND "AS AVAILABLE", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND MAZDA HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE APPLICATION AND INFORMATION ON THE APPLICATION, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, QUIET ENJOYMENT, AND NONINFRINGEMENT OF THIRD PARTY RIGHTS.

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➤ When using Apple CarPlay™, please avoid distraction and use Apple CarPlay™ responsibly.

Stay fully aware of driving conditions and always obey applicable laws.

# Mazda Connect

#### NOTE

- Apple CarPlay™ is provided by Apple® and its use is subject to your agreement to the Apple CarPlay™ terms of use, which are included as part of the Apple iOS terms of use.
- · When using Apple CarPlay™, location, speed, and other vehicle data is transferred to your iPhone®. For further details, refer to Apple®'s Privacy Policy.

#### Android Auto™



> YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF ANDROID AUTO™

("THE APPLICATION") IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY AND EFFORT IS WITH YOU TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, AND THAT THE APPLICATION AND INFORMATION ON THE APPLICATION IS PROVIDED "AS IS" AND "AS AVAILABLE," WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND MAZDA HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE APPLICATION AND INFORMATION ON THE APPLICATION, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, QUIET ENJOYMENT, AND NONINFRINGEMENT OF THIRD PARTY RIGHTS.

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➤ When using Android Auto<sup>™</sup>, please avoid distraction and use Android Auto<sup>™</sup> responsibly.

Stay fully aware of driving conditions and always obey applicable laws.

#### NOTE

- Android Auto<sup>™</sup> is provided by Google and its use is subject to your agreement to the Android Auto<sup>™</sup> terms of use.
- · When using Android Auto™, location, speed, and other vehicle data is transferred to your smart phone. For further details, refer to Google Privacy Policy.

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- · "Made for iPhone" and "Made for iPod" mean that an accessory has been designed to connect specifically to iPhone or iPod, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone or iPod may affect wireless performance.

Made for iPhone 11 Pro Max iPhone 11 Pro

# Mazda Connect

iPhone 11

iPhone XS Max

iPhone XS

iPhone XR

iPhone X

iPhone 8 Plus

iPhone 8

iPhone 7 Plus

iPhone 7

iPhone SE

iPhone 6s Plus

iPhone 6s

iPhone 6 Plus

iPhone 6

iPhone 5s

iPod touch (7th generation)

iPod touch (6th generation)



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# **Connected Service (If applicable)**

#### **▼** Connected Service Overview

### **Connected Service Overview (U.S.A.)**

There are several types of connected services available via Mazda Connect. Some services may require you to download the MyMazda app to your smartphone and subscribe to the services, while others may require you to pair your smartphone to the vehicle via Bluetooth. In addition, on a regular basis and unless you opt-out, your vehicle will automatically transmit certain geo-location, driving behavior data, and vehicle health information to Mazda for product quality, data analysis, research, and product development. Using the QR codes or URLs below, refer to the Connected Service Owner's Manual and Privacy Policy for more details and opt-out options.

 Connected Service Owner's Manual https://www.mazdausa.com/static/manuals/mazda-connected-service/ index.html



#### Connected Service Overview (Canada)

If your vehicle is equipped for connected services, there may be several types of connected services available to you. The availability, terms and capability of connected services vary by vehicle and other factors. Some services may require you to download the MyMazda app to your compatible smartphone, purchase a subscription or be in a supported area with wireless coverage, while others may require you to pair your smartphone to the vehicle via Bluetooth®. If your vehicle is equipped for connected services, certain data may be collected and transmitted through the connected vehicle system, including, without limitation, geo-location, driving behaviour data and vehicle health information. Please refer to connected services terms and privacy policy available on the Mazda Canada website for more details.

Connected Services owner's manual:

http://www.mazda.ca/en/digital-owners-manual/2021/connectedservice/



# (U.S.A. and Canada) Privacy Policy

Mazda maintains a Privacy Statement which describes how we collect, use, share, store and secure data from your vehicle equipped with connected services. We provide you with connected services by collecting and using your personal information and vehicle location, health and driving data. To learn more about our Privacy Statement, please visit: (U.S.A.)

https://www.mazdausa.com/site/privacy-connectedservices



# (Canada)

https://www.mazda.ca/en/cv-privacy/



# **Interior Equipment**

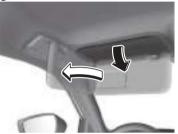
# **Sunvisors**

#### **▼** Sunvisors

Lower the sunvisor to block sunlight from the front.

To block sunlight from the side, lower and unhook the sunvisor, and then

swing it to the side.



#### **▼** Side Extension Sunvisors

The visor extender extends the sunvisor's range of sun shading. To use, pull it out.



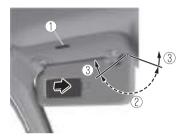


When moving the sunvisor, retract the visor extender to its original position. Otherwise, the visor extender could hit the rearview mirror.

# ▼ Vanity Mirrors

The vanity mirror is on the backside of the sunvisor.

If your vehicle is equipped with a vanity mirror light, it will illuminate when you open the cover.
The vanity mirror will only illuminate in the tilt range shown in the figure.



- 1. Vanity mirror light
- 2. On
- 3. Off

#### **NOTE**

If a vanity mirror light is left on with the power switch switched OFF, the light is turned off automatically to prevent the lead-acid battery from being discharged.

The vanity mirror light can be turned on again by doing any of the following operations:

- · Opening/closing any door.
- · Unlocking any door.
- Switching the power switch to ACC or ON.
- · Switching an overhead light/front map light on.

# **Interior Lights**

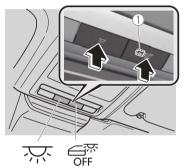
# **▼** Interior Lights

#### NOTE

Do not leave the lights on for long periods while the EV system is stopped. Otherwise the lead-acid battery power could be depleted.

# **Overhead lights**

#### Front



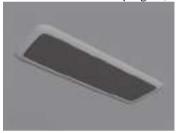
# 1. Indicator light

Switch	Overhead Lights
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Press the switch to turn it on. Press the switch again to turn off the lights.

Switch	Overhead Lights
OFF DOOR OFF	The door interlock can be switched ON/OFF. When the door interlock is OFF, the indicator light in the switch turns on.  Door interlock ON (indicator light in switch is off)  The lights turn on when any of the doors is opened. The lights turn on/off in conjunction with the illuminated entry system.

#### Rear

(Vehicles without rear map lights)



(Vehicles with rear map lights)



# **NOTE**

The rear overhead light also turn on and off when the front overhead light switch is operated.

# Interior Equipment

# Map lights

#### Front

Press the switch to illuminate the front map lights, and then press the switch again to turn them off.



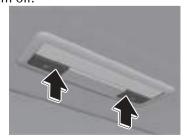
#### **NOTE**

The front map lights will not turn off even if the switch is pressed in the following cases:

- The overhead lights turn on by operating the overhead light ON/OFF switch ( ).
- The overhead lights turn on in conjunction with a door opening/closing.
- · The illuminated entry system is on.

#### Rear\*

When the overhead light ON/OFF switch ( ) is off, press the switch to illuminate the rear map lights, and then press the switch again to turn them off.

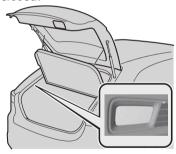


#### NOTE

- Once the rear map lights have been turned off, they will turn on and off in conjunction with the overhead light operation.
- The rear map lights will not turn off even if the switch is pressed in the following cases:
  - The overhead lights turn on by operating the overhead light
    - ON/OFF switch ( $\overline{\gamma}$ ).
  - The overhead lights turn on in conjunction with a door opening/ closing.
  - · The illuminated entry system is on.

# Luggage compartment light

The luggage compartment light is on when the liftgate is open and off when it is closed.



#### NOTE

Do not leave the liftgate open for long periods while the EV system is stopped. Otherwise the lead-acid battery power could be depleted.

# **▼** Illuminated Entry System

The overhead lights turn on when any of the following operations is done with the overhead light switch in the DOOR position.

• The driver's door is unlocked with the power switch switched OFF.

 The power switch is switched OFF with all doors closed.

#### NOTE

- The illumination time differs depending on the operation.
- The vehicle is equipped with a battery saver. If an interior light is left on with the power switch switched OFF, the light turns off automatically after a certain period of time has passed to prevent lead-acid battery depletion.
- The operation of the illuminated entry system can be changed.
   Refer to the Settings section in the Mazda Connect Owner's Manual.
- The illuminated entry system does not operate in conjunction with the overhead lights when the overhead lights are turned on using the overhead light ON/OFF switch.

# **Accessory Sockets**

### **▼** Accessory Sockets

Only use genuine Mazda accessories or the equivalent requiring no greater than 120 W (DC 12 V, 10 A). The power switch must be switched to ACC or ON.

# Connecting the accessory socket

1. Open the lid.



2. Pass the connection plug cord through the cutout of the console and insert the plug into the accessory socket.



1. Plug

# **A** CAUTION

- ➤ To prevent accessory socket damage or electrical failure, pay attention to the following:
  - ➤ Do not use accessories that require more than 120 W (DC 12 V, 10 A).

# Interior Equipment

- Do not use accessories that are not genuine Mazda accessories or the equivalent.
- Close the cover when the accessory socket is not in use to prevent foreign objects and liquids from getting into the accessory socket.
- Correctly insert the plug into the accessory socket.
- ➤ Do not insert the cigarette lighter into the accessory socket.
- Noise may occur on the audio playback depending on the device connected to the accessory socket.
- Depending on the device connected to the accessory socket, the vehicle's electrical system may be affected, which could cause the warning light to illuminate. Disconnect the connected device and make sure that the problem is resolved. If the problem is resolved, disconnect the device from the socket and switch the power switch off. If the problem is not resolved, consult an Authorized Mazda Dealer.

#### **NOTE**

To prevent the lead-acid battery from depleting, do not use the socket for long periods with the EV system stopped.

# AC Power Outlet\*

#### **▼** AC Power Outlet

The AC power outlet can be used as a socket for accessories when the power switch is switched to ACC or ON. Only use AC 120 V/60 Hz accessories that have a maximum power consumption of 150 W or below.

# **MARNING**

# Never use medical instruments with the power outlet:

Otherwise, the operation of the medical device might be affected.

Heed the following cautions when using the AC power supply to prevent electrical shock, smoking, or combustion.

- ➤ Be careful with the AC power outlet and plug during and after use.
- ➤ Because an electrical appliance could operate at the moment it is plugged in, check the safety before plugging it in.
- ➤ Do not plug accessories into the power outlet or unplug them with wet hands.
- ➤ Be careful not to allow liquid to penetrate the AC power outlet.
- ➤ Do not put anything other than plugs into the AC power outlet.
- ➤ Do not disassemble the AC power outlet.
- Do not use the AC power outlet if it is damaged. If part replacement or repair is required, consult an Authorized Mazda Dealer.

# **A** CAUTION

- Always close the cover when it is not in use. If foreign matter or liquid penetrates the AC power outlet, it may cause a problem.
- Insert electrical appliance plugs into the AC power outlet securely. If the plug is not inserted securely, it may heat excessively and blow a fuse.
- Do not connect multiple electrical appliances to the AC power outlet. Otherwise, it could cause smoking or combustion.
- ➤ Do not use electrical appliances that exceed the prescribed power capacity. Otherwise, it could cause a malfunction.

#### NOTE

To prevent the lead-acid battery from depleting, do not use the socket for long periods with the EV system stopped.

# How to connect

1. Open the lid.



2. Connect the plug to the AC power outlet.



1. Plug

#### **NOTE**

- Use electrical appliances only in the cabin. If they are used outside of the vehicle cabin, they may not operate correctly due to noise.
- The following electrical appliances may not operate even if their electrical capacity is 150 W or lower.
  - Appliances requiring large amounts of power for activation (such as refrigerators with a compressor, electrical pumps, and electrical tools)
  - Appliances with a power supply frequency switch function (such as clocks and audio)
  - Appliances for precise data processing (such as measurement equipment)
- Electrical appliances other than the above may not be used.
- When using an electrical appliance for data processing such as a personal computer, back up the data frequently.
- The protection function operates and the AC power outlet cannot be used in the following cases:
  - Battery power is weak
  - Appliances with a capacity of 150
     W or higher are used

## Interior Equipment

- · Cabin temperature is extremely hot
- Noise may occur during radio operation depending on the electrical appliance being used.

## **Cup Holder**

**▼** Cup Holder



Never use a cup holder to hold hot liquids while the vehicle is moving: Using a cup holder to hold hot liquids while the vehicle is moving is dangerous. If the contents spill, you could be scalded.

Do not put anything other than cups or drink cans in cup holders:

Putting objects other than cups or drink cans in a cup holder is dangerous.

During sudden braking or maneuvering, occupants could be hit and injured, or objects could be thrown around the vehicle, causing interference with the driver and the possibility of an accident. Only use a cup holder for cups or drink cans.

#### **▼** Front





### **▼** Rear\*

The rear cup holder is on the rear center armrest.



# **Bottle Holder**

#### **▼** Bottle Holder

Bottle holders are on the inside of the doors.



1. Bottle holder



Do not use the bottle holders for containers without caps. The contents may spill when opening/closing the door or while driving the vehicle.

# **Assist Grips**

#### **▼** Assist Grips



Do not use the assist grips when getting in and out of the vehicle or getting out of a seat:

An assist grip could break under a heavy load resulting in injury.

Use the assist grips to support your body while seated in the vehicle and while the vehicle is moving.



## Rear Coat Hooks

#### **▼** Rear Coat Hooks

Always hang clothes on the coat hooks and the assist grips without hangers.



# **Storage Compartments**

#### **▼** Storage Compartments



# Keep storage boxes closed when driving:

Driving with the storage boxes open is dangerous. To reduce the possibility of injury in an accident or a sudden stop, keep the storage boxes closed when driving.

# When loading cargo, make sure that it is completely secured:

If the cargo is not completely secured, it may move or collapse while driving or during sudden braking, resulting in injury or an accident.

# Do not put articles in storage spaces with no lid:

Putting articles in storage spaces with no lid is dangerous as they could be thrown around the cabin during sudden braking, maneuvering, or acceleration and cause an accident depending on how the article is stored.

# **A** CAUTION

Do not leave lighters or eyeglasses in the storage boxes while parked under the sun. A lighter could explode or the plastic material in eyeglasses could deform and crack from high temperature.

#### **▼** Overhead Console\*

This console box is designed to store eyeglasses or other accessories.

#### Push and release to open.



### **▼** Storage Pocket

To use, open the lid.



### **▼** Glove Compartment

To open the glove compartment, pull the latch toward you.



To close the glove compartment, firmly press in the center of the glove compartment lid.

# Interior Equipment

#### **▼** Center Console

To open the lid, slide it all the way back, pull the lever, and then lift the lid up.





Do not put your hands or fingers around the moving parts of the lid when using the lid. Otherwise, your hand or finger could get caught, resulting in an injury.

#### **NOTE**

The console lid can be slid forward and rearward.

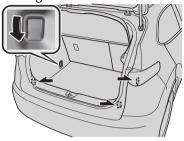


# **▼** Luggage Compartment

### **Cargo Securing Loops**

Use the loops in the luggage compartment to secure cargo with a rope or net. The tensile strength of the loops is 196 N (20 kgf, 44 lbf). Do not

apply excessive force to the loops as it will damage them.



### **Cargo Sub-Compartment**

1. Lift the luggage mat.



1. Luggage mat

# 6

# Maintenance and Care

How to keep your Mazda in top condition.

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### **Essential Information**

### Introduction

#### **▼** Introduction

Be careful not to hurt yourself when inspecting your vehicle, replacing a tire, or doing some kind of maintenance such as car washing. In particular, wear thick work gloves such as cotton gloves when touching areas that are difficult to see while inspecting or working on your vehicle. Doing inspections or procedures with your bare hands could cause injury.

If you are unsure about any procedure this manual describes, we strongly urge you to have a reliable and qualified service shop perform the work, preferably an Authorized Mazda Dealer.

Factory-trained Mazda technicians and genuine Mazda parts are best for your vehicle. Without this expertise and the parts that have been designed and made especially for your Mazda, inadequate, incomplete, and insufficient servicing may result in problems. This could lead to vehicle damage or an accident and injuries.

For expert advice and quality service, consult an Authorized Mazda Dealer.

To continue warranty eligibility and to protect your investment, it is your responsibility to properly maintain your vehicle according to factory recommended schedules outlined in this manual. As part of this you must keep your maintenance records, receipts, repair orders and any other documents as evidence this maintenance was performed. You must present these documents, should any warranty coverage disagreement occur.

Failure to do so can result in your warranty being voided either in whole or in part.

This evidence may consist of the following:

- The Mazda Scheduled Maintenance Record, refer to the Warranty Booklet, must be completely filled out showing mileage, repair order number, date for each service, and signed by a qualified automotive service technician who service vehicles.
- Original copies of repair orders or other receipts that include the mileage and date the vehicle was serviced. Each receipt should be signed by a qualified automotive service technician.
- · For self maintenance, a statement that you completed the maintenance yourself, displaying mileage and the date the work was performed. Also, receipts for the replacement parts (fluid, filters, etc.) indicating the date and mileage must accompany this statement.

#### **NOTE**

If you elect to perform maintenance yourself or have your vehicle serviced at a location other than an Authorized Mazda Dealer, Mazda requires that all fluids, parts and materials must meet Mazda standards for durability and performance as described in this manual.

Claims against the warranty resulting from lack of maintenance, as opposed to defective materials or authorized

Mazda workmanship, will not be honored.

Any auto repair shop using parts equivalent to your Mazda's original equipment may perform maintenance. But we recommend that it always be done by an Authorized Mazda Dealer using genuine Mazda parts.

Selecting "Vehicle Status Monitor" enables the system to notify you of your vehicle's approaching inspection/servicing period. Refer to the Information section in the Mazda Connect Owner's Manual.

The malfunction diagnosis connector is designed exclusively for connecting the specially designed device to perform on-board diagnosis.

Do not connect any devices other than the specially designed malfunction diagnosis devices for servicing. If any device other than the malfunction diagnosis device is connected, it may affect the vehicle's electrical devices or lead to damage such as lead-acid battery depletion.



1. Malfunction diagnosis connector

## Scheduled Maintenance

#### **▼** Scheduled Maintenance (U.S.A.)

Vehicles utilizing the vehicle status monitor feature:

The vehicle status monitor feature alerts you of maintenance needs by turning on the wrench indicator light or displaying a message in the instrument panel, or both. Every maintenance must be done when the display/wrench indication comes on. The display/wrench indication will come on before reaching the maximum interval of 16,000 km (10,000 miles), or 12 months (after the previous maintenance). Refer to the Information section in the Mazda Connect Owner's Manual. Please contact an Authorized Mazda Dealer if necessary.

Reset Service Interval when the maintenance was performed regardless of the message/wrench indicator light display.

#### **USA Residents**

Maintenance Item		Number of times, maintenance was performed.							
		2	3	4	5	6	7	8	
ELECTRIC VEHICLE SYSTEM	-	•							
Coolant level	1	I	- 1	I	I	I	I	I	
Coolant <sup>*1</sup>		Replace at first 192,000 km (120,000 miles) or 180 months; after that, every 96,000 km (60,000 miles) or 60 months.							
OTHER THAN ENGINE AND ELECTRIC VEHI	CLE SYS	TEM							
Brake lines, hoses and connections		I		I		I		ı	
Brake and clutch fluid level		I	I	I	I	I	ı	I	
Brake fluid		R		R		R		R	
Disc brakes		I	I	I	I	I	I	I	
Steering operation and linkages		I		I		I		I	
Front and rear suspension, ball joints and wheel bearing axial play		I		1		ı		I	
Driveshaft dust boot		I		I		I		I	
Bolts and nuts on chassis and body		T		T		T		T	
Cabin air filter	Replace every 48,000 km (30,000 miles) or 24 months.								
Tire rotation	Rotate every 16,000 km (10,000 miles).								
Tire inflation pressure and tire wear*2		I	I	I	I	I	I	I	
Emergency flat tire repair kit (if equipped)*3	Inspect annually.								
Function of all lights		I	I	I	I	I	I	I	

#### Chart symbols:

1: Inspect: Inspect and clean, repair, adjust, fill up, or replace if necessary.

R: Replace

T: Tighten

#### Remarks:

- <sup>\*</sup>1 Use of FL-22 is recommended when replacing coolant. Using coolant other than FL-22 may cause serious damage to the engine and cooling system.
- <sup>\*</sup>2 Inspect a spare tire if equipped.
- <sup>\*</sup>3 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with a new one before the expiration date.

#### **▼** Scheduled Maintenance (Canada)

Vehicles utilizing the vehicle status monitor feature:

The vehicle status monitor feature alerts you of maintenance needs by turning on the wrench indicator light or displaying a message in the instrument panel, or both. The display/wrench indication will come on before reaching the maximum interval of 16,000 km (10,000 miles), or 12 months (after the previous maintenance). Refer to the owner's manual section of mazda.ca for the Mazda Connect owner's manual or contact an Authorized Mazda Dealer if necessary.

Reset Service Interval when the maintenance was performed regardless of the message/wrench indicator light display.

#### Canada residents

	Number of months or kilometers (miles), whichever comes first.								
Maintenance Interval	Months	12	24	36	48	60	72		
	×1000 km	16	32	48	64	80	96		
	×1000 miles	10	20	30	40	50	60		
ELECTRIC VEHICLE SYSTEM									
Coolant level		I	I	ı	I	I	1		
Coolant*1	Replace at first 192,000 km (120,000 miles) or 180 months; after that, every 96,000 km (60,000 miles) or 60 months.								
OTHER THAN ENGINE AND E	M								
Brake lines, hoses and connec		I		I		I			
Brake fluid		R		R		R			
Disc brakes	Į	I	I	ı	I	I			
Steering operation and linkage		I		I		I			
Front and rear suspension, ba wheel bearing axial play		I		I		I			
Driveshaft dust boot		I		I		I			
Bolts and nuts on chassis and		Т		Т		Т			

	Number of months or kilometers (miles), whichever comes first.							
Maintenance Interval	Months	12	24	36	48	60	72	
Maintenance interval	×1000 km	16	32	48	64	80	96	
	×1000 miles	10	20	30	40	50	60	
Body condition inspection for sion and perforation	ı	ı	ı	ı	ı	I		
Cabin air filter	Replace every 40,000 km (25,000 miles) or 24 months.							
Tire rotation	Rotate every 16,000 km (10,000 miles).							
Tire inflation pressure and tire								
Emergency flat tire repair kit (i			Inspect	annually.				

#### Chart symbols:

**I:** Inspect: Inspect and clean, repair, adjust, fill up, or replace if necessary.

R: Replace

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#### Remarks:

- <sup>1</sup> Use of FL-22 is recommended when replacing coolant. Using coolant other than FL-22 may cause serious damage to the engine and cooling system.
- \*2 Inspect a spare tire if equipped.
- <sup>\*</sup>3 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with a new one before the expiration date.

# Owner Maintenance Precautions

#### ▼ Owner Maintenance Precautions

The owner or a qualified service technician should make these vehicle inspections at the indicated intervals to ensure safe and dependable operation.

Bring any problem to the attention of an Authorized Mazda Dealer or qualified service technician as soon as possible.

#### When Charging the Vehicle

- · Brake fluid level (page 6-12)
- · Coolant level (page 6-11)
- · Washer fluid level (page 6-13)
- Lead-acid Battery Maintenance (page 6-20)

### At Least Monthly

· Tire inflation pressures (page 6-23)

# At Least Twice a Year (For Example, Every Spring and Fall)

You can do the following scheduled maintenance items if you have some mechanical ability and a few basic tools and if you closely follow the directions in this manual.

· Coolant (page 6-11)

Improper or incomplete service may result in problems. This section gives instructions only for items that are easy to perform.

As explained in the Introduction (page 6-2), several procedures can be done

only by a qualified service technician with special tools.

Improper owner maintenance during the warranty period may affect warranty coverage. Refer to Introduction (page 6-2) for owner's responsibility in protecting your investment. For details, read the separate Mazda Warranty statement provided with the vehicle. If you are unsure about any servicing or maintenance procedure, have it done by an Authorized Mazda Dealer.

There are strict environmental laws regarding the disposal of waste fluids. Please dispose of your waste properly and with due regard to the environment.

We recommend that you entrust the fluid changes of your vehicle to an Authorized Mazda Dealer.

# **▲** WARNING

Do not perform maintenance work if you lack sufficient knowledge and experience or the proper tools and equipment to do the work. Have maintenance work done by a qualified technician:

Performing maintenance work on a vehicle is dangerous if not done properly. You can be seriously injured while performing some maintenance procedures.

If you must run the EV system while working under the hood, make certain that you remove all jewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose clothing before getting near the cooling fan which may turn on unexpectedly: Working under the hood with the EV system operating is dangerous. It becomes even more dangerous when you wear jewelry, loose clothing or have long hair or a long beard. Either can become entangled in moving parts and result in injury.

Pull over to a safe location, then switch the power switch off and make sure the fan is not running before attempting to work near the cooling fan:

Working near the cooling fan when it is running is dangerous. The fan could continue running indefinitely even if the EV system has stopped and the motor compartment temperature is high. You could be hit by the fan and seriously injured.

# Do not leave items in the motor compartment:

After you have finished checking or doing servicing in the motor compartment, do not forget and leave items such as tools or rags in the motor compartment.

Tools or other items left in the motor compartment could cause EV system damage or a fire leading to an unexpected accident.

### Hood

#### **▼** Hood

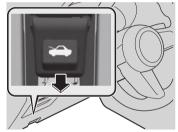


# Always check that the hood is closed and securely locked:

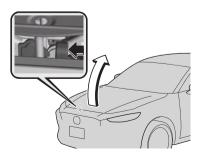
A hood that is not closed and securely locked is dangerous as it could fly open while the vehicle is moving and block the driver's vision which could result in a serious accident.

### ▼ Opening the Hood

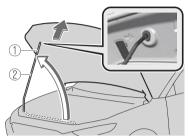
1. With the vehicle parked, pull the release handle to unlock the hood.



Insert your hand into the hood opening, slide the latch lever in the direction of the allow as shown in the illustration, and lift up the hood.



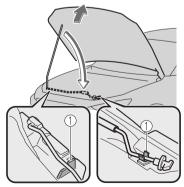
3. Grasp the support rod in the padded area and secure it in the support rod hole indicated by the arrow to hold the hood open.



- 1. Pad
- 2. Support rod

### **▼** Closing the Hood

- Check under the hood area to make certain all filler caps are in place and all loose items (e.g. tools, oil containers, etc.) have been removed.
- 2. Lift the hood, grasp the padded area on the support rod, and secure the support rod in the clip. Verify that the support rod is secured in the clip before closing the hood.



1. Clip

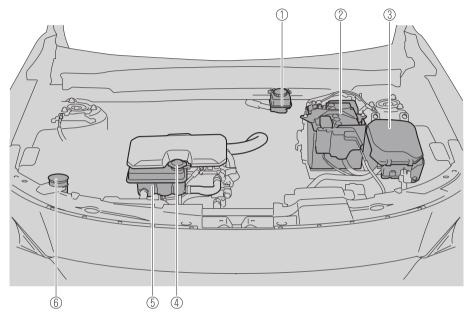
3. Lower the hood slowly to a height of about 20 cm (7.9 in) above its closed position and then let it drop.



When closing the hood, do not push it excessively such as by applying your weight. Otherwise, the hood could be deformed.

# **Motor Compartment Overview**

### **▼** Motor Compartment Overview



- 1. Brake fluid reservoir
- 2. Lead-acid battery
- 3. Fuse block
- 4. Cooling system cap5. Coolant reservoir
- 6. Windshield washer fluid reservoir

## Coolant

**▼** Inspecting Coolant Level

# **▲** WARNING

Do not use a match or live flame in the motor compartment. DO NOT ADD COOLANT WHEN THE EV SYSTEM IS HOT:

A hot EV system is dangerous. If the EV system has been running, parts of the motor compartment can become very hot. You could be burned. Carefully inspect the EV system coolant in the coolant reservoir, but do not open it.

Pull over to a safe location, then switch the power switch off and make sure the fan is not running before attempting to work near the cooling fan:

Working near the cooling fan when it is running is dangerous. The fan could continue running indefinitely even if the EV system has stopped and the motor compartment temperature is high. You could be hit by the fan and seriously injured.

Do not remove either cooling system cap when the EV system and radiator are hot:

When the EV system and radiator are hot, scalding coolant and steam may shoot out under pressure and cause serious injury.

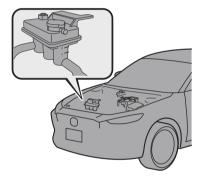
#### NOTE

Changing the coolant should be done by an Authorized Mazda Dealer.

Inspect the antifreeze protection and coolant level in the coolant reservoir at least once a year—at the beginning of the winter season—and before traveling where temperatures may drop below freezing.

Inspect the condition and connections of the cooling system.
Replace any that are swollen or deteriorated.

The coolant should be between the FULL and LOW marks on the coolant reservoir when the EV system is cool.



If it is at or near LOW, add enough coolant to the coolant reservoir to provide freezing and corrosion protection and to bring the level to FULL.

Securely tighten the coolant reservoir tank cap after adding coolant.



➤ Radiator coolant will damage paint. Rinse it off quickly if spilled.

➤ If the "FL22" mark is shown on or near the cooling system cap, use of FL-22 is recommended when replacing coolant. Using coolant other than FL-22 may cause serious damage to the cooling system.



If the coolant reservoir is empty or new coolant is required frequently, consult an Authorized Mazda Dealer.

## **Brake Fluid**

**▼** Inspecting Brake Fluid Level

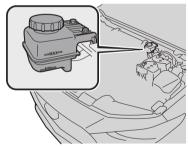


If the brake fluid level is low, have the brakes inspected:

A low brake fluid level is dangerous. A low level could indicate brake lining wear or a brake system leak which could cause the brakes to fail and lead to an accident.

Inspect the fluid level in the reservoir regularly. It should be kept between the MAX and MIN lines.

The level normally drops with accumulated distance, a condition associated with wear of brake linings. If it is excessively low, have the brake system inspected by an Authorized Mazda Dealer.



## Washer Fluid

### **▼** Inspecting Washer Fluid Level

# **MARNING**

# Use only windshield washer fluid or plain water in the reservoir:

Using radiator antifreeze as washer fluid is dangerous. If sprayed on the windshield, it will dirty the windshield, affect your visibility, and could result in an accident.

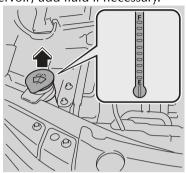
# Using Washer Fluid Without Anti-freeze Protection in Cold Weather:

Operating your vehicle in temperatures below 4 °C (40 °F) using washer fluid without anti-freeze protection is dangerous as it could cause impaired windshield vision and result in an accident. In cold weather, always use washer fluid with anti-freeze protection.

#### NOTE

State or local regulations may restrict the use of volatile organic compounds (VOCs), which are commonly used as anti-freeze agents in washer fluid. A washer fluid with limited VOC content should be used only if it provides adequate freeze resistance for all regions and climates in which the vehicle will be operated.

Inspect fluid level in the washer fluid reservoir; add fluid if necessary.



The top of the float should be between F and F

Use plain water if washer fluid is unavailable.

But use only washer fluid in cold weather to prevent it from freezing.

#### NOTE

Front and rear washer fluid is supplied from the same reservoir.

## **Lubrication system**

#### **▼** Lubrication system

All moving points on the vehicle body, such as door and hood hinges and locks, should be lubricated to move smoothly.

Use a nonfreezing lubricant on locks during cold weather.

Make sure the hood's secondary latch keeps the hood from opening when the primary latch is released.

# **Wiper Blades**

### **▼** Wiper Blades



- ➤ Hot waxes applied by automatic car washers have been known to affect the wiper's ability to clean windows.
- ➤ An operation malfunction may occur or the wiper effectiveness may be reduced if a water-repellent coating is used.
- ➤ To prevent damage to the wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.
- ➤ When the wiper lever is in the AUTO position and the power switch is switched ON, the wipers may move automatically in the following cases:
  - ➤ If the windshield above the rain sensor is touched.
  - ➤ If the windshield above the rain sensor is wiped with a cloth.
  - ➤ If the windshield is struck with a hand or other object.
  - If the rain sensor is struck with a hand or other object from inside the vehicle.

Be careful not to pinch hands or fingers as it may cause injury, or damage the wipers. When washing or servicing the vehicle, make sure the wiper lever is in the OFF position.

➤ Before lifting the windshield wiper blades off the windshield, always follow the procedure for moving the windshield wiper blades. Otherwise, a wiper blade, wiper arm, or the hood could be damaged. Refer to the Replacing Windshield Wiper Blades (page 6-15) section for the procedure on how to move the windshield wiper blades to the service position.

Contamination of either the windshield or the blades with foreign matter can reduce wiper effectiveness. Common sources are insects, tree sap, and hot wax treatments used by some commercial car washes.

If the blades are not wiping properly, clean the window and blades with a good cleaner or mild detergent; then rinse thoroughly with clean water. Repeat if necessary.

# ▼ Replacing Windshield Wiper Blades

When the wipers no longer clean well, the blades are probably worn or cracked.

Replace them.

# **A** CAUTION

- ➤ To prevent damaging a windshield wiper blade, wiper arm, or the hood, perform the following procedure.
  - ➤ Before lifting the windshield wiper blades off the windshield, always move them to the service position.
  - ➤ When putting the windshield wiper blades back on the windshield, make sure that they are in the service position before switching the power switch ON and operating the windshield wipers.
- Replace with Mazda genuine wiper blades. If they are replaced with wiper blades other than a Mazda genuine product, they may not wipe with the same efficiency as the genuine product.

- ➤ To prevent damage to the wiper arms and other components, do not try to sweep the wiper arm by hand.
- ➤ Do not bend the blade rubber unnecessarily when replacing it. Otherwise, the metal stiffener in the blade may deform and the windshield wiper operation may be adversely affected.
- ➤ Do not hold a wiper blade by its end when raising the wiper arm.

  Otherwise, the part may deform and the wiping performance may lower.
- ➤ Forcefully lowering the wiper arms could damage the wiper arm and blade, and may scratch or crack the windshield.

#### NOTE

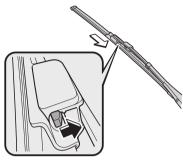
You can replace the wiper blades yourself, however you cannot replace the wiper arms.

If you want to replace the wiper arms, consult an Authorized Mazda Dealer.

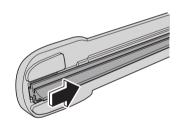
Replace the wiper blades using the following procedure.

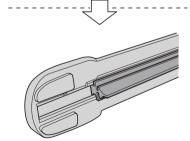
- Move the wipers to the service positions using the following procedure.
  - a) Switch the power switch ON.
  - b) Switch the power switch OFF.
  - c) Press up the wiper switch to the MIST position 2 times within 30 seconds after switching the power switch OFF.
     When the procedure is completed, the wipers operate and they stop at the service positions.
- 2. Raise the wiper arms.
- Slide the blade component in the direction of the arrow while pressing the wiper arm tab to

remove the blade component from the wiper arm.



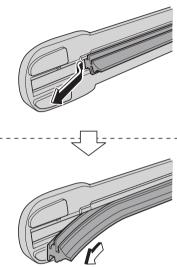
 Pull the blade rubber in the direction of the arrow and slide it to a position where the blade holder groove can be checked.



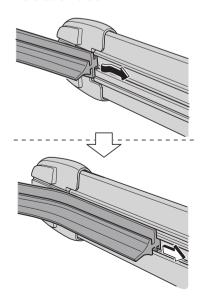


5. Pull the end of the blade rubber from the blade holder groove in the direction of the arrow and remove

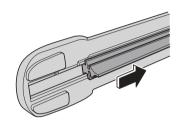
the blade rubber from the blade holder.

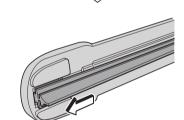


6. Insert the end of the new blade rubber into the groove of the blade holder until it contacts the end of the blade holder.

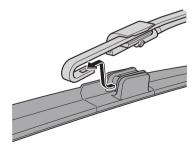


 After pulling the blade rubber in the direction of the arrow and sliding the blade rubber to a position to check the blade holder groove, slide the blade rubber end in the opposite direction.





- Make sure that the blade rubber is correctly installed to the blade holder.
- 9. Slide the blade component and install it to the wiper arm.



10. Slowly lower the wiper arms onto the windshield.

# **A** CAUTION

To prevent damage to the windshield let the wiper arm down easily, do not let it slap down on the windshield.

- 11. Move the wipers to their initial positions using the following procedure.
  - a) Make sure that the wipers are set on the windshield.
  - b) Switch the power switch ON.
  - c) Press up the wiper switch to the MIST position 1 time. When the procedure is completed, the wipers operate and they stop at the initial positions.

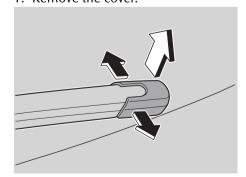
# **▼** Replacing Rear Window Wiper Blade

When the wiper no longer cleans well, the blade is probably worn or cracked. Replace it.

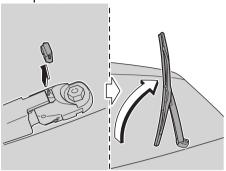
# **A** CAUTION

To prevent damage to the wiper arm and other components, do not move the wiper by hand.

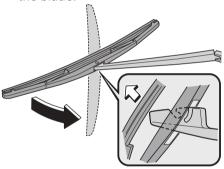
1. Remove the cover.



2. Remove the stopper and raise the wiper arm.



Firmly rotate the wiper blade to the right until it unlocks, then remove the blade.



# **A** CAUTION

To prevent damage to the rear window, do not let the wiper arm fall on it.

4. Pull down the blade rubber and slide it out of the blade holder.



Remove the metal stiffeners from the blade rubber and install them in the new blade.





Do not bend or discard the stiffeners. You need to use them again.

6. Carefully insert the new blade rubber.

Then install the blade assembly in the reverse order of removal.



## **Lead-acid Battery**

**▼** Lead-acid Battery

# **⚠** WARNING

Read the following precautions carefully before using the lead-acid battery or inspecting to ensure safe and correct handling:

Always wear eye protection when working near the lead-acid battery:

Working without eye protection is dangerous. Lead-acid battery fluid contains SULFURIC ACID which could cause blindness if splashed into your eyes. Also, hydrogen gas produced during normal lead-acid battery operation, could ignite and cause the lead-acid battery to explode.

Wear eye protection and protective gloves to prevent contact with lead-acid battery fluid:
Spilled lead-acid battery fluid is

dangerous.

Lead-acid battery fluid contains SULFURIC ACID which could cause serious injuries if it gets in eyes, or on the skin or clothing. If this happens, immediately flush your eyes with water for 15 minutes or wash your skin thoroughly and get medical attention.

Always keep lead-acid batteries out of the reach of children:
Allowing children to play near lead-acid batteries is dangerous.
Lead-acid battery fluid could cause serious injuries if it gets in the eyes or on the skin.

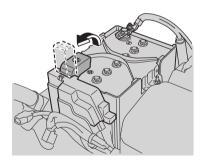
Keep flames and sparks away from open lead-acid battery cells and do not allow metal tools to contact the positive (+) or negative (-) terminal of the lead-acid battery when working near a lead-acid battery. Do not allow the positive (+) terminal to contact the vehicle body: Flames and sparks near open lead-acid battery cells are dangerous. Hydrogen gas, produced during normal lead-acid battery operation, could ignite and cause the lead-acid battery to explode. An exploding lead-acid battery can cause serious burns and injuries. Keep all flames including cigarettes and sparks away from open lead-acid battery cells.

Keep all flames and sparks away from open lead-acid battery cells because hydrogen gas is produced from open lead-acid battery cells while charging the lead-acid battery or adding lead-acid battery fluid:

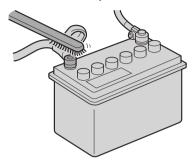
Flames and sparks near open lead-acid battery cells are dangerous. Hydrogen gas, produced during normal lead-acid battery operation, could ignite and cause the lead-acid battery to explode. An exploding lead-acid battery can cause serious burns and injuries. Keep all flames including cigarettes and sparks away from open lead-acid battery cells.

#### **NOTE**

Before performing lead-acid battery maintenance, remove the lead-acid battery cover.



#### **▼** Lead-acid Battery Maintenance



To get the best service from a lead-acid battery:

- · Keep it securely mounted.
- · Keep the top clean and dry.
- Keep terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse off spilled electrolyte immediately with a solution of water and baking soda.
- If the vehicle will not be used for an extended time, disconnect the lead-acid battery cables and charge the lead-acid battery every 6 weeks.

### **▼** Lead-acid Battery Replacement

Contact an Authorized Mazda Dealer for lead-acid battery replacement.

# **Key Battery Replacement**

### **▼** Key Battery Replacement

If the buttons on the transmitter are inoperable and the operation indicator light does not flash, the battery may be dead.

Replace with a new battery before the transmitter becomes unusable.

# **A** CAUTION

- Make sure the battery is installed correctly. Battery leakage could occur if it is not installed correctly.
- >When replacing the battery, be careful not to touch any of the internal circuitry and electrical terminals, bend the electrical terminals, or get dirt in the transmitter as the transmitter could be damaged.
- There is the danger of explosion if the battery is not correctly replaced.
- Dispose of used batteries according to the following instructions.
  - ➤ Insulate the plus and minus terminals of the battery using cellophane or equivalent tape.
  - ➤ Never disassemble.
  - ➤ Never throw the battery into fire or water.
  - ➤ Never deform or crush.
- ➤ Replace only with the same type battery (CR2032 or equivalent).

The following conditions indicate that the battery power is low:

- · A message, "Low Key Fob Battery. Replace Battery" is displayed on the multi-information display when the power switch is switched OFF.
- The system does not operate and the operation indicator light on the

- transmitter does not flash when the buttons are pressed.
- The system's operational range is reduced.

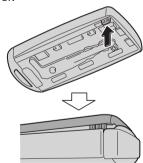
Incorrect battery replacement operation may damage the key. Replacing the battery at an Authorized Mazda Dealer is recommended. If replacing the battery by yourself, follow the instruction

#### Replacing the key battery

 Remove the lower cover while sliding the knob in the direction of the arrow.



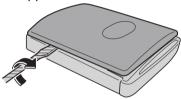
2. Press in the tab to unlock the upper cover.



3. Insert a tape-wrapped flathead screwdriver into the gap and slide it in the direction of the arrow.



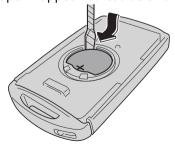
4. Twist the flathead screwdriver in the direction of the arrow and remove the upper cover.



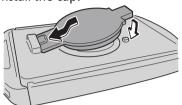
5. Remove the cap using the tape-wrapped flathead screwdriver.



6. Remove the battery using tape-wrapped flathead screwdriver.



- 7. Insert a new battery into the transmitter so that the positive pole is facing up.
- 8. Install the cap.



9. Install the upper cover.



10.Insert the tabs of the lower cover into the slots of the transmitter and install the lower cover.



### Tires

#### **▼** Tires

For reasons of proper performance, safety, and better energy efficiency, always maintain recommended tire inflation pressures and stay within the recommended load limits and weight distribution.

# **MARNING**

#### **Using Different Tire Types:**

Driving your vehicle with different types of tires is dangerous. It could cause poor handling and poor braking; leading to loss of control. Except for the limited use of the temporary spare tire, use only the same type tires (radial, bias-belted, bias-type) on all four wheels.

#### **Using Wrong-Sized Tires:**

Using any other tire size than what is specified for the vehicle (page 9-5) is dangerous. It could seriously affect ride, handling, ground clearance, tire clearance, and speedometer calibration. This could cause you to have an accident. Use only tires that are the correct size specified for the vehicle.

#### **▼** Tire Inflation Pressure

# **▲** WARNING

# Always inflate the tires to the correct pressure:

Overinflation or underinflation of tires is dangerous. Adverse handling or unexpected tire failure could result in a serious accident.

Refer to Tires on page 9-5.

# Use only a Mazda-genuine tire valve cap:

Use of a non-genuine part is dangerous as the correct tire air pressure cannot be maintained if the tire valve becomes damaged. If the vehicle is driven under this condition, the tire air pressure will decrease which could result in a serious accident. Do not use any part for the tire valve cap that is not a Mazda-genuine part.

Inspect all tire pressures monthly when the tires are cold. Maintain recommended pressures for the best ride, handling, and minimum tire wear.

Refer to the specification charts (page 9-5).

#### NOTE

- · Always check tire pressure when tires are cold.
- Warm tires normally exceed recommended pressures. Do not release air from warm tires to adjust the pressure.
- Underinflation can cause reduced energy efficiency, uneven and accelerated tire wear, and poor sealing of the tire bead, which will deform the wheel and cause separation of tire from rim.
- Overinflation can produce a harsh ride, uneven and accelerated tire wear, and a greater possibility of damage from road hazards.
   Keep your tire pressure at the correct levels. If one frequently needs inflating, have it inspected.

#### **▼** Tire Rotation

# **⚠** WARNING

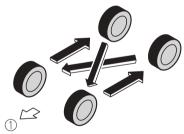
#### Rotate tires periodically:

Irregular tire wear is dangerous. To equalize tread wear for maintaining good performance in handling and braking, rotate the tires periodically or sooner if irregular wear develops. Please refer to Scheduled maintenance for your tire rotation interval.

During rotation, inspect them for correct balance.

#### NOTE

Because your vehicle is not equipped with a spare tire, you cannot do a tire rotation safely with the jack that comes with your vehicle. Have an Authorized Mazda Dealer perform tire rotation.



1. Forward Do not include (TEMPORARY USE ONLY) spare tire in rotation.

Also, inspect them for uneven wear and damage. Abnormal wear is usually caused by one or a combination of the following:

- · Incorrect tire pressure
- · Improper wheel alignment
- · Out-of-balance wheel

#### · Severe braking

After rotation, inflate all tire pressures to specification on page 9-5 and inspect the lug nuts for tightness.



Rotate unidirectional tires and radial tires that have an asymmetrical tread pattern or studs only from front to rear, not from side to side. Tire performance will be reduced if rotated from side to side.

**▼** Replacing a Tire



# Always use tires that are in good condition:

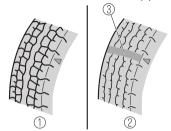
Driving with worn tires is dangerous. Reduced braking, steering, and traction could result in an accident.

# Replace all four tires at the same time:

Replacing just one tire is dangerous. It could cause poor handling and poor braking resulting in loss of vehicle control. Mazda strongly recommends that you replace all four tires at the same time.

If a tire wears evenly, a wear indicator will appear as a solid band across the tread.

Replace the tire when this happens.



- New tread
- 2. Worn tread
- 3. Tread wear indicator

You should replace the tire before the band crosses the entire tread.

#### NOTE

Tires degrade over time, even when they are not being used on the road. It is recommended that tires generally be replaced when they are 6 years or older. Heat caused by hot climates or frequent high loading conditions can accelerate the aging process. The period in which the tire was manufactured (both week and year) is indicated by a 4-digit number. Refer to Tire Labeling on page 8-21.

### **▼** Replacing a Wheel

# **MARNING**

# Always use wheels of the correct size on your vehicle:

Using a wrong-sized wheel is dangerous. Braking and handling could be affected, leading to loss of control and an accident.



A wrong-sized wheel may adversely affect:

- ➤ Tire fit
- ➤ Wheel and bearing life
- ➤ Ground clearance
- ➤ Snow-chain clearance
- ➤ Speedometer calibration
- ➤ Headlight aim
- ➤ Bumper height
- ➤ Tire Pressure Monitoring System

#### NOTE

- When replacing a wheel, make sure the new one is the same as the original factory wheel in diameter, rim width, and offset (inset/outset).
- For details, contact an Authorized Mazda Dealer.

Proper tire balancing provides the best riding comfort and helps reduce tread wear. Out-of-balance tires can cause vibration and uneven wear, such as cupping and flat spots.

# **Light Bulbs**

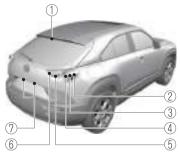
### **▼** Light Bulbs

#### **Front**



- 1. Side turn signal lights
- 2. Front side-marker lights
- 3. Front turn signal lights/Parking lights
- 4. Headlights (High/Low beam)/
  Daytime running lights

#### Rear



- 1. High-mount brake light
- 2. Rear side-marker lights
- 3. Brake lights/Taillights
- 4. Rear turn signal lights
- 5. Reverse lights
- 6. Taillights\*
- 7. License plate lights

### **▼** Replacing Light Bulbs

All the light bulbs are the LED type. The LED bulb cannot be replaced as a single unit because it is an integrated unit.

The LED bulb has to be replaced with the unit. We recommend an Authorized Mazda Dealer when the replacement is necessary.

#### **Fuses**

#### **▼** Fuses

Your vehicle's electrical system is protected by fuses.

If any lights, accessories, or controls do not work, inspect the appropriate circuit protector. If a fuse has blown, the inside element will be melted.

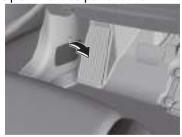
If the same fuse blows again, avoid using that system and consult an Authorized Mazda Dealer as soon as possible.

#### **▼** Fuse Replacement

# Replacing the fuses on the vehicle's left side

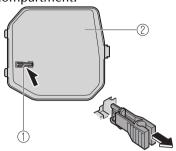
If the electrical system does not work, first inspect the fuses on the vehicle's left side.

- Make sure the power switch is switched off, and other switches are off.
- 2. Open the fuse panel cover.

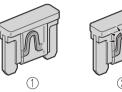


3. Pull the fuse straight out with the fuse puller provided on the fuse

block located in the motor compartment.



4. Inspect the fuse and replace it if it is blown.



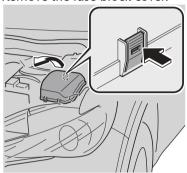
- 1. Normal
- 2. Blown
- 5. Insert a new fuse of the same amperage rating, and make sure it fits tightly. If it does not fit tightly, have an expert install it. Consult an Authorized Mazda Dealer. If you have no spare fuses, borrow one of the same rating from a circuit not essential to vehicle operation, such as the audio or accessory socket circuit.
- 6. Reinstall the cover and make sure that it is securely installed.

### Replacing the fuses under the hood

If the headlights or other electrical components do not work and the fuses in the cabin are normal, inspect the fuse block under the hood.

If a fuse is blown, it must be replaced. Follow these steps:

- Make sure the power switch is switched off, and other switches are off.
- 2. Remove the fuse block cover.



3. If any fuse but the MAIN fuse is blown, replace it with a new one of the same amperage rating.





- 1. Normal
- 2. Blown



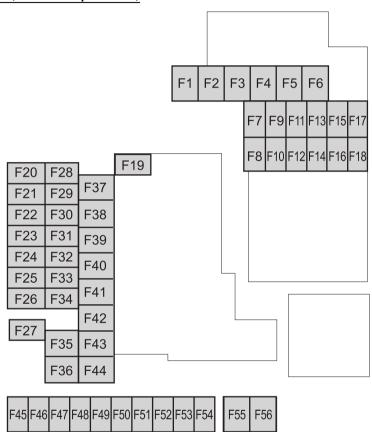
Do not replace the main fuse by yourself. Have an Authorized Mazda Dealer perform the replacement:

Replacing the fuse by yourself is dangerous because the MAIN fuse is a high current fuse. Incorrect replacement could cause an electrical shock or a short circuit resulting in a fire.

4. Reinstall the cover and make sure that it is securely installed.

### **▼** Fuse Panel Description

### **Fuse block (Motor compartment)**



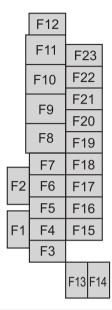
No.	FUSE RAT- ING	PROTECTED COMPONENT
F1	30 A	Accessory sockets
F2	20 A	Windshield wiper de-icer*
F3	_	_
F4	_	_
F5	_	_
F6	_	_
F7	20 A	BEV control system

# Maintenance and Care Owner Maintenance

No.	FUSE RAT- ING	PROTECTED COMPONENT
F8	10 A	Motor control system
F9	15 A	Charge control system
F10	10 A	BEV control system
F11	7.5 A	Air conditioner
F12	10 A	BEV control system
F13	_	_
F14	_	_
F15	20 A	_
F16	15 A	For protection of various circuits
F17	15 A	Water pump
F18	15 A	Accessory sockets
F19	60 A	Power steering system
F20	15 A	Headlight (LH) 1
F21	15 A	Headlight (RH) 1
F22	15 A	Keyless system
F23	30 A	ABS, Dynamic stability control system
F24	15 A	Headlight (LH) 2
F25	15 A	Headlight (RH) 2
F26	7.5 A	On board diagnostics
F27	25 A	For protection of various circuits
F28	25 A	For protection of various circuits
F29	15 A	Windshield washer
F30	_	_
F31	15 A	Horn
F32	_	_
F33		-
F34	20 A	BEV control system
F35	50 A	ABS, Dynamic stability control system
F36	30 A	Parking lock
F37	30 A	Rear window defogger
F38	50 A	For protection of various circuits
F39	_	_
F40	40 A	Air conditioner

No.	FUSE RAT- ING	PROTECTED COMPONENT	
F41	_	_	
F42	20 A	Windshield wiper	
F43	_	_	
F44	30 A	Accessory sockets	
F45	10 A	BEV control system	
F46	15 A	Audio	
F47	15 A	For protection of various circuits	
F48	7.5 A	Air bag	
F49	15 A	Instrument cluster	
F50	15 A	Room light	
F51	25 A	Audio	
F52	10 A	Moonroof*	
F53	15 A	BEV control system	
F54	10 A	i-ACTIVSENSE	
F55	_	_	
F56	_	_	

## Fuse block (Left side)



No.	FUSE RAT- ING	PROTECTED COMPONENT
F1	_	_
F2	_	_
F3	_	_
F4	15 A	Power door locks (Driver)
F5	15 A	Power door locks (Passenger)
F6	_	_
F7	_	_
F8	_	_
F9	30 A	Power windows (Driver)
F10	30 A	Power windows (Passenger)
F11	30 A	Power seat (Driver)*
F12	_	_
F13	15 A	Audio
F14	20 A	Front seat warmer
F15	15 A	Liftgate lock

No.	FUSE RAT- ING	PROTECTED COMPONENT
F16	15 A	Illumination
F17	10 A	Brake lights
F18	10 A	Reverse lights
F19	10 A	Rear turn signal lights
F20	10 A	Taillights
F21	10 A	Taillights
F22	7.5 A	Air Bag
F23	_	_

## **Appearance Care**

### **Exterior Care**

#### **▼** Exterior Care

The paintwork on your Mazda represents the latest technical developments in composition and methods of application.

Environmental hazards, however, can harm the paint's protective properties, if proper care is not taken.

Here are some examples of possible damage, with tips on how to prevent them

## Etching Caused by Acid Rain or Industrial Fallout

#### Occurrence

Industrial pollutants and vehicle emissions drift into the air and mix with rain or dew to form acids. These acids can settle on a vehicle's finish. As the water evaporates, the acid becomes concentrated and can damage the finish.

And the longer the acid remains on the surface, the greater the chance is for damage.

#### Prevention

It is necessary to wash and wax your vehicle to preserve its finish according to the instructions in this section. These steps should be taken immediately after you suspect that acid rain has settled on your vehicle's finish.

## Damage Caused by Bird Dropping, Insects, or Tree Sap

#### Occurrence

Bird droppings contain acids. If these are not removed they can eat away the

clear and color base coat of the vehicle's paintwork.

When insects stick to the paint surface and decompose, corrosive compounds form. These can erode the clear and color base coat of the vehicle's paintwork if they are not removed.

Tree sap will harden and adhere permanently to the paint finish. If you scratch the sap off while it is hard, some vehicle paint could come off with it.

#### Prevention

It is necessary to have your Mazda washed and waxed to preserve its finish according to the instructions in this section. This should be done as soon as possible.

Bird droppings can be removed with a soft sponge and water. If you are traveling and these are not available, a moistened tissue may also take care of the problem. The cleaned area should be waxed according to the instructions in this section.

Insects and tree sap are best removed with a soft sponge and water or a commercially available chemical cleaner.

Another method is to cover the affected area with dampened newspaper for 1 to 2 hours. After removing the newspaper, rinse off the loosened debris with water.

### Water Marks

#### Occurrence

Rain, fog, dew, and even tap water can contain harmful minerals such as salt and lime. If moisture containing these minerals settles on the vehicle and

evaporates, the minerals will concentrate and harden to form white rings. The rings can damage your vehicle's finish.

#### Prevention

It is necessary to wash and wax your vehicle to preserve its finish according to the instructions in this section. These steps should be taken immediately after you find water marks on your vehicle's finish.

### **Paint Chipping**

#### Occurrence

Paint chipping occurs when gravel thrown in the air by another vehicle's tires hits your vehicle.

### How to avoid paint chipping

Keeping a safe distance between you and the vehicle ahead reduces the chances of having your paint chipped by flying gravel.

#### NOTE

- The paint chipping zone varies with the speed of the vehicle. For example, when traveling at 90 km/h (56 mph), the paint chipping zone is 50 m (164 ft).
- In low temperatures a vehicle's finish hardens. This increases the chance of paint chipping.
- Chipped paint can lead to rust forming on your Mazda. Before this happens, repair the damage by using Mazda touch-up paint according to the instructions in this section. Failure to repair the affected area could lead to serious rusting and expensive repairs.

Follow **all** label and container directions when using a chemical

cleaner or polish. Read all warnings and cautions.

### **▼** Maintaining the Finish

### Washing

## **A** CAUTION

- ➤ Before lifting the windshield wiper blades off the windshield, always follow the procedure for moving the windshield wiper blades. Otherwise, a wiper blade, wiper arm, or the hood could be damaged. Refer to the Replacing Windshield Wiper Blades (page 6-15) section for the procedure on how to move the windshield wiper blades to the service position.
- ➤ When the power switch is switched ON and the wiper lever is in the AUTO position, the windshield wipers may operate automatically in the following cases:
  - The area of the windshield above the rain sensor is touched or wiped with a cloth.
  - The windshield or the rain sensor area in the cabin is hit.

When the power switch is switched ON and the wiper lever is in the AUTO position, do not touch the windshield or the windshield wipers Otherwise, the windshield wipers will operate automatically which could catch your fingers or damage the windshield wipers. When removing ice or snow, or cleaning the windshield, always make sure the wiper lever is in the

➤ Do not spray water in the motor compartment. Otherwise, it could lead to an electrical shock resulting in an accident.

OFF position.

## **Appearance Care**

- ➤ When washing and waxing the vehicle, be careful not to apply excessive force to any single area of the vehicle roof. Otherwise, you could dent the vehicle.
- Make sure that the charge lid is closed and lock the doors. Otherwise, the charge lid may be forcefully opened by water pressure causing damage to the vehicle or charge lid.
- ➤ When washing the vehicle, do not spray highly pressurized water against the sensor areas of the front and rear bumpers, or rub them strongly. Otherwise, the sensors may be unable to detect obstructions correctly and systems such as the parking sensor may not operate normally.

To help protect the finish from rust and deterioration, wash your Mazda thoroughly and frequently, at least once a month, with lukewarm or cold water.

If the vehicle is washed improperly, the paint surface could be scratched. Here are some examples of how scratching could occur.

Scratches occur on the paint surface when:

- The vehicle is washed without first rinsing off dirt and other foreign matter.
- The vehicle is washed with a rough, dry, or dirty cloth.
- The vehicle is washed at a car wash that uses brushes that are dirty or too stiff.
- Cleansers or wax containing abrasives are used.

#### NOTE

- Mazda is not responsible for scratches caused by automatic car washes or improper washing.
- · Scratches are more noticeable on vehicles with darker paint finishes.

To minimize scratches on the vehicle's paint finish:

- Rinse off any dirt or other foreign matter using lukewarm or cold water before washing.
- · Use plenty of lukewarm or cold water and a soft cloth when washing the vehicle. Do not use a nylon cloth.
- · Rub gently when washing or drying the vehicle.
- Take your vehicle only to a car wash that keeps its brushes well maintained.
- Do not use abrasive cleansers or wax that contain abrasives.



➤ Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may damage the protective coating; also, cleaners and detergents may discolor or deteriorate the paint.

Pay special attention to removing salt, dirt, mud, and other foreign material from the underside of the fenders, and make sure the drain holes in the lower edges of the doors and rocker panels are clean.

Insects, tar, tree sap, bird droppings, industrial fallout, and similar deposits can damage the finish if not removed immediately. When prompt washing

with plain water is ineffective, use a mild soap made for use on vehicles.

Thoroughly rinse off all soap with lukewarm or cold water. Do not allow soap to dry on the finish.

After washing the vehicle, dry it with a clean chamois to prevent water spots from forming.



Dry off brakes that have become wet by driving slowly, releasing the accelerator pedal and lightly applying the brakes several times until the brake performance returns to normal: Driving with wet brakes is dangerous. Increased stopping distance or the vehicle pulling to one side when braking could result in a serious accident. Light braking will indicate whether the brakes have been affected.

### When using an automatic car wash

- · Retract the door mirrors.
- The automatic car wash brushes could reduce the paint luster or hasten paint deterioration.

#### NOTE

Release the parking brake and use neutral hold mode (automatic car wash mode) when it is necessary to change the shift position to the N position for an automatic car wash. For details on neutral hold mode (automatic car wash mode) (page 4-28).

## When using a high water pressure car wash

High water temperature and high water pressure car washers are

available depending on the type of car wash machine. If the car washer nozzle is put too close to the vehicle, the force of the spray could damage or deform the molding, affect the sealability of parts, and allow water to penetrate the interior. Keep a sufficient space (30 cm (12 in) or more) between the nozzle and the vehicle. In addition, do not spend too much time spraying the same area of the vehicle, and be very careful when spraying between gaps in doors and around windows.

#### Waxing

Your vehicle needs to be waxed when water no longer beads on the finish. Always wash and dry the vehicle before waxing it. In addition to the vehicle body, wax the metal trim to maintain its luster.

- Use wax which contains no abrasives.
   Wax containing abrasives will remove paints and could damage bright metal parts.
- 2. Use a good grade of natural wax for metallic, mica, and solid colors.
- 3. When waxing, coat evenly with the sponge supplied or a soft cloth.
- 4. Wipe off the wax with a soft cloth.

#### NOTE

A spot remover to remove oil, tar, and similar materials will usually also take off the wax. Rewax these areas even if the rest of the vehicle does not need it.

### **▼** Repairing Damage to the Finish

Deep scratches or chips on the finish should be repaired promptly. Exposed metal quickly rusts and can lead to major repairs.

## Appearance Care



If your Mazda is damaged and needs metal parts repaired or replaced, make sure the body shop applies anti-corrosion materials to all parts, both repaired and new. This will prevent them from rusting.

### **▼** Bright-Metal Maintenance

- Use tar remover to remove road tar and insects. Never do this with a knife or similar tool.
- To prevent corrosion on bright-metal surfaces, apply wax or chrome preservative and rub it to a high luster.
- During cold weather or in coastal areas, cover bright-metal parts with a coating of wax or preservative heavier than usual. It would also help to coat them with noncorrosive petroleum jelly or some other protective compound.

## **A** CAUTION

Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.

### ▼ Underbody Maintenance

Road chemicals and salt used for ice and snow removal and solvents used for dust control may collect on the underbody. If not removed, they will speed up rusting and deterioration of such underbody parts as frame and floor pan, even though these parts may be coated with anti-corrosive material.

Thoroughly flush the underbody and wheel housings with lukewarm or cold water at the end of each winter. Try also to do this every month.

Pay special attention to these areas because they easily hide mud and dirt. It will do more harm than good to wet down the road grime without removing it.

The lower edges of doors, rocker panels, and frame members have drain holes that should not be clogged. Water trapped there will cause rusting.

## **▲** WARNING

Dry off brakes that have become wet by driving slowly, releasing the accelerator pedal and lightly applying the brakes several times until the brake performance returns to normal: Driving with wet brakes is dangerous. Increased stopping distance or the vehicle pulling to one side when braking could result in a serious accident. Light braking will indicate whether the brakes have been affected.

#### **▼** Camera and Lens Maintenance



The camera cover is made of hard plastic, therefore do not apply oil film remover, organic solvents, wax, or coating agents. If any such agent is applied, wipe it using a soft cloth immediately.

Do not rub the camera cover or lens forcefully, or clean them with an abrasive or hard brush.

#### NOTE

If there are water droplets, snow, or mud on the camera lens, wipe it off using a soft cloth. If the camera lens is especially dirty, wash it off with mild detergent.

#### **▼** Aluminum Wheel Maintenance

A protective coating is provided over the aluminum wheels. Special care is needed to protect this coating.



Do not use any detergent other than mild detergent. Before using any detergent, verify the ingredients. Otherwise, the product could discolor or stain the aluminum wheels.

#### NOTE

- Do not use a wire brush or any abrasive cleaner, polishing compound, or solvent on aluminum wheels. They may damage the coating.
- Always use a sponge or soft cloth to clean the wheels.
   Rinse the wheels thoroughly with lukewarm or cold water. Also, be sure to clean the wheels after driving on dusty or salted roads to help prevent corrosion.
- Avoid washing your vehicle in an automatic car wash that uses high-speed or hard brushes.

#### **▼ Plastic Part Maintenance**

 When cleaning the plastic lenses of the lights, do not use gasoline, kerosene, rectified spirit, paint, thinner, highly acidic detergents, or

- strongly alkaline detergents. Otherwise, these chemical agents can discolor or damage the surfaces resulting in a significant loss in functionality. If plastic parts become inadvertently exposed to any of these chemical agents, flush with water immediately.
- If plastic parts such as the bumpers become inadvertently exposed to chemical agents or fluids such as coolant, or lead-acid battery fluid, it could cause discoloration, staining, or paint peeling. Wipe off any such chemical agents or fluids using a soft cloth immediately.
- High water temperature and high water pressure car washers are available depending on the type of high pressure car washer device. If the car washer nozzle is put too close to the vehicle or aimed at one area for an extended period of time, it could deform plastic parts or damage the paint.
- Do not use wax containing compounds (polish). Otherwise, it could result in paint damage.
- In addition, do not use an electrical or air tool to apply wax. Otherwise, the frictional heat generated could result in deformation of plastic parts or paint damage.

## **Appearance Care**

### **Interior Care**

#### **▼** Interior Care

## **MARNING**

## Do not spray water into the vehicle cabin:

Spraying water into the vehicle cabin is dangerous as electrical devices such as the audio and switches could get wet resulting in a malfunction or vehicle fire.

#### NOTE

- Do not wipe the interior using alcohol, chlorine bleach, or organic solvents such as thinner, benzene, and gasoline. Otherwise, it may cause discoloration or stains.
- · Rubbing hard with a stiff brush or cloth may cause damage.

If the vehicle interior becomes soiled by any of the following, wipe it off immediately using a soft cloth. Leaving it uncleaned could cause discoloration, stains, cracks, or peeling of the coating, and it will make it hard to wipe off later.

- · Beverage or fragrance
- · Grease or oil
- · Soiling

#### **▼** Seat Belt Maintenance

- Clean the soiled area by lightly dabbing it with a soft cloth soaked in a mild detergent (approx. 5%) diluted with water.
- 2. Wipe off the remaining detergent using a cloth soaked in clean water and wrung out well.
- Before retracting seat belts which have been pulled out for cleaning, dry them off thoroughly and make

sure there is no remaining moisture on them.

## **MARNING**

# If a seat belt appears frayed or has abrasions, have it replaced by an Authorized Mazda Dealer:

If a seat belt is used under such a condition, it cannot function at its full capacity which could result in serious injury or death.

## Use a mild detergent to remove soiling from a seat belt:

If organic solvents are used for cleaning the seat belts or they become stained or bleached, there is the possibility of them becoming weakened and as a result, they may not function at their full capacity which could cause serious injury or death.

#### **NOTE**

Clean seat belts diligently if they get dirty. Leaving them uncleaned will make it difficult to clean them later, and it may affect the smooth retracting of the seat belt.

### **▼** Vinyl Upholstery Maintenance

Remove dust and dirt from the vinyl upholstery using a brush or vacuum. Remove soiling from vinyl upholstery using a leather and vinyl upholstery cleaner.

## **▼** Upholstery and Synthetic Leather Maintenance

#### **Fabric**

 Clean the soiled area by lightly dabbing it with a soft cloth soaked in a mild detergent (approx. 5%) diluted with water. Wipe off the remaining detergent using a cloth soaked in clean water and wrung out well.

### Synthetic leather

- Remove dust and sand using a vacuum cleaner.
- Wipe the soiled area with a soft cloth soaked in a mild detergent (approx. 5%) diluted with water.
- Wipe off the remaining detergent using a cloth soaked in clean water and wrung out well.

### **▼** Leather Upholstery Maintenance\*

- 1. Remove dust and sand using a vacuum cleaner.
- Wipe off the soiled area with a soft cloth and a suitable, special cleaner or a soft cloth soaked in a mild detergent (about 5%) diluted with water.
- 3. Wipe off the remaining detergent using a cloth soaked in clean water and wrung out well.
- 4. Remove moisture with a dry, soft cloth and allow the leather to further dry in a well-ventilated, shaded area. If the leather gets wet such as from rain, remove the moisture and dry it as soon as possible.

#### **NOTE**

- Because genuine leather is a natural material, its surface is not uniform and it may have natural scars, scratches, and wrinkles.
- To maintain the quality for as long as possible, periodical maintenance, about twice a year, is recommended.
- If the leather upholstery comes into contact with any of the following, clean it immediately.
   Leaving it uncleaned could cause premature wear, mold, or stains.

- · Sand or dirt
- · Grease or oil, such as hand cream
- Alcohol, such as in cosmetic or hair dressing items
- If the leather upholstery gets wet, promptly remove moisture with a dry cloth. Remaining moisture on the surface may cause deterioration such as hardening and shrinkage.
- Exposure to direct sunlight for long periods may cause deterioration and shrinkage. When parking the car under direct sunlight for long periods, shade the interior using sunshades.
- Do not leave vinyl products on the leather upholstery for long periods.
   They may affect the leather quality and coloring. If the cabin temperature becomes hot, the vinyl may deteriorate and adhere to the genuine leather.

#### **▼** Plastic Part Maintenance

## **A** CAUTION

Do not use polishing agents. Depending on the product ingredients, they could cause discoloration, stains, cracks or peeling of the coating.

## **▼** Instrument Panel Top (Soft pad) Maintenance

Extremely soft material is used for the soft pad surface. If the soft pad surface is rubbed harshly with a dry cloth, it could result in the surface being damaged and leaving white scratch marks

- 1. Wipe the soiled area with a soft cloth soaked in a mild detergent (approx. 5%) diluted with water.
- 2. Wipe off the remaining detergent using a cloth soaked in clean water and wrung out well.

## Appearance Care

## **▼** Active Driving Display Maintenance

The dust-proof sheet has a coating. When cleaning, do not use a hard or rough-surface cloth, or cleaning detergent. In addition, if a chemical solvent gets on the active driving display, wipe it off immediately. The dust-proof sheet could be damaged and the surface coating could be scratched. Use a fine, soft cloth such as those used for cleaning eyeglasses.

#### NOTE

Use of compressed air when cleaning the dust-proof sheet is recommended.

#### **▼** Panel and Cork Area Maintenance

If a panel or cork area becomes soiled, gently wipe it off with a soft cloth soaked in clean water and thoroughly wrung out.

If some areas require further cleaning, use the following procedure:

- Wipe the soiled area with a soft cloth soaked in a mild detergent (approx. 5 %) diluted with water.
- 2. Wipe off the remaining detergent using a cloth soaked in clean water and wrung out well.

#### NOTE

- Be particularly careful when cleaning shiny surface panels and metallic parts such as plating as they can be scratched easily.
- (Cork area)
   Do not apply items with adhesive properties to the cork area.
   Otherwise, the cork could be damaged.

#### ▼ Glass and Mirror Maintenance

Use Mazda genuine glass cleaner to remove oil film from the glass or mirror.

When cleaning the interior side of the window glass, gently wipe it with a soft cloth soaked in clean water and thoroughly wrung out.

If there is oil film on the windshield, headlight beams from on-coming

headlight beams from on-coming vehicles may reflect irregularly especially on a rainy night, and your front vision might be obstructed. If an antenna or filament is printed on the window glass, gently wipe along the antenna or filament to clean that area.



If some areas require further cleaning, a glass cleaning agent can be used. However, be careful of the following points.

- Follow the instructions on the glass cleaner container.
- Do not use a glass cleaning agent on a window antenna and filaments, and on a rearview mirror equipped with the automatic glare prevention function.

Using a glass cleaning agent may damage the window antenna or filaments, and the automatic glare prevention function may not operate normally.

### **▼** Cleaning the Floor Mats

Rubber floor mats should be cleaned with mild soap and water only.



Do not use rubber cleaners, such as tire cleaner or tire shine, when cleaning rubber floor mats:

Cleaning the rubber floor mats with rubber cleaning products makes the floor mats slippery.

This may cause an accident when depressing the accelerator or brake pedal or when getting in or out of the vehicle.

After removing the floor mats for cleaning, always reinstall them securely (page 3-57).

## **MEMO**

# 7 If Trouble Arises

Helpful information on what to do if a problem arises with the vehicle.

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## **Parking in an Emergency**

### **▼** Parking in an Emergency

The hazard warning lights should always be used when you stop on or near a roadway in an emergency. The hazard warning lights warn other drivers that your vehicle is a traffic hazard and that they must take extreme caution when near it.

Depress the hazard warning flasher and all the turn signals will flash. The hazard warning indicator lights in the instrument cluster flash simultaneously.

#### **NOTE**

- The turn signals do not work when the hazard warning lights are on.
- Check local regulations about the use of hazard warning lights while the vehicle is being towed to verify that it is not in violation of the law.

## **Tool Storage**

### **▼** Tool Storage

#### NOTE

Your vehicle may or may not be equipped with a spare tire. For details, consult an Authorized Mazda Dealer.

Tools are stored in the locations illustrated in the diagram.

### Type A



- 1. Emergency flat tire repair kit
- 2. Tiedown eyelet
- 3. Jack lever

### Type B



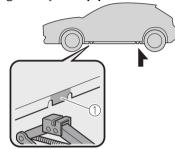
- 1. Emergency flat tire repair kit
- 2. Tiedown eyelet
- 3. Jack lever

### **▼** Jack

#### NOTE

A jack is not equipped in the vehicle as standard equipment. When replacing the tire, use a jack. Consult an Authorized Mazda Dealer for details.

### Designated jack-up position



1. Jacking position

## Emergency Flat Tire Repair Kit

### **▼** Emergency Flat Tire Repair Kit

The emergency flat tire repair kit included with your Mazda is for a temporary repair of a slightly damaged flat tire resulting from running over nails or similar sharp objects on the road surface.

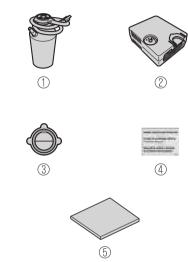
Perform the emergency flat tire repair without removing the nail or similar sharp object which punctured the tire.

#### NOTE

Your vehicle is not equipped with a spare tire. In the event of a flat tire, use the emergency flat tire repair kit to repair the tire temporarily. When doing the repair, refer to the instructions included in the emergency flat tire repair kit. If an emergency repair was performed on a flat tire using the emergency flat tire repair kit, have an Authorized Mazda Dealer, repair or replace the tire as soon as possible.

## ▼ About the Emergency Flat Tire Repair Kit

The emergency flat tire repair kit includes the following items.



- 1. Sealant bottle
- 2. Compressor
- 3. Speed restriction sticker
- 4. Repaired tire sticker
- 5. Instructions

## **▲** WARNING

## Do not allow children to touch the tire sealant:

- ➤ Ingestion of tire sealant is dangerous. In the event tire sealant is accidentally swallowed, drink large amounts of water immediately and seek medical assistance.
- ➤ Tire sealant that comes into contact with the eyes and skin is dangerous. If tire sealant enters the eyes or contacts the skin, flush immediately with large amounts of water and seek medical assistance.

#### NOTE

- The tire sealant cannot be reused.
   Purchase new tire sealant at an Authorized Mazda Dealer.
- The emergency flat tire repair kit cannot be used in the following cases.

Consult an Authorized Mazda Dealer

- The period of effective use for the tire sealant has expired. (The period of effectiveness is indicated on the bottle label.)
- The tear or puncture exceeds about 4 mm (0.16 in).
- The damage has occurred to an area of the tire other than the tread
- The vehicle has been driven with nearly no air remaining in the tire.
- The tire has come off the wheel rim.
- Damage to the wheel rim has occurred.
- · The tire has 2 or more punctures.

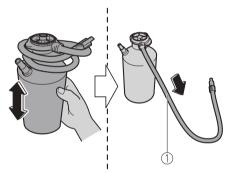
## **▼** Using the Emergency Flat Tire Repair Kit

- Park on a level surface off the right-of-way and set the parking brake.
- Shift the selector lever to the P position and switch the power switch to OFF.
- 3. Turn on the hazard warning flasher.

4. Unload passengers and luggage, and remove the emergency flat tire repair kit.



5. Shake the sealant bottle to mix the contents. Then extend the injection hose.



1. Injection hose



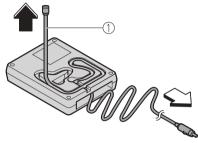
Do not shake the bottle excessively. Otherwise, the sealant could spray out of the injection hose, and if the sealant contacts clothing or other objects, you may not be able to remove it.

#### NOTE

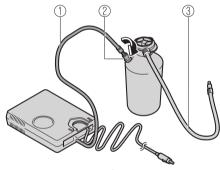
The sealant hardens easily and injecting it will be difficult under cold weather conditions (0 °C (32 °F) or below). Warm the sealant inside the vehicle to facilitate injection.

### Flat Tire

Pull out the air compressor hose and the air compressor plug from the air compressor.



- 1. Compressor hose
- 7. Install the air compressor hose which was pulled out of the air compressor to the injection valve of the bottle.



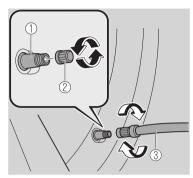
- 1. Compressor hose
- 2. Valve
- 3. Injection hose



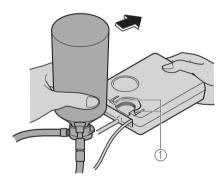
Make sure that the air compressor switch is off before inserting the air compressor hose to the injection valve of the bottle. If the air compressor hose is not installed to the injection valve of the bottle securely, the sealant may leak.

8. Remove the valve cap from the valve of the flat tire, install the

injection hose to the tire valve, turn the sleeve to the right, and tighten it.

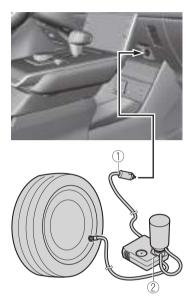


- 1. Valve
- 2. Valve cap
- 3. Injection hose
- Install the bottle to the air compressor and press it in until the left and right tabs are engaged securely.



- 1. Tabs
- 10.Insert the air compressor plug into the accessory socket inside the vehicle and switch the power switch to ACC.

Refer to Accessory Sockets on page 5-39.



- 1. Compressor plug
- 2. Compressor



When inserting the air compressor plug into or removing it from the accessory socket, make sure that the air compressor switch is off. When turning the air compressor on/off, use the air compressor switch.

11. The sealant is injected into the tire when the air compressor is switched on. After the sealant is injected completely, wait until the tire inflation pressure increases to the specified tire inflation pressure.

#### **NOTE**

The inflation pressure may increase to about 300 kPa (3.1 kgf/cm², 3 bar, 43.5 psi) temporarily to inject the sealant through the valve.

Normally, the inflation pressure decreases gradually and it reaches the actual inflation pressure after about 30 seconds.

## **▲** WARNING

Never use the air compressor above 300 kPa (3.1 kgf/cm<sup>2</sup>, 3 bar, 43.5 psi):

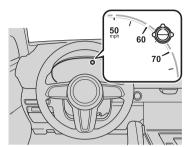
Using the air compressor at an inflation pressure above 300 kPa (3.1 kgf/cm², 3 bar, 43.5 psi) continuously is dangerous. If the air compressor overheats, hot air will be exhausted and you could get burned.

#### NOTE

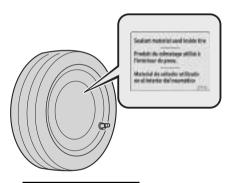
- Check the tire inflation pressure label rear door on the driver's side for the correct tire inflation pressure.
- Do not operate the air compressor for a continuous 10 minutes or longer because using it for long periods could cause a malfunction.
- If the tire inflation pressure does not increase, repair of the tire is not possible. If the tire does not reach the specified tire inflation pressure within 10 minutes, it may have received extensive damage. In this case, the repair using the emergency flat tire repair kit was not successful. Contact an Authorized Mazda Dealer.

### Flat Tire

12.Adhere the speed restriction sticker to an area where it can be viewed easily by the driver.



13. Adhere the repaired tire sticker to the wheel of the flat tire.



## **▲** WARNING

Do not adhere the speed restriction sticker to the padded area on the steering wheel:
Adhering the speed restriction sticker to the padded area on the steering wheel is dangerous because the air bag may not operate (deploy) normally resulting in serious injury. In addition, do not adhere the sticker to areas where warning lights or the speedometer cannot be viewed.

14. When the tire inflates to the specified tire inflation pressure, turn the air compressor switch off, turn

- the sleeve of the injection hose to the left, and pull it out of the tire valve.
- 15.Remove the air compressor hose from the injection valve of the bottle. After that, install the injection hose to the injection valve of the bottle to prevent leakage of any remaining sealant.





The remaining sealant in the hose may spray out when the hose is removed. Remove the hose carefully because you may not be able to remove the sealant contacting clothing or other objects.

- 16.Install the tire valve cap.
- 17. Put the emergency flat tire repair kit into the trunk.
- 18. Start driving immediately to spread the sealant in the tire.



Carefully drive the vehicle at a speed of 80 km/h (50 mph) or less. If the vehicle is driven at a speed of 80 km/h (50 mph) or more, the vehicle may vibrate.

#### NOTE

If the tire is not properly inflated, the tire pressure monitoring system warning light will illuminate (page 4-180).

19. After driving the vehicle for about 10 minutes or 5 km (3 miles), connect the air compressor to the tire using Step 8 of the procedure, and check the tire inflation pressure using the tire pressure gauge on the air compressor. If the tire inflation pressure is lower than the specified tire inflation pressure, turn the air compressor on and wait until it reaches the specified tire inflation pressure.



If the tire inflation pressure has decreased below 130 kPa (1.3 kgf/cm<sup>2</sup> or bar, 18.9 psi), stop driving and contact an Authorized Mazda Dealer:

The repair using the emergency flat tire repair kit was not successful.

If you see a decrease in the tire inflation pressure, even if Steps 8 to 19 of the procedure are performed repeatedly, stop driving:

Contact an Authorized Mazda Dealer.



Before checking the tire inflation pressure using the tire pressure gauge, turn the air compressor switch off.

20.The emergency flat tire repair is completed successfully if the tire inflation pressure does not decrease. Carefully drive the vehicle to the nearest Authorized Mazda Dealer immediately and have the flat tire replaced. Replacement with a new tire is recommended. If the tire is to be repaired or reused, consult an Authorized Mazda Dealer.

#### NOTE

- If an emergency flat tire repair has been performed using the emergency flat tire repair kit, Mazda recommends that the tire be replaced with a new one as soon as possible. If the tire is to be repaired or reused, consult an Authorized Mazda Dealer.
- The wheel can be reused if the sealant adhering to it is removed. However, replace the valve with a new one.

## **▼** Inspecting the Emergency Flat Tire Repair Kit

Inspect the emergency flat tire repair kit at regular intervals.

- · Check the tire sealant period of effective use.
- · Check the operation of the tire compressor.

#### NOTE

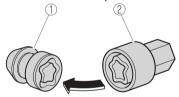
The tire sealant has a period of effective use. Check the period of effective use indicated on the bottle label and do not use it if it has expired. Have the tire sealant replaced at an Authorized Mazda Dealer before the period of effective use has expired.

## **Changing a Flat Tire**

### ▼ Locking Lug Nuts

If your Mazda is equipped with the optional antitheft wheel lug nuts, a special key must be used to unlock the locking lug nut for each wheel. The key is stored in the glove compartment, center console storage, storage box, or trunk. Register the key and lug nuts with the lock manufacturer by filling out the registration card and mailing it in using the accompanying envelope. If the key is lost, consult an Authorized Mazda Dealer or use the lock manufacturer's order form to order a new key.

Antitheft wheel lug nuts cannot be installed on a steel wheel spare tire. When installing a temporary spare tire, use one of the original lug nuts in place of the locking lug nut. The original lug nuts are stored inside your Mazda.



- 1. Antitheft lug nut
- 2. Special key

### To remove an antitheft lug nut

- 1. Obtain the special key for the antitheft lug nut.
- 2. Place the special key on top of the antitheft lug nut, and be sure to hold the key square to it. If you hold the key at an angle, you may damage both key and nut. Do not use a power impact wrench.
- Place the lug wrench on top of the key and apply pressure. Turn the wrench counterclockwise.

### To install the antitheft lug nut

- Place the special key on top of the nut, and be sure to hold the key square to it. If you hold the key at an angle, you may damage both key and nut. Do not use a power impact wrench.
- Place the lug wrench on top of the special key, apply pressure, and turn it clockwise.

Nut tightening torque		
N⋅m (kgf⋅m, ft⋅lbf)	108—147 (12—14, 80—108)	

# What to do when charging is not possible

## **▼** What to do when charging is not possible

If trouble arises while charging such as not being able to charge the high voltage battery, refer to the following table. If the problem cannot be solved even after checking the following table, there may be a problem with the vehicle or charger. Contact an Authorized Mazda Dealer.

### Charging is not possible.

Cause	Action
The selector lever is in a position other than P.	Shift the selector lever to the P position.
The high voltage battery is already fully charged.	Charging is not performed when the high voltage battery is already fully charged.
The high voltage battery temperature is extremely high or low.	Check the high voltage battery temperature gauge in the instrument cluster. If the high voltage battery temperature gauge is in the red or blue range, charging may not be possible.
The Lead-acid battery is depleted.	If the instrument cluster does not turn on even if the power switch is switched ON, the Lead-acid battery may be depleted. Charge or replace the Lead-acid battery.

### Normal charging is not possible.

Cause	Action
The outlet has no power.	Check if a ground-fault circuit interrupter has operated or if a power outage occurred. If the power source has a timer function, electrical power may not be supplied to the outlet until the time set to supply power.
The charge plug is not properly plugged into the outlet.	Check if the charge plug is properly plugged into the outlet.
The charge connector is not properly connected.	Check if the charge connector is properly connected.
Charging timer is set.	Cancel the charging timer using EV Settings in Mazda Connect, or the charging timer cancellation function.

## Troubleshooting for functions using a Smartphone or computer

If you are having trouble with the remote function service, such as when the remote function does not work, refer to the Connected Service owner's manual.

## Jump-Starting

### **▼** Jump-Starting

The lead-acid battery might be depleted if the following conditions occur.

- · The EV system does not start.
- The selector lever cannot be shifted to a position other than P.
- · The horn sound is weak or it does not sound.
- · The brightness of the lights is extremely low.

Jump-starting is dangerous if done incorrectly. So follow the procedure carefully. If you feel unsure about jump-starting, we strongly recommend that you have a competent service technician do the work.

Using commercially available booster cables, connect the lead-acid battery of the booster vehicle's battery to the lead-acid battery of your vehicle and start the EV system.

## **⚠** WARNING



### **Follow These Precautions Carefully:**

To ensure safe and correct handling of the lead-acid battery, read the following precautions carefully before using the lead-acid battery or inspecting it.

Keep flames and sparks away from open lead-acid battery cells and do not allow metal tools to contact the positive (+) or negative (-) terminal of the lead-acid battery when working near a lead-acid battery. Do not allow the positive (+) terminal to contact the vehicle body:

Flames and sparks near open lead-acid battery cells are dangerous. Hydrogen gas, produced during normal lead-acid battery operation, could ignite and cause the lead-acid battery to explode. An exploding lead-acid battery can cause serious burns and injuries. Keep all flames including cigarettes and sparks away from open lead-acid battery cells.

Keep all flames and sparks away from open lead-acid battery cells because hydrogen gas is produced from open lead-acid battery cells while charging the lead-acid battery or adding lead-acid battery fluid:

Flames and sparks near open lead-acid battery cells are dangerous. Hydrogen gas, produced during normal lead-acid battery operation, could ignite and cause the lead-acid battery to explode. An exploding lead-acid battery can cause serious burns and injuries. Keep all flames including cigarettes and sparks away from open lead-acid battery cells.

Do not jump-start a frozen lead-acid battery or one with a low fluid level: Jump-starting a frozen lead-acid battery or one with a low fluid level is dangerous. It may rupture or explode, causing serious injury.

## Connect the negative cable to a good ground point away from the lead-acid battery:

Connecting the end of the second jumper cable to the negative (–) terminal of the depleted lead-acid battery is dangerous.

A spark could cause the gas around the lead-acid battery to explode and injure someone.

### Route the jumper cables away from parts that will be moving:

Connecting a jumper cable near or to moving part (cooling fans) is dangerous. The cable could get caught when the EV system starts and cause serious injury.



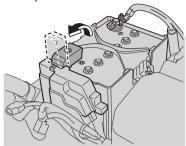
- ➤ Connect the booster cables with extreme care.
- ➤ Do not jump-start the vehicle with the charging cable connected to your vehicle. Otherwise, the vehicle could be damaged.
- ➤ Do not use your vehicle as a booster vehicle.

#### **NOTE**

- · If your lead-acid battery is depleted, make sure that the booster vehicle's battery is a lead-acid battery.
- 1. Move the booster vehicle so that its lead-acid battery is as close as possible to your vehicle's lead-acid battery.
- 2. Make sure that the power switch is switched OFF.

## **Depleted Lead-acid Battery**

3. Remove the lead-acid battery cover.



4. Turn off the booster vehicle's engine and connect the jumper cables in the following order.

Make sure that the jumper cables are securely connected so that they do not disconnect due to the vibrations.

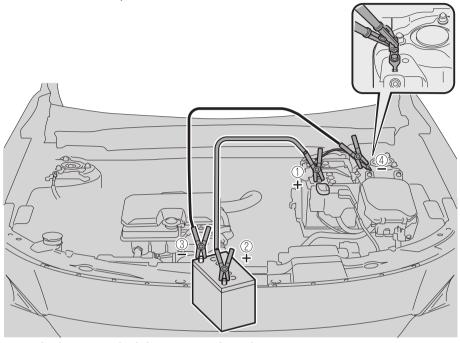
#### 1st lead

- ① Positive (+) terminal on the depleted lead-acid battery
- ② Positive (+) terminal on booster vehicle's battery

#### 2nd lead

③ Negative (-) terminal on booster vehicle's battery

① Location shown in the figure (do not connect to the negative (-) terminal of the lead-acid battery)



- 5. Start the booster vehicle's engine and rev the engine.
- 6. Start the EV system of your vehicle.
- 7. Disconnect the booster cables in the reverse order of their connection after the EV system is started.
- 8. Install the lead-acid battery cover.
- 9. Have your vehicle inspected by an Authorized Mazda Dealer as soon as possible.

## **Fully Discharged High Voltage Battery**

**▼** Actions to take if the remaining high voltage battery power is completely depleted

If the high voltage battery power is completely depleted, the EV system stops and the vehicle cannot be driven.

Stop the vehicle in a safe place and contact an Authorized Mazda Dealer.

## **Push-Starting**

## **▼** Push-Starting

Do not push-start your Mazda.

## **Emergency Towing**

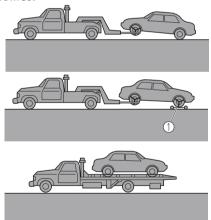
## **Towing Description**

### ▼ Towing Description

If your vehicle stops operating and needs to be towed, we recommend that towing be done only by an Authorized Mazda Dealer or a commercial tow-truck service.

Proper lifting and towing are necessary to prevent damage to the vehicle. Government and local laws must be followed.

A towed vehicle usually should have its drive wheels (front wheels) off the ground. If excessive damage or other conditions prevent this, use wheel dollies.



#### 1. Wheel dollies

When towing with the rear wheels on the ground, release the parking brake. Refer to Electric Parking Brake (EPB) on page 4-52.

## **A** CAUTION

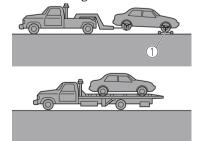
➤ Do not tow the vehicle pointed backward with driving wheels on the ground. This may cause internal damage to the vehicle.



Do not tow with sling-type equipment. This could damage your vehicle. Use wheel-lift or flatbed equipment.



➤ If the parking brake cannot be released when towing the vehicle, transport the vehicle with all front and rear wheels raised off the ground as shown in the figure. If the vehicle is towed without raising the wheels off the ground, the brake system could be damaged.



1. Wheel dollies

> When towing a vehicle, transport it with both front wheels raised off the ground or with all front and rear wheels raised off the ground. If the vehicle is towed with the front wheels grounded, the EV system may be damaged.

This vehicle cannot be used to tow other vehicles.

If towing service is not available in an emergency, the vehicle may be towed with all four wheels on the ground using the tiedown hook at the front of the vehicle.

If the vehicle has to be towed by rope to move it such as in an emergency, tow the vehicle in as short a distance as possible such as to the transport vehicle or to get unstuck. Otherwise, the EV transaxle or EV system could be damaged.

## **A** CAUTION

Follow these instructions when towing the vehicle with all wheels on the ground.

- Shift to the N position.
- Start the EV system.
- > Release the parking brake. Refer to Electric Parking Brake (EPB) on page 4-52.

In the following cases, do not tow the vehicle with rope. Otherwise, the EV transaxle or EV system could be damaged.

- The EV system does not start.
- The shift control system warning indication/warning light displays/ turns on.

Do not stop the EV system while the vehicle is being towed. Otherwise, the parking lock may engage which could lead to an accident.

## Tiedown Hooks $^st$

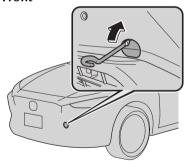
#### ▼ Tiedown Hooks



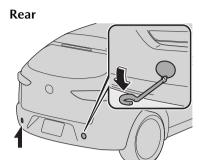
Do not use the front and rear tiedown evelets for towing the vehicle. They have been designed only for securing the vehicle to a transport vessel during shipping.

Using the eyelets for any other purpose could result in the vehicle being damaged.

- 1. Remove the tiedown eyelet and the lug wrench from the luggage compartment (page 7-3).
- 2. Wrap a flathead screwdriver or similar tool with a soft cloth to prevent damage to a painted bumper, and open the cap located on the front or rear bumper. Front



## **Emergency Towing**





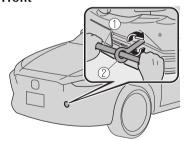
Do not use excessive force as it may damage the cap or scratch the painted bumper surface.

#### **NOTE**

Remove the cap completely and store it so as not to lose it.

3. Securely install the tiedown eyelet using the lug wrench.

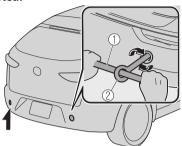
#### Front



1. Lug wrench

### 2. Tiedown eyelet

#### Rear



- 1. Lug wrench
- 2. Tiedown eyelet
- 4. Hook the tying rope to the tiedown eyelet.



If the tiedown eyelet is not securely tightened, it may loosen or disengage from the bumper when tying the vehicle. Make sure that the tiedown eyelet is securely tightened to the bumper.

# If a Warning Light Turns On or Flashes

## ▼ If a Warning Light Turns On or Flashes

If any warning light turns on/flashes, take appropriate action for each light. There is no problem if the light turns off, however if the light does not turn off or turns on/flashes again, consult an Authorized Mazda Dealer.

## **MARNING**

If the warning light/indicator light turns on or flashes, park the vehicle in a safe place immediately and take appropriate measures.

Continuing to drive the vehicle while ignoring the illumination/flashing of the warning light/indicator light is dangerous because a problem may occur to a vehicle system, or it could lead to an accident.

The details for some warnings can be viewed on the center display or multi-information display in the instrument cluster.

### Center display

- 1. Select "Information" on the home screen.
- Select "Vehicle Status Monitor".
- 3. Select the applicable warning to view the warning details.

### Multi-information display

 Press the INFO switch on the steering switch to display the warning indication screen. Refer to Multi-information Display on page 4-11.

### **▼** Brake System Warning Indication/ Warning Light



This warning has the following functions:

### Warning light inspection

For an operation check, make sure that the light turns on when the power switch is switched on and turns off a few seconds later, or when the EV system is started.

### When the light turns on

If the brake system warning light remains illuminated the brake fluid may be low or there could be a problem with the brake system. Park the vehicle in a safe place immediately and contact an Authorized Mazda Dealer.

Refer to Inspecting Brake Fluid Level on page 6-12.

## **M** WARNING

Do not drive with the brake system warning light illuminated. Contact an Authorized Mazda Dealer to have the brakes inspected as soon as possible: Driving with the brake system warning light illuminated is dangerous. It indicates that your brakes may not work at all or that they could completely fail at any time. If this light remains illuminated, after checking that the parking brake is fully released, have the brakes inspected immediately.

## Warning/Indicator Lights and Warning Sounds

## **A** CAUTION

- ➤ In addition, the effectiveness of the braking may diminish so you may need to depress the brake pedal more strongly than normal to stop the vehicle.
- ➤ When starting the EV system, the brake system warning light may turn on and the warning indication may be displayed. In this case, park the vehicle in a safe location and release the brake pedal.

If the brake system warning light/ warning indication does not turn off even after parking the vehicle, have the vehicle inspected by an Authorized Mazda Dealer.

### ▼ Electronic Brake Force Distribution System Warning





If the electronic brake force distribution control unit determines that some components are operating incorrectly, the control unit may illuminate the brake system warning light and the ABS warning light simultaneously. The problem is likely to be the electronic brake force distribution system.

## **MARNING**

Do not drive with both the brake system warning light and ABS warning light illuminated. Have the vehicle towed to an Authorized Mazda Dealer to have the brakes inspected as soon as possible: Driving when the brake system warning light and ABS warning light are illuminated simultaneously is dangerous.

When both lights are illuminated, the rear wheels could lock more quickly in an emergency stop than under normal circumstances.

▼ Lead-acid Battery Charging System Warning Indication/Warning Light



The lead-acid battery charging system warning indication/warning light displays/turns on if the charging system has a malfunction while the EV system is operating.

Drive to the side of the road and park off the right-of-way. Consult an Authorized Mazda Dealer.

## **MARNING**

Do not drive the vehicle with the lead-acid battery charging system warning indication/warning light displayed/turned on:

Otherwise, the EV system could stop unexpectedly and the parking lock may not operate which could result in an accident.

▼ EV System Problem Warning Indication/Warning Light



## "EV System Malfunction. Have the Vehicle Inspected" is displayed

The indication/light displays/turns on if the system has a problem. Have your vehicle inspected by an Authorized Mazda Dealer.

# "EV System Malfunction. Stop the Vehicle in a Safe Location" is displayed

The indication/light displays/turns on if the system has a problem. Park the vehicle in a safe place immediately and contact an Authorized Mazda Dealer.

# "Electrical Leakage in EV System Detected Stop the Vehicle in a Safe Location" is displayed

The indication/light displays/turns on if the system has a problem. Park the vehicle in a safe place immediately and contact an Authorized Mazda Dealer.

## **⚠** WARNING

### Do not open the hood:

If you touch something in the motor compartment, it could lead to an electrical shock resulting in an accident.

## **A** CAUTION

If the light turns on while driving, the EV system cannot be started when the power switch is switched OFF once.

## **▼** High Voltage Battery Temperature Warning Indication



### "Excessive High Voltage Battery Temperature. Drive Slowly" is displayed

The indication displays if the high voltage battery temperature is excessively high.

Drive slowly to reduce load on the high voltage battery.

Stop the vehicle in a safe place if necessary. If the indication remains displayed, the system may have a problem. Have the vehicle inspected by an Authorized Mazda Dealer.

### "High Voltage Battery Temperature Is Low Acceleration Is Limited" is displayed

The indication displays if the high voltage battery temperature is excessively low.

The vehicle speed may not increase even if the accelerator pedal is depressed because the motor output is restricted.

If the indication remains displayed, the system may have a problem. Have the vehicle inspected by an Authorized Mazda Dealer.

▼ Remaining High Voltage Battery Power Warning Indication/ Warning Light



## "High Voltage Battery Is Low. Charge Battery Soon" displays/turns on

The indication displays when the remaining high voltage battery power is low.

### "High Voltage Battery Is Urgently Low Charge Battery Immediately" displays/flashing

The indication displays when the remaining high voltage battery power is 0.

# "High Voltage Battery Is Depleted Vehicle Cannot Be Driven Until Battery Is Charged" displays/flashing

The indication/light displays/flashes when the remaining high voltage battery power is 0 and the vehicle cannot be driven.

# **▼** Charging System Warning Indication/Warning Light



The indication/light displays/turns on if the charging system has a problem. Have your vehicle inspected by an Authorized Mazda Dealer as soon as possible. Otherwise, the charging system may not charge the battery.

# ▼ Output Restriction Warning Indication/Warning Light



# "Acceleration Limited" displays/turns on

The indication/light displays/turns on under the following conditions. The vehicle speed may not increase even if the accelerator pedal is depressed because the motor output is restricted.

 EV system is protected from overheating

- · High voltage battery level is low
- High voltage battery temperature is low

### "Acceleration Limited" displays/ flashing

If the vehicle continues to be driven with the output restriction warning indication/warning light turned on, the output restriction warning light flashes.

The vehicle speed may not increase even if the accelerator pedal is depressed because the motor output is further restricted compared to the condition in which the output restriction warning light turns on.

# "Excessive EV System Temp. Acceleration Limited Avoid Moving at Very Low Speeds. Depress Brake When Not Moving" displays/turns on

When the vehicle is stopped on an upslope or the vehicle is driven at low speed on an upslope with the selector lever in the D or R position, the indication/light may display/turn on. If necessary, park the vehicle in a safe place and let the EV system cool down because the output is restricted until the EV system returns to the normal temperature.

## **▲** WARNING

When the output restriction warning indication/warning light displays/ turns on or flashes, check the safety of the surroundings:

The motor output decreases and the vehicle speed decreases resulting in an accident. If the vehicle cannot be driven safety, stop the vehicle in a safe place.

### ▼ Power Steering Malfunction Indication/Indicator Light



The electric power steering malfunction indication/indicator light displays/turns on if the electric power steering has a malfunction. If the electric power steering malfunction indication/indicator light displays/turns on, stop the vehicle in a safe place and switch the power switch OFF.

There is no problem if the display/ illumination of the electric power steering malfunction indication/ indicator light turns off when the EV systems is restarted after some time has passed. If the electric power steering malfunction indication/ indicator light displays/turns on even after the EV systems is restarted, contact an Authorized Mazda Dealer.

#### NOTE

 If the message is displayed, the power steering will not operate normally. In this case, the steering wheel can still be operated, however, the operation may feel heavy compared to normal, or the steering wheel could vibrate when turning.

- Repeatedly jerking the steering wheel left and right while the vehicle is stopped or moving extremely slowly will cause the power steering system to go into protective mode which will make the steering feel heavy, but this does not indicate a problem. If this occurs, park the vehicle safely and wait several minutes for the system to return to normal.
- ▼ Shift Control System Warning Indication/Warning light



The indication/light displays/turns on if the shift control system has a malfunction.

### "Shift Control System Malfunction Stop the Vehicle in a Safe Location" displays/turns on

There is a serious malfunction with the shift control system.
Park the vehicle in a safe place immediately and contact an Authorized Mazda Dealer.

### "Shift Control System Malfunction Have the Vehicle Inspected" displays/ turns on

There is a malfunction with the shift control system.

Have your vehicle inspected by an Authorized Mazda Dealer.

### "Vehicle Cannot Shift Into Park. Stop the Vehicle in a Safe Location Then Apply the Parking Brake" displays/ turns on

The vehicle cannot be held in a stopped position even when the selector lever is in the P position.

When parking or stopping the vehicle, always apply the parking brake. In addition, the EV system may not start again if it is stopped.

Have your vehicle inspected by an Authorized Mazda Dealer.

# **▼** ABS Warning Indication/Warning Light



If the ABS warning light stays on while you're driving, the ABS control unit has detected a system malfunction. If this occurs, your brakes will function normally as if the vehicle had no ABS. Should this happen, consult an Authorized Mazda Dealer as soon as possible.

#### NOTE

The brake assist system does not operate while the ABS warning light is illuminated.

### **▼** Master Warning Indication



The indication displays if the system has a malfunction.

Check the reason for the indication displaying on the center display or multi-information display.

Pefer to If a Warning Light Turns On

Refer to If a Warning Light Turns On or Flashes on page 7-21.

# **▼** Brake Control System Warning Indication/Warning Light



The warning light illuminates when the system has a malfunction. Have your vehicle inspected at an Authorized Mazda Dealer.

# ▼ Electric Parking Brake (EPB) Indication/Indicator Light



This warning has the following functions:

# Parking brake warning/Indicator light inspection

If the electric parking brake (EPB) indicator light remains on even with the parking brake released, the system may have a malfunction. Have the vehicle inspected by an Authorized Mazda Dealer.

### When the light is flashing

The light flashes if the Electric Parking Brake (EPB) has a malfunction. If the light remains flashing even if the Electric Parking Brake (EPB) switch is operated, consult an Authorized Mazda Dealer as soon as possible.

### **▼** Brake Override Warning Indication



This message is displayed when the accelerator pedal and brake pedal are

depressed at the same time while driving.

Release the accelerator pedal and depress the brake pedal.

▼ TCS/DSC Indication/Indicator Light (Turns on)



If the light stays on, the TCS, DSC or the brake assist system may have a malfunction and they may not operate correctly. Take your vehicle to an Authorized Mazda Dealer.

▼ Air Bag/Front Seat Belt Pretensioner System Warning Indication/Warning Light



A system malfunction is indicated if the warning light constantly flashes, constantly turns on or does not turn on at all when the power switch is switched ON. If any of these conditions occurs, consult an Authorized Mazda Dealer as soon as possible. The system may not operate in an accident.

# **♠** WARNING

Never tamper with the air bag/ pretensioner systems and always have an Authorized Mazda Dealer perform all servicing and repairs:

Self-servicing or tampering with the systems is dangerous. An air bag/pretensioner could accidentally activate or become disabled causing serious injury or death.

▼ Tire Pressure Monitoring System (TPMS) Warning Indication/ Warning Light (Flashing)



If there is a problem with the TPMS or the voltage of a tire pressure sensor decreases, the TPMS warning light flashes and a message is displayed on the multi-information display. Have your vehicle inspected by an Authorized Mazda Dealer.

## **MARNING**

Do not drive the vehicle at high speeds if the TPMS warning light turns on or flashes:

Driving the vehicle at high speeds while the TPMS warning light is turned on or flashing is dangerous because the brake performance and the steering wheel operability will be reduced. If the vehicle is driven at high speeds or the brakes are suddenly applied, it could lead to an accident. Gradually apply the brakes to lower the vehicle's speed.

Do not ignore the TPMS warning light when it is turned on or flashing:

Continuing to drive the vehicle while ignoring the illumination/flashing of the TPMS warning light is dangerous because a tire may burst which could lead to an accident. Take appropriate measures as soon as possible.

# ▼ KEY Warning Indication/Warning Light (Red)



### "Keyless Entry System Malfunction. Have the Vehicle Inspected" is displayed

This message is displayed if the system has a problem.

Contact an Authorized Mazda Dealer.



If the power switch indicator light (amber) flashes at the same time, the EV system may not start. Have the vehicle inspected by an Authorized Mazda Dealer as soon as possible. Refer to When Stopping the EV System on page 4-8.

### "Key Not Detected" is displayed

The KEY warning indication/warning light (red) displays/turns on under the following conditions. Bring the key into the operation range.

- The key is outside of the operation range or it is placed in the cabin but in a position where it is difficult to be detected.
- Without the power switch switched OFF, the key is taken out of the cabin, then all the doors are closed.

### **▼** Security Indicator Light



If the security indicator light turns on/ flashes while driving, do not stop the EV system (leave it operating) and have the vehicle inspected at an Authorized Mazda Dealer. If the EV system is stopped, it may not be restarted. If the EV system cannot be started, switch the power switch OFF, place the key in another position within the operation range, and then restart the EV system.

Check the security indicator light and if it does not turn off, such as it remains on or flashes, switch the power switch OFF, wait for a while, and then restart the system.

If the EV system does not start after three attempts, a system malfunction may have occurred. Have the vehicle inspected by an Authorized Mazda Dealer.

#### NOTE

Because the electronic codes are reset when the immobilizer system is repaired, the keys are needed. Make sure to bring all the keys to an Authorized Mazda Dealer so that they can be programmed.

▼ High Beam Control System (HBC) Warning Indication/Warning Light (Amber)\*



The light remains turned on if there is a problem with the system. Have your vehicle inspected at an Authorized Mazda Dealer.

# ▼ i-ACTIVSENSE Warning Indication/Warning Light\*



The indication displays if the system has a malfunction.
Check the reason for the indication displaying on the center display or multi-information display.
Refer to If a Warning Light Turns On or Flashes on page 7-21.

### **▼** Exterior Light Warning Indication/ Warning Light



This light illuminates if there is a malfunction in the exterior lights (except license plate lights). Have your vehicle inspected by an Authorized Mazda Dealer.



Do not drive the vehicle while an exterior light has a malfunction. Poor visibility, and not being able to signal braking and turns may cause an accident. In addition, if the vehicle is driven with the lights not turned on, it may conflict with laws and regulations due to poor maintenance.

### ▼ Seat Belt Warning Indication/ Warning Light (Front seat)



PASSENGER 🛭



The seat belt warning light turns on if the driver or front passenger's seat is occupied and the seat belt is not fastened with the power switch switched ON.

If the driver or front passenger's seat belt is unfastened (only when the front passenger's seat is occupied) and if the vehicle is driven at about 20 km/h (12 mph) or faster, or about 10 km/h (6 mph) or faster for a continuous 30 seconds, with the seat belt unfastened, the warning light flashes for a certain period. After a short time, the warning light stops flashing, but remains illuminated.

#### NOTE

- The warning light flashes for about 6 seconds if the driver or front passenger's seat is not fastened when the power switch is switched ON.
- Placing heavy items on the front passenger's seat may cause the front passenger's seat belt warning function to operate depending on the weight of the item.
- To allow the front passenger occupant classification sensor to function properly, do not place and sit on an additional seat cushion on the front passenger's seat. The sensor may not function properly because the additional seat cushion could cause sensor interference.
- If a small child is seated on the front passenger's seat, the warning light may not operate.

### Action to be taken

Fasten the seat belts.

**▼** Seat Belt Warning Light (Rear seat) (Red)







If the rear seat belts are not fastened while the power switch is switched ON, the driver and the passenger are alerted by the warning light. The warning light operates even if there is no passenger on the rear seat.

#### **NOTE**

If a rear seat belt is not fastened by a certain period of time after the EV system has been started, the warning light turns off.

#### Action to be taken

Fasten the seat belts.

▼ Low Washer Fluid Level Warning Indication/Warning Light\*



This warning light indicates that little washer fluid remains.

### Action to be taken

Add washer fluid (page 6-13).

**▼** Door-Ajar/Liftgate-Ajar Warning **Indication/Warning Light** 



The light turns on if any door/liftgate is not closed securely.

### Action to be taken

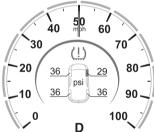
Close the door/liftgate securely.

**▼** Tire Pressure Monitoring System (TPMS) Warning Indication/ Warning Light (Turns on)



If a tire pressure decreases below the specified air pressure, the TPMS warning light turns on.

At the same time, a message and the tire pressure of each tire are displayed on the multi-information display alternately. In addition, the tire (s) with low air pressure is displayed in yellow.



# WARNING

Do not drive the vehicle at high speeds if the TPMS warning light turns on or flashes:

Driving the vehicle at high speeds while the TPMS warning light is turned on or flashing is dangerous because the brake performance and the steering wheel operability will be reduced. If the vehicle is driven at high speeds or the brakes are suddenly applied, it could lead to an accident. Gradually apply the brakes to lower the vehicle's speed.

# Do not ignore the TPMS warning light when it is turned on or flashing:

Continuing to drive the vehicle while ignoring the illumination/flashing of the TPMS warning light is dangerous because a tire may burst which could lead to an accident. Take appropriate measures as soon as possible.

#### **NOTE**

While the TPMS is learning the tire positions, such as immediately after a tire position has been changed, the tire pressure at the tire position prior to it being changed is displayed until the system completes the learning. For this reason, the tire pressures displayed for the tire positions may be different from the actual tire pressures at the tire positions.

#### Action to be taken

Adjust the tire pressures to the appropriate pressures. Refer to Tire Inflation Pressure on page 6-23.

# **A** CAUTION

- Adjust the tire pressures while the tires are cool. Because the air pressure in the tires fluctuates depending on the temperature, before adjusting the tire pressures, let the vehicle sit for an hour or drive it only within a 1.6 km (1 mile) distance. If the tire pressures are adjusted while the tires are warm, the tire pressures may decrease below the specified air pressure after cooling down which could turn on the warning light. In addition, because the air pressure in the tires decreases when the ambient temperature is low, if the ambient temperature increases, an illuminated TPMS warning light may turn off. Under any circumstances, always adjust the tire pressures while the tires are cool.
- After adjusting the tire pressures, the TPMS warning light turns off. If the TPMS warning light does not turn off, drive the vehicle at a speed of about 25 km (16 mph) or faster for 3 minutes or longer and make sure the warning light turns off.

If the TPMS warning light remains on even after adjusting the tire pressures, one of the tires may have a puncture.

# ▼ KEY Indicator Light (Green) (Flashing)



### "Low Key Fob Battery. Replace Battery" is displayed/When the light is flashing

When the key battery is low, the indication is displayed when the power switch is switched OFF.

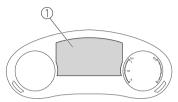
### Action to be taken

Replace the key battery.

## Message Indicated on Multi-information Display

### **▼** Message Indicated on Multi-information Display

If there is a notification from the vehicle, a message is displayed on the multi-information display. Check the information and take the necessary action.



### 1. Multi-information display

If the warning light turns on/flashes simultaneously or a symbol is indicated on the display, check the information regarding the warning light or symbol. Refer to If a Warning Light Turns On or Flashes on page 7-21.

Display*1*2*3	Content	Action to be taken
Depress Brake Pedal. Brake Hold Disabled	This message is indicated when there is a problem with the brake related system while the vehicle is being held in a stop position by the AUTOHOLD function.	Depress the brake pedal. Cancel the AUTOHOLD function and have your vehicle inspected at an Authorized Mazda Dealer.
Steep Slope. Continue Pressing Brake Pedal to Hold Stopped Position	This message indicates the possibility of the vehicle not being held in the stopped position by the AUTOHOLD function, such as on steep slopes.	Depress and hold your foot on the brake pedal.
Depress Brake Pedal and Operate Switch to Re- lease Elec. Parking Brake	This message is indicated when the Electric Parking Brake (EPB) switch is operated without depressing the brake pedal.	Operate the Electric Parking Brake (EPB) switch while depressing the brake pedal.
Depress Brake Pedal and Operate Switch to Re- lease	This message is indicated when the cancel operation is done without depressing the brake pedal while the vehicle is being held in the stopped position by the AUTOHOLD function.	Cancel the AUTOHOLD function stop hold control while depressing the brake pedal.
Mazda Radar Cruise Control Canceled. Drive Safely	This message is indicated when the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) have been canceled other than by the driver.	Have your vehicle inspected by an Authorized Mazda Dealer.

Display*1*2*3	Content	Action to be taken
Traffic Jam Assist Operation Canceled Drive Safely	This message is indicated when the Traffic Jam Assist (TJA) have been canceled other than by the driver.	Have your vehicle inspected by an Authorized Mazda Dealer.
Distance & Speed Alert Operation Canceled Drive Safely	This message is indicated when the Distance & Speed Alert (DSA) have been canceled other than by the driver.	Have your vehicle inspected by an Authorized Mazda Dealer.
Cruise Control Opera- tion Canceled. Drive Safely	This message is indicated when the Cruise Control have been canceled other than by the driver.	Have your vehicle inspected by an Authorized Mazda Dealer.
Emergency Braking Activated. Depress Brake Pedal to Hold Stop	This message is indicated after the Smart Brake Support (SBS) brakes operate and when the SBS is canceled.	Depress the brake pedal.
Touch Key Fob to Push Button Start Switch	This message is indicated when the key battery is weak (battery dead or damaged key).	Touch the key against power switch to start the EV system. Refer to Starting the EV System When the Key Battery is Dead on page 4-6.
Depress Brake Pedal to Start Vehicle	This message is displayed when the power switch is pressed without depressing the brake pedal.	To start the EV system, press the power switch with the brake pedal depressed.
Check Shift Selector Lever Position	<ul> <li>Displays in the following cases:</li> <li>Selector lever is shifted to R position while driving forward.</li> <li>Selector lever is shifted to P position while driving.</li> <li>Selector lever is shifted to D position while reversing.</li> </ul>	Check the selector lever position.
Close Door and Fasten Seat Belt	This message is indicated when the AUTOHOLD switch is pressed with the driver's seat belt unfastened or the driver's door open.	Fasten the driver's seat belt and press the AUTOHOLD switch with the driv- er's door closed.
Wiper Blades Must Be on Windshield Before Operating	This message is indicated when the power switch is switched ON with the wiper arms at the service positions.	Return the wiper arms to the initial positions.
Windshield Wiper Range of Motion Reduced. Re- move Obstruction(s)	This message is indicated when there is snow or dirt accumulation on the windshield and the wiper operation range is narrowed.	Remove foreign matter from the windshield.

Display*1*2*3	Content	Action to be taken
Anti Roll Away Engaged. Move Gear Selector Lever into Park	This message is indicated when the AUTO P (parking lock) function operates.	Shift the selector lever to the P position.
Move Gear Selector Lev- er into Park to Start Ve- hicle	This message is indicated when the power switch is switched ON while the shift position is different from the selector lever position.	Shift the selector lever to the P position.
Vehicle Will Not Shift While Accelerator Pedal Is Depressed	This message is indicated when the accelerator pedal is depressed with the selector lever in the N position.	Release your foot from the accelerator pedal.
Selector Position Ignor- ed. Depress Brake Pedal for Shift Selection	This message is indicated when the selector lever is shifted from the N position to the D or R position with the brake pedal not depressed.	Depress the brake pedal.
Vehicle in Neutral	This message is displayed when in neutral hold mode (automatic car wash mode).	The vehicle is in neutral hold mode (automatic car wash mode). If necessary, cancel neutral hold mode (automatic car wash mode).  Refer to Selector Lever Operation on page 4-28.
Vehicle in Neutral. Move Gear Selector Lever into Neutral	This message is indicated if the selector lever is shifted to the D or R position while neutral hold mode (automatic car wash mode) is operating.	Shift the selector lever to the N position.
Disconnect Charger to Start Vehicle	This message is indicated when the EV system is started while the charge connector is connected.	When starting the EV system, disconnect the charge connector.
EV Charger Connected. Vehicle Cannot Be Driven	This message is indicated when the charge connector is connected while the EV system is operating.	When charging, switch the power switch OFF.
Battery Heater Will Reduce High Voltage Battery Level Connect to EV Charger To Avoid High Voltage Battery Drain	This message is indicated when the EV system is started after the battery heater has operated while the charge connector is not connected.	Check the remaining distance-to-full discharge. Perform charging if necessary.
Battery Heating Incomplete Due to High Voltage Battery Level Connect to EV Charger To Avoid High Voltage Battery Drain	This message is displayed when the EV system is started after the battery heater stops automatically.	If the battery heater operates while the vehicle is parked, connect the charge connector.

Display*1*2*3	Content	Action to be taken
Battery Heating Can- celed Due to Five Days of Vehicle Inactivity Turn Battery Heater Off If Ve- hicle Will Not Be Driven	This message is displayed when the EV system is started after the battery heater has operated for a long time and stopped automatically.	If the vehicle is not used for long periods, set the battery heater to off.
High Voltage Battery Charging Interrupted	This message is displayed when the charging is interrupted.	Check the connection status of the charge connector.
Rising EV System Temp. Acceleration May Be Limited Avoid Moving at Very Low Speeds. De- press Brake When Not Moving	This message is indicated when the vehicle is held in the stopped position with the accelerator pedal operated, such as on an upslope, and the motor reaches a high temperature.	Depress the brake pedal.
Regenerative Braking Is Limited	This message is indicated when the regenerative braking is restricted.	Drive the vehicle carefully because the regenerative braking force decreases.
Shift Into Park Before Exiting Vehicle	This message is indicated when the driver's door is opened with the selector lever in a position other than the P position.	Close the driver's door or shift the selector lever to the P position.
Battery Saving Mode. Drive Vehicle to Charge 12V Battery	This message is indicated when the power consumption exceeds a certain amount such as by repeatedly opening/closing the doors or the liftgate when the power switch is switched OFF.  Some of the functions are restricted to reduce power consumption.	There is no need to contact an Authorized Mazda Dealer. Drive the vehicle for 5 minutes or longer to charge the 12V battery. The warning message will clear just after starting the EV system.

<sup>\*1</sup> A pop-up is displayed when a warning occurs.

<sup>&</sup>lt;sup>\*</sup>2 One screen displays four rows. If the entire message cannot be displayed on the screen, it switches to another screen.

<sup>\*3</sup> The displayed content may differ from the actual vehicle.

### Warning Sound is Activated

### **▼** Lights-On Reminder

The lights-on reminder is operable when the time setting\*1 of the auto headlight off function is off. If the power switch is switched OFF with the exterior lights turned on and the driver's door is opened, a sound is activated.

Operate the headlight switch to turn off the exterior lights.

\*1 If the light switch is left on, the auto headlight off function automatically turns off the lights about 30 seconds after switching the EV system off. The time setting can be changed. Refer to the Settings section in the Mazda Connect Owner's Manual.

#### NOTE

- When the power switch is switched to ACC, the "Power Switch Not Switched OFF (STOP) Warning Beep" (page 7-37) overrides the lights-on reminder.
- A personalized function is available to change the sound volume for the lights-on reminder.
   Refer to the Settings section in the Mazda Connect Owner's Manual.

### **▼** Seat Belt Warning Beep

### Front seat

If the driver's seat belt is not fastened when the power switch is switched ON, a beep sound will be heard for about 6 seconds. If the driver or the front passenger's seat belt is not fastened and if the vehicle is driven at about 20 km/h (12 mph) or faster, or about 10 km/h (6 mph) or faster for a

continuous 30 seconds, with the seat belt unfastened, a sound is activated continuously for a certain period. Until a seat belt is fastened or a given period of time has elapsed, the beep sound will not stop even if the vehicle speed falls below 20 km/h (12 mph).

#### NOTE

- To allow the front passenger occupant classification sensor to function properly, do not place and sit on an additional seat cushion on the front passenger's seat. The sensor may not function properly because the additional seat cushion could cause sensor interference.
- If a small child is seated on the front passenger's seat, the warning beep may not operate.

#### Rear seat

The warning beep only sounds if a seat belt is unfastened after being fastened.

# ▼ Power Switch Not Switched OFF (STOP) Warning Beep

If the driver's door is opened with the power switch switched to ACC, a beep will be heard continuously in the cabin to notify the driver that the power switch has not been switched OFF (STOP). Under this condition, the keyless entry system will not operate, the vehicle cannot be locked, and the battery voltage will be depleted.

# ▼ Key Removed from Vehicle Warning Beep

# Vehicles with advanced keyless function

If the key is taken out of the vehicle while the power switch is switched to ACC or ON, and all the doors are closed, a sound is activated 6 times

outside of the vehicle and a sound is activated 1 time in the vehicle.

# Vehicles without advanced keyless function

If the key is taken out of the vehicle while the power switch is switched to ACC or ON, and all the doors are closed, a sound is activated 1 time in the vehicle.

#### NOTE

Make sure that you leave the vehicle while carrying the key, or switch the power switch OFF.

### ▼ Touch Sensor Inoperable Warning Beep (With the advanced keyless function)

A warning beep is activated to notify the driver that the doors are not locked when all of the following conditions are met:

- · The power switch is switched OFF.
- · All the doors and liftgate are not fully closed.
- The lock is operated 3 times within 5 seconds.

Check the power switch and whether the doors and liftgate are open or closed, and then operate the lock again.

### ▼ Liftgate Door-lock Switch Inoperable Warning Beep (With the advanced keyless function)

When the door-lock switch on the liftgate is pressed under any of the following conditions, a warning sound is activated.

- The power switch is switched to a position other than OFF.
- · Any door is open.

Make sure that none of the above conditions are present, and then press the door-lock switch again.

# ▼ Key Left-in-luggage Compartment Warning Beep (With the advanced keyless function)

If the key is left in the luggage compartment with all the doors locked and the liftgate closed, a beep will be heard outside for about 10 seconds to notify the driver that the key is in the luggage compartment. In this case, take out the key by pressing the electric liftgate opener and opening the liftgate. The key taken out of the luggage compartment may not operate because its functions have been temporarily stopped. To restore the key's functions, perform the applicable procedure (page 3-30).

### ▼ Key Left-in-vehicle Warning Beep (With the advanced keyless function)

If all the doors and luggage compartment are locked using another key while the key is left in the cabin, the beep which sounds outside of the vehicle will be heard for about 10 seconds to notify the driver that the key is in the cabin. In this case, take out the key by opening the door. A key taken out of the vehicle using this method may not operate because its functions have been temporarily stopped. To restore the key's functions, perform the applicable procedure (page 3-30).

# **▼** Remaining High Voltage Battery Power Warning Beep

When the remaining high voltage battery power warning indication displays, a warning beep is activated once at the same time.

### **▼** Brake System Warning Beep

A warning beep is activated if a problem with the brake system occurs and the brakes may not work as intended. Decelerate the vehicle while checking the safety of the surrounding area, and park the vehicle in a safe place. After stopping the vehicle, contact an Authorized Mazda Dealer.

### **▼** Brake Override Warning Beep

A warning beep is activated when the accelerator pedal and brake pedal are depressed at the same time while driving. Only depress the brake pedal.

### **▼** Shift Position Warning Beep

A warning sound is activated when the selector lever position and the shift position of the vehicle do not match. Check the selector lever position.

### ▼ Selector Lever Not In P or N Reminder Warning Beep

A warning sound is activated if the following operations are performed while the selector lever is in a position other than P.

- The power switch is switched OFF while the EV system is operating.
- The driver's seat belt is unfastened and the driver's door is opened.

Check the selector lever position.

# **▼** Electric Parking Brake (EPB) Warning Beep

The warning buzzer is activated under the following conditions:

- The vehicle is driven with the parking brake applied.
- The Electric Parking Brake (EPB) switch is pulled while the vehicle is driven.

 You attempt to start driving the vehicle while the conditions for releasing the Electric Parking Brake (EPB) automatically have not been met.

### **▼** AUTOHOLD Warning Beep

Message is displayed and beep sound is activated simultaneously for about 5 seconds when using AUTOHOLD function or when AUTOHOLD switch is operated.

Because a problem with AUTOHOLD function has occurred, AUTOHOLD function does not operate even if AUTOHOLD switch is operated.

If the message is displayed and the beep sound is activated simultaneously, have your vehicle inspected at an Authorized Mazda Dealer.

### **▼** Vehicle Problem Warning Beep

If any of the following problems occur, a warning beep is activated. Check the information regarding the warning indication in the instrument cluster or on the center display.

- Brake fluid amount decrease
- · Electric Parking Brake (EPB) problem
- · Shift control system problem
- · EV System problem
- Charging system problem
- Approaching vehicle audible system problem

### **▼** Reverse Position Warning Beep

The warning beep is activated when the power switch is switched ON and the selector lever is in the R position.

# **▼** Blind Spot Monitoring (BSM) System Warning Beep\*

The Blind Spot Monitoring (BSM) warning beep operates when the turn signal lever is operated to the side where the Blind Spot Monitoring (BSM) warning light is illuminated.

# ▼ Front Cross Traffic Alert (FCTA) Warning Beep\*

The Front Cross Traffic Alert (FCTA) warning beep is activated if there is a possibility of collision with a vehicle approaching from the front on the left and right sides of the vehicle.

# ▼ Rear Cross Traffic Alert (RCTA) Warning Beep\*

The Rear Cross Traffic Alert (RCTA) warning beep is activated if there is a possibility of collision with a vehicle approaching from the rear on the left and right sides of the vehicle.

### ▼ Lane/Road Departure Warning Beep\*

The warning beep is activated when the system determines that the vehicle may depart from the lane or the road. Check whether the vehicle has not deviated from the driving lane/road.

### ▼ Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) System Warnings\*

The Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) system warnings notify the driver of system malfunctions and cautions on use when required. Check based on the beep sound.

Warning beep type	Notification content
The beep sounds 1 time while the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) is operating.	If a malfunction occurs in the system, make sure that the Mazda Radar Cruise Control with Stop & Go func- tion (MRCC with Stop & Go function) has been canceled.
The beep sounds intermittently while the Mazda Radar Cruise Control with Stop & Go function (MRCC with Stop & Go function) is operating.	The distance between your vehicle and the vehicle ahead is too close. Check the safety of the surrounding area and reduce vehicle speed.

### **▼** Excessive Speed Warning\*

If the vehicle speed exceeds the speed limit sign displayed in the active driving display/instrument cluster, the area around the speed limit sign flashes in amber and the warning sound is activated at the same time. If the vehicle speed continues to exceed the displayed speed limit sign, the indication stops flashing and remains on

### **▼** Collision warning\*

If there is a possibility of a collision with a vehicle ahead, a warning sound is activated at the same time as the warning indications are displayed in the instrument cluster or active driving display.

### **▼** Door-ajar Warning Beep

A warning beep is activated if the vehicle is driven with any door or liftgate ajar. Drive the vehicle after closing the doors and liftgate.

# **▼** Battery Saving Mode Warning Sound

A warning sound is activated when the vehicle goes into Battery Saving Mode. Refer to Message Indicated on Multi-information Display on page 7-33.

The warning sound will stop just after starting the EV system.

## When Liftgate Cannot be Opened

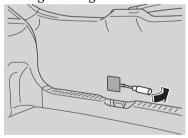
### **▼** When Liftgate Cannot be Opened

If the lead-acid battery is dead, the liftgate cannot be unlocked and opened.

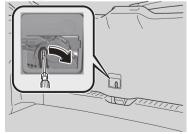
In this case, the liftgate can be unlocked by taking care of the dead lead-acid battery situation.

Refer to Jump-Starting on page 7-12. If the liftgate cannot be unlocked even if the dead lead-acid battery situation has been resolved, the electrical system may have a malfunction. In this case, the liftgate can be opened using the following procedure as an emergency measure.

 Wrap the end of a flathead screwdriver in a cloth and remove the cover on the interior surface of the liftgate using it.



2. Turn the lever to the right to unlock the liftgate.



After performing this emergency measure, have the vehicle inspected at

an Authorized Mazda Dealer as soon as possible.

## If the Active Driving Display Does Not Operate

# ▼ If the Active Driving Display Does Not Operate

If the active driving display does not operate, switch the power switch off and then restart the EV system. If the active driving display does not operate even with the EV system restarted, have the vehicle inspected at an Authorized Mazda Dealer.

# Windshield Wipers Operate at High Speed

# **▼** Windshield Wipers Operate at High Speed

The windshield wipers may operate at high speed if there is a problem with the wiper control. If the windshield wipers operate at high speed regardless of the wiper switch operation, have your vehicle inspected by an Authorized Mazda Dealer.

# 8

# Customer Information and Reporting Safety Defects

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# Customer Assistance (U.S.A.)

#### **▼** Customer Assistance

Your complete and permanent satisfaction is our business. We are here to serve you. All Authorized Mazda Dealers have the knowledge and the tools to keep your Mazda vehicle in top condition. If you have any questions or recommendations for improvement regarding the service of your Mazda vehicle or servicing by Mazda Dealer personnel, we recommend that you take the following steps:

#### NOTE

If it becomes necessary to have the components or wiring system for the supplementary restraint system modified to accommodate a person with certain medical conditions in accordance with a certified physician, contact an Authorized Mazda Dealer. For more information, go to NHTSA website www.safercar.gov (VEHICLE SHOPPERS > Air Bags > Air Bag FAQs > Air Bag Deactivation).

### ▼ STEP 1: Contact Your Mazda Dealer

Discuss the matter with an Authorized Mazda Dealer. This is the quickest and best way to address the issue.

- If your concern has not been resolved by the CUSTOMER RELATIONS, SALES, SERVICE, or PARTS MANAGER, then please contact the GENERAL MANAGER of the dealership or the OWNER.
- If it becomes necessary to have the components or wiring system for the supplementary restraint system modified to accommodate a person

with certain medical conditions in accordance with a certified physician, go to STEP 2.

# ▼ STEP 2: Contact Mazda North American Operations

If for any reason you feel the need for further assistance after contacting your dealership management or it becomes necessary to have the components or wiring system for the supplementary restraint system modified to accommodate a person with certain medical conditions in accordance with a certified physician, you can reach Mazda North American Operations by one of the following ways.

Log on: at www.MazdaUSA.com

Answers to many questions, including how to locate or contact a local Mazda dealership in the U.S., can be found here.

E-mail: click on "Contact Us" located on the bottom of the page at www.mazdausa.com under "Help"

By phone at: 1 (800) 222-5500

By letter at:

ATTN: Customer Experience Center Mazda North American Operations 200 Spectrum Center Drive Suite 100 Irvine, California 92618 P.O. Box 19734 Irvine, CA 92623-9734

In order to serve you efficiently and effectively, please help us by providing the following information:

- 1. Your name, address, and telephone number
- 2. Year and model of vehicle

- 3. Vehicle Identification Number (17 digits, noted on your registration or title or located on the upper driver's side corner of the dash)
- 4. Purchase date and current mileage
- 5. Your dealer's name and location
- 6. Your question(s)

If you live outside the U.S.A., please contact your nearest Mazda Distributor.

# ▼ STEP 3: Contact Better Business Bureau (BBB)

Mazda North American Operations realizes that mutual agreement on some issues may not be possible. As a final step to ensure that your concerns are being fairly considered, Mazda North American Operations has agreed to participate in a dispute settlement program administered by the Better Business Bureau (BBB) system, at no cost to you the consumer.

BBB AUTO LINE works with consumers and the manufacturer in an attempt to reach a mutually acceptable resolution of any warranty related concerns. If the BBB is not able to facilitate a settlement they will provide an informal hearing before an arbitrator.

You are required to resort to BBB AUTO LINE before exercising rights or seeking remedies under the Federal Magnuson-Moss Warranty Act, 15 U.S.C. § 2301 et seq. To the extent permitted by the applicable state "Lemon Law", you are also required to resort to BBB AUTO LINE before exercising any rights or seeking remedies under the "Lemon Law". If you choose to seek remedies that are not created by the Magnuson-Moss

Warranty Act or the applicable state "Lemon Law", you are not required to first use BBB AUTO LINE.

The whole process normally takes 40 days or less. The arbitration decision is not binding on you or Mazda unless you accept the decision. For more information about BBB AUTO LINE, including current eligibility standards, please call 1-800-955-5100 or visit the BBB website at www.bbb.org/autoline.

Being truly committed to customer satisfaction is more than a phrase with Mazda. We hope to satisfy every customer directly, but if there is ever a question about our decision, Mazda believes in providing a fast, fair and free method such as the BBB AUTO LINE to ensure Mazda delivers on our commitment to do the right thing for our customers!

#### ▼ California Customers

- 1. Mazda North American Operations participates in BBB AUTO LINE, a mediation/arbitration program administered by the Council of Better Business Bureaus [1676 International Drive, Suite 550 McLean, Virginia 22102] through local Better Business Bureaus. BBB AUTO LINE and Mazda have been certified by the Arbitration Certification Program of the California Department of Consumer Affairs.
- 2. If you have a problem arising under a Mazda written warranty, we encourage you to bring it to our attention. If we are unable to resolve it, you may file a claim with BBB AUTO LINE. Claims must be filed with BBB AUTO LINE within six

- (6) months after the expiration of the warranty.
- 3. To file a claim with BBB AUTO LINE, call 1-800-955-5100. There is no charge for the call.
- 4. In order to file a claim with BBB AUTO LINE, you will have to provide your name and address, the brand name and vehicle identification number (VIN) of your vehicle, and a statement of the nature of your problem or complaint. You will also be asked to provide: the approximate date of your acquisition of the vehicle, the vehicle's current mileage, the approximate date and mileage at the time any problem(s) were first brought to the attention of Mazda or one of our dealers, and a statement of the relief you are seeking.
- 5. BBB AUTO LINE staff may try to help resolve your dispute through mediation. If mediation is not successful, or if you do not wish to participate in mediation, claims within the program's jurisdiction may be presented to an arbitrator at an informal hearing. The arbitrator's decision should ordinarily be issued within 40 days from the time your complaint is filed; there may be a delay of 7 days if you did not first contact Mazda about your problem, or a delay of up to 30 days if the arbitrator requests an inspection/ report by an impartial technical expert or further investigation and report by BBB AUTO LINE.
- 6. You are required to use BBB AUTO LINE before asserting in court any rights or remedies conferred by California Civil Code Section 1793.22. You are also required to

- use BBB AUTO LINE before exercising rights or seeking remedies created by Title I of the Magnuson-Moss Warranty Act, 15 U.S.C. sec. 2301 et seq. If you choose to seek redress by pursuing rights and remedies not created by California Civil Code Section 1793.22 or Title I of the Magnuson-Moss Warranty Act, resort to BBB AUTO LINE is not required by those statutes.
- 7. California Civil Code Section 1793.2 (d) requires that, if Mazda or its representative is unable to repair a new motor vehicle to conform to the vehicle's applicable express warranty after a reasonable number of attempts, Mazda may be required to replace or repurchase the vehicle. California Civil Code Section 1793.22 (b) creates a presumption that Mazda has had a reasonable number of attempts to conform the vehicle to its applicable express warranties if, within 18 months from delivery to the buyer or 18,000 miles on the vehicle's odometer, whichever occurs first, one or more of the following occurs:
  - The same nonconformity [a failure to conform to the written warranty that substantially impairs the use, value or safety of the vehicle] results in a condition that is likely to cause death or serious bodily injury if the vehicle is driven AND the nonconformity has been subject to repair two or more times by Mazda or its agents AND the buyer or lessee has directly notified Mazda of the need for the repair of the nonconformity; OR

- The same nonconformity has been subject to repair 4 or more times by Mazda or its agents
   AND the buyer has notified Mazda of the need for the repair of the nonconformity; OR
- The vehicle is out of service by reason of repair of nonconformities by Mazda or its agents for a cumulative total of more than 30 calendar days after delivery of the vehicle to the buyer.

# NOTICE TO Mazda AS REQUIRED ABOVE SHALL BE SENT TO THE FOLLOWING ADDRESS:

Mazda North American Operations 200 Spectrum Center Drive Suite 100

Irvine, California 92618
ATTN: Customer Mediation

- 8. The following remedies may be sought in BBB AUTO LINE: repairs, reimbursement for money paid to repair a vehicle or other expenses incurred as result of a vehicle nonconformity, repurchase or replacement of your vehicle, and compensation for damages and remedies available under Mazda's written warranty or applicable law.
- The following remedies may not be sought in BBB AUTO LINE: punitive or multiple damages, attorneys' fees, or consequential damages other than as provided in California Civil Code Section 1794 (a) and (b).
- 10. You may reject the decision issued by a BBB AUTO LINE arbitrator. If you reject the decision, you will be free to pursue further legal action. The arbitrator's decision and any

- findings will be admissible in a court action.
- 11.If you accept the arbitrator's decision, Mazda will be bound by the decision, and will comply with the decision within a reasonable time not to exceed 30 days after we receive notice of your acceptance of the decision.
- 12.Please call BBB AUTO LINE at 1-800-955-5100 for further details about the program.

# Customer Assistance (Canada)

#### **▼** Satisfaction Review Process

Your complete and permanent satisfaction is of primary concern to Mazda. All Authorized Mazda Dealers have both the knowledge and tools to keep your Mazda in top condition. In our experience, any questions, problems, or complaints regarding the operation of your Mazda or any other general service transactions are most effectively resolved by your dealer. If the cause of your dissatisfaction cannot adequately be addressed by normal dealership procedures, we recommend that you take the following steps:

#### **▼ STEP 1: Contact the Mazda Dealer**

Discuss the matter with a member of dealership management. If the Service Manager has already reviewed your concerns, contact the owner of the dealership or its General Manager.

# ▼ STEP 2: Contact the Mazda Regional Office

If you feel that you still require assistance, ask the dealer Service Manager to arrange for you to meet the local Mazda Service Representative. If more expedient, contact Mazda Canada Inc. Regional Office nearest you for such arrangements. Regional Office address and phone numbers are shown (page 8-7).

# ▼ STEP 3: Contact the Mazda Customer Relations Department

If still not substantially satisfied, contact the Customer Relations Department, Mazda Canada Inc., 55 Vogell Road, Richmond Hill, Ontario, L4B 3K5 Canada TEL: 1 (800) 263-4680.

Provide the Department with the following information:

- 1. Your name, address and telephone number
- 2. Year and model of vehicle
- Vehicle Identification Number (VIN). Refer to the Vehicle Identification Number on page 9-2 for the location of the VIN.
- 4. Purchase date
- 5. Present odometer reading
- 6. Your dealer's name and location
- 7. The nature of your problem and/or cause of dissatisfaction

The Department, in cooperation with the local Mazda Service Representative, will review the case to determine if everything possible has been done to ensure your satisfaction.

Please recognize that the resolution of service problems in most cases requires the use of your Mazda dealer's service facilities, personnel and equipment. We urge you to follow the above three steps in sequence for most effective results.

### **▼** Mediation/Arbitration Program

Occasionally a customer concern cannot be resolved through Mazda's Customer Satisfaction Program. If after exhausting the procedures in this manual your concern is still not resolved, you have another option.

Mazda Canada Inc. participates in an arbitration program administered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP). CAMVAP will advise you about how your

concern may be reviewed and resolved by an independent third party through binding arbitration.

Your complete satisfaction is the goal of Mazda Canada Inc. and our dealers. Mazda's participation in CAMVAP makes a valuable contribution to our achieving that goal. There is no charge for using CAMVAP. CAMVAP results are fast, fair and final as the award is binding on both you and Mazda Canada Inc.

### ▼ Canadian Motor Vehicle Arbitration Plan (CAMVAP)

If a specific item of concern arises, where a solution cannot be reached between an owner, Mazda, and/or one of its dealers (that all parties cannot agree upon), the owner may wish to use the services offered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

CAMVAP uses the services of Provincial Administrators to assist consumers in scheduling and preparing for their arbitration hearings. However, before you can proceed with CAMVAP you must follow your Mazda dispute resolution process as outlined previously.

CAMVAP is fully implemented in all provinces and territories.
Consumers wishing to obtain further information about the Program should contact the Provincial Administrator at 1 (800) 207-0685, or by contacting the Canadian Motor Vehicle
Arbitration Plan Office at:

Canadian Motor Vehicle Arbitration Plan 235 Yorkland Boulevard, suite 300 North York, Ontario
M2J 4Y8
http://camvap.ca
Provincial Administrators may be reached locally:

Province/Territory	CAMVAP Number
British Columbia & Yu- kon Territories	1 (800) 207-0685
Alberta & Northwest Territories	1 (800) 207-0685
Saskatchewan	1 (800) 207-0685
Manitoba	1 (800) 207-0685
Ontario	1 (800) 207-0685
Atlantic Canada	1 (800) 207-0685
Quebec	1 (800) 207-0685

### **▼** Regional Offices

REGIONAL OFFICES	COVERING AREAS
MAZDA CANADA INC. WESTERN REGION 5011 275 STREET LANGLEY, BRITISH COLUMBIA V4W 0A8 (778) 369-2100 1 (800) 663-0908	ALBERTA, BRITISH COLUMBIA, MANITOBA, SASKATCHEWAN, YUKON
MAZDA CANADA INC. CENTRAL REGION 55 VOGELL ROAD, RICHMOND HILL, ONTARIO, L4B 3K5 1 (800) 263-4680	ONTARIO, NEW BRUNSWICK, NOVA SCOTIA, PRINCE EDWARD IS- LAND, NEWFOUNDLAND

REGIONAL OFFICES	COVERING AREAS
MAZDA CANADA	
INC.	
QUEBEC REGION	
6111 ROUTE TRANS-	
CANADIENNE	QUEBEC
POINTE CLAIRE, QUE-	
BEC	
H9R 5A5	
(514) 694-6390	

# Customer Assistance (Puerto Rico)

#### **▼** Customer Assistance

Your complete and permanent satisfaction is our business. That is why all Authorized Mazda Dealers have the knowledge and the tools to keep your Mazda vehicle in top condition. If you have any questions or recommendations for improvement regarding the service of your Mazda vehicle or servicing by Mazda Dealer personnel, we recommend that you take the following steps:

#### ▼ STEP 1

Discuss the matter with an Authorized Mazda Dealer. This is the quickest and best way to address the issue. If your concern has not been resolved by the CUSTOMER RELATIONS, SALES, SERVICE, or PARTS MANAGER, then please contact the GENERAL MANAGER of the dealership or the OWNER.

#### ▼ STEP 2

If, after following STEP 1, you feel the need for further assistance, please contact your area's Mazda representative.

Refer to PUERTO RICO/U.S. Virgin Island on page 8-10.

Please help us by providing the following information:

- 1. Your name, address, and telephone number
- 2. Year and model of vehicle
- 3. Vehicle Identification Number (17 digits, noted on your registration or title or located on the upper driver's side corner of the dash)

- 4. Purchase date and current mileage5. Your dealer's name and location6. Your question(s)

### Mazda Importer/Distributors

### Importer/Distributor

#### ▼ U.S.A.

Mazda North American Operations 200 Spectrum Center Drive Suite 100 Irvine, California 92618 P.O. Box 19734 Irvine, CA 92623-9734 U.S.A. TEL: 1 (800) 222-5500 (in U.S.A.) (949) 727-1990 (outside U.S.A.)

#### **▼** CANADA

Mazda Canada Inc.

55 Vogell Road, Richmond Hill, Ontario, L4B 3K5 Canada TEL: 1 (800) 263-4680 (in Canada) (905) 787-7000 (outside Canada)

### **▼ PUERTO RICO/U.S. Virgin Island**

International Automotive Distributor Group, LLC. (Mazda de Puerto Rico) P.O. Box 191850, San Juan, Puerto Rico 00919-1850 TEL: (787) 641-1777

#### **▼** GUAM

Triple J Motors

157 South Marine Drive, Tamuning, GUAM 96911 USA P.O. Box 6066 Tamuning, Guam 96931

TEL: (671) 649-6555

#### **▼** SAIPAN

Pacific International Marianas, Inc. (d.b.a. Midway Motors)
P.O. Box 887 Saipan, MP 96950
TEL: (670) 234-7524

Triple J Saipan, Inc. (d.b.a. Triple J Motors)
P.O. Box 500487 Saipan, MP 96950-0487
TEL: (670) 234-7133/3051

#### **▼** AMERICAN SAMOA

**Polynesia Motors, Inc.** P.O. Box 1120, Pago Pago, American Samoa 96799

TEL: (684) 699-9347

## Reporting Safety Defects (U.S.A.)

### **▼** Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Mazda Motor Corporation (Your Mazda Importer/Distributor).

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Mazda Motor Corporation (Your Mazda Importer/Distributor).

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY:1-800-424-9153); go to http://www.safercar.gov; or write to: Administrator, NHTSA, 1200 New Jersey Avenue, SE., Washington, DC, 20590. You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

#### **NOTE**

If you live in the U.S.A., all correspondence to Mazda Motor Corporation should be forwarded to:

Mazda North American Operations 200 Spectrum Center Drive Suite 100 Irvine, California 92618 or P.O. Box 19734 Irvine, CA 92623-9734 Customer Experience Center or toll free at 1 (800) 222-5500

If you live outside of the U.S.A., please contact the nearest Mazda Distributor shown in this manual.

- · Refer to CANADA on page 8-10.
- · Refer to PUERTO RICO/U.S. Virgin Island on page 8-10.
- · Refer to GUAM on page 8-10.
- · Refer to SAIPAN on page 8-10.
- · Refer to AMERICAN SAMOA on page 8-10.

## **Reporting Safety Defects (Canada)**

### **▼** Reporting Safety Defects

Canadian customers who wish to report a safety-related defect and concern to Transport Canada, Defect Investigations and Recalls, may telephone the toll free hotline 1-800-333-0510, or go to the Road Safety website at: https://www.tc.gc.ca/en/services/road.html

## Warranties for Your Mazda

#### ■ Warranties for Your Mazda

- · New Vehicle Limited Warranty
- · Powertrain Limited Warranty
- Safety Restraint System Limited Warranty
- · Anti-perforation Limited Warranty
- Federal Emission Control Warranty/ California Emission Control Warranty
  - · Emission Defect Warranty
  - · Emission Performance Warranty
- Emission Control Warranty
- Replacement Parts and Accessories Limited Warranty
- · Tire Warranty

#### NOTE

Warranty information varies depending on the country. Refer to the Warranty Booklet for detailed warranty information.

# Outside the United States/Canada

### **▼** Outside the United States/Canada

Government regulations in the United States/Canada require that automobiles meet specific emission regulations and safety standards. Therefore, vehicles built for use in the United States/Canada may differ from those sold in other countries.

The differences may make it difficult or even impossible for your vehicle to receive satisfactory servicing in other countries. We strongly recommend that you NOT take your Mazda outside the United States/Canada.

#### **United States**

However, in the event that you are moving to Canada permanently, Mazda vehicles built for use in the United States could be eligible for exportation to Canada with specific vehicle modifications to comply with the Canadian Motor Vehicle Safety Standards (CMVSS).

#### Canada

However, in the event that you are moving to the United States permanently, Mazda vehicles built for use in Canada could be eligible for exportation to the United States with specific vehicle modifications to comply with the United States Federal Motor Vehicle Safety Standards (FMVSS).

#### NOTE

The above is applicable for a permanent import/export situation and not related to travelers on vacation.

### Warranty

You may have the following problems if you do take your vehicle outside of the United States/Canada:

 Proper repair facilities, tools, testing equipment, and replacement parts may not be available.

Please refer to your Manufacturer's Warranty Booklet for more information.

## Registering Your Vehicle in A Foreign Country (Except United States and Canada)

### ▼ Registering Your Vehicle in A Foreign Country

Registering your vehicle in a foreign country may be problematic depending on whether it meets the specific emission and safety standards of the country in which the vehicle will be driven. Consequently, your vehicle may require modifications at personal expense in order to meet the regulations.

In addition, you should be aware of the following issues: Satisfactory vehicle servicing may be

difficult or impossible in another country.

Parts, servicing techniques, and tools necessary to maintain and repair your vehicle may be unavailable.

There might not be an Authorized Mazda Dealer in the country you plan to take your vehicle.

The Mazda warranty is valid only in certain countries.

# Add-On Non-Genuine Parts and Accessories

# ▼ Add-On Non-Genuine Parts and Accessories

Non-genuine parts and accessories for Mazda vehicles can be found in stores. These may fit your vehicle, but they are not approved by Mazda for use with Mazda vehicles. When you install non-genuine parts or accessories, they could affect your vehicle's performance or safety systems; the Mazda warranty doesn't cover this. Before you install any non-genuine parts or accessories, consult an Authorized Mazda Dealer.

# **▲** WARNING

### Always consult an Authorized Mazda Dealer before you install non-genuine parts or accessories:

Improperly designed parts or accessories could seriously affect your vehicle's performance or safety systems. This could cause you to have an accident or increase your chances of injuries in an accident.

Be very careful in choosing and installing add-on electrical equipment, such as mobile telephones, two-way radios, stereo systems, and car alarm systems: Incorrectly choosing or installing improper add-on equipment or choosing an improper installer is dangerous. Essential systems could be damaged, causing air-bag (SRS) activation, ABS/TCS/DSC inactivation, or a fire in the vehicle.

Mazda assumes no responsibility for death, injury, or expenses that may

result from the installation of add-on non-genuine parts or accessories.

## **Cell Phones Warning**

▼ Cell Phones Warning

## **♠** WARNING

Please comply with the legal regulations concerning the use of communication equipment in vehicles in your country:

Use of any electrical devices such as cell phones, computers, portable radios, vehicle navigation or other devices by the driver while the vehicle is moving is dangerous. Dialing a number on a cell phone while driving also ties-up the driver's hands. Use of these devices will cause the driver to be distracted and could lead to a serious accident. If a passenger is unable to use the device, pull off the right-of-way to a safe area before use. If use of a cell phone is necessary despite this warning, use a hands-free system to at least leave the hands free to drive the vehicle. Never use a cell phone or other electrical devices while the vehicle is moving and, instead, concentrate on the full-time job of driving.

### **Event Data Recorder**

# **Event Data Recorder** (U.S.A. and Canada)

#### **▼** Event Data Recorder

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/ fastened:
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- · How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur. NOTE:

EDR data are recorded by your vehicle only if a non-trivial crash or near crash-like situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the FDR.

Mazda will not disclose any of the data recorded in an EDR to a third party unless:

- A written agreement from the vehicle owner or the lessee is obtained
- Officially requested by the police or other law enforcement authorities
- Used as a defense for Mazda in a lawsuit, claim, or arbitration
- · Ordered by a judge or court

However, if necessary Mazda will:

- Use the data for research on Mazda vehicle performance, including safety.
- Disclose the data or the summarized data to a third party for research purposes without disclosing vehicle or owner identification information.

## Recording of Vehicle Data

# Recording of Vehicle Data

#### **▼** Recording of Vehicle Data

This vehicle is equipped with a computer which records the following main vehicle data related to vehicle controls, operation, and other driving conditions.

#### Recorded data

- · Vehicle speed
- Driving operation conditions such as accelerator and brake pedals, and information related to the environmental circumstances while the vehicle is driven
- Malfunction diagnosis information from each on-vehicle computer
- Information related to controls of other on-vehicle computers

#### NOTE

The recorded data may vary depending on the vehicle grade and optional equipment. Voice and images are not recorded.

### Data handling

Mazda and its subcontracting parties may obtain and use the recorded data for vehicle malfunction diagnosis, research and development, and quality improvement.

Mazda will not disclose or provide any of the obtained data to a third party unless:

- An agreement from the vehicle owner (agreements from lessor and lessee for leased vehicle) is obtained
- Officially requested by the police or other law enforcement authorities

 For statistical processing by a research institution after processing the data so that identification of the owner or the vehicle is impossible

# Uniform Tire Quality Grading System (UTQGS)

## **▼** Uniform Tire Quality Grading System (UTQGS)

This information relates to the tire grading system developed by the U.S. National Highway Traffic Safety Administration for grading tires by tread wear, traction, and temperature performance.

#### **▼** Tread Wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course.

For example, a tire graded 150 would wear one-and-a-half times as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm because of variations in driving habits, service practices and differences in road characteristics and climate.

#### **▼** Traction-AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B, and C. These grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

## **MARNING**

The traction grade assigned to this tire is based on braking (straight ahead) traction tests and does not include acceleration cornering (turning), hydroplaning, or peak traction characteristics.

#### **▼** Temperature-A, B, C

The temperature grades A (the highest), B, and C, represent the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperatures can lead to sudden tire failure.

Grade C corresponds to a level of performance which all passenger vehicle tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

## Uniform Tire Quality Grading System (UTQGS)



## Keep your vehicle's tires properly inflated and not overloaded:

Driving with improperly inflated or overloaded tires is dangerous. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure. The temperature grade for this tire is established for a tire that is properly inflated and not overloaded.

These grades will be added to the sidewalls of passenger vehicle tires over the next several years according to a schedule established by the NHTSA and the tire manufacturers.

The grade of tires available as standard or optional equipment on Mazda vehicles may vary with respect to grade.

ALL PASSENGER VEHICLE TIRES MUST CONFORM TO THESE GRADES AND TO ALL OTHER FEDERAL TIRE-SAFETY REQUIREMENTS.

## ▼ UNIFORM TIRE QUALITY GRADING

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.
For example:

TREADWEAR 200 TRACTION AA TEMPERATURE A UTQGS MARK (example)



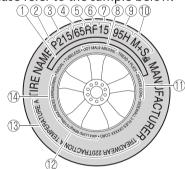
## Tire Labeling

#### **▼** Tire Labeling

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a tire identification number for safety standard certification and in case of a recall.

## **▼** Information on Passenger Vehicle Tires

Please refer to the sample below.



- 1. SAFETY WARNING
- 2. Passenger car tire
- 3. Nominal width of tire in millimeters
- 4. Ratio of height to width (aspect ratio)
- 5. Radial
- 6. Run-flat tire
- 7. Rim diameter code
- 8. TIN: U.S. DOT tire identification number
- 9. Load index & speed symbol
- 10. Severe snow conditions
- 11. Tire ply composition and materials used
- 12.Max. load rating
- 13.Tread wear, traction and temperature grades

14.Max. permissible inflation pressure

P215/65R15 95H is an example of a tire size and load index rating. Here is an explanation of the various components of that tire size and load index rating. Note that the tire size and load index rating may be different from the example.

#### Ρ

Indicates a tire that may be installed on cars, SUVs, minivans and light trucks as designated by the Tire and Rim Association (T&RA).

#### NOTE

If your tire size does not begin with a letter this may mean it is designated by either ETRTO (European Tire and Rim Technical Organization) or JATMA (Japan Tire Manufacturing Association).

#### 215

"215" is the nominal width of the tire in millimeters. This three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

#### 65

"65" is the aspect ratio. This two-digit number indicates the tire's ratio of height to width.

#### R

"R" is the tire construction symbol. R indicates "Radial ply construction".

#### 15

"15" is the wheel rim diameter in inches.

## Tire Information (U.S.A.)

#### 95

"95" is the Load Index. This two-or three-digit number indicates how much weight each tire can support.

#### Н

"H" is the speed rating. The speed rating denotes the maximum speed for which the use of the tire is rated.

Letter Rating	Speed Rating
Q	99 mph
R	106 mph
S	112 mph
Т	118 mph
U	124 mph
Н	130 mph
V	149 mph
W	168 <sup>*</sup> mph
Y	186 <sup>*</sup> mph

<sup>\*</sup> For tires with a maximum speed capability over 149 mph, tire manufacturers sometimes use the letters ZR. For tires with a maximum speed capability over 186 mph, tire manufacturers always use the letters ZR.

### M+S or M/S: Mud and Snow

AT: All Terrain.

AS: All Season. The "M+S" or "M/S" indicates that the tire has some functional use in mud and snow.

## U.S. DOT Tire Identification Number (TIN)

This begins with the letters "DOT" which indicates the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year the tire was manufactured. For example, the numbers 457 means

the 45st week of 1997. After 2000 the numbers go to four digits. For example, the number 2102 means the 21th week of 2002. The other numbers are marketing codes used at the manufacturer's discretion. This information is used to contact consumers if a tire defect requires a recall.

## Tire Ply Composition and Materials Used

The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the tire materials, which include steel, nylon, polyester, and other.

### **Maximum Load Rating**

This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

## Maximum Permissible Inflation Pressure

This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

## **Tread Wear, Traction and Temperature Grades**

Tread wear: The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1 1/2) times as well on the government course as a tire graded 100.

**Traction:** The traction grades, from highest to lowest are AA, A, B, and C.

The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Temperature: The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

#### **Snow Tires**

In some heavy snow areas, local governments may require true snow tires, those with very deeply cut tread. These tires should only be used in pairs or placed on all four wheels. Make sure you purchase snow tires that are the same size and construction type as the other tires on your vehicle.

#### SAFETY WARNING

The following safety warning appears on the tire's sidewall. SERIOUS INJURY MAY RESULT FROM:

- EXPLOSION OF TIRE/RIM ASSEMBLY DUE TO IMPROPER MOUNTING-MATCH TIRE DIAMETER TO RIM DIAMETER; NEVER EXCEED 40 psi (275 kPa) TO SEAT BEADS-ONLY SPECIALLY TRAINED PERSONS SHOULD MOUNT TIRES.
- TIRE FAILURE DUE TO UNDER-INFLATION/ OVERLOADING/DAMAGE-FOLLOW OWNER'S MANUAL AND PLACARD IN VEHICLE-FREQUENTLY CHECK INFLATION PRESSURE AND INSPECT FOR DAMAGE.

#### **▼** Information on Temporary Tires

Please refer to the sample below.



- 1. Temporary tires
- 2. Nominal width of tire in millimeters
- 3. Ratio of height to width (aspect ratio)
- 4. Diagonal
- 5. Rim diameter code
- 6. Load index & speed symbol

T115/70D16 90M is an example of a tire size and load index rating. Here is an explanation of the various components of that tire size and load index rating. Note that the tire size and load index rating may be different from the example.

### <u>T</u>

Indicates a tire that may be installed on cars, SUVs, minivans and light trucks as designated by the Tire and Rim Association (T&RA).

#### 115

"115" is the nominal width of the tire in millimeters. This three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

## Tire Information (U.S.A.)

#### <u>70</u>

"70" is the aspect ratio. This two-digit number indicates the tire's ratio of height to width.

#### D

"D" is the tire construction symbol. D indicates "diagonal ply construction".

#### 16

"16" is the wheel rim diameter in inches.

#### <u>90</u>

"90" is the Load Index. This two-or three-digit number indicates how much weight each tire can support.

#### <u>M</u>

"M" is the speed rating. The speed rating denotes the maximum speed for which the use of the tire is rated.

Letter Rating	Speed Rating
М	81 mph

# Location of the Tire Label (Placard)

#### **▼** Location of the Tire Label (Placard)

You will find the tire label containing tire inflation pressure by tire size and other important information on the driver's side B-pillar or on the edge of the rear door on the driver's side.

#### SAMPLE



#### ▼ Recommended Tire Inflation Pressure

On the tire label you will find the recommended tire inflation pressure in both kPa and psi for the tires installed as original equipment on the vehicle. It is very important that the inflation pressure of the tires on your vehicle is maintained at the recommended pressure. You should check the tire pressure regularly to insure that the proper inflation pressure is maintained. Refer to Tires on page 9-5.

#### NOTE

Tire pressures listed on the vehicle placard or tire information label indicate the recommended cold tire inflation pressure, measured when the tires are cold, after the vehicle has been parked for at least 3 hours. As you drive, the temperature in the tire warms up, increasing the tire pressure.

## **▲** WARNING

Always check the tire inflation pressures on a regular basis according to the recommended tire inflation pressure on the tire label and in conjunction with the information in this owner's manual:

Driving your vehicle with under-inflated tires is dangerous. Under-inflation is the most common cause of failures in any kind of tire and may result in severe cracking, tread separation or "blowout", with unexpected loss of vehicle control and increased risk of injury. Under-inflation increases sidewall flexing and rolling resistance, resulting in heat buildup and internal damage to the tire. It results in unnecessary tire stress, irregular wear, loss of control and accidents. A tire can lose up to half of its air pressure and not appear to be flat!

It is impossible to determine whether or not tires are properly inflated just by looking at them.

### **▼** Checking Tire Pressure

- When you check the air pressure, make sure the tires are cold
   —meaning they are not hot from driving even a mile.
- 2. Remove the cap from the valve on one tire.
- 3. Firmly press a tire gauge onto the valve.
- 4. Add air to achieve recommended air pressure.
- 5. If you overfill the tire, release air by pushing on the metal stem in the center of the valve. Then recheck the pressure with your tire gauge.
- 6. Replace the valve cap.
- 7. Repeat with each tire, including the spare.

#### NOTE

Some spare tires require higher inflation pressure.

- 8. Visually inspect the tires to make sure there are no nails or other objects embedded that could poke a hole in the tire and cause an air leak.
- 9. Check the sidewalls to make sure there are no gouges, cuts, bulges, cracks or other irregularities.

#### **▼** Glossary of Terms

**Tire Placard:** A label indicating the OE tire sizes, recommended inflation pressure, and the maximum weight the vehicle can carry.

Tire Identification Number (TIN): A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size, and date of manufacture.

**Inflation Pressure:** A measure of the amount of air in a tire.

**kPa:** Kilopascal, the metric unit for air pressure.

**psi:** Pounds per square inch, the English unit for air pressure.

**B-pillar:** The structural member at the side of the vehicle behind the front door.

**Original Equipment (OE):** Describes components originally equipped on the vehicle.

**Vehicle Load Limit:** The maximum value of the combination weight of occupants and cargo.

**Bead Area of the Tire:** Area of the tire next to the rim.

Sidewall Area of the Tire: Area between the bead area and the tread. Tread Area of the Tire: Area on the perimeter of the tire that contacts the

## Tire Information (U.S.A.)

road when it's mounted on the vehicle.

Seating capacity means the total allowable number of vehicle occupants. Seating capacity is described on the tire label.

Production options weight is the combination weight of installed regular production options weighing over 2.3 kilograms in excess of the standard items which they replace, and not previously considered in the curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

**Rim** is the metal support (wheel) for a tire or a tire and tube assembly upon which the tire beads are seated.

### Tire Maintenance

#### **▼** Tire Maintenance

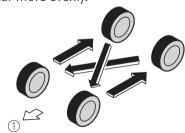
Improper or inadequate vehicle maintenance can cause tires to wear abnormally. Here are some important maintenance points:

#### **▼** Tire Inflation Pressure

Inspect all tire pressure monthly (including the spare) when the tires are cold. Maintain recommended pressures for the best ride, top handling, and minimum tire wear. Use the pressures specified on the vehicle tire information placard or tire label for optimum service.

#### **▼** Tire Rotation

To equalize tread wear, rotate the tires every 16,000 km (10,000 miles) at the latest or sooner if irregular wear develops. Mazda recommends to rotate every 8,000 km (5,000 miles) to help increase tire life and distribute wear more evenly.



1. Forward Do not include (TEMPORARY USE ONLY) spare tire in rotation.

Inspect the tires for uneven wear and damage. Abnormal wear is usually caused by one or a combination of the following:

Incorrect tire pressure

- · Improper wheel alignment
- · Out-of-balance wheel
- · Severe braking

After rotation, inflate all tire pressures to specification on page 9-5 and inspect the lug nuts for tightness.



Rotate unidirectional tires and radial tires that have an asymmetrical tread pattern or studs only from front to rear, not from side to side. Tire performance will be weakened if rotated from side to side.

#### **▼** Replacing a Tire

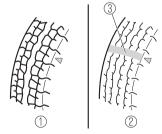


## Always use tires that are in good condition:

Driving with worn tires is dangerous. Reduced braking, steering, and traction could result in an accident.

If a tire wears evenly, a wear indicator will appear as a solid band across the tread.

Replace the tire when this happens.



- 1. New tread
- 2. Worn tread
- 3. Tread wear indicator

You should replace the tire before the band crosses the entire tread.

#### NOTE

Tires degrade over time, even when they are not being used on the road. It is recommended that tires generally be replaced when they are 6 years or older. Heat caused by hot climates or frequent high loading conditions can accelerate the aging process. You should replace the spare tire when you replace the other road tires due to the aging of the spare tire. The period in which the tire was manufactured (both week and year) is indicated by a 4-digit number.

Refer to Tire Labeling on page 8-21.

#### **▼** Safety Practices

The way you drive has a great deal to do with your tire mileage and safety. So cultivate good driving habits for your own benefit.

- Observe posted speed limits and drive at speeds that are safe for the existing weather conditions
- · Avoid fast starts, stops and turns
- Avoid potholes and objects on the road
- Do not run over curbs or hit the tire against the curb when parking

## **A** CAUTION

If you feel a sudden vibration or ride disturbance while driving or you suspect your tire or vehicle has been damaged, immediately reduce your speed. Drive with caution until you can safely pull off the road. Stop and inspect the tire for damage. If the tire is under-inflated or damaged, deflate it, remove the tire and rim and replace it with your spare tire. If you cannot detect a cause, have the vehicle towed to the nearest vehicle or tire dealer to have the vehicle inspected.

### Tire Information (U.S.A.)

## **Vehicle Loading**

#### **▼** Vehicle Loading



Do not tow a trailer with this vehicle: Towing a trailer with this vehicle is dangerous because it has not been designed to tow a trailer and doing so will affect the drive system which could result in vehicle damage.

This section will guide you in the proper loading of your vehicle, to keep your loaded vehicle weight within its design rating capability. Properly loading your vehicle will provide maximum return of vehicle design performance. Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, from the vehicle's Safety Certification Label and Tire and Load Information Label:

## **⚠** WARNING

#### **Overloaded Vehicle:**

Overloading a vehicle is dangerous. The results of overloading can have serious consequences in terms of passenger safety. Too much weight on a vehicle's suspension system can cause spring or shock absorber failure, brake failure, handling or steering problems, irregular tire wear, tire failure or other damage.

Overloading makes a vehicle harder to drive and control. It also increases the distance required for stopping. In cases of serious overloading, brakes can fail completely, particularly on steep grades. The load a tire will carry safely is a combination of the size of the tire, its load range, and corresponding inflation pressure.

Never overload the vehicle and always observe the vehicle's weight ratings from the vehicle's Safety Certification and Tire and Load Information labels.

Base Curb Weight is the weight of the vehicle including all standard equipment. It does not include passengers, cargo, or optional equipment.

Vehicle Curb Weight is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.

#### **PAYLOAD**



Payload is the combination weight of cargo and passengers that the vehicle is designed to carry. The maximum payload for your vehicle can be found on the Tire and Load Information label on the rear door on the driver's side or door pillar. Look for "THE COMBINATION WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED XXX kg or XXX lbs" for your maximum payload. The payload listed on the tire label is the maximum payload for the vehicle as built by the assembly plant. If any aftermarket or dealer installed equipment has been installed on the vehicle, the weight of the equipment must be subtracted

from the payload listed on the tire label in order to be accurate.

#### **SAMPLE**

TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT					
SEATING CAPACITY   TOTAL 5   FRONT 2   REAR 3					
The combined we Le poids total des c	eight of occupants occupants et du cha	and cargo shou <b>l</b> d n rgement ne doit jam	ever exceed ais dépasser	xxx kg or xxx lb.*	
TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PR PRESSION PNEUS À F	DES	SEE OWNER'S MANUAL FOR ADDITIONAL	
FRONT AVANT	195/70R14	200 kPa, 29	9 psi	INFORMATION	
REAR ARRIÈRE	195/70R14	200 kPa, 29	9 psi	VOIR LE MANUEL DE L'USAGER	(xxxx)
SPARE DE SECOURS	T125/70D15	420 kPa, 60	) psi	POUR PLUS DE RENSEIGNEMENTS	×

#### **CARGO**



Cargo Weight includes all weight added to the Base Curb Weight, including cargo and optional equipment.

The cargo weight limit decreases depending on the number of vehicle occupants. The cargo weight limit can be calculated by subtracting the total weight of the vehicle occupants from the "combination weight of occupants and cargo should never exceed" value on the tire label.

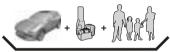
Examples: Based on a single occupant weight of 68 kg (150 lbs), and a value of 385 kg (849 lbs) for the "combination weight of occupants and cargo should never exceed": The cargo weight limit with one occupant is 385 kg (849 lbs) -68 kg (150 lbs) = 317 kg (699 lbs) The cargo weight limit with two occupants is 385 kg (849 lbs)  $-(68 \times 2) \text{ kg}$  ( $(150 \times 2) \text{ lbs}$ ) = 249 kg (549 lbs)

If the weight of the occupant increases, the cargo weight limit decreases by that much.

**GAW** (**Gross Axle Weight**) is the total weight placed on each axle (front and rear) - including vehicle curb weight and all payload.

GAWR (Gross Axle Weight Rating) is the maximum allowable weight that can be carried by a single axle (front or rear). These numbers are shown on the Safety Compliance Certification Label located on the rear door on the driver's side or door pillar. The total load on each axle must never exceed its GAWR.

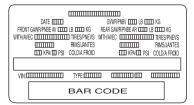
#### **GVW**



**GVW** (Gross Vehicle Weight) is the Vehicle Curb Weight + cargo + passengers.

GVWR (Gross Vehicle Weight Rating) is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). The GVWR is shown on the Safety Compliance Certification Label located on the rear door on the driver's side or door pillar. The GVW must never exceed the GVWR.

#### SAMPLE



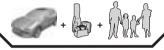
## **⚠** WARNING

## Never Exceed Axle Weight Rating Limits:

Exceeding the Safety Certification Label axle weight rating limits is dangerous and could result in death or serious injury as a result of substandard vehicle handling, performance, motor, EV transaxle and/or structural damage, serious damage to the vehicle, or loss of control.

Always keep the vehicle within the axle weight rating limits.

**GCW** 



**GCW** (Gross Combination Weight) is the weight of the loaded vehicle (GVW).

GCWR (Gross Combination Weight Rating) is the maximum allowable weight of the vehicle - including all cargo and passengers - that the vehicle can handle without risking damage. The GCW must never exceed the GCWR.



## Never Exceed GVWR or GAWR Specifications:

Exceeding the GVWR or the GAWR specified on the certification label is dangerous. Exceeding any vehicle rating limitation could result in a serious accident, injury, or damage to the vehicle.

Do not use replacement tires with lower load carrying capacities than the originals because they may lower the vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the originals do not increase the GVWR and GAWR limitations.

Never exceed the GVWR or the GAWR specified on the certification label.

## **Steps for Determining the Correct Load Limit**

### **▼** Steps for Determining the Correct Load Limit

Steps for Determining Correct Load Limit-

- (1) Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
- (2) Determine the combined weight of the driver and passengers that will be riding in your vehicle.
- (3) Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
- (4) The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs.  $(1400 750 (5 \times 150) = 650 \text{ lbs.})$
- (5) Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- (6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

## Declaration of Conformity

## **Declaration of Conformity**

#### **▼** Keyless Entry System/Immobilizer System

#### FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### FCC/IC

This device complies with Part 15 of FCC Rules and Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme à la partie 15 des règles de la FCC et aux normes des CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### (MEXICO)

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

#### ▼ Tire Pressure Monitoring System

#### USA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or mudifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Canada

This devise compiles with Industry Canada licence—exempt RSS standard(s) Operation is subject to the following two conditions: (I) this device may not cause Interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CMR d'industrie Canada applicables aux appareils radio exempts de license. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de trouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, sême si le brouillage est ausceptible d'es compromettre le fonctionnement.

#### Merica

La operacion de este equipo esta sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluvendo la que sueda causar su operacion no deseada.

#### **▼** HomeLink Wireless Control System

#### ters of its account 191-1900 and ac-

This device examplies of the behalf rates part 12 and times atom. So sense, and beamoung Development Consider its S-210 experiation is subject to the following two conditions (11). This device may not accept an interference that pray be received including interference that may come much sixed experience W (RSISC). The transmitter loss has needed and complies with 60% and 181 B rules to barries of the transmitter loss has needed and complies with 60% and 181 B rules of the transmitter to proceeds approved by the party responsible for a copliance could widt the user's rulls (its corporate the Levice.)

This equipment complies with 100° and ISTO inhibition exposure hintle set forth for an imaging of the large moment. Find Theorem of follow, the specific upgrating instanctions for sujectiving RT exposure compliance. This transmitter must be at least 20 cm from the user and must not be specificated or operating in computation with any other angular and inframework.

#### 19.30 (Edge-Universit INED) Canada)

Cel appareal est conforme aux reglaments de la LOTE section 15, et 30 °NR-210 d'hims estima. Secondes et Developpement économique Clauda. Le touritoirement est assignt le aux deux conditions survantes. Et rest appareil ne doit pay enuser d'interférences univolves et 2 ce) appareil don récepter toute interference es expect, y compres celle qui pourrait entrainer un desfonctionness at MISTERS (AREST : L'enqueur à subside tests et est conforme aux reglements de la LOS et d'ISDE, Les changements ou modifications non appouve exploitement par la partie responsable de la promité pour autotre calique l'autorisation de l'utilisateur de se civin du dispositat.

Cat oppored est anniforme ou chimitas d'espoisition au crodutions de la FCC et d'ESINI opplics pour un oncremment non contrôle. Les utilisés uns finants doncent respecter les insuractions d'utilisés en spécifiques pour extistiure aux évigences de conformité aux évigositions de RF. L'envateur duit se troir et a Diem au minimum de l'utiliséteur et ne duit pas eux étues du même, endr et que con autre auctions on autenne miforacionnes avec un autre envelour ou autenne.

#### **Mexics**

The agent with removering promotion prior accompany for the control of the promotion of the promotion of payane a speak for the course interference interaction of the control of control of capabilities interaction in the control of the control o



## **Declaration of Conformity**

#### **▼** Radio System

FCC

NOTE Properly Unelded and counted cables and connectors must be used for connection to host computers. and for peripherals in order to meet FBC emission heits.

#### GAUTION:

Changer or monifications not expressly agreemed by the garry responsible for combinate could value the user's authority to operate the equipme of

#### **▼** Audio System

#### (U.S.A.)

#### NOTE:

Properly shielded and grounded cables and connectors must be used for connection to host computers and / or peripherals in order to meet PCCemission limits.

#### WARNING

RF Exposure This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). [But it is desirable that it should be installed and operated keeping the radiator at least 20cm or more away from person's body.] This transmitter must not be co-located or operated in conjunction with any other antenna or framm liter.

#### FCC CAUTION:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### (Canada)

#### NOTE:

This device complies with Industry Canada's applicable licence-exempt RSSs.

Operation is subject to the following two conditions: (1) This device may not cause interference and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :1) l'appareil ne doit pas produire de brouillage. 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### CAUTION

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency(RF) Exposure rules as this equipment has very low levels of RF energy. Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de TIC puisque cet appareil a une niveau tres bas d'energie RF.

## (Mesico)

La operación de este equipo está sujeta a las siguientes dos condiciones(1) es posible que este equipo o dispositivo no cause interferenciaperjudicial y(2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.



#### **▼** Data Communication System

#### U.S.A.



Radio Frequency Radiation Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body in normal use position.

#### Co-location

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### FCC

## **▲** WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Canada

Contains IC: 574B-DA39

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

CAUTION: Radio Frequency Radiation Exposure

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

#### Contient IC: 574B-DA39

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### ATTENTION: l'exposition aux rayonnements radiofréquence

 Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

#### **▼** Front Radar Sensor System

-USA/Canada Model: ARS4-B IC: 4135A-ARS4B FCC ID: GAYARS4B

This device complies with Part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- l'appareil ne doit pas produire de brouillage; et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement,

Radiofrequency radiation exposure Information:

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 30 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 30 cm de distance entre la source de rayonnement et votre corps.

#### FCC Notice

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### ▼ Front Side Radar Sensor System/Rear Side Radar Sensor System

#### -USA

FCC ID: OAYSRR3A

This device complies with Part 15 of the FCC Rules.

Operation is subject to thefollowing two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

#### CAUTION TO USERS

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Canada

IC:4135A-SRR3A

This device contains licence execut transmitter(st/receiver(s) that comply with immoration, Science and Economic Development Corodol of licence—exempt RSS(s).

Operation is subject to the following two conditions:

[1] This chroice may not since harmful interference.

[2] This device must appear usy interference, including interference that may coupe underlied operation of the device.

L'émetteur/récepteur exempt de licence pontenu dans le précent appareil est conforme aux CVII d'innovation. Sciences et Développement économique Coronts applicables aux appareils codin exempts, de la vace. L'exploitation est avrantaisée aux deux conditions suivantes :

- 1. L'appareil se doit pro produire de brouillage;
- L'appareil doit accepter tout brouitage a dioélectai que sului, même si le brouitage est ausceptible d'en compromettre le fonctionnement.

#### Podisfiesvency rediction inposive information:

This equipment compiles with cudiation expense or limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 20 cm between the codition and your badu.

#### informations our flespolition aux rayonnements rudiofréquençes:

Cet équipement est conforme aux limites d'exposition aux routmements définies pour un environnement nun comblé Cet équipement d'oit être installé et utilisé avec un minimum de 25 cm de distance entre la source de rayonnement et estre curps.

## **Declaration of Conformity**

### **▼** Charging

#### FCC Note

This device compiles with part 15 of the PCC Bules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### FCC Caution

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the ECC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generator, uses and can radiate radio frequency energy and, if not ristalled and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television recognion, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Recrient or relocate the receiving antenna.
- -increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.

# **9** Specifications

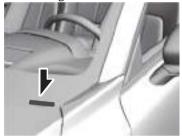
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## Vehicle Information Labels

#### **▼** Vehicle Identification Number

The vehicle identification number legally identifies your vehicle. The number is on a plate attached to the cowl panel located on the left corner of the dashboard. This plate can easily be seen through the windshield.



## **▼** Motor Vehicle Safety Standard Label



#### **▼** Chassis Number

Open the cover shown in the figure to check the chassis number.



**▼** Vehicle Emission Control Information Label



**▼** Tire Pressure Label



## Specifications

## **▼** Charge System

Item	Servicing data
Input power	110 - 240 V AC (single phase)
Rated frequency	60 Hz
Maximum rated electrical current	32 A (normal charge)
Maximum power consumption	7.68 kVA (normal charge)
Maximum charging current	100 A (quick charge)
Electrical leakage detection current for control box including genuine charge cable	5 mA
EV charge mode/Connection type	Normal charge: AC Level 1, AC level 2 Quick charge: CCS1 (Combo1)
Installation requirements (information on protection against short-circuit current and equipment protection)	Applicable laws and regulations, and standards must be followed for protection measures against over-current and over-voltage.  Always make sure to install appropriate over-current protection devices to the wiring of houses and buildings.
IP level	IP44: When charge connector is connected to charge inlet IP67: Charge cable
Operating temperature	Onboard charger: -30 °C (-22 °F) — 65 °C (149 °F) (coolant temperature). Performance degrades at 60 °C (140 °F) or higher Charge cable: -30 °C (-22 °F) — 50 °C (122 °F) (ambient temperature)
Storage temperature	Onboard charger: -40 °C (-40 °F) — 65 °C (149 °F) (coolant temperature), -40 °C (-40 °F) — 85 °C (185 °F) (ambient temperature)  Charge cable: Vehicle guaranteed temperature
Applicable standards	Onboard charger: EN/IEC 61851-1, EN/IEC 61851-21, EN/IEC 61851-23, UL 2202 Charge cable: NFPA 70, NFPA 79, SAE-J 1772, UL 62, UL 817, UL 2231-1, UL 2231-2, UL 2251, UL 2594, CSA C22.2 No.280-16
Adapters	Do not use an adapter on the charge plug and the charge connector.  Do not use an extension cable.

## **▼** High Voltage Battery

Item	Specification
Туре	Lithium-ion battery

Item	Specification
Temperature range	Operation guaranteed temperature: -30 °C (-22 °F) — 60 °C (140 °F)  Storage guaranteed temperature: -40 °C (-40 °F) — 70 °C (158 °F)

### **▼** Lead-acid Battery

Item	Specification
Lead-acid battery <sup>*1</sup>	12V-42Ah/20HR

<sup>\*1</sup> Check the battery installed on the vehicle and use a battery with an equal or higher performance. However, the performance of the battery may vary even among the same battery types, consult an Authorized Mazda Dealer for replacement.

### **▼** Lubricant Quality

Lubricant	Classification
Coolant	FL-22 type
EV Transaxle fluid	Mazda Original Oil ATF-FZ
Brake fluid	SAE J1703 or FMVSS116 DOT-3

### **▼** Capacities

#### (Approximate Quantities)

ltem	Capacity
Coolant	4.3 L (4.5 US qt, 3.8 Imp qt)
EV Transaxle fluid	1.55 L (1.64 US qt, 1.36 lmp qt)

Check oil and fluid levels with dipsticks or reservoir gauges.

#### **▼** Dimensions

Item	Vehicle specification
Overall length	4,393 mm (173.0 in)
Overall width	1,797 mm (70.7 in)
Overall height	1,574 mm (62.0 in)
Front tread	1,563 mm (61.5 in)
Rear tread	1,563 mm (61.5 in)
Wheelbase	2,653 mm (104.4 in)

### **▼** Weights

Item		Weight
GVWR (Gross Vehicle Weight Rating)		2,087 kg (4,601 lbs)
GAWR (Gross Axle Weight Rating)	Front	1,047 kg (2,308 lbs)
	Rear	1,042 kg (2,297 lbs)

#### **▼** Light Bulbs

#### **Exterior light/Interior light**

All the light bulbs are the LED type.

The LED bulb cannot be replaced. We recommend an Authorized Mazda Dealer when the replacement is necessary.

#### **▼** Tires

#### NOTE

The tires have been optimally matched with the chassis of your vehicle. When replacing tires, Mazda recommends that you replace tires of the same type originally fitted to your vehicle. For details, contact an Authorized Mazda Dealer.

Check the tire pressure label for tire size and inflation pressure.

· Refer to Tire Pressure Label on page 9-2.

#### Standard tire

Tire size	Inflation	Inflation pressure	
THE SIZE	Front	Rear	
215/55R18 95H M+S	250 kPa (36 psi)	250 kPa (36 psi)	

### Lug nut tightening torque

When installing a tire, tighten the lug nut to the following torque. 108—147 N·m (12—14 kgf·m, 80—108 ft·lbf)

#### **▼** Fuses

Refer to Fuses on page 6-27.

## **MEMO**

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