

## **Zoom-Zoom**

**All children instinctively know it.**

**A few adults still remember it.**

**One unique car company refuses to outgrow it.**

**In grown-up language, it means the exhilaration and**

**liberation that come from experiencing sheer motion.**

**But as usual, children put it much better and simply call it " Go Zoom-Zoom."**

**We practice it every day.**

**It's why we build the kind of cars we do.**

**Zoom-Zoom.**

**Can we re-awaken it in you today?**



# A Word to Mazda Owners

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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 North American Operations

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

Keep this manual in the glove box 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.

### **Event Data Recorder**

This vehicle is equipped with an event data recorder. In the event of a crash, this device records data related to vehicle dynamics and safety systems for a short period of time. These data can help provide a better understanding of the circumstances in which crashes and injuries occur and lead to the designing of safer vehicles.

### **Air Conditioning and the Environment**

Your Mazda's genuine air conditioner is filled with HFC134a (R134a), 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](http://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.**

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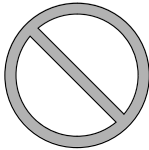
# How to Use This Manual

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We want to help you get the most driving pleasure from your vehicle. Your owner's manual, when read from cover to cover, 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.

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



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

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.

## **CAUTION**

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, 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.



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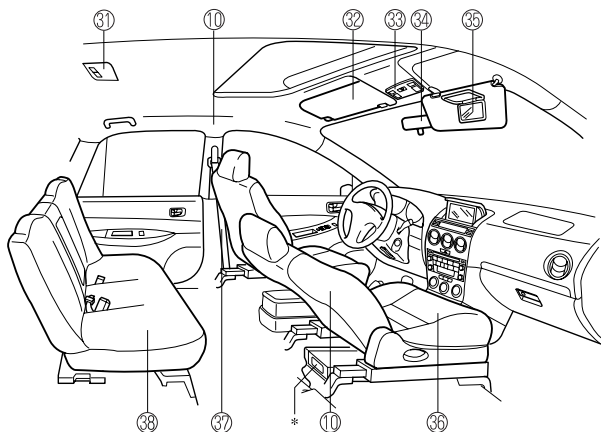
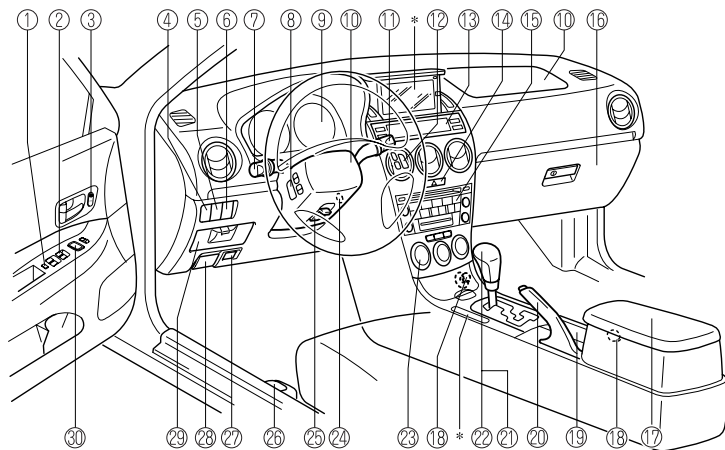
## Your Vehicle at a Glance

Interior, exterior views and part identification of your Mazda.

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# Dashboard and Interior Overview



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# Dashboard and Interior Overview

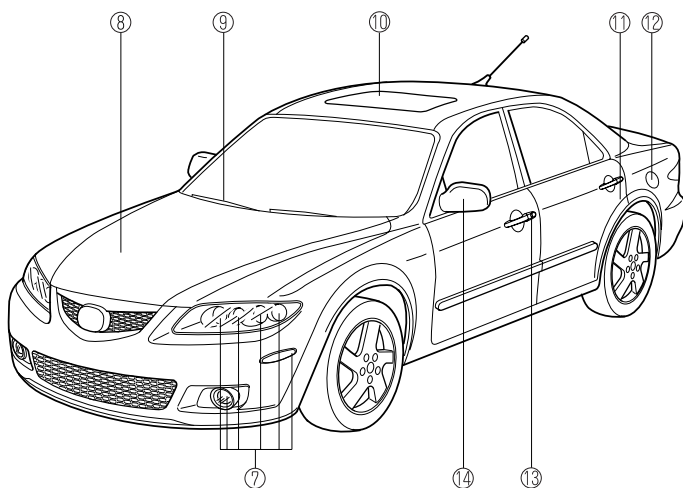
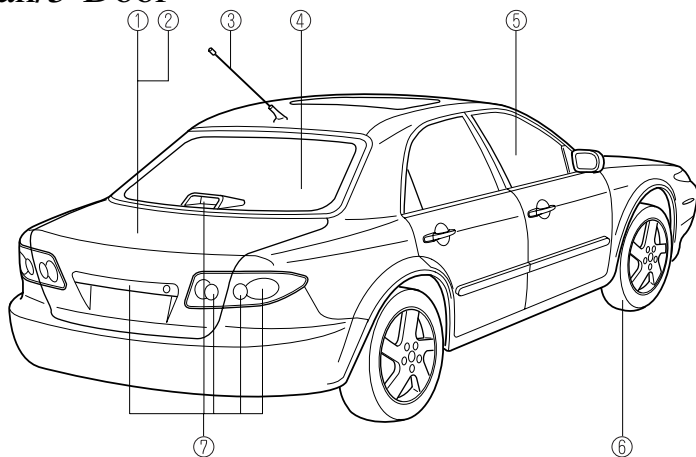
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### Sedan/5-Door



## Exterior Overview

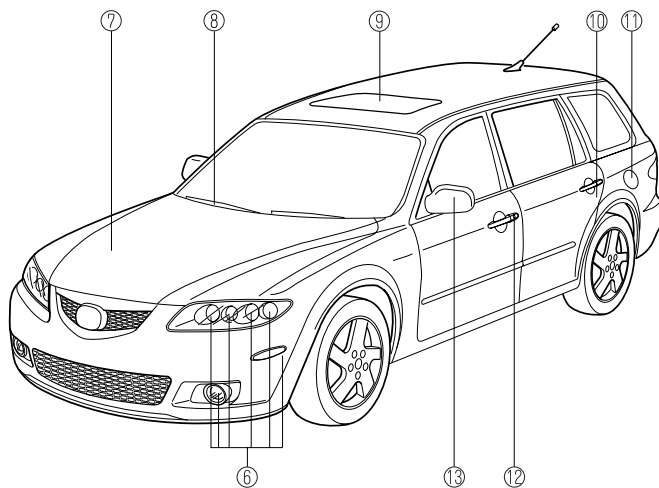
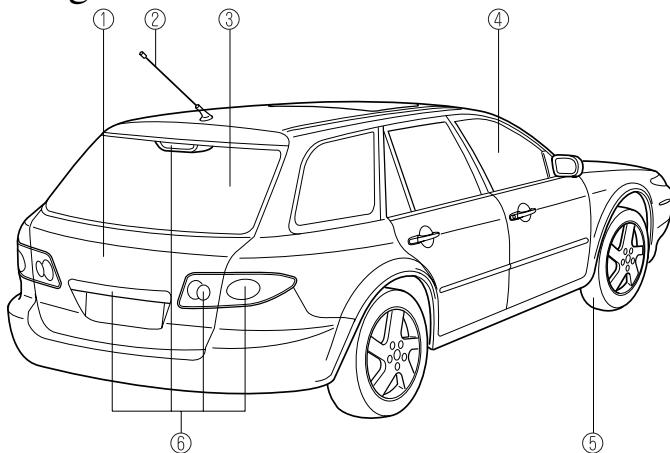
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# Exterior Overview

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## Exterior Overview

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# 2

## Essential Safety Equipment

Use of safety equipment, including seats, seat belt system, child-restraint systems and SRS air bags.

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## Seats

### Front Seats (Manually Operated Seats)

#### **⚠ WARNING**

**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 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.*

**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.*

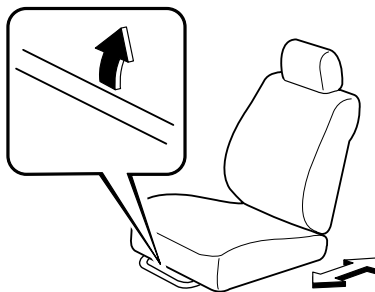
#### ▼ Seat Slide

#### **⚠ WARNING**

**Adjust the driver seat only when the vehicle is stopped:**

*Adjusting the driver's seat while the vehicle is moving is dangerous. The driver could lose control of the vehicle and have an accident.*

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.



### ▼ Seat Recline

#### **⚠ WARNING**

**Do not drive with the seats reclined:** *Sitting in a reclined position while the vehicle is moving is dangerous because you don't 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.*

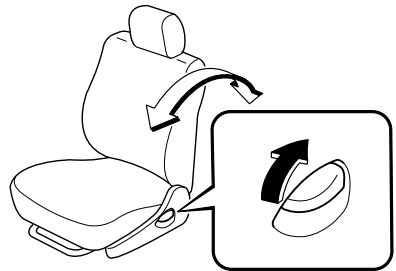
**Always sit in a passenger seat properly with the seatback upright and feet on the floor:**

*If your vehicle is equipped with front passenger seat weight sensors, sitting in the front passenger seat improperly out of position or with the seatback reclined too far while the vehicle is moving is dangerous as it can take off weight from the seat bottom and affect the weight determination of the front passenger sensing system. As a result the front passenger will not have the supplementary protection of the air bag and seat belt pretensioner, which could cause result in serious injury. Always sit upright against your seatback, with your feet on the floor.*

**Do not drive with the seatback unlocked:**

*The seatback plays 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.*

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.

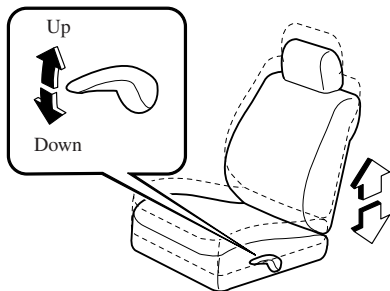
## Seats

### ⚠ CAUTION

*When returning a rear-reclined seatback to its upright position, make sure you hold onto the seatback with your other hand while operating the lever. If the seatback is not supported, it will flip forward suddenly and could cause injury.*

### ▼ Height Adjustment (Driver's Seat)

By moving the seat lever up or down, the seat bottom height can be adjusted.



### ▼ Head Restraint

### ⚠ WARNING

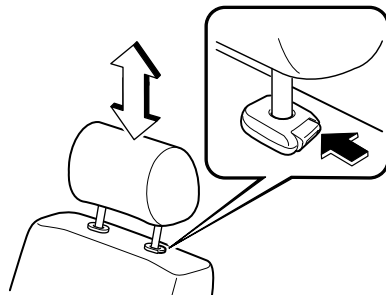
*Always drive with the head restraints installed when seats are being used and make sure they are properly adjusted:*

*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

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.

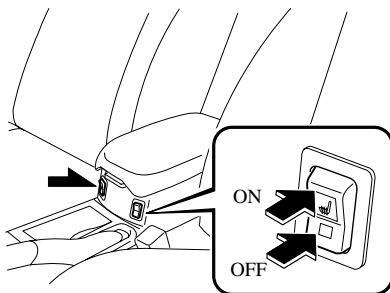


Adjust the head restraint so that the top is even with the top of the passenger's ears, never the passenger's neck to prevent injury.

### ▼ Seat Warmer\*

The front seats are electrically heated. The ignition switch must be in the ON position.

Press the switch to turn the seat warmer on or off. When the switch is in the ON position, the indicator light will come on.



**NOTE**

*The seat temperature is regulated automatically by a thermostat. Other than turning it on or off, it cannot be adjusted.*

**Front Seats (Electrically Operated Seats)****⚠ WARNING**

**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 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.*

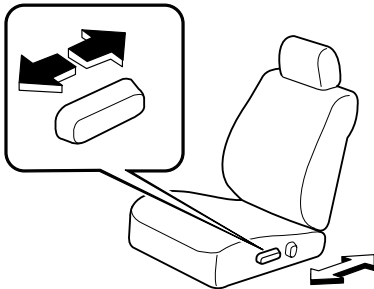
## Seats

### **CAUTION**

- 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 engine is stopped. The adjuster uses a large amount of electrical power.
- Don't use the switch to make more than one adjustment at a time.

### ▼ Seat Slide (Driver's Seat)

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.



### ▼ Seat Recline (Driver's Seat)

### **WARNING**

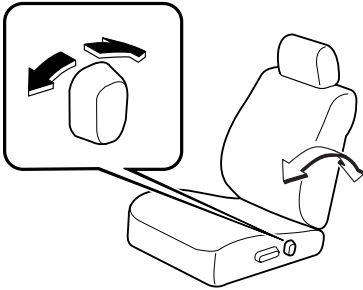
**Do not drive with the seats reclined:**

*Sitting in a reclined position while the vehicle is moving is dangerous because you don't 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.*

**Always sit in a front passenger seat properly with the seatback upright and feet on the floor:**

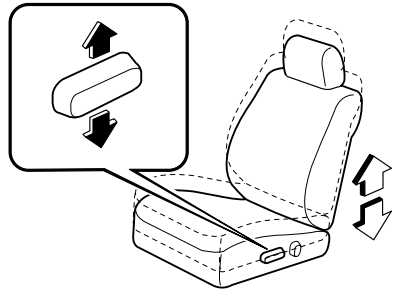
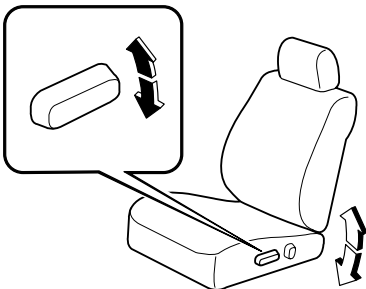
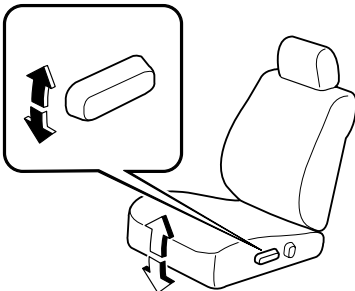
*If your vehicle is equipped with front passenger seat weight sensors, sitting in the front passenger seat improperly out of position or with the seatback reclined too far while the vehicle is moving is dangerous as it can take off weight from the seat bottom and affect the weight determination of the front passenger sensing system. As a result the front passenger will not have the supplementary protection of the air bag and seat belt pretensioner, which could cause result in serious injury. Always sit upright against your seatback, with your feet on the floor.*

Change the seatback angle by pressing the front or rear side of the reclining switch. Release the switch at the desired position.



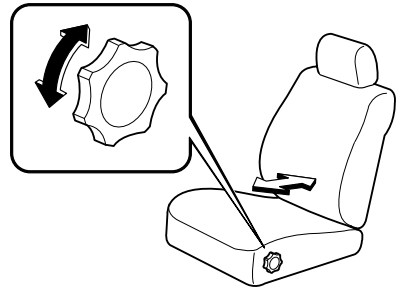
#### ▼ Height Adjustment (Driver's Seat)

The seat height can be adjusted by moving the switch up or down.



#### ▼ Lumbar Support Adjustment (Driver's Seat)

The amount of lumbar support can be adjusted by rotating dial.



#### ▼ Head Restraint

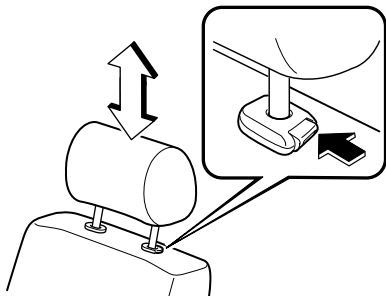
##### **⚠ WARNING**

**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.*

## Seats

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.

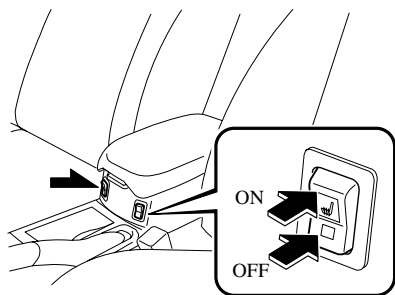


Adjust the head restraint so that the top is even with the top of the passenger's ears, never the passenger's neck to prevent injury.

### ▼ Seat Warmer\*

The front seats are electrically heated. The ignition switch must be in the ON position.

Press the switch to turn the seat warmer on or off. When the switch is in the ON position, the indicator light will come on.



### **NOTE**

*The seat temperature is regulated automatically by a thermostat. Other than turning it on or off, it cannot be adjusted.*

## Rear Seat

### **WARNING**

**Do not stack cargo higher than the seatbacks or place articles on the rear package tray or on the luggage compartment cover:**

*Stacking luggage or other cargo higher than the seatbacks, and placing articles on the rear package tray or on the luggage compartment cover 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.*

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

*Adjustable seats that are not securely locked are dangerous. In a sudden stop or collision, the seat or seatback could move, causing injury.*

**Do not drive with the seatback unlocked:**

*The seatback plays 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 returning the seatback at any time, even when there are no other passengers, rock the seatback to make sure it is locked in place.*

**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.*

**Never give the car keys to children and do not allow them to play in the vehicle:**

*Playing with the folding rear seats is dangerous. Once the seatbacks are back up, a child in the trunk would not be able to get out the way they had entered. If you have small children, keep the seatbacks locked (sedan).*

**Always leave your car locked and keep the car keys safely away from children:**

*Leaving your car unlocked or the keys in reach of children is dangerous. Children who find their way into the trunk through an unlocked rear seatback or an open trunk can become accidentally locked in the trunk. This could result in death or brain damage from heat prostration, particularly in the summer. Always lock the doors and the trunk, and as an added measure, keep the rear seatbacks locked, whether you have children in your home or not.*

## Seats

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### NOTE

When returning a rear seat to its original position, also replace the seat belt to its normal position. Verify that the seat belt pulls out and retracts.

### ▼ Split-Folding Rear Seatback (Sedan)

The seatbacks can be folded down to provide more space in the trunk.

#### To fold the seatbacks

### WARNING

**Always remove the child-restraint system from the rear seat before operating the remote handle levers for the rear seat:**

Operating the remote handle levers while a rear-facing child-restraint system is in the rear seat is dangerous. It could cause injury to a child seated in the child-restraint system when the seatback suddenly flips forward.

**Make sure there is nobody in the rear seat area before operating the remote handle levers:**

Not checking the rear seat area for persons before folding the seatbacks with the remote handle levers is dangerous. The rear seat area is difficult to see from the rear of the vehicle. Operating the remote handle levers without checking could cause injury to a person when a seatback suddenly flips forward.

### CAUTION

Before folding the seatbacks with the remote handle levers, make sure there is no cup in a rear cup holder. Folding the seatbacks with the remote handle levers while a cup is in the cup holder could soil or damage the seat bottom and seatback.

### CAUTION

Be careful of the following when using the remote handle levers:

- On a downward slope, the seatback could flip forward faster than on a flat area.
- On an upward slope, the seatback may not fold down. When the seatbacks cannot be folded down with levers, pull the rear seatback forward from inside the vehicle.

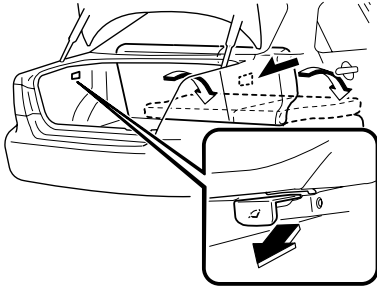
1. Unfasten the lap portion of the center-rear seat belt (page 2-23).

### CAUTION

Always unfasten the lap portion of the belt before folding left-rear seatback. Leaving the lap portion of the belt fastened could cause damage to the seat belt, buckle and seatback.



2. After checking that the rear seats are clear, open the trunk and pull the remote handle levers on the left and right side of the trunk.



### **To return the seatbacks to the upright position**

1. Lift the seatbacks upright.
2. Pull on the top of the seatbacks from inside the vehicle to make sure they are locked.
3. Fasten the center-rear lap/shoulder belt and check that all seat belts are routed properly for passenger use (page 2-23).

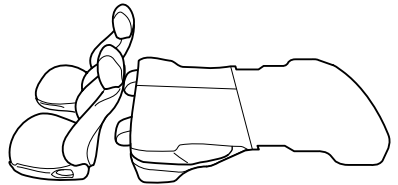
### **⚠ WARNING**

***Always make sure the seat belts are fully pulled out from under the seatbacks:***

*A seat belt caught under a seatback after the seatback is returned to its upright position is dangerous. In a collision or sudden stop, the seat belt cannot provide adequate protection.*

### **▼ Easy Fold Down Rear Seatbacks and Forward Slide Seat Bottom for Added Luggage Space (5-Door/Sport Wagon)**

The seatback can be folded down and the seat bottom slid forward to provide a flat surface extending from the back of the front seats to the rear of the vehicle for extra luggage space.



## Seats

### To fold down the rear seatbacks and slide forward seat bottoms

#### **! WARNING**

**Always remove the child-restraint system from the rear seat before operating the remote handle levers for the rear seat:**

Operating the remote handle levers while a rear-facing child-restraint system is in the rear seat is dangerous. It could cause injury to a child seated in the child-restraint system when the seatback suddenly flips forward.

**Make sure there is nobody in the rear seat area before operating the remote handle levers:**

Not checking the rear seat area for persons before folding the seatbacks with the remote handle levers is dangerous. The rear seat area is difficult to see from the rear of the vehicle. Operating the remote handle levers without checking could cause injury to a person when a seatback suddenly flips forward.

#### **! CAUTION**

Before folding the seatbacks with the remote handle levers, make sure there is no cup in a rear cup holder. Folding the seatbacks with the remote handle levers while a cup is in the cup holder could soil or damage the seat bottom and seatback.

**When using the remote handle levers:**

#### **! CAUTION**

*Be careful of the following when using the remote handle levers:*

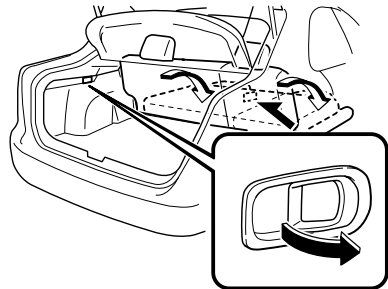
- *On a downward slope, the seatback could flip forward faster than on a flat area.*
- *On an upward slope, the seatback may not fold down. When the seatbacks cannot be folded down with levers, pull the rear seatback forward from inside the vehicle.*

1. Unfasten the lap portion of the center-rear seat belt (page 2-23).

#### **! CAUTION**

*Always unfasten the lap portion of the belt before folding left-rear seatback. Leaving the lap portion of the belt fastened could cause damage to the seat belt, buckle and seatback.*

2. After checking that the rear seats are clear, open the liftgate compartment and pull the remote handle levers on the left and right side of the liftgate compartment.



**When using the rear seatback knobs:****⚠ CAUTION**

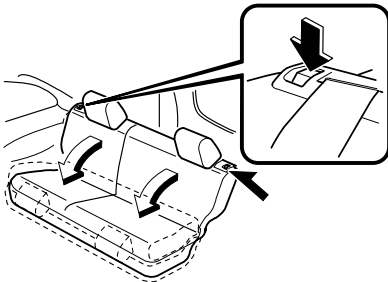
*When operating the rear seatback knob, make sure you support the seatback with your hand. If the seatback is not supported with your hand, it will flip forward suddenly and could cause injury to the finger that pushes the rear seatback knob down.*

1. Unfasten the lap portion of the center-rear seat belt (page 2-23).

**⚠ CAUTION**

*Always unfasten the lap portion of the belt before folding the rear-left seatback. Leaving the lap portion of the belt fastened could cause damage to the seat belt, buckle and seatback.*

2. Support the seatback with your hand.
3. Push the rear seatback knob down.

**To return the seatbacks to the upright position**

1. Lift the seatbacks upright.

2. Pull on the top of the seatbacks from inside the vehicle to make sure they are locked.
3. Fasten the center-rear lap/shoulder belt and check that all seat belts are routed properly for passenger use (page 2-23).

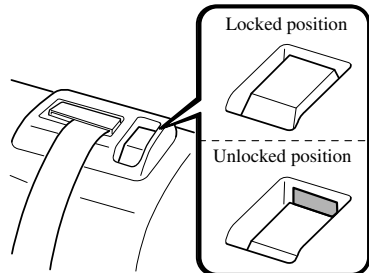
**⚠ WARNING**

**Always make sure the seat belts are fully pulled out from under the seatbacks:**

*A seat belt caught under a seatback after the seatback is returned to its upright position is dangerous. In a collision or sudden stop, the seat belt cannot provide adequate protection.*

**When returning the seatback to the upright position, make sure there is no red indication:**

*A rear seatback not fully returned and locked in the upright position is dangerous. Sudden stops or maneuvering could cause a seatback to flip forward suddenly resulting in injury. If the red indicator is visible on the back of the rear seatback knob, the seatback is not locked in the upright position.*



## Seats

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### ▼ Head Restraint (5-Door/Sport Wagon)

#### **⚠ WARNING**

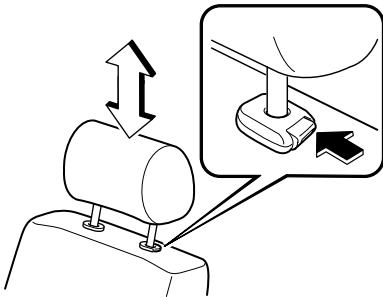
*Always drive with the head restraints installed when seats are being used and make sure they are properly adjusted:*

*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

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

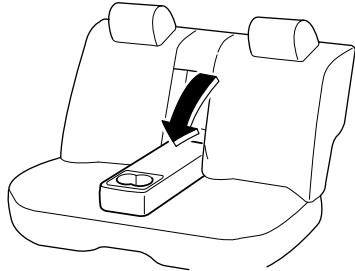
To lower the head restraint, press the stop-catch release, then push the head restraint down.



Adjust the head restraint so that the top is even with the top of the passenger's ears, never the passenger's neck to prevent injury.

### ▼ Armrest

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



## 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 of the seat belt retractors are designed to keep the lap/shoulder belts out of the way when not in use.

The driver's seat belt has no provisions for child-restraint systems and has only an emergency locking mode. The driver may wear it comfortably, and it will lock 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.

## Seat Belt Systems

---

### **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.

**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:**

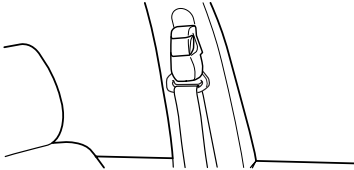
Using a damaged seat belt is dangerous. An accident could damage the belt webbing of the seat belt in use. A damaged seat belt cannot provide adequate protection in a collision. Have an Authorized Mazda Dealer inspect all seat belt systems in use during an accident before they are used again.

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

One or both front air bags may deploy, and the corresponding pretensioner(s) may also deploy at the same time. While it is safer to use a crash-used seat belt that was used in an accident than no seat belt at all, using a seat belt with an expended pretensioner or load limiter loaded reduces the safety available to you. Like the air bags, the seat belt pretensioners will only function once. After they are expended, they will not function again and must be replaced immediately. If the seat belt pretensioners are not replaced, the risk of injury in a collision will increase. Always have an Authorized Mazda Dealer inspect the seat belt pretensioners and air bags after any collision. Expended seat belt pretensioners and air bags must be replaced after any collision which caused them to deploy. Additionally, the load limiter will only limit loads on the chest once in a collision and this is another reason to have the front seat belts inspected.

**⚠ 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 "Cleaning the Lap/Shoulder Belt Webbing" (page 8-58).*



**▼ 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.

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**

In the emergency locking mode, the belt remains comfortable on the occupant and the retractor will lock in position during a collision. 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.

## Seat Belt Systems

---

### ▼ 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 2-29).



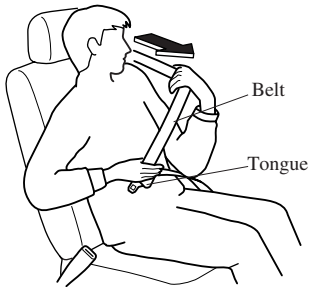
## Seat Belt (Except Center-Rear Position)

### NOTE

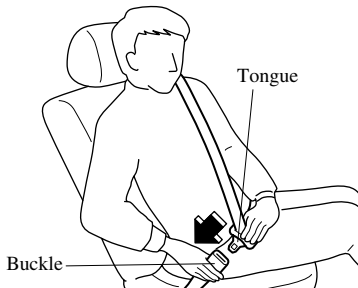
When using the center-rear seat belt, refer to "Center-Rear Position Seat Belt" (page 2-23).

### ▼ Fastening the Seat Belts

1. Grasp the tongue.
2. Slowly pull out the lap/shoulder belt.



3. Insert the tongue into the buckle until you hear a click.

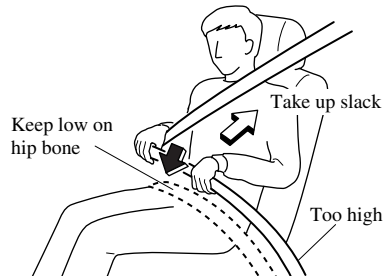


### ⚠ WARNING

#### 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.*

4. 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.



### ⚠ WARNING

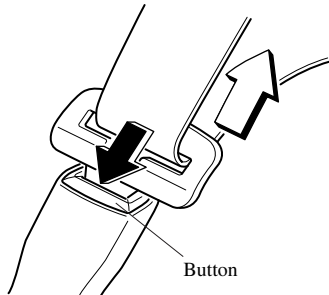
#### Positioning the Lap Portion of the Seat Belt:

*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.*

## Seat Belt Systems

### ▼ Unfastening the Seat Belts

Depress the button on the 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.

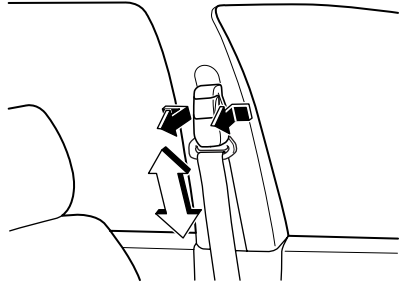


#### **NOTE**

*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.*

### ▼ Shoulder Belt Adjuster\*

Adjust the height of the shoulder belt if the seat belt touches your neck, or if it crosses your arm instead of your shoulder. To raise the shoulder belt adjuster, push the adjuster up. To lower the shoulder belt adjuster, pull the button and slide it down. Make sure the adjuster is locked.



#### **⚠ WARNING**

#### **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.*

## 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:**

In moderate or severe frontal or near-frontal accidents, the front air bag and pretensioner systems deploy simultaneously. The front seat belt retractors remove slack quickly as the air bags are expanding.

In addition, the pretensioner system for the front passenger, like the front passenger air bag, is designed to only deploy in accordance with the total seated weight on the front passenger seat. Any time the air bags and seat belt pretensioners have fired they must be replaced. For details, refer to the front passenger seat weight sensors (page 2-52).

### **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.

## **WARNING**

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

*Incorrect positioning of the driver and front passenger 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 belts" (page 2-19).*

## Seat Belt Systems

---

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

One or both front air bags may deploy, and the corresponding pretensioner(s) may also deploy at the same time. While it is safer to use a crash-used seat belt that was used in an accident than no seat belt at all, using a seat belt with an expended pretensioner or load limiter loaded reduces the safety available to you. Like the air bags, the seat belt pretensioners will only function once. After they are expended, they will not function again and must be replaced immediately. If the seat belt pretensioners are not replaced, the risk of injury in a collision will increase. Always have an Authorized Mazda Dealer inspect the seat belt pretensioners and air bags after any collision. Expended seat belt pretensioners and air bags must be replaced after any collision which caused them to deploy. Additionally, the load limiter will only limit loads on the chest once in a collision and this is another reason to have the front seat belts inspected.

**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. Ask an Authorized Mazda Dealer how to safely dispose of the pretensioner system or how to scrap a pretensioner-equipped vehicle.

### **NOTE**

- The pretensioner system will activate in a moderate or greater frontal or near-frontal collision. The pretensioner system for the front passenger is designed to only deploy in accordance with the total seated weight on the front passenger seat. It will not activate in most rollovers, side or rear impacts.
- 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 front pretensioner system gets on the skin or in the eyes, wash it off as soon as possible.

### ▼ Air Bag/Front Seat Belt Pretensioner Systems Warning Light



If the air bag/front seat belt pretensioner system is working properly, the warning light illuminates when the ignition switch is turned to the ON position or after the engine is cranked. The warning light turns off after a specified period of time.

A system malfunction is indicated if the warning light constantly flashes, constantly illuminates or does not illuminate at all when the ignition switch is turned to the ON position. If any of these occur, consult an Authorized Mazda Dealer as soon as possible. The system may not work in an accident.

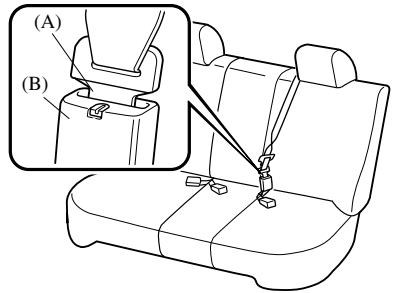
#### **⚠ WARNING**

***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.***

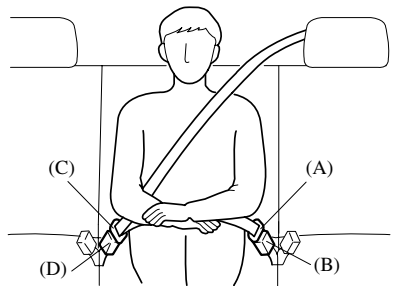
### Center-Rear Position Seat Belt

Before using the center-rear lap/shoulder belt make sure tongue (A) and anchor buckle (B) are fastened.



#### ▼ Fastening the Seat Belt

1. Grasp the tongue (C).
2. Slowly pull out the lap/shoulder belt.
3. Insert the tongue (C) into the buckle (D) until you hear a click.



## Seat Belt Systems

### **⚠ WARNING**

#### **Fastening the Center-Rear Seat Belt with Only One Buckle:**

Fastening the center-rear seat belt with only one buckle is dangerous. If only one pair of seat belt tongue and buckle, either tongue (A) and anchor buckle (B) or tongue (C) and anchor buckle (D), is fastened, the seat belt cannot provide full protection. In a sudden stop or collision, the user could slide under the belt and suffer serious injuries. Always make sure that both pairs of seat belt tongues and buckles are fastened properly.

#### **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.

4. 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.

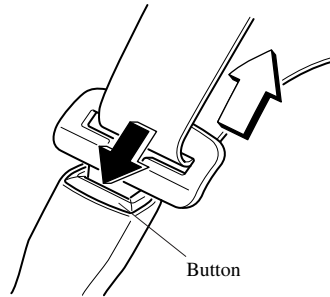
### **⚠ WARNING**

#### **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.

#### **▼ Unfastening the Seat Belt**

Depress the button on the 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.

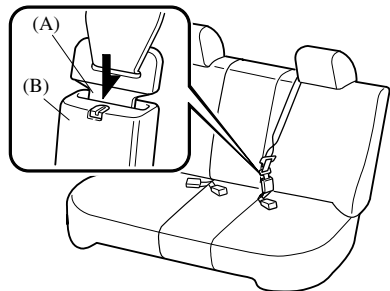


#### **NOTE**

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.

#### **▼ Unfastening the Lap Portion of the Seat Belt**

Insert a small object such as a key in the anchor buckle (B) slot.



**CAUTION**

Always unfasten the lap portion of the belt before folding the left-rear seatback. Leaving the lap portion of the belt fastened could cause damage to the seat belt, buckle and seatback.

**NOTE**

To encourage rear seat passengers to wear their seat belts, we suggest leaving the center-rear lap position of the belt fastened at all times except when folding the rear seat forward.

**▼ Fastening the Lap Portion of the Seat Belt**

Grasp tongue (A) and insert it into the anchor buckle (B) until you hear a click. It is now secure for passenger use.

**NOTE**

After returning the left-rear seatback to its upright position, fasten the lap portion of the belt.

**▼ Stowing and pulling out the Center-Rear Position Seat Belt**

The center-rear position seat belt can be stowed using the following procedure.

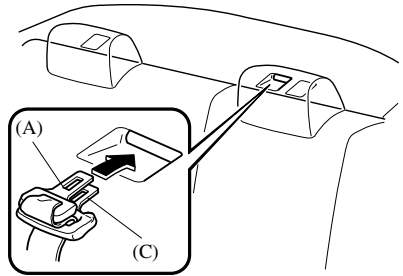
**CAUTION**

When stowing the seat belt, make sure the belt is locked securely into the recess. If the seat belt is not properly stowed, it might get caught in the seats and be damaged.

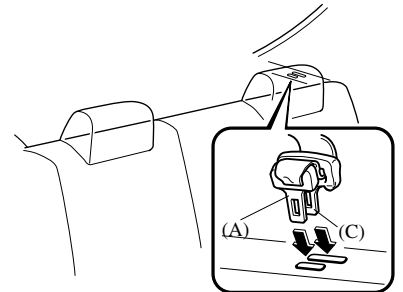
**Sedan/5-Door**

To stow the seat belt, retract the belt, put tongues (A) and (C) together and insert them into the recess.

**Sedan (Behind head restraint on left side)**



**5-Door (Left side of luggage compartment)**

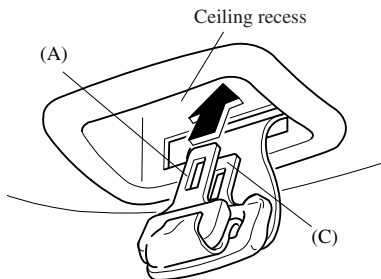


To pull out the seat belt, slide tongues with your finger, and slowly pull out the seat belt from the recess.

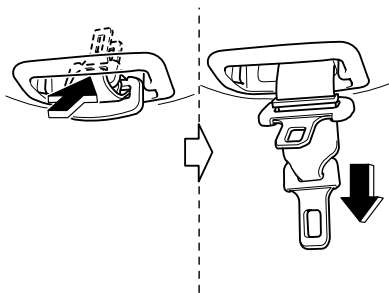
## Seat Belt Systems

### Sport Wagon

To stow the seat belt, retract the belt, put tongues (A) and (C) together and insert them into the ceiling recess.



To pull out the seat belt, slide tongue (A) with your finger while moving it downward, and slowly pull out the seat belt from the ceiling recess.



### 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.

**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 15cm (6 in).

**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.

# Seat Belt Systems

## Seat Belt Warning Light/Beep



The seat belt warning light illuminates and a beep sound will be heard if the driver's seat belt is not fastened when the ignition switch is turned to the ON position.

### Conditions of operation

Condition	Result
The driver's seat belt is not fastened when the ignition switch is turned to the ON position.	The warning light flashes and a beep sound will be heard for about 6 seconds.
The driver's seat belt is fastened while the warning light and the beep sound are activated.	The warning light turns off and the beep sound stops.
The driver's seat belt is fastened before the ignition switch is turned to the ON position.	The warning light will not illuminate and the beep sound will not be heard.

### ▼ Belt Minder

The belt minder is a supplemental warning to the seat belt warning function. If the driver's seat belt is not fastened when the ignition switch is turned to the ON position, the warning light/beep operates to give you further reminders according to the chart below.

Condition	Vehicle speed			
	Between 0 — 20 km/h (0 — 12 mph)		20 km/h (12 mph) or more	
Seat belt	○	×	○	×
Indicator		⚡		⚡
Beep				♪

- : Fastened
- ×
- ⚡ : Illuminated
- ⚡ : Flashing
- ♪ : Beep

Once the beep sound is heard, it continues sounding even if the vehicle speed lowers to 20 km/h (12 mph) or less until the seatbelt is fastened or the beep sound period has passed.

## 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 work as a part of the supplemental restraint system. This system deactivates the front passenger front and side air bags and also the front passenger seat belt pretensioner system when the total seated weight on the front passenger seat is less than approximately 30 kg (66 lb).

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 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 2-52).

## Child Restraint

---

### **! 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:**

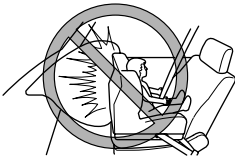
An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Make sure any child-restraint system is properly secured in place according to the child-restraint system manufacturer's instructions. When not in use, remove it from the vehicle or fasten it with a seat belt, or latch it down 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.



**Seating a child in a child-restraint system on the front passenger seat is dangerous:** Vehicles equipped with front passenger seat weight sensors are also equipped with a front passenger air bag deactivation indicator light (page 2-37). Even with the front passenger seat weight sensors, if you must use the front passenger seat for children, seating a child in 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 total seated weight of the child with the child-restraint system on the front passenger seat is approximately 30 kg (66 lb) or more with 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 push or pull down on the front passenger seatback.
- A rear passenger puts their feet on the front seat rails.
- 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.
- 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 to lean over or against the side window of a vehicle with side and curtain air bags:**

It is dangerous to allow anyone to lean over 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. If the vehicle is equipped with side and curtain air bags, the impact of inflation could cause serious injury or death to the child. Furthermore, leaning over or against the front door could block the side and curtain air bags and eliminate the advantages of supplemental protection. With the front air bag and the additional side air bag that comes out of the front seat, the rear seat is always a better location for children. Do not allow a child to lean over or against the side window, even if the child is seated in a child-restraint system.

## Child Restraint

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**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.*

**Always remove the child-restraint system from the rear seat before operating the remote handle levers for the rear seat:**

*Operating the remote handle levers while a rear-facing child-restraint system is in the rear seat is dangerous. It could cause injury to a child seated in the child-restraint system when the seatback suddenly flips forward.*

** 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 in the rear seat. When using these anchors to secure a child-restraint system, refer to "LATCH Child-Restraint Systems" (page 2-40).*

## 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.

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.

Even if your vehicle is equipped with front passenger seat weight sensors (page 2-52), 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 also employ specially designed LATCH attachments; refer to "LATCH Child-Restraint Systems" (page 2-40).

### **⚠ WARNING**

**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.*

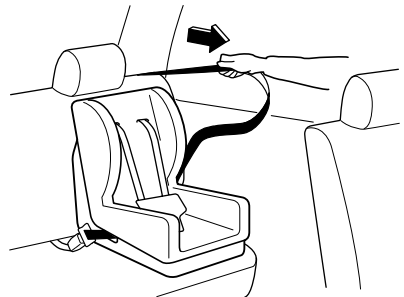
### ▼ Rear Outboard Seat Child-Restraint System Installation

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 "LATCH Child-Restraint Systems" (page 2-40).

#### **NOTE**

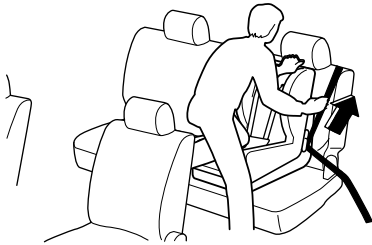
*Follow the child-restraint system manufacturer's instructions carefully. If you are not sure whether you have a LATCH system or tether, check in the child-restraint system manufacturer's instructions and follow them accordingly. Depending on the type of child-restraint system, it may not employ seat belts which are in automatic locking mode.*

1. Make sure the seatback is securely latched by pushing it back until it is fully locked.
2. 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.
3. 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.



## Child Restraint

4. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. Clicking 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.

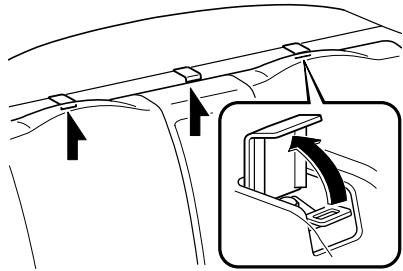


### NOTE

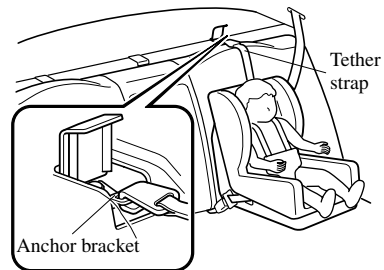
Inspect this function before each use of the child-restraint system. You should not be able to pull the shoulder belt out of the retractor while the system is in the automatic locking mode. When you remove the child-restraint system, be sure the belt fully retracts to return the system to emergency locking mode before occupants use the seat belts.

5. 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 after raising the head restraint (5-Door/Sport Wagon).

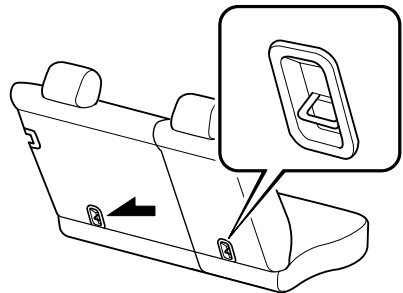
### Anchor bracket location (Sedan)



### Tether strap position (Sedan)



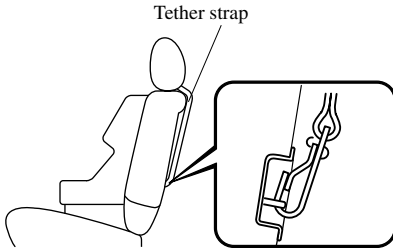
### Anchor bracket location (5-Door/Sport Wagon)





### **Tether strap position (5-Door/Sport Wagon)**

Route between head restraint upright.



### **⚠ 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 route the tether strap between the head restraint and the seatback (5-Door/Sport Wagon):**

Routing the tether strap on top of the head restraint is dangerous. In a collision the tether strap could slide off the head restraint and loosen the child-restraint system. The child-restraint system could move which may result in death or injury to the child.

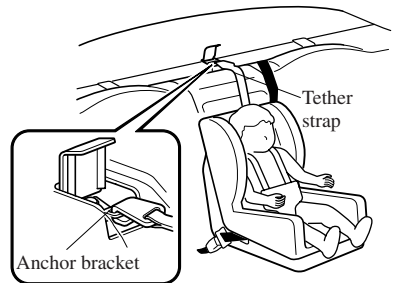
**Always attach the tether strap to the correct tether anchor position:**

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.

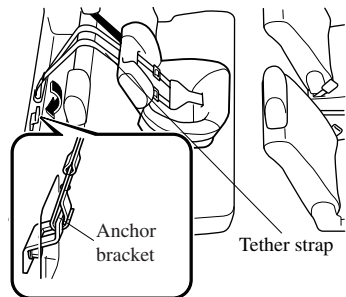
### **▼ Center-Rear Seat Child-Restraint System Installation**

1. Secure the child-restraint system with the seat belt, according to the manufacturer's instructions.
2. Secure the tether strap according to the child-restraint system manufacturer's instruction.

### **Tether strap position (Sedan)**

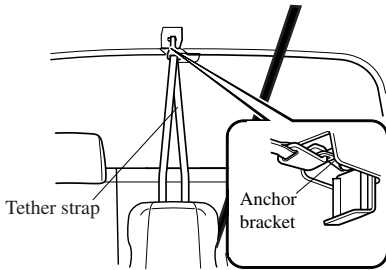


### **Tether strap position (5-Door)**



## Child Restraint

### Tether strap position (Sport Wagon)



### **! WARNING**

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

*Child-restraint system anchorages are designed to withstand only those loads imposed by correctly installed child-restraint systems. Under no circumstances are they to be used for adult seat belts, harnesses, or for attaching other items or equipment to the vehicle.*

**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.*

### ▼ 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, even with a seat weight sensor equipped vehicle.

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.

Don't allow anyone to sleep against the side window if you have an optional side and curtain air bag, 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.*

**⚠ WARNING**

**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 if 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.

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.

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

It is dangerous to allow anyone to lean over 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. If the vehicle is equipped with side and curtain air bags, the impact of inflation could cause serious injury or death to the child. Furthermore, leaning over or against the front door could block the side and curtain air bags and eliminate the advantages of supplemental protection. With the front air bag and the additional side air bag that comes out of the front seat, the rear seat is always a better location for children. Do not allow a child to lean over or against the side window, even if the child is seated in a child-restraint system.

**▼ Front Passenger's Seat Child-Restraint System Installation**

1. Slide the seat as far back as possible.



## Child Restraint

2. 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.
3. 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.
4. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. Clicking 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.*

5. Make sure the front passenger air bag deactivation indicator light illuminates after installing a child-restraint system on the front passenger seat. Refer to Front passenger air bag deactivation indicator light on page 2-52.



**⚠ 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 2-52). 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 even when the total seated weight is less than approximately 30 kg (66 lb), this means that the front passenger front and side air bags, and seat belt pretensioner 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.*

### LATCH Child-Restraint Systems

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems in the rear seat. 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:**

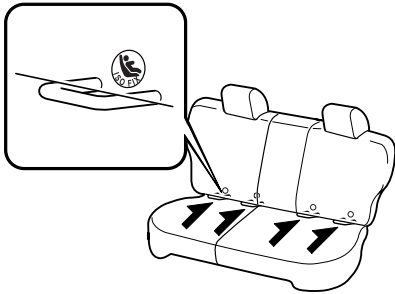
*An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Follow the child-restraint system manufacturer's instructions on belt routing to secure the seat just as you would with a child in it so that 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 latch it down 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.*

### ▼ LATCH Child-Restraint System Installation Procedure (Rear Outboard Seats)

1. Make sure the seatback is securely latched by pushing it back until it is fully locked.
2. Expand the area between the seat bottom and the seatback slightly to verify the locations of the LATCH lower anchors.

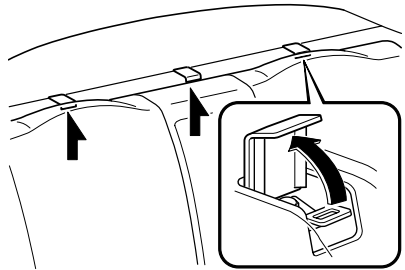


#### **NOTE**

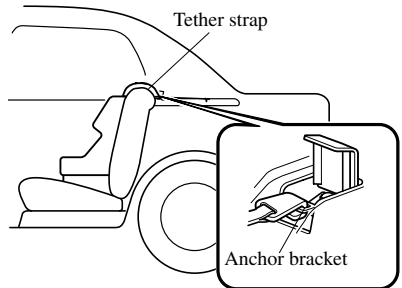
The markings above the LATCH lower anchors indicate the locations of LATCH lower anchors for the attachment of a child-restraint system.

3. Secure the child-restraint system using BOTH LATCH lower anchors, following the child-restraint system manufacturer's instruction.
4. If your child-restraint system came equipped with a tether, that probably 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.

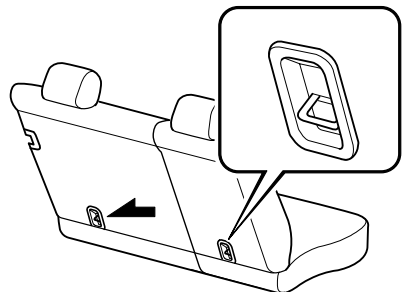
#### Anchor bracket location (Sedan)



#### Tether strap position (Sedan)



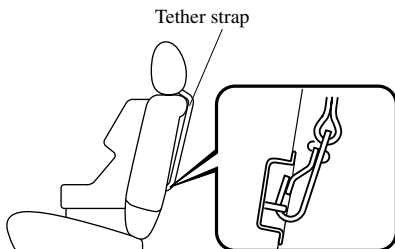
#### Anchor bracket location (5-Door/Sport Wagon)



## Child Restraint

### Tether strap position (5-Door/Sport Wagon)

Route between head restraint upright.



### **! 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 route the tether strap between the head restraint and the seatback (5-Door/Sport Wagon):**

*Routing the tether strap on top of the head restraint is dangerous. In a collision the tether strap could slide off the head restraint and loosen the child-restraint system. The child-restraint system could move which may result in death or injury to the child.*

**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.*

### ▼ LATCH Child-Restraint System Installation Procedure (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 466 mm (18.35 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 466 mm (18.35 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.



**⚠ WARNING**

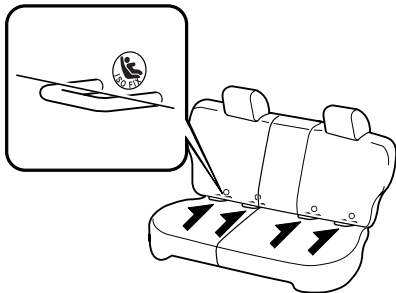
**Use the tether and tether anchor only for a child-restraint system:**

*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 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.*

1. Make sure the seatback is securely latched by pushing it back until it is fully locked.
2. Expand the area between the seat bottom and the seatback slightly to verify the locations of the LATCH lower anchors.

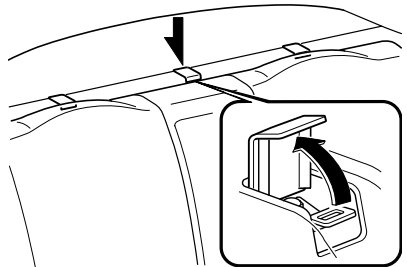


**NOTE**

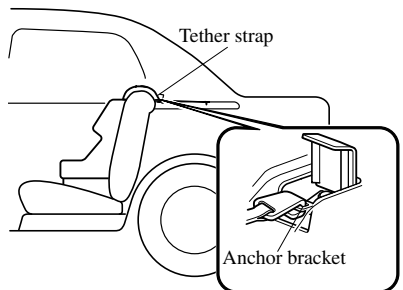
*The markings above the LATCH lower anchors indicate the locations of LATCH lower anchors for the attachment of a child-restraint system.*

3. Secure the child-restraint system using BOTH LATCH lower anchors, following the child-restraint system manufacturer's instructions.
4. If your child-restraint system came equipped with a tether, that probably 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.

**Anchor bracket location (Sedan)**



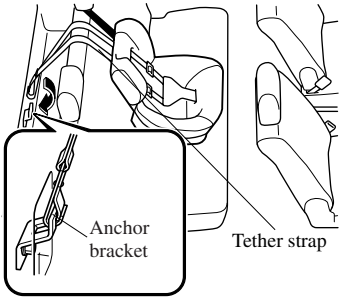
**Tether strap position (Sedan)**



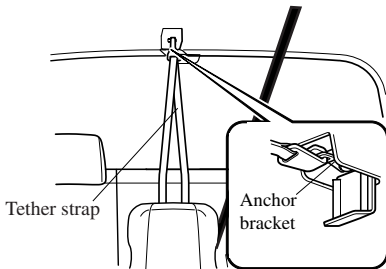
# Child Restraint

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## Anchor bracket location and tether strap position (5-Door)



## Anchor bracket location and tether strap position (Sport Wagon)



## Supplemental Restraint Systems (SRS) Precautions

The front and side supplemental restraint systems (SRS) include up to 6 air bags. **Please verify which kinds of air bags 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)
- 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)

These systems operate independently depending on the type of accident encountered; if you have side and curtain air bags, the side and curtain air bags are not likely to deploy on both sides in the same accident because a vehicle is not often hit from both sides. The side and curtain air bags and the frontal air bag system will not normally deploy during the same type of accident unless a combination of frontal and side impacts occur.

The air bag supplemental restraint systems are designed to provide supplemental protection only in the front seats in certain situations and the rear outside passenger positions only in same-side collisions, 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 roll-over or rear impact.
- Reduce the possibility of injuries in frontal or side collisions 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 because the air bags provide no protection to these parts of the body.
- Hold the driver in a position which allows better control of the vehicle.

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 2-29).

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.

### **! WARNING**

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

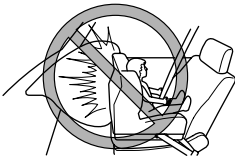
Depending only on the air bags for protection during an accident is dangerous. Alone, air bags may not prevent serious injuries. The appropriate air bags can be expected to inflate only in the first collision with frontal, near frontal or side forces that are at least moderate. Vehicle occupants should 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. Even if the front passenger air bag deactivation indicator light illuminates, always move the front passenger seat as far back as possible. A sleeping child is more likely to lean against the door and be hit by the side air bag in a moderate, right-side collision. Whenever possible, always secure a child 12 years and under on the rear seat 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 is extremely dangerous. The side air bags inflate with great force and speed directly out of the outboard side of the front seat and expand along the front 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. Furthermore, sleeping up against the door or hanging out the windows in the vehicle could block the side and curtain air bags and eliminate the advantages of supplemental protection. 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 driver and front passenger air bags deploy:**

Attaching an object to the driver and front passenger air bag modules or placing something in front of them is dangerous. In an accident, an object could interfere with air bag inflation and injure the occupants.

**Do not attach objects on or around the area where a side air bag deploys:**

Attaching things to the front seat in such a way as to cover the outboard side of the seat in any way is dangerous. In an accident the object could interfere with the side air bag, which inflates from the outboard side of the front seats, impeding the added protection of the side air bag system or redirecting the air bag in a way that is dangerous. Furthermore, the bag could be cut open releasing the gas.

Do not hang net bags, map pouches or backpacks with side straps on the front seats. Never use seat covers on the front seats. Always keep the side air bag modules in your front seats free to deploy in the event of a side collision.

**Do not attach objects on or around the area where a curtain air bag deploys:**

Attaching objects to the areas where the curtain air bag activates such as on the windshield glass, side door glass, front and rear window pillars and along the roof edge and assist grips is dangerous. In an accident the object could interfere with the curtain air bag, which inflates from the front and rear window pillars and along the roof edge, impeding the added protection of the curtain air bag system or redirecting the air bag in a way that is dangerous. Furthermore, the bag could be cut open releasing the gas.

Do not place hangers or any other objects on the assist grips. When hanging clothes, hang them on the coat hook directly. Always keep the curtain air bag modules free to deploy in the event of a side collision.

**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.

## SRS Air Bags

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### **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 resulting in incorrect or unexpected air bag deployment and the possibility of serious injuries.

### **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, the driver seat slide position sensor and front passenger seat weight sensors are not damaged and that the seats retain an undamaged air bag connection.

### **NOTE**

- *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.*

## Supplemental Restraint System Components

The supplemental restraint systems (SRS) have two basic subsystems:

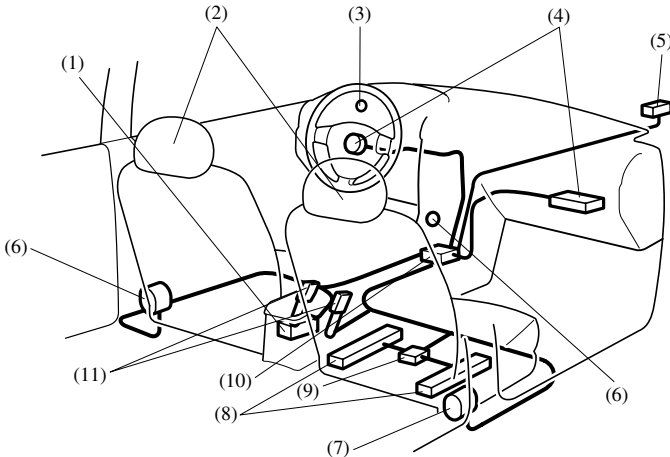
- The air bag system with inflators and air bags.
- The electrical system with crash sensors and diagnostic module.

The air bags are mounted in the following locations:

- The steering wheel hub
- The front passenger dashboard
- The outboard sides of the front seatbacks
- The front and rear window pillars, and the roof edge along both sides

The air bags are out of sight until activated.

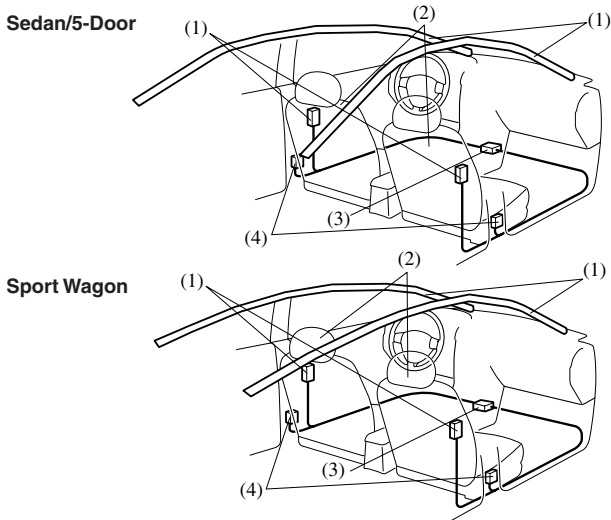
### ▼ Front Air Bag System Components



- (1) Driver seat slide position sensor (page 2-52)
- (2) Front seats
- (3) Air bag/front seat belt pretensioner system warning light (page 2-60)
- (4) Front dual stage inflators and air bags
- (5) Front air bag sensor
- (6) Front passenger air bag deactivation indicator light (page 2-52)
- (7) Front seat belt pretensioner and load limiting systems (page 2-21)
- (8) Front passenger seat weight sensors (page 2-52)
- (9) Front passenger seat weight sensor control module
- (10) Crash sensors and diagnostic module (SAS unit)
- (11) Driver and front passenger seat belt buckle switches (page 2-52)



▼ **Side and Curtain Air Bag System Components**



- (1) Side and curtain inflators and air bags
- (2) Front seats
- (3) Crash sensors and diagnostic module (SAS unit)
- (4) Side crash sensor

## How the Air Bags Work

### ▼ How the Front Air Bags Work

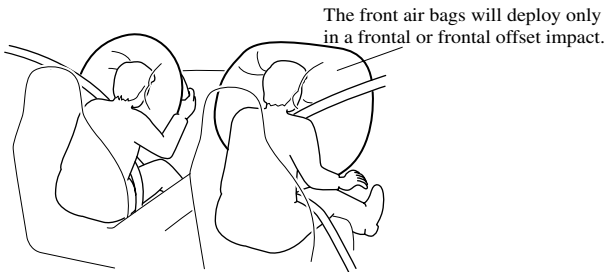
When air bag crash sensors detect a frontal impact of greater than moderate force, an electrical current is sent to the inflators.

Gases are produced to inflate the front air bags and after the inflation, the front air bags quickly deflate.

The front air bags will function only once. After that, **the front air bags will not work again and must be replaced.**

Only an Authorized Mazda Dealer can replace the system components.

The front, dual stage air bags control air bag inflation in two energy stages. During an impact of moderate severity the front air bags deploy with lesser energy, whereas during more severe impacts, they deploy with more energy. Deployment of the front air bags may differ between the driver and the front passenger depending on the driver seat position, front passenger weight and front seat belt usage, all of which provide data from each sensor to the air bag system.



### **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 also 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 the front passenger seat weight sensors (page 2-37). These sensors are located under both of the front passenger seat rails. These sensors determine the total seated weight on the front passenger seat. The SAS unit is designed to prevent the front passenger front and side air bags and seat belt pretensioner system from deploying if the total seated weight is less than approximately 30 kg (66 lb).

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 also the seat belt pretensioner system when:

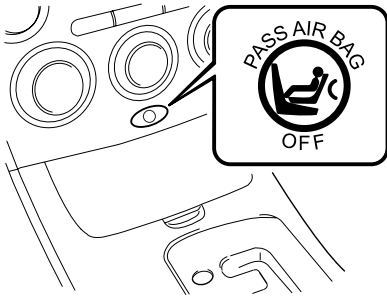
- There is no passenger in the front passenger seat. (The front passenger air bag deactivation indicator light does not illuminate.)
- The total seated weight on the front passenger seat is less than approximately 30 kg (66 lb). (The front passenger air bag deactivation indicator light illuminates.)

This system shuts off the front passenger front and side 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 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 seat belt pretensioner will not deploy during a collision.



If the front passenger weight sensors are working properly, the indicator light illuminates when the ignition switch is turned to the ON position. After a specified period of time it goes out.

**SRS Air Bags**

The front passenger air bag deactivation indicator light illuminates or is off under the following conditions:

Total seated weight on the front passenger seat	Front passenger air bag deactivation indicator light	Front passenger front and side air bags	Front passenger seat belt pretensioner system
Empty (Not occupied)*	OFF	Deactivated	Deactivated
Less than approx.30kg (66lb)	ON	Deactivated	Deactivated
Approx.42 kg (93lb) or more	OFF	Ready	Ready

\* If the front passenger seat belt is buckled, the front passenger air bag deactivation indicator light illuminates, however this does not indicate a malfunction.

Curtain air bag is ready for inflating despite the chart above.

If the front passenger air bag deactivation indicator light does not illuminate when the ignition switch is turned to the ON position and does not illuminate as indicated in the above 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.

### **WARNING**

**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 from the total seated weight of approximately 42 kg (93 lb) 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 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 from the total seated weight of approximately 42 kg (93 lb) could result in an air bag not deploying under the following conditions, for example:*

- *A rear passenger pushes up on the front passenger seat with the 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.*
- *The front passenger seat occupant sits in a manner that does not place the entire weight of the occupant on the seat such as by sitting too close to the door, grasping the assist grip or the rim of the moonroof and sitting with the seatback reclined too far.*
- *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 seat belt pretensioner systems will deactivate if the total seated weight on the front passenger seat is close to 30 kg (66 lb) and they will reactivate before the weight exceeds 42 kg (93 lb).*

**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 from the total seated weight of approximately 30 kg (66 lb) 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 seat belt pretensioner system in an accident and may cause serious injury. Increasing the total seated weight on the front passenger seat beyond the total seated weight of approximately 30 kg (66 lb) could result in the front passenger front and side 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.
- 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 the feet.
- 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.
- Any accessories which might increase 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 seat belt pretensioner systems will deactivate if the total seated weight on the front passenger seat is less than approximately 30 kg (66 lb) and they will reactivate when the weight exceeds approximately 42 kg (93 lb).

** 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.
  - 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 2-37).

### NOTE

- The system requires about 10 seconds to alternate between turning the front passenger front and side 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.
- If the front passenger air bag deactivation indicator light does not illuminate after installing a child-restraint system on the front passenger seat, install the child-restraint system on the rear seat and consult an Authorized Mazda Dealer as soon as possible.

### Driver and front passenger buckle switches

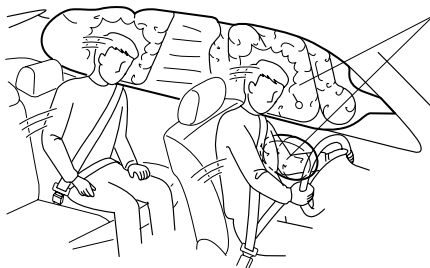
The buckle switches on the front seat belts detect whether or not the front seat belts are securely fastened and further control the deployment of the air bags.

### ▼ How the Side and Curtain Air Bags Work

When air bag crash sensors detect a side impact of greater than moderate force, an electrical current is sent to the inflators.

Gases are produced to inflate the side and curtain air bags and after the inflation, the side and curtain air bags quickly deflate. However, the side air bag system for the front passenger is designed to only deploy in accordance with the total seated weight on the front passenger seat.

The side and curtain air bags will function only once. After that, **the side and curtain air bags will not work again and must be replaced.** Only an Authorized Mazda Dealer can replace the systems.



The side and curtain air bag will deploy only on the side the vehicle receives the force of the impact.

## ▼ Air Bag Activation/Deactivation

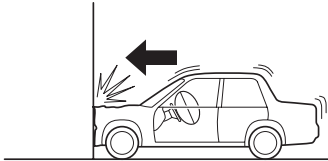
### **NOTE**

If the front passenger seat weight sensors detect a total seated weight on the front passenger seat is less than approximately 42 kg (93 lb), the front passenger front and side air bags and seat belt pretensioner may not deploy (page 2-52), but the curtain air bags may deploy.

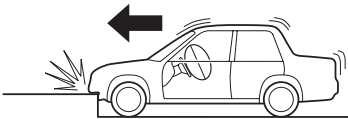
### **Front air bag activation**

The front air bags will inflate if the severity of impact is above the designed threshold level.

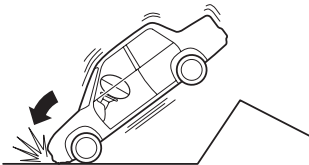
- Hitting a solid wall straight on at greater than about 22 km/h (14 mph).



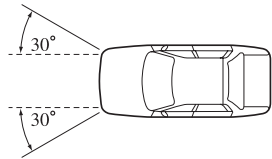
- Hitting a curb, pavement edge or hard object.



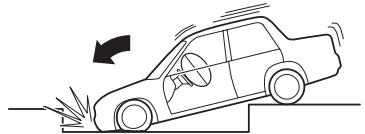
- Landing hard or the vehicle falling.



- Frontal impact within about a 30 degree range from head-on to the vehicle.



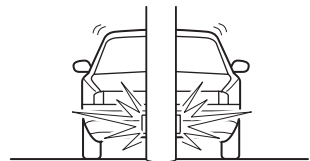
- Driving into a big hole or hitting the far side of a hole.



### **Limitations to front air bag activation**

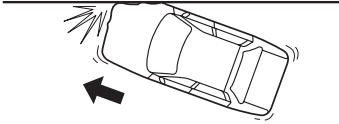
Depending on the severity of impact, the front air bags may not inflate in the following cases:

- Impacts involving trees or poles cause severe cosmetic damage but may not have enough stopping force to activate the air bag.

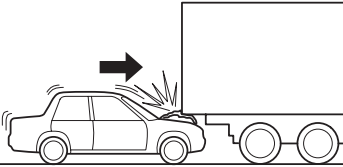


## SRS Air Bags

- Frontal offset impact to the vehicle may not provide the stopping force necessary for air bag deployment.



- Rear-ending or running under a truck's tail gate may not provide the stopping force necessary for air bag deployment.



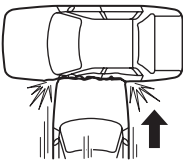
### Non-activation of front air bags

Front air bags will not normally inflate in the following cases:

- Collision from the rear.



- Impact to the side, but it may deploy the side and curtain air bags.

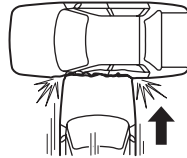


- Vehicle roll-over, may deploy the side and curtain air bags but not the front air bags.



### Side and curtain air bag activation

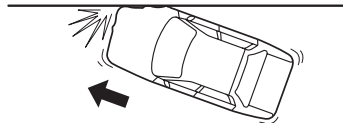
The severity of impact above the designed threshold level to one side of the vehicle (driver or passenger side areas) will cause the side and curtain air bags on that side to inflate, but it will not normally deploy the front air bags.



### Limitations to side and curtain air bag activation

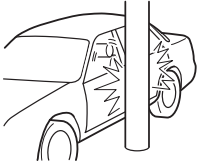
Depending on the severity of impact, the side and curtain air bags may not inflate in the following cases:

- Frontal offset impact may not provide enough side impact to deploy the side and curtain air bags.





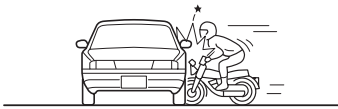
- Side impacts involving trees or poles can cause severe cosmetic damage but may not have enough impact force to activate the side and curtain air bags.



- Vehicle roll-over may not provide enough side force to deploy the side and curtain air bags.



- Side impacts with two-wheeled vehicles may not provide enough force to deploy the side and curtain air bags.



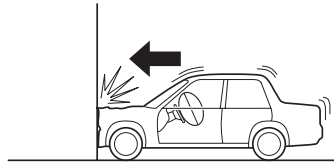
### **Non-activation of side and curtain air bag**

The side and curtain air bags will not normally inflate in the following cases:

- Collision from the rear.



- Collision from the front, but it may deploy the front air bags.



### **▼ Constant Monitoring**

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

- SAS unit
- Front air bag sensor
- Air bag modules
- Side crash sensors
- Air bag/Front seat belt pretensioner system warning light
- Front seat belt pretensioners
- Front passenger air bag deactivation indicator light
- Related wiring
- Driver seat slide position sensor
- Front passenger seat weight sensors
- Driver and front passenger seat belt buckle switches

## SRS Air Bags

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The diagnostic module continuously monitors the system's readiness. This begins when the ignition switch is turned to the ON position and continues while the vehicle is being driven.

### ▼ Air Bag/Front Seat Belt Pretensioner System Warning Light



If the air bag/front seat belt pretensioner system is working properly, the warning light illuminates when the ignition switch is turned to the ON position or after the engine is cranked. The warning light turns off after a specified period of time.

A system malfunction is indicated if the warning light constantly flashes, constantly illuminates or does not illuminate at all when the ignition switch is turned to the ON position. If any of these occur, consult an Authorized Mazda Dealer as soon as possible. The system may not work 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.*

### ▼ Maintenance

The air bag systems do not require regular maintenance. But if any of the following occurs, take your vehicle to an Authorized Mazda Dealer as soon as possible:

- The air bag system warning light flashes.
- The air bag system warning light remains illuminated.
- The air bag system warning light does not illuminate when the ignition switch is turned to the ON position.
- The air bags have deployed.
- Front passenger air bag deactivation indicator light does not illuminate when the ignition switch is turned to the ON position or does not illuminate as indicated in the chart. For more details about this indicator light and this chart, refer to “Front passenger seat weight sensors” (page 2-52).

**⚠ WARNING**

**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.

**Dispose of the air bag properly:**

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 can result. Ask an Authorized Mazda Dealer how to safely dispose of an air bag or how to 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 9-2).*



# 3

## Knowing Your Mazda

Explanation of basic operations and controls; opening/closing and adjustment of various parts.

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## Doors and Locks

### Keys

#### **WARNING**

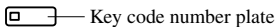
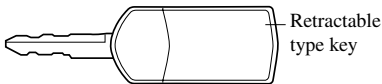
**Do not leave the keys in your vehicle with children and keep them in a place where your children will not find or play with them:**

Leaving children in a vehicle with the key is dangerous. This could result in someone being badly injured or even killed. These new kinds of keys are fascinating to children. They could play with power windows or other controls, or even make the vehicle move.

#### **NOTE**

- Refer to Immobilizer System (page 3-33) for information regarding keys and engine starting.
- (With theft-deterrent system)**  
Refer to Theft-Deterrent System (page 3-35) for information regarding keys and the prevention of vehicle and vehicle contents theft.

The keys operate all locks.



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.

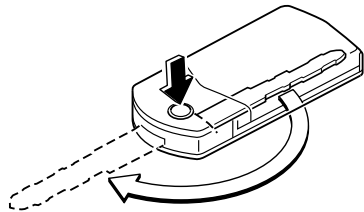
#### **NOTE**

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

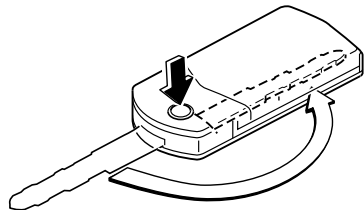
If your key is lost, consult your Authorized Mazda Dealer and have your code number ready.

#### **Key extend/retract method (Retractable type key)**

To extend the key, press the release button.



To retract the key, rotate it into the holder while pressing the release button.



## Keyless Entry System

This system remotely locks and unlocks the doors and the hatch/liftgate, and opens the trunk lid, and opens the power windows.

It can also help you signal for attention. Press the buttons slowly and carefully.

### CAUTION

To avoid damage to the transmitter, do not:

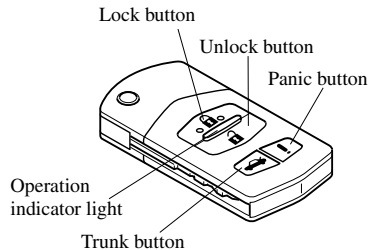
- Drop the transmitter.
- Get the transmitter wet.
- Disassemble the transmitter.
- Expose the transmitter to any kind of magnetic field.
- Expose the transmitter to high temperatures on places such as the dashboard or hood, under direct sunlight.

### NOTE

- The keyless entry system is designed to operate up to about 2.5 m (8 ft) from the center of the vehicle, but this may vary due to local conditions.
- The system doesn't operate when the key is in the ignition switch.
- Doors and the hatch/liftgate can be locked by pressing the lock button while any other door or the hatch/liftgate/trunk lid is open. However, the hazard warning lights will not flash.
- If the transmitter does not operate when pressing a button or the operation range becomes too small, the battery may be dead. To install a new battery, refer to Maintenance (page 3-5).
- Additional transmitters can be obtained at an Authorized Mazda Dealer. Up to 3 transmitters can be used with the keyless entry system per vehicle. Bring all transmitters to an Authorized Mazda Dealer when additional transmitters are required.

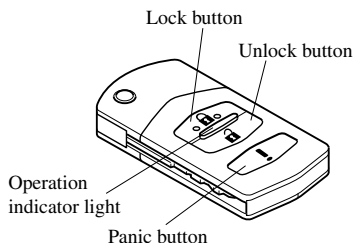
### ▼ Transmitter

#### Sedan



## Doors and Locks

### 5-Door/Sport Wagon



#### NOTE

##### • (U.S.A.)

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.

##### • (CANADA)

This device complies with RSS-210 of Industry CANADA. 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.

#### NOTE

The unlock button can be used to open the power windows, but the lock button cannot be used to close the power windows. Refer to *Opening/Closing the Power Windows from Outside* (page 3-27).

The operation indicator light flashes when the buttons are pressed.

### Lock button

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

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

#### NOTE

- **(Without theft-deterrent system)**  
The hazard warning lights will flash once to indicate that all doors and the hatch/liftgate are locked.
- **(With theft-deterrent system)**
  - The hazard warning lights will not flash.
  - The hazard warning lights only flash when the theft deterrent system is armed or turned off, refer to the theft-deterrent system (page 3-35).

#### NOTE

- All doors and the hatch/liftgate cannot be locked when the key is in the ignition switch.
- Confirm that all doors and the hatch/liftgate are locked visually or audibly by use of the double click.

### Unlock button

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

To unlock all doors and the hatch/liftgate, press the unlock button again within 5 seconds.



**NOTE****(Without theft-deterrent system)**

The hazard warning lights will flash twice to indicate that all doors and the hatch/liftgate are unlocked.

**(With theft-deterrent system)**

- The hazard warning lights will not flash.
- The hazard warning lights only flash when the theft deterrent system is armed or turned off, refer to the theft-deterrent system (page 3-35).

**NOTE****Auto re-lock function**

After unlocking with the transmitter, all doors and the hatch/liftgate will automatically lock if one of the doors or the hatch/liftgate/trunk lid is not opened within about 30 seconds.

**Trunk button**

To open the trunk, press and hold the trunk button until the trunk lid opens.

**Panic button**

If you witness from a distance someone attempting to break into or damage your vehicle, pressing the panic button will activate the vehicle's alarm.

**NOTE**

The panic button will work whether any door or the trunk lid 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**

Press any button on the transmitter.

**▼ Transmitter Maintenance**

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.

**⚠ CAUTION**

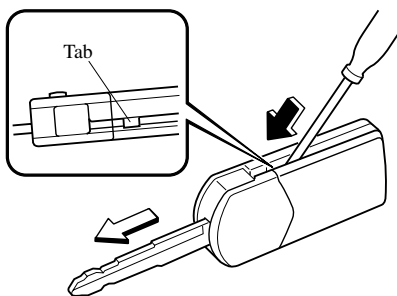
- Install the battery with the positive pole (+) facing down. Battery leakage could occur if it is not installed correctly.
- When replacing the battery, be careful not to bend the electrical terminals or get oil on them. Also be careful not to get dirt in the transmitter as it could be damaged.
- There is the danger of explosion if the battery is not correctly replaced.
- Replace only with the same type battery (CR1620 or equivalent).
- 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 and/or water.
  - Never deform or crush.

**Replacing the transmitter battery**

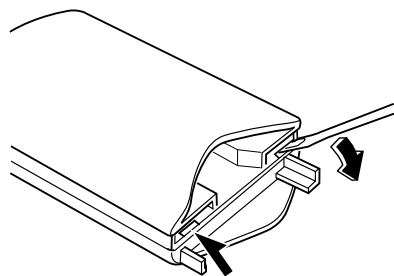
1. Unfold the key (page 3-2).

## Doors and Locks

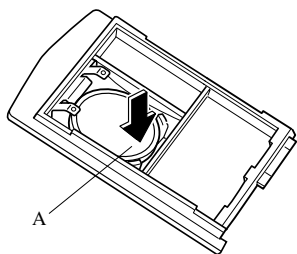
2. Insert a small screwdriver into the slot and push the tab to remove the key from the transmitter.



3. Insert a small screwdriver into the slot and gently pry open the transmitter.



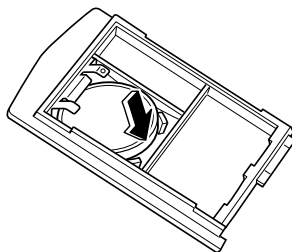
4. Press the portion of the battery indicated by A and remove the battery.



### NOTE

*If it is difficult to remove the battery by pressing with a finger, use a small screwdriver to press out the battery.*

5. Put in the new battery (CR1620 or equivalent) with the positive pole (+) facing down.



6. Align the front and back covers and snap the transmitter shut.

7. Install the key to the transmitter.

### ▼ Service

If you have a problem with the keyless entry system, consult an Authorized Mazda Dealer.

If your transmitter is lost or stolen, bring all remaining transmitters to an Authorized Mazda Dealer as soon as possible for a replacement and to make the lost or stolen transmitter inoperative.

**⚠ 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.*

**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 keys 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. They could play with power windows or other controls, or even make the vehicle move.*

***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.*

## Doors and Locks

**Always close all the windows, lock the doors and take the key with you when leaving your vehicle unattended:**

*(Except sedan)*

*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.*

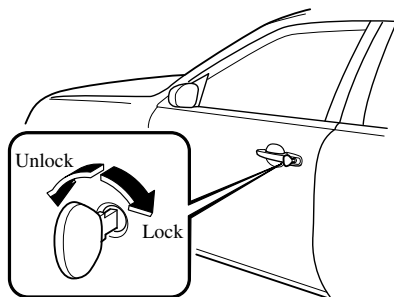
*(Sedan)*

*Leaving your vehicle unlocked is dangerous as children could lock themselves in a hot vehicle, or become trapped by climbing into the trunk, which could result in death. Also, a vehicle left unlocked becomes an easy target for thieves and intruders.*

### ▼ Locking, Unlocking with Key

The driver's door can be locked/unlocked with the key.

Turn the key toward the front to unlock, toward the back to lock.



### ▼ Locking, Unlocking with Transmitter

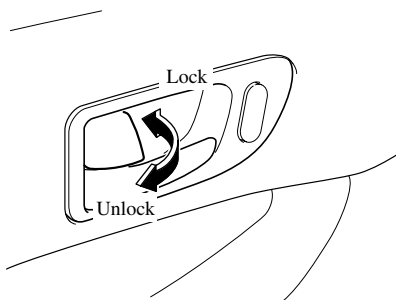
The doors can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-3).

### ▼ Locking, Unlocking with Door-Lock Knob

To lock any door from the inside, push the door-lock knob.

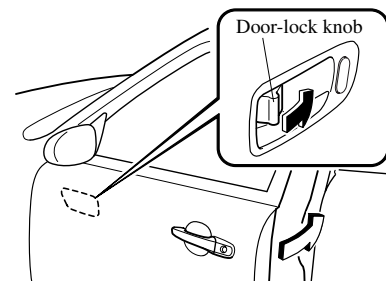
To unlock, pull it out.

This does not operate the other door locks.



To lock any door with the door-lock knob from the outside, push the door-lock knob to the lock position and close the door.

This does not operate the other door locks.



**NOTE**

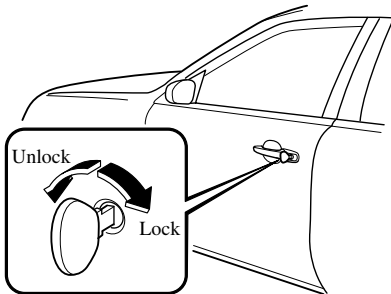
- Lockout prevention keeps you from locking the driver's door with the key in the ignition switch.
- If you try to lock the driver's door when the key is in the ignition switch and any door is open, the door lock immediately unlocks.
- When locking the doors this way, be careful not to leave the key inside the vehicle.

**▼ Power Door Locks****Vehicle lock-out prevention**

The vehicle lock-out prevention feature prevents you from locking yourself out of the vehicle. With the key in the ignition switch, all doors and the hatch/liftgate will automatically unlock if they are locked using the power door locks with any door open.

**Locking, unlocking with key**

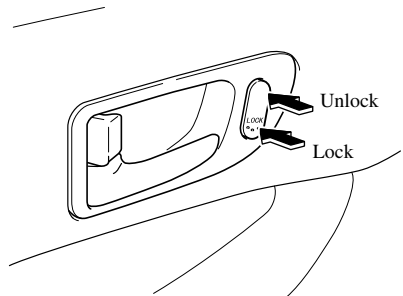
All doors and the hatch/liftgate lock automatically when the driver's door is locked with the key. All doors and the hatch/liftgate unlock when the driver's door is unlocked and the key is held in the unlock position for one second or longer.

**NOTE**

Holding the key in the unlocked position in the driver's door lock for about a second unlocks all doors and the hatch/liftgate. To unlock only the driver's door, insert the key into the driver's door lock and turn the key briefly to the unlock position and then immediately return it to the center position.

**Locking, unlocking with door-lock switch**

All doors and the hatch/liftgate lock automatically when LOCK is pushed. They all unlock when the unmarked part of the door-lock switch is pushed.

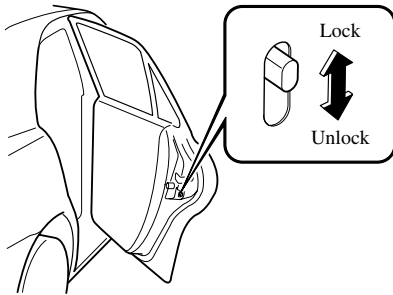


## Doors and Locks

### ▼ Rear Door Child Safety Locks

These locks are intended to help prevent children from accidentally opening the rear doors. Use them both whenever a child rides in the vehicle.

If you slide the child safety lock to the lock position before closing that door, the door cannot be opened from the inside. The door can be opened only by pulling the outside handle.



### Hatch (5-Door)

#### **⚠ WARNING**

**Never allow a person to ride in the hatch area:**

*Allowing a person to ride in the hatch area is dangerous. The person in the hatch area could be seriously injured or killed during sudden braking or a collision.*

**Keep the hatch closed when driving:**

*Exhaust gas entering the cabin of a vehicle through an open hatch is dangerous. This gas contains CO (carbon monoxide), which is colorless, odorless, and highly poisonous. If inhaled, it can cause loss of consciousness and death.*

### ▼ Locking, Unlocking with Key

The hatch can be locked/unlocked by inserting the key into the driver's door key slot, refer to Power Door Locks (page 3-9).

### ▼ Locking, Unlocking with Transmitter

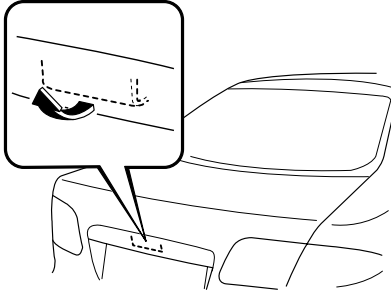
The hatch can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-3).

### ▼ Locking, Unlocking with Door-Lock Switch

The hatch can be locked/unlocked by operating the door-lock switch, refer to Power Door Locks (page 3-9).

### ▼ Opening and Closing the Hatch

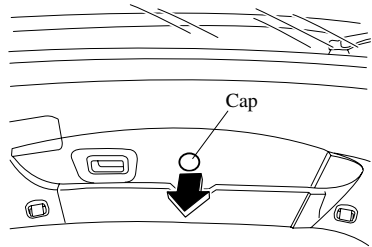
To open the hatch, pull up on the handle.



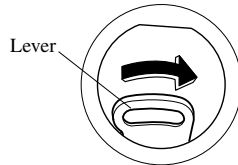
### NOTE

*If the vehicle battery is dead or there is a malfunction in the electrical system and the hatch cannot be unlocked, perform the following manual procedure as an emergency measure to unlock it:*

1. Remove the cap on the interior surface of the hatch with a flathead screwdriver.



2. Turn the lever to the right to unlock the hatch.



*After performing this emergency measure, have the vehicle inspected at an Authorized Mazda Dealer as soon as possible.*

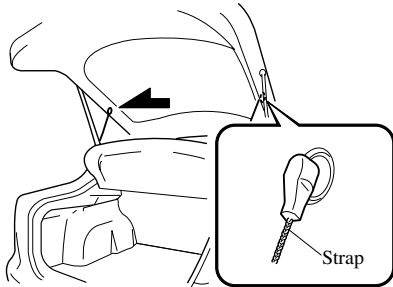
To close, use both hands to push the hatch down until the lock snaps shut. Do not slam it. Pull up on the hatch to make sure it is secure.

## Doors and Locks

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### ▼ Luggage Strap

The luggage compartment can be accessed by opening the hatch when the straps are attached to the sides of the hatch.



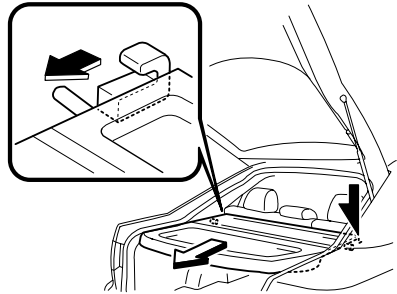
### ▼ Luggage Compartment Cover

#### **⚠ WARNING**

*Don't 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.*

This cover can be removed for more room. To do this, just unfasten the straps; then lift and pull it out.





## Liftgate (Sport Wagon)

### **⚠ 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 drive with the liftgate open:**

*Exhaust gas in the cabin of a vehicle is dangerous. An open liftgate in a moving vehicle will cause exhaust gas to be drawn into the cabin. This gas contains CO (carbon monoxide), which is colorless, odorless, and highly poisonous, and it can cause loss of consciousness and death. Moreover, an open liftgate could cause occupants to fall out in an accident.*

### ▼ Locking, Unlocking with Key

The liftgate can be locked/unlocked by inserting the key into the driver's door key slot, refer to Power Door Locks (page 3-9).

### ▼ Locking, Unlocking with Transmitter

The liftgate can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-3).

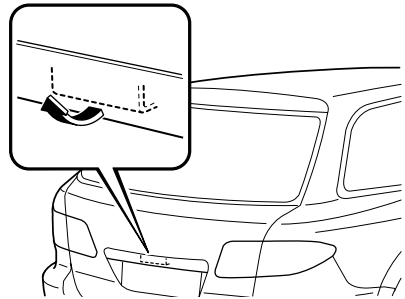
### ▼ Locking, Unlocking with Door-Lock Switch

The liftgate can be locked/unlocked by operating the door-lock switch, refer to Power Door Locks (page 3-9).

### ▼ Opening and Closing the Liftgate

#### Opening the liftgate

Pull up on the handle.

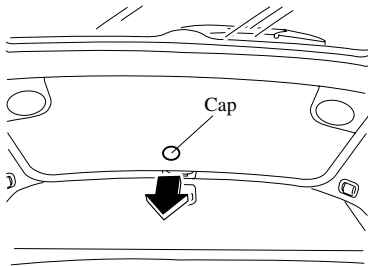


## Doors and Locks

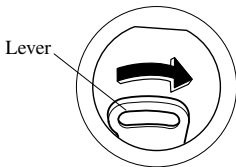
### NOTE

If the vehicle battery is dead or there is a malfunction in the electrical system and the liftgate cannot be unlocked, perform the following procedure as an emergency measure to unlock it:

1. Remove the cap on the interior surface of the liftgate with a flathead screwdriver.



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.

### Closing the liftgate

Use both hands to push the liftgate down until the lock snaps shut. Do not slam it. Pull up on the liftgate to make sure it is securely latched.

### ▼ Luggage Compartment Cover

Use the luggage compartment cover to conceal cargo or luggage.

### ⚠ WARNING

**Do not place anything on top of the luggage compartment cover:**

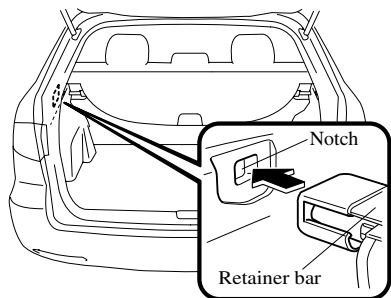
Placing luggage or other cargo on top of the luggage compartment cover is dangerous. During sudden braking or a collision, the cargo could become a projectile that could hit and injure someone.

### ⚠ CAUTION

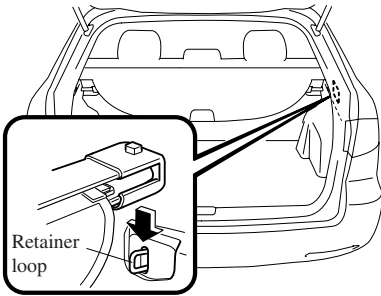
Make sure the luggage compartment cover is firmly secured. If it is not firmly secured, it could unexpectedly disengage resulting in injury.

### Installing the cover

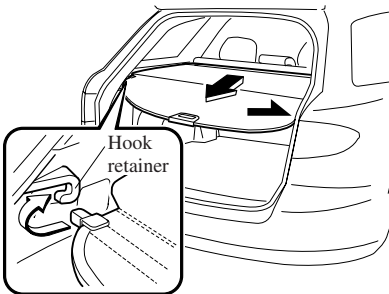
1. Set the left end of the retainer bar into the notch on the left side of the luggage compartment.



2. Set the right side of the retainer bar onto the retainer loop on the right side of the luggage compartment.



3. Slowly pull out the cover towards you and insert the cover ends into the hook retainers at the rear of the vehicle.

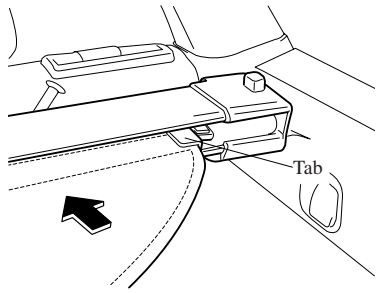


### **Removing the cover**

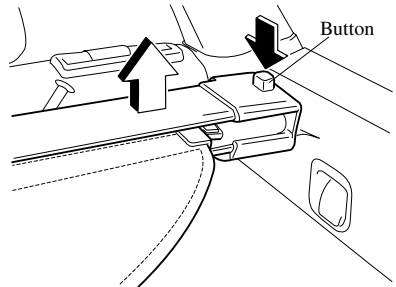
1. Remove the cover ends from the hook retainers and slowly roll up the cover.

### **NOTE**

To fully retract and protect the cover, guide the cover all the way into the retainer.



2. Press and hold the button on the right side of the retainer bar and lift the bar.



3. Remove the left end of the retainer bar from the notch.

### **▼ Luggage Compartment Net**

The luggage compartment net can be used as a compartment separator or to keep animals in the back.

### **⚠ CAUTION**

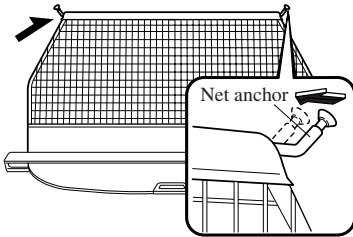
Make sure the net is firmly secured. If it is not firmly secured, it could unexpectedly disengage resulting in injury.

## Doors and Locks

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### NOTE

The width of the net anchors can be shortened by pushing both sides inward.



### Dividing the luggage compartment from the rear seat

#### **⚠ WARNING**

**Do not use the luggage compartment net to secure objects in the luggage compartment or the rear seat area:**

Using the luggage compartment net to secure objects in the luggage compartment or the rear seat area is dangerous. The luggage compartment net is not designed to hold objects in place that could fly forward in a frontal collision.

Unsecured objects that are thrown around the inside of the vehicle could cause injury to occupants. This is particularly true for objects stacked above the seatback level. Never stack objects above the seatback level. If the luggage compartment is divided from the rear seat, pull the luggage compartment cover over the cargo in the luggage compartment.

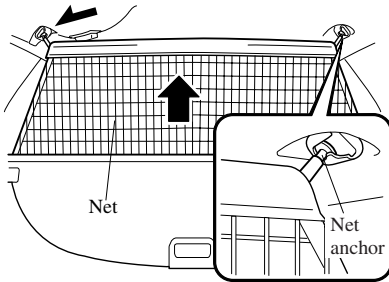
**Make sure luggage and cargo is secured before driving:**

Not securing cargo while driving is dangerous as it could move or be crushed during sudden braking or a collision and cause injury.

**To install the net:**

1. Install the retainer bar in the luggage compartment.

2. Slowly pull out the net in the upward direction, insert the left and right net anchors into the ceiling retainers, and slide them to the position indicated in the figure.



#### To remove the net:

1. Lift the net slightly and disengage the anchors from the ceiling retainers.
2. Slowly lower and support the net as it rolls up into the retainer bar.

#### **CAUTION**

When disengaging the net anchors, hold the top of the net firmly in your hand. If you lose control of the net, it will automatically roll up in an uncontrolled manner and could cause injury.

#### **Dividing the luggage compartment from the front seats**

#### **WARNING**

**Do not use the luggage compartment net to secure objects in the luggage compartment or the rear seat area:**

Using the luggage compartment net to secure objects in the luggage compartment or the rear seat area is dangerous. The luggage compartment net is not designed to hold objects in place that could fly forward in a frontal collision. Unsecured objects that are thrown around the inside of the vehicle could cause injury to occupants. This is particularly true for objects stacked above the seatback level. Never stack objects above the seatback level. If the luggage compartment is divided from the rear seat, pull the luggage compartment cover over the cargo in the luggage compartment.

**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.

#### **CAUTION**

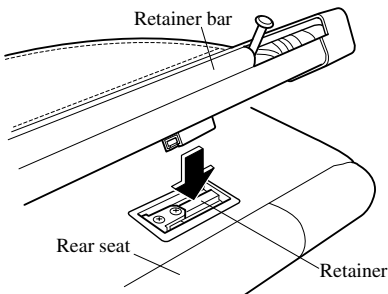
Moving the rear seatbacks with the retainer bar mounted could scratch the interior of the vehicle. The retainer bar must be removed from the back of the seatbacks before raising the seatbacks.

#### To install the net:

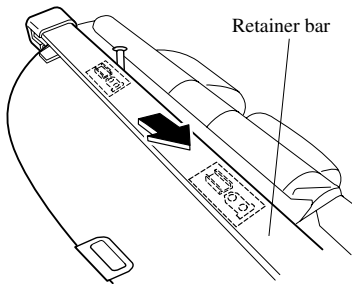
1. Fold down the rear seatback (page 2-11).

## Doors and Locks

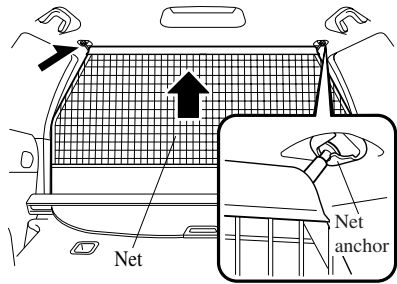
2. Remove the retainer bar from the rear seatback position.
3. Insert the retainer bar anchors into the left side of each rear seatback retainer (back of the seatback).



4. Slide the retainer bar in the direction indicated in the figure, and engage the anchors into the seatback retainers.



5. Slowly pull out the net in the upward direction, insert the left and right net anchors into the ceiling retainers, and slide them to the position indicated in the figure.



### To remove the net:

1. Lift the net slightly and disengage the net anchors from the ceiling retainers.
2. Slowly lower and support the net as it rolls up into the retainer bar.
3. Remove the retainer bar in the reverse order of installation.

### **CAUTION**

*When disengaging the net anchors, hold the top of the net firmly in your hand. If you lose control of the net, it will automatically roll up in an uncontrolled manner and could cause injury.*

## Trunk Lid (Sedan)

### WARNING

**Never allow a person to ride in the trunk:**

*Allowing a person to ride in the trunk is dangerous. In addition, the person in the trunk could be seriously injured or killed during sudden braking or a collision.*

**Keep the trunk closed when driving:**

*Exhaust gas entering the cabin of a vehicle through an open trunk is dangerous. This gas contains CO (carbon monoxide), which is colorless, odorless, and highly poisonous. If inhaled, it can cause loss of consciousness and death.*

## ▼ Opening and Closing the Trunk Lid

### WARNING

**Close the trunk lid, lock the rear seatbacks and do not allow children to play inside the vehicle:**

*Leaving the trunk lid open or leaving children in the vehicle with the keys is dangerous. Children could open the trunk lid and climb inside resulting in possible injury or death from heat exposure.*

**Always keep the car from being a tempting place to play by locking rear seats, doors and the trunk, and keeping the keys where children can not play with them:**

*Leaving children or animals unattended in a parked vehicle is dangerous. Babies left sleeping and children who lock themselves in cars or trunks can die very quickly from heat prostration. Do not leave your children or pets alone in a car at any time. Do not leave the car, the rear folding seats or the trunk unlocked.*

### CAUTION

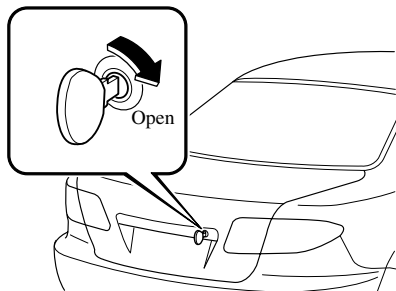
*For vehicles equipped with a rear spoiler, do not lift the trunk lid by the spoiler. Lifting up the trunk lid by the rear spoiler could cause damage to the rear spoiler and the trunk lid.*

## Doors and Locks

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### Opening the trunk lid with the key

Insert the key into the slot and turn it clockwise.

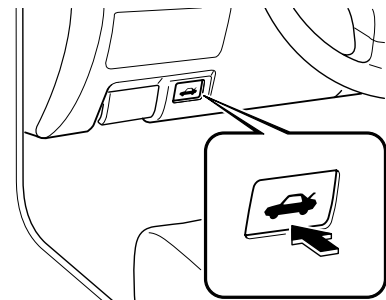


### Opening the trunk lid with the transmitter

The trunk lid can be opened by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-3).

### Opening the trunk lid with the remote release button

Push the release button.

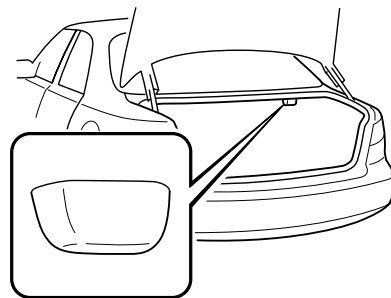


### Closing the trunk lid

Use both hands to push the trunk lid down until the lock snaps shut. Do not slam it. Pull up on the trunk lid to make sure it is secure.

### ▼ Trunk Light

The trunk light is on when the lid is open and off when it's closed.



### **NOTE**

*To prevent the battery from being discharged, do not leave the trunk open for a long period when the engine is not running.*



## Inside Trunk Release Lever (Sedan)

Your vehicle is equipped with an inside trunk release handle that provides a means of escape for children and adults in the event they become locked inside the trunk.

No matter how careful adults might be with keys and locking their cars, parents should be aware that children may be tempted to play around vehicles and use the trunk as a hiding place.

Adults are advised to familiarize themselves with the operation and location of the inside release handle so that all children can be told about it in an appropriate way, keeping in mind that most vehicles don't have such handles.

## **! WARNING**

***Close the trunk lid, lock the rear seatbacks and do not allow children to play inside the vehicle:***

*Leaving the trunk lid open or leaving children in the vehicle with the keys is dangerous. Children could open the trunk lid and climb inside resulting in possible injury or death from heat exposure.*

***Always keep the car from being a tempting place to play by locking rear seats, doors and the trunk, and keeping the keys where children can not play with them:***

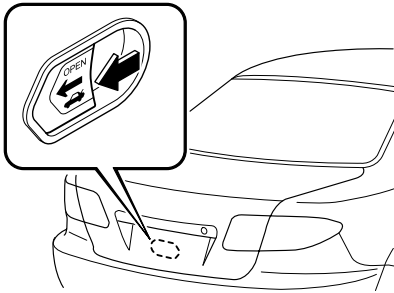
*Leaving children or animals unattended in a parked vehicle is dangerous. Babies left sleeping and children who lock themselves in cars or trunks can die very quickly from heat prostration. Do not leave your children or pets alone in a car at any time. Do not leave the car, the rear folding seats or the trunk unlocked.*

## Doors and Locks

### ▼ Opening the Trunk Lid from the Inside

Slide the inside trunk release lever in the direction of the arrow. The lever is made of material that will glow for hours in the darkness of the trunk following a brief exposure to ambient light.

The inside trunk release lever is located on the inside of the trunk lid.



### Power Windows

The ignition switch must be in the ON position for the power windows to operate.

#### **⚠ WARNING**

***Make sure the opening is clear before closing a window:***

*Closing power windows are 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.*

***Always lock all passenger power windows with the power window lock switch on the driver's side while children are in the vehicle, and never allow children to play with power window switches:***

*Leaving the power window switches unlocked while children are in the vehicle is dangerous. 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.*

#### **⚠ CAUTION**

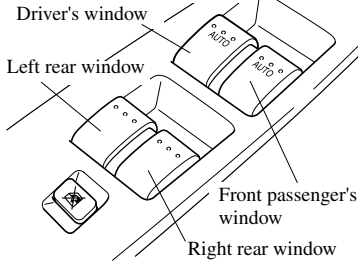
*To prevent burning out the fuse and damaging the power window system, do not open or close more than three windows at once.*

## ▼ Operating the Front Power Windows

### NOTE

- Each passenger power window can be operated with each door switch when the power window lock switch on the driver's door is in the unlocked position (page 3-26).
- Each passenger power window can also be operated by the power window master control switches on the driver's door.

### Master control switches

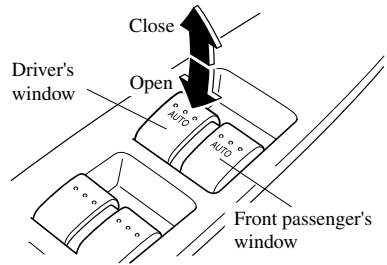


- The following functions can be performed for the front power windows using the power window master control switches on the driver's door or front passenger's door switch.
  - Manual opening/closing
  - Auto-opening/closing
  - Two-step down function

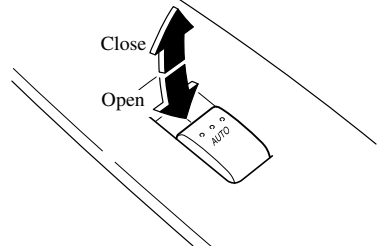
### Manual opening/closing

To open a power window to the desired position, lightly hold down the switch. To close the power window to the desired position, lightly pull up the switch.

### Master control switches



### Front passenger switch



### Auto-opening/closing

To fully open a power window automatically, press the switch completely down.

To fully close the power window automatically, pull the switch completely up.

To stop the power window partway, pull or press the switch in the opposite direction and then release it.

## Doors and Locks

### NOTE

#### **(POWER WINDOW INITIALIZATION PROCEDURE)**

If the battery was disconnected during vehicle maintenance, or for other reasons such as a switch continues to be operated after the window is fully open/close, the power windows will not fully open and close automatically. Re-initialization of the automatic function can be performed using the master control switches and the front passenger door switch. Carry out the following procedure to resume operation:

1. Turn the ignition switch to the ON position.
2. 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 power window.
4. Pull up the switch to fully close the power window and continue holding the switch for about 2 seconds after the window fully closed.
5. Repeat Steps 3-4 for each front power window.
6. Make sure that the power windows operate correctly using the door switches.

#### **Two-step down function**

With the power window completely closed, press the switch lightly and it will open and stop about 3 cm (1 in) from the top.

If you continue to press and hold the switch, the window will resume opening all the way.

### NOTE

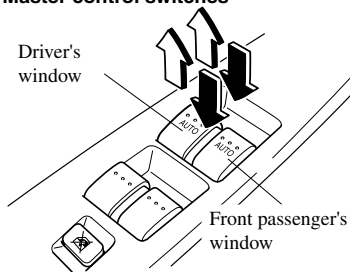
Pressing the power window switch once when the window is fully closed will only open it about 3 cm (1 in) to allow convenient ventilation of the cabin.

### Canceling the two-step down function

To cancel the two-step down function for the front power windows, carry out the following procedure using the master control switches.

1. Turn the ignition switch to the ON position and complete the following procedure within 5 seconds:  
Press the power window switch 2 times firmly, then pull it 2 times firmly.

#### Master control switches



2. Turn the ignition switch to the LOCK position.
3. With the ignition switch in the LOCK position, and within 40 seconds, turn the ignition switch to the ON position and complete the following procedure within 5 seconds:  
Press the power window switch 2 times firmly, then pull 2 times firmly.

**NOTE**

- The two-step down function cannot be canceled if the procedure is not completed within the specified times, or the procedure is changed along the way. To redo the procedure, first turn the ignition switch to the LOCK position and proceed from the beginning.
- If you are unable to cancel the function despite carrying out the cancellation procedure, consult an Authorized Mazda Dealer.

**Restoring the two-step down function**

With the two-step down function in the canceled state, repeat the previous procedure for canceling the function on each door switch and it will be restored.

**NOTE**

If you are unable to restore the function despite doing the restore procedure, consult an Authorized Mazda Dealer.

**Jam-safe window**

If a person's hands, head or an object blocks the window during the manual closing operation or the auto-closing operation, the window will stop and open halfway.

** WARNING**

**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 cannot prevent the window from stopping. If fingers are caught, serious injuries could occur.*

**NOTE**

- Depending on driving conditions, a closing power window could stop and start opening when the window feels a shock that is similar to something blocking it. In the event the jam-safe function activates and the power window cannot be closed automatically, pull and hold the switch fully and the window will close.
- The jam-safe window function does not operate until the system is re-initialized.

**Engine-off power window operation**

The power window can be operated for about 40 seconds after the ignition switch is turned from the ON position to the ACC or LOCK position with all doors closed. If either front door is opened, the power window will be inoperable.

**NOTE**

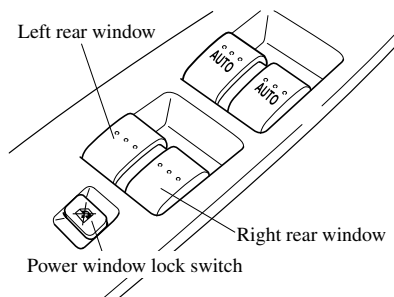
- For engine-off operation of the power window, the switch must be held up firmly throughout window closure because the auto-closing function will be inoperable.
- The two-step down function is inoperable during engine-off operation.

## Doors and Locks

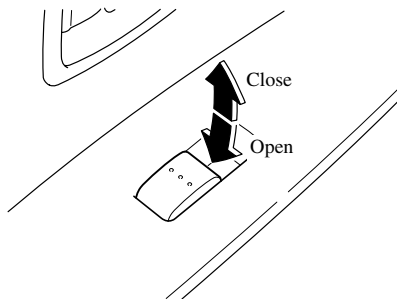
### ▼ Operating the Rear Power Windows

The power windows may be operated when the power window lock switch on the driver's door is in the unlocked position.

The rear power windows may be opened or closed using the power window master control switches on the driver's door.



To open the power window to the desired position, hold down the switch. To close the power window to the desired position, pull up the switch.



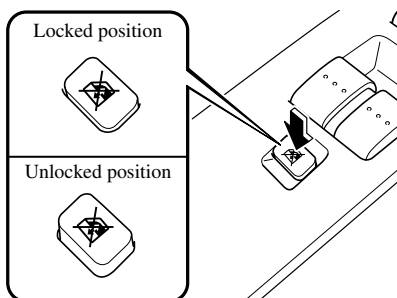
### Engine-off power window operation

The power windows can be operated for about 40 seconds after the ignition switch is turned from the ON position to the ACC or LOCK position with all doors closed. If either front door is opened, the power windows will be inoperable.

### ▼ Power Window Lock Switch

With the lock switch in the unlocked position, all power windows on each door can be operated.

With the lock switch in the locked position, only the driver's side power window can be operated.



### **⚠ WARNING**

***Unless a passenger needs to operate a power window, keep the power window lock switch in the locked position:***

*Unintentional power window operation is dangerous. A person's hands, head, or neck could be caught by the window and result in serious injury.*

**NOTE**

When the power window lock switch is in the locked position, the light on front passenger's power window switch turns off. The light may be difficult to see depending on the surrounding brightness.

### ▼ Opening/Closing the Power Windows from Outside

The front power windows can be opened or closed from outside the vehicle after the doors and the hatch/liftgate/trunk lid are closed.

The front power windows may be operated when the power window lock switch on the driver's door is in the lock or unlocked position.

### ⚠ WARNING

**Make sure the opening is clear before closing a window:**

*Closing power windows are 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.*

**NOTE**

The power windows cannot be opened or closed from outside the vehicle under the following condition:

- A door or the hatch/liftgate/trunk lid is opened.
- The key is inserted into the ignition switch.

**Opening**

Because nobody likes getting into a very hot car, Mazda has introduced a way to open the two front windows as you approach the vehicle to get the air moving before you get in.

### ⚠ WARNING

**Use the auto-window function only when you can see the vehicle and it is in a secure area:**

*Do not let children play with your keys. If they open the window without your knowing, the open windows are an even bigger invitation to a thief than leaving the doors unlocked.*

The windows can be opened for ventilating the cabin before getting in the vehicle.

### With unlock button (Keyless entry system)

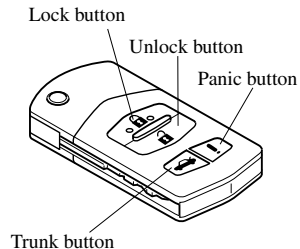
Press once, then press again within 1.5 seconds and hold.

After the doors and the hatch/liftgate/trunk lid are unlocked, the two front windows open while the unlock button is pressed.

To stop the windows while opening, release the button.

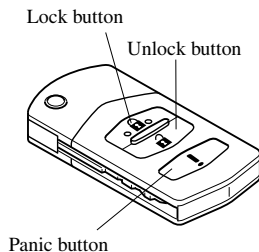
If the operation is performed from the beginning again, the windows open.

**Sedan**



## Doors and Locks

### 5-Door/Sport Wagon

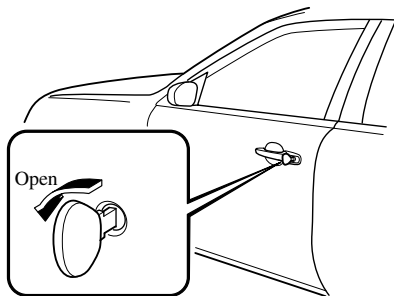


#### **NOTE**

- The unlock button does not operate unless it is pressed twice sequentially.
- The lock button cannot be used to close the power windows.

#### **With key**

1. Insert the key in the driver's door key cylinder.
2. Turn the key toward the front and hold it. After the doors and the hatch/liftgate/trunk lid are unlocked, the windows fully open automatically.



To stop this operation, turn the key to the center position, then turn it toward the front again.

#### **NOTE**

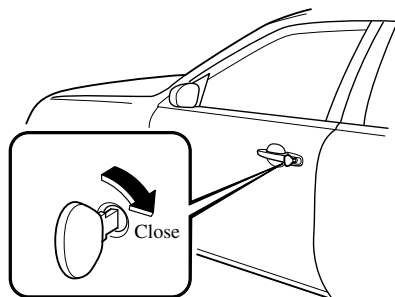
The window opening operation also can be stopped by turning the key toward the back. However, the doors and the hatch/liftgate/trunk lid will lock.

#### **Closing**

The windows can be closed in case they are left open after getting out of the vehicle.

#### **With key**

1. Insert the key in the driver's door key cylinder.
2. Turn the key toward the back and hold it. After the doors and the hatch/liftgate/trunk lid are locked, the windows close as long as the key is turned.





## Fuel-Filler Lid and Cap

### ⚠ WARNING

*When removing the fuel cap, loosen the cap slightly and wait for any hissing to stop. Then remove it:*

*Fuel spray is dangerous. Fuel can burn skin and eyes and cause illness if ingested. Fuel spray is released when there is pressure in the fuel tank and the fuel cap is removed too quickly.*

*Before refueling, stop the engine, and always keep sparks and flames away from the filler neck:*

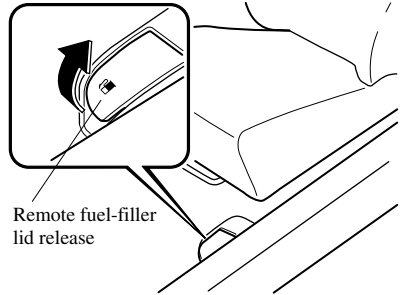
*Fuel vapor is dangerous. It could be ignited by sparks or flames causing serious burns and injuries. Additionally, use of the incorrect fuel filler cap or not using a fuel filler cap may result in fuel leak, which could result in serious burns or death in an accident.*

### ⚠ CAUTION

*Always use only a genuine Mazda fuel cap or an approved equivalent, available at an Authorized Mazda Dealer. The wrong cap can result in a serious malfunction of the fuel and emission control systems. It may also cause the check engine light in the instrument cluster to illuminate.*

### ▼ Fuel-Filler Lid

To open, pull up the remote fuel-filler lid release.

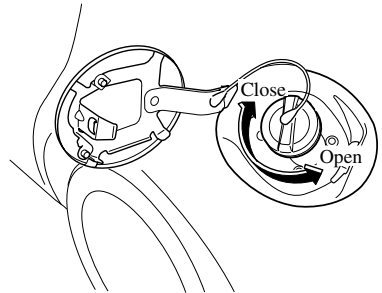


Remote fuel-filler lid release

### ▼ Fuel-Filler Cap

To remove the filler cap, turn it counterclockwise.

To close the filler cap, turn it clockwise until two or more clicks are heard.



## Doors and Locks

### **CAUTION**

Make sure the fuel-filler cap is tightened securely. The check engine light may illuminate when the cap isn't tightened securely. If the light remains on (even after you have tightened the cap securely, driven, and restarted the engine several times), it may indicate a different problem. Contact an Authorized Mazda Dealer as soon as possible.

### Hood

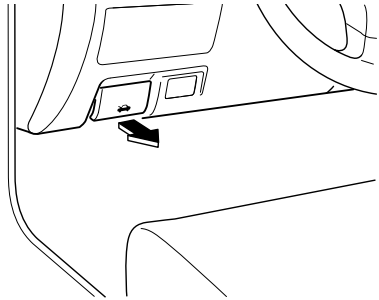
### **WARNING**

**Always check that the hood is closed and securely locked:**

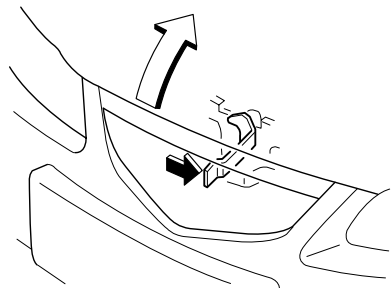
A hood that is not closed and securely locked is dangerous as it could fly open while the vehicle is moving and block the driver's vision which could result in a serious accident.

### ▼ Opening the Hood

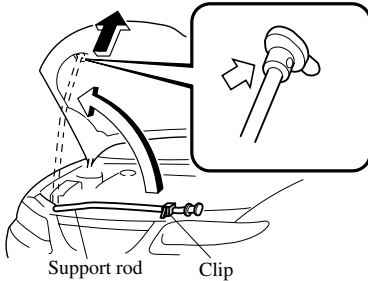
1. With the vehicle parked, pull the release handle to unlock the hood.



2. Insert your hand into the hood opening and slide the hood latch lever to the right and lift the hood.



3. Grasp the support rod and secure it in the stay hole indicated by the arrow to hold the hood open.

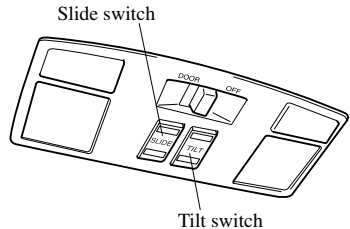


### ▼ Closing the Hood

1. 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. Insert the support rod in its clip while holding up the hood. Verify that the support rod is secured in the clip before closing the hood.
3. Close the hood so that it locks securely.

## Moonroof\*

The moonroof can be opened or closed electrically only when the ignition switch is in the ON position.



### ⚠ 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.*

**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.*

### NOTE

*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.*

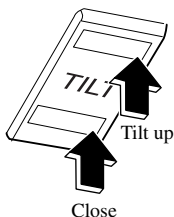
## Doors and Locks

### ▼Tilt Operation

The rear of the moonroof can be tilted open to provide more ventilation.

To tilt, push the rear of the tilt switch.

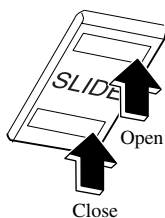
To close, push the front of the tilt switch.



### ▼Slide Operation

To open to any position, press the rear of the slide switch.

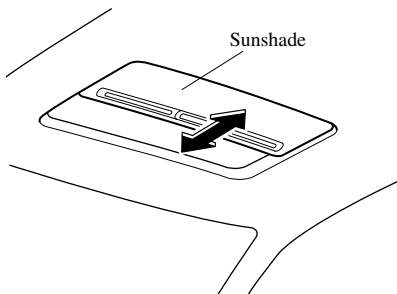
To close, press the front of the slide switch.



### ▼Sunshade

The sunshade can be opened and closed by hand.

The sunshade opens automatically when the moonroof is opened, but must be closed by hand.



### ⚠ CAUTION

*The sunshade does not tilt. To avoid damaging the sunshade, do not push up on it.*

## Immobilizer System

The immobilizer system allows the engine to start only with a key the system recognizes.

If someone attempts to start the engine with an unrecognized key, the engine will not start, thereby helping to prevent the theft of your vehicle.

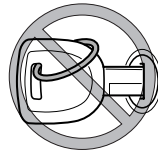
### CAUTION

- *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 or hood, under direct sunlight.*

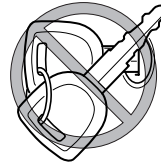
### CAUTION

*When starting the engine do not allow the following, as the engine may not start due to the electronic signal from the ignition key not being transmitted correctly.*

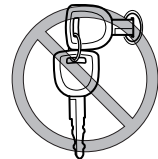
- *A key ring rests on the key grip.*



- *Metal parts of other keys or metal objects touch the key grip.*



- *Spare keys or keys for other vehicles equipped with an immobilizer system touch or come near the key grip.*



- *Devices for electronic purchases, or security passage touch or come near the key.*

## Security System

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### NOTE

- **(U.S.A.)**

*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.*

- **(CANADA)**

*This device complies with RSS-210 of Industry CANADA. 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.*

### ▼ Operation

#### Arming

The system is armed when the ignition switch is turned from the ON to the ACC position.

The security indicator light in the instrument panel flashes every 2 seconds until the system is disarmed.



#### Disarming

The system is disarmed when the ignition switch is turned to the ON position with the correct ignition key.

The security indicator light illuminates for about 3 seconds and goes out.

If the engine doesn't start with the correct ignition key, and the security indicator light keeps illuminating or flashing, the system may have a malfunction. Consult an Authorized Mazda Dealer.

### NOTE

- *If the security indicator light comes on and stays on when the ignition switch is turned to the ON position, the engine will not start.*
- *Signals from a TV or radio station, or from a transceiver or a mobile telephone, could interfere with your immobilizer system. If you are using the proper key and your engine fails to start, check the security indicator light. If it is flashing, remove the ignition key and wait 2 seconds or more, then reinsert it and try starting the engine again. If it doesn't start after 3 or more tries, contact an Authorized Mazda Dealer.*
- *If the security indicator light flashes continuously while you are driving, don't shut off the engine. Go to an Authorized Mazda Dealer and have it checked. If you shut off the engine while the light is flashing you won't be able to restart it.*
- *Since the electronic codes are reset when repairing the immobilizer system, the keys are needed. Bring all the existing keys to an Authorized Mazda Dealer.*

## ▼ Maintenance

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

### NOTE

- *The keys carry a unique electronic code. For this reason, and to assure your safety, obtaining replacement key requires some waiting time. They are only available through an Authorized Mazda Dealer.*
- *Always keep a spare key, in case one is lost. If a key is lost, contact 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.*

## ▼ 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 it.

### **⚠ CAUTION**

*To avoid damage to your vehicle, do not modify the system or install any add-on equipment to the immobilizer system or the vehicle.*

## Theft-Deterrent System\*

If the theft deterrent system detects an inappropriate entry into the vehicle, which could result in the vehicle or its contents being stolen, the alarm alerts the surrounding area of an abnormality by sounding the horn and flashing the hazard warning lights.

Refer to Operation on page 3-35.

### NOTE

- *The theft-deterrent system operates with the key or the keyless entry system transmitter.*
- *The system will not function unless it is properly armed. To properly secure the vehicle, always make sure all windows are completely closed and all doors and the trunk lid/liftgate/hatch are locked before leaving the vehicle. Remember to take your key and transmitter.*

## ▼ Operation

### System triggering conditions

The horn sounds intermittently and the hazard warning lights flash for about 25 seconds when the system is triggered by any one of the following:

- Forcing open a door, the hood or the trunk lid/liftgate/hatch.
- Unlocking a door with the inside door-lock knob.
- Unlocking a door with the door lock switch.
- Opening a door by operating an inside door-lock knob.
- Opening the hood by operating the hood release handle.
- Opening the trunk lid by operating the trunk lid release button.

## Security System

If the system is triggered again, the lights and horn will activate until a door is unlocked or the trunk lid is opened with the key or with the transmitter.

### ▼ How to Arm the System

1. Remove the key from the ignition switch.
2. Make sure the hood is closed. Close and lock all doors and the hatch/liftgate/trunk lid from the outside using the key or press the lock button on your keyless entry system transmitter.

The following method will also arm the theft-deterrent system:

Close the hood and the hatch/liftgate/trunk lid. Press the area on the door-lock switch marked "LOCK" once. Close all doors.

The theft deterrent system can also be armed by activating the auto re-lock function with all the doors, the hatch/liftgate/trunk lid and the hood closed.

#### NOTE

*Locking the doors with the inside door-lock knob will not arm the system.*

#### NOTE

##### **Auto re-lock function**

*After unlocking with the transmitter, all doors and the hatch/liftgate will automatically lock if one of the doors or the hatch/liftgate/trunk lid is not opened within about 30 seconds.*

### ▼ To Turn off an Armed System

An armed system can be turned off by any one of the following methods:

- Unlock a door with the key.
- Press the unlock button on the keyless entry system transmitter.

- Insert the key into the ignition switch and turn it to the ON position.

The hazard warning lights will flash twice to indicate that the system is turned off.

#### NOTE

*The trunk lid can be opened with the key or the transmitter even when the system is armed. The alarm will not come on and the system will remain armed.*

### ▼ To Stop an Alarm

A triggered alarm can be turned off by any one of the following methods:

- Unlock a door with the key.
- Open the trunk lid with the key.
- Press the unlock button or press and hold the trunk button on the keyless entry system transmitter.
- The engine is started with the ignition key or the start knob.

#### NOTE

*If you have any problem with the theft-deterrent system, consult an Authorized Mazda Dealer.*

### ▼ Theft-Deterrent Labels



A label indicating that your vehicle is equipped with a Theft-Deterrent System is in the glove box.



Mazda recommends that you affix it to the lower rear corner of a front door window.

## Steering Wheel and Mirrors

### Steering Wheel

#### **⚠ WARNING**

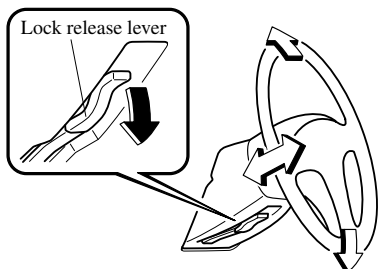
**Never adjust the steering wheel while the vehicle is moving:**

*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.*

#### ▼ Steering Wheel Adjustment

To change the angle or length of the steering wheel:

1. Stop the vehicle, pull down the lock release lever under the steering column.



2. Tilt the steering wheel and/or adjust the steering column length to the desired positions, push the lever up to lock the column.
3. Push the wheel up and down to be certain it's locked before driving.

### Mirrors

#### ▼ Outside Mirrors

Check the mirror angles before driving.

#### **⚠ WARNING**

**Be sure to look over your shoulder before changing lanes:**

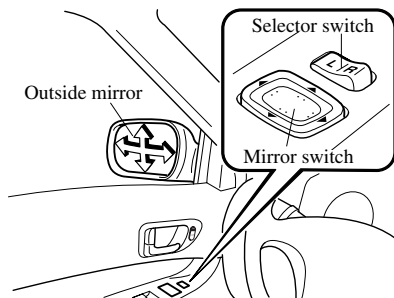
*Changing lanes without taking into account the actual distance of the vehicle in the convex mirror is dangerous. You could have a serious accident. What you see in the convex mirror is closer than it appears.*

#### Power mirror

The ignition switch must be in the ACC or ON position.

To adjust:

1. Press the left or right side of the selector switch to choose the left or right side mirror.
2. Depress the mirror switch in the appropriate direction.



After adjusting the mirror, lock the control by placing the selector switch in the middle position.

**Mirror defroster\***

To turn on the mirror defrosters, turn the ignition switch to the ON position and push the rear window defroster switch (page 5-52).

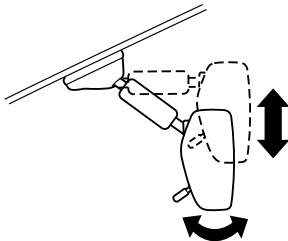
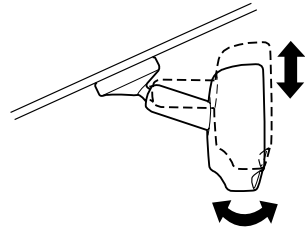
**▼ Rearview Mirror****⚠ WARNING**

**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**

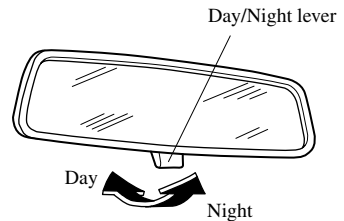
Before driving, adjust the rearview mirror to center on the scene through the rear window.

**Manual day/night mirror****Auto-dimming mirror****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**

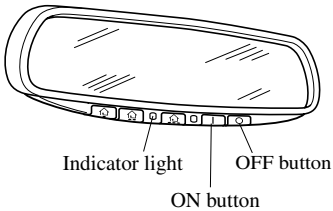
Push the day/night lever forward for day driving. Pull it back to reduce glare of headlights from cars at the rear.

**Auto-dimming mirror**

The auto-dimming mirror automatically reduces glare of headlights from cars at the rear when the ignition switch is in the ON position.

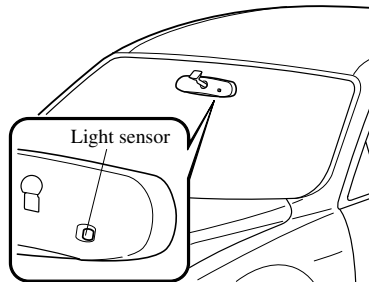
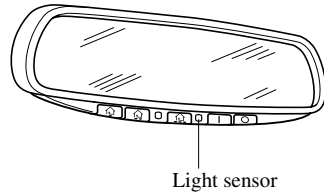
## Steering Wheel and Mirrors

Press the OFF button (○) to cancel the automatic dimming function. The indicator light will go off. To reactivate the automatic dimming function, press the ON button (⊥). The indicator light will illuminate.



### 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.



- For information regarding the 3 buttons (⏮, ⏪, ⏩) on the auto-dimming mirror, refer to HomeLink Wireless Control System (page 5-54).

# 4

## Before Driving Your Mazda

Important information about driving your Mazda.

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## Fuel and Engine Exhaust Precautions

### Fuel Requirements

Vehicles with catalytic converters or oxygen sensors must use **ONLY UNLEADED FUEL**, which will reduce exhaust emissions and keep spark plug fouling to a minimum.

Your Mazda will perform best with fuel listed in the table.

Fuel	Octane Rating* (Anti-knock index)
Regular unleaded fuel	87 [(R+M)/2 method] or above (91 RON or above)

\* U.S. federal law requires that octane ratings be posted on gasoline station pumps.

Fuel with a rating lower than 87 octane (91 RON) could cause the emission control system to lose effectiveness. It could also cause engine knocking and serious engine damage.

#### CAUTION

➤ **USE ONLY UNLEADED FUEL.**

- Leaded fuel is harmful to the catalytic converter and oxygen sensors and will lead to deterioration of the emission control system and or failures.*
- Your vehicle can only use oxygenated fuels containing no more than 10% ethanol by volume. Damage to your vehicle may occur when ethanol exceeds this recommendation, or if the gasoline contains any methanol. Stop using gasohol of any kind if your vehicle engine is performing poorly.*
- Never add fuel system additives. Never add cleaning agents other than those specified by Mazda. Other cleaning agents and additives may damage the system. Consult an Authorized Mazda Dealer.*

Gasoline blended with oxygenates such as alcohol or ether compounds are generally referred to as oxygenated fuels. The common gasoline blend that can be used with your vehicle is ethanol blended at no more than 10%. Gasoline containing alcohol, such as ethanol or methanol, may be marketed under the name “Gasohol”.

Vehicle damage and drivability problems resulting from the use of the following may not be covered by the Mazda warranty.

- Gasohol containing more than 10% ethanol.
- Gasoline or gasohol containing methanol.
- Leaded fuel or leaded gasohol.

## Fuel and Engine Exhaust Precautions

### Emission Control System

Your vehicle is equipped with an emission control system (the catalytic converter is part of this system) that enables your vehicle to comply with existing exhaust emissions requirements.

#### **WARNING**

**Never park over or near anything flammable:**

*Parking over or near anything flammable, such as dry grass, is dangerous. Even with the engine turned off, the exhaust system remains very hot after normal use and could ignite anything flammable. A resulting fire could cause serious injury or death.*

#### **CAUTION**

*Ignoring the following precautions could cause lead to accumulate on the catalyst inside the converter or cause the converter to get very hot. Either condition will damage the converter and cause poor performance.*

- **USE ONLY UNLEADED FUEL.**
- *Don't drive your Mazda with any sign of engine malfunction.*
- *Don't coast with the ignition switch turned off.*
- *Don't descend steep grades in gear with the ignition switch turned off.*
- *Don't operate the engine at high idle for more than 2 minutes.*
- *Don't tamper with the emission control system. All inspections and adjustments must be made by a qualified technician.*
- *Don't push-start or pull-start your vehicle.*

#### **NOTE**

*Under U.S. federal law, any modification to the original-equipment emission control system before the first sale and registration of a vehicle is subject to penalties. In some states, such modification made on a used vehicle is also subject to penalties.*

#### **NOTE**

*After driving some distance and turning off the engine, the sound of a valve opening and closing can be heard at the rear of the vehicle, however this does not indicate an abnormality. Your vehicle has a self-checking device and it operates after turning off the engine.*

## Fuel and Engine Exhaust Precautions

---

### Engine Exhaust (Carbon Monoxide)

#### **WARNING**

**Do not drive your vehicle if you smell exhaust gas inside the vehicle:**

*Engine exhaust gas is dangerous. This gas contains carbon monoxide (CO), which is colorless, odorless, and poisonous. When inhaled, it can cause loss of consciousness and death. If you smell exhaust gas inside your vehicle, keep all windows fully open and contact an Authorized Mazda Dealer immediately.*

**Do not run the engine when inside an enclosed area:**

*Running the engine inside an enclosed area, such as a garage, is dangerous. Exhaust gas, which contains poisonous carbon monoxide, could easily enter the cabin. Loss of consciousness or even death could occur.*

**Open the windows or adjust the heating or cooling system to draw fresh air when idling the engine:**

*Exhaust gas is dangerous. When your vehicle is stopped with the windows closed and the engine running for a long time even in an open area, exhaust gas, which contains poisonous carbon monoxide, could enter the cabin. Loss of consciousness or even death could occur.*

**Clear snow from underneath and around your vehicle, particularly the tail pipe, before starting the engine:**

*Running the engine when a vehicle is stopped in deep snow is dangerous. The exhaust pipe could be blocked by the snow, allowing exhaust gas to enter the cabin. Because exhaust gas contains poisonous carbon monoxide, it could cause loss of consciousness or even death to occupants in the cabin.*



## Before Starting the Engine

---

### Before Getting In

- Be sure the windows, outside mirrors, and outside lights are clean.
- Inspect inflation pressures and condition of tires.
- Look under the vehicle for any sign of fluid leaks.
- If you plan to back up, make sure nothing is in your way.

**NOTE**

*Engine oil, engine coolant, brake/clutch fluid, washer fluid, and other fluid levels should be inspected. See Maintenance, Section 8.*

### After Getting In

- Are all doors closed and locked?
  - Is the seat adjusted properly?
  - Are the inside and outside mirrors adjusted?
  - Is everyone's seat belt fastened?
  - Check all gauges.
  - Check all warning lights when the ignition switch is turned to the ON position.
  - Release the parking brake and make sure the brake warning light goes off.
- Always be thoroughly familiar with your Mazda.

## Driving Tips

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### Break-In Period

No special break-in is necessary, but a few precautions in the first 1,000 km (600 miles) may add to the performance, economy, and life of your Mazda.

- Don't race the engine.
- Don't maintain one constant speed, either slow or fast, for a long period of time.
- Don't drive constantly at full-throttle or high engine rpm for extended periods of time.
- Avoid unnecessary hard stops.
- Avoid full-throttle starts.

### Money-Saving Suggestions

How you operate your Mazda determines how far it will travel on a tank of fuel. Use these suggestions to help save money on fuel and repairs.

- Avoid long warm-ups. Once the engine runs smoothly, begin driving.
- Avoid fast starts.
- Keep the engine tuned. Follow the maintenance schedule (page 8-3) and have an Authorized Mazda Dealer perform inspections and servicing.
- Use the air conditioner only when necessary.
- Slow down on rough roads.
- Keep the tires properly inflated.
- Don't carry unnecessary weight.
- Don't rest your foot on the brake pedal while driving.
- Keep the wheels in correct alignment.
- Keep windows closed at high speeds.
- Slow down when driving in crosswinds and headwinds.

### WARNING

**Never stop the engine when going down a hill:**

*Stopping the engine when going down a hill is dangerous. This causes the loss of power steering and power brake control, and may cause damage to the drivetrain. Any loss of steering or braking control could cause an accident.*

## Hazardous Driving

### **WARNING**

**Be extremely careful if it is necessary to downshift on slippery surfaces:**

*Downshifting into lower gear while driving on slippery surfaces is dangerous. The sudden change in tire speed could cause the tires to skid. This could lead to loss of vehicle control and an accident.*

**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.*

When driving in water, mud, sand, or similar hazards:

- Be cautious and allow extra distance for braking.
- Avoid sudden braking and sudden maneuvering.
- If your vehicle is not equipped with ABS, brake with the pedal by using a light up-down motion. Do not hold the pedal down constantly.

If your vehicle is equipped with ABS, do not pump the brakes. Continue to press down on the brake pedal.

Refer to Anti-Lock Brake System (ABS) on page 5-7.

- If you get stuck, select a lower gear and accelerate slowly. Do not spin the front wheels.

- For more traction in starting on slippery surfaces, use sand, rock salt, carpeting, or other nonslip material under the front wheels.

## Driving Tips

---

### 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.*

#### **CAUTION**

*Too much rocking may cause engine overheating, 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 shift lever from 1 (D) to R.

### Winter Driving

- Carry emergency gear, window scraper, flares, a small shovel, jumper cables, and a small bag of sand or salt.

Ask an Authorized Mazda Dealer to perform the following precautions:

- Have the proper ratio of antifreeze in the radiator.  
Refer to Engine Coolant on page 8-20.
- Inspect the battery and its cables. Cold reduces battery capacity.
- Inspect the ignition system for damage and loose connections.
- Use washer fluid made with antifreeze—but don't use engine coolant antifreeze for washer fluid (page 8-26).
- Don't use the parking brake in freezing weather as the parking brake may freeze. Instead, shift to P with an automatic transaxle and to 1 or R with a manual transaxle. Block the rear wheels.

#### ▼ **Snow Tires**

##### **Use snow tires on all four wheels**

Don't go faster than 120 km/h (75 mph) while driving with snow tires. Inflate snow tires 30 kPa (0.3 kgf/cm<sup>2</sup>, 4.3 psi) more than recommended on the tire pressure label (driver's door frame), but never more than the maximum cold-tire pressure shown on the tires.

Your 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.

**⚠ WARNING**

**Use only the same size and type tires (snow, radial, or non-radial) on all four wheels:**

Using tires different in size or type is dangerous. Your vehicle's handling could be greatly affected and result in an accident.

**⚠ CAUTION**

Check local regulations before using studded tires.

**NOTE**

If your vehicle is equipped with the tire pressure monitoring system, the system may not function correctly when using tires with steel wire reinforcement in the sidewalls (page 5-29).

**▼ Tire Chains**

This vehicle cannot be operated with tire chains because it could cause interference with the vehicle body and scratching.

**Driving In Flooded Area****⚠ WARNING**

**Dry wet brakes by driving very slowly and applying the brakes lightly until 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.

**⚠ CAUTION**

Do not drive the vehicle on flooded roads as it could cause short circuiting of electrical/electronic parts, or engine damage or stalling from water absorption. If the vehicle has been immersed in water, consult an Authorized Mazda Dealer.

## Driving Tips

---

### Overloading

#### **WARNING**

**Be careful not to overload your vehicle:**

*The gross axle weight rating (GAWR) and the gross vehicle weight rating (GVWR) of your 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 your load by weighing the items (or people) before putting them in the vehicle.*

## **Trailer Towing**

The Mazda6 is not designed for towing.  
Never tow a trailer with your Mazda6.





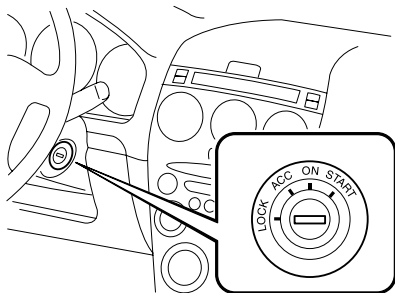
Explanation of instruments and controls.

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# Starting and Driving

## Ignition Switch

### ▼ Ignition Switch Positions

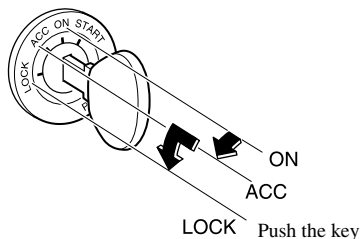


### LOCK

The steering wheel locks to protect against theft. Only in this position can the key be removed.

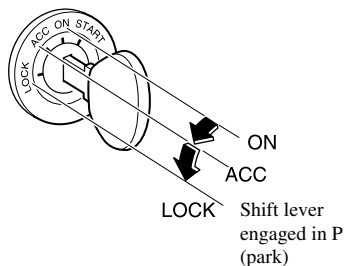
### Manual transaxle

To turn the key from the ACC to the LOCK position, push the key in at the ACC position, then turn it to the LOCK position.



### Automatic transaxle

To turn the key from the ACC to the LOCK position, the shift lever must be in the P position.



**⚠ WARNING**

**Remove the key only when the vehicle is parked:**

*Removing the key from the ignition switch while the vehicle is moving is dangerous. Removing the key allows the steering wheel to lock. You will lose steering control and a serious accident could occur.*

**Before leaving the driver's seat, always put the key to LOCK position, set the parking brake and make sure the shift lever is in P with an automatic transaxle or in 1 or R with a manual transaxle:**

*Intentionally placing the key into LOCK position is much more important where you will not be removing the key to leave the vehicle and because leaving it in other positions will disable some of the vehicle security systems and run the battery down.*

*Leaving the driver's seat without putting the ignition switch in LOCK position, setting the parking brake and the shift lever is in P with an automatic transaxle or in 1 or R with a manual transaxle is dangerous. Unexpected vehicle movement could occur. This could cause an accident.*

**NOTE**

*If turning the key is difficult, jiggle the steering wheel from side to side.*

*Leaving the key in any position but LOCK position also disables some of the security features and may run the battery down.*

**ACC (Accessory)**

The steering wheel unlocks and some electrical accessories will operate.

**ON**

This is the normal running position after the engine is started. The warning lights (except brakes) should be inspected before the engine is started (page 5-35).

**NOTE**

*When the ignition switch is turned to the ON position, the sound of the fuel pump motor operating near the fuel tank can be heard. This does not indicate an abnormality.*

**START**

The engine is started in this position. It will crank until you release the key; then it returns to the ON position. The brake warning light can be checked after the engine is started (page 5-35).

**▼ Ignition Key Reminder**

If the ignition switch is in the LOCK or ACC position with the key inserted, a continuous beep sound will be heard when the driver's door is opened.

## Starting and Driving

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### Starting the Engine

#### NOTE

Engine-starting is controlled by the spark ignition system.

This system meets all Canadian Interference-Causing Equipment Standard requirements regulating the impulse electrical field strength of radio noise.

1. Occupants should fasten their seat belts.
2. Make sure the parking brake is on.
3. Depress the brake pedal.
4. **(Manual transaxle)**  
Depress the clutch pedal all the way and shift into neutral.  
Keep the clutch pedal depressed while cranking the engine.

#### **(Automatic transaxle)**

Put the vehicle in park (P). If you must restart the engine while the vehicle is moving, shift into neutral (N).

#### NOTE

##### **(Manual transaxle)**

The starter will not operate if the clutch pedal is **not** depressed all the way.

##### **(Automatic transaxle)**

The starter will not operate if the shift lever is **not** in P or N.

5. Turn the ignition switch to the START position and hold (up to 10 seconds at a time) until the engine starts.

### CAUTION

Don't try the starter for more than 10 seconds at a time. If the engine stalls or fails to start, wait 10 seconds before trying again. Otherwise, you may damage the starter and drain the battery.

6. After starting the engine, let it idle for about 10 seconds.

#### NOTE

- In extremely cold weather, below  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ), or after the vehicle has not been driven in several days, let the engine warm up without operating the accelerator.
- Whether the engine is cold or warm, it should be started without use of the accelerator.

## Brake System

### ▼ Foot Brake

Your Mazda 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.

### ⚠ WARNING

**Do not coast with the engine stalled or turned off, find a safe place to stop:**

*Coasting with the engine stalled or turned off 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.*

### ⚠ WARNING

**Dry brakes that have become wet by driving very slowly and applying the brakes lightly until brake performance is 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.*

### ▼ Parking Brake

### ⚠ WARNING

**Before leaving the driver's seat, always put the key to LOCK position, set the parking brake and make sure the shift lever is in P with an automatic transaxle or in 1 or R with a manual transaxle:**

*Intentionally placing the key into LOCK position is much more important where you will not be removing the key to leave the vehicle and because leaving it in other positions will disable some of the vehicle security systems and run the battery down.*

*Leaving the driver's seat without putting the ignition switch in LOCK position, setting the parking brake and the shift lever is in P with an automatic transaxle or in 1 or R with a manual transaxle is dangerous. Unexpected vehicle movement could occur. This could cause an accident.*

## Starting and Driving

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### **CAUTION**

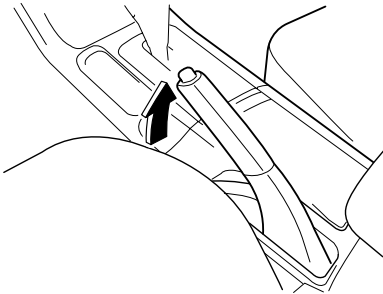
*Driving with the parking brake on will cause excessive wear of the brake linings or pads.*

### **NOTE**

*For parking in snow, refer to Winter Driving (page 4-8) regarding parking brake use.*

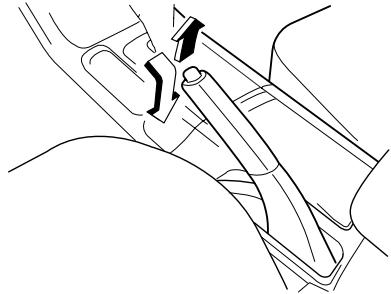
### **Setting the parking brake**

Depress the brake pedal and then firmly pull the parking brake lever fully upwards with a greater amount of force than is required so that the vehicle holds in the stationary position.



### **Releasing the parking brake**

Depress the brake pedal and pull the parking brake lever upwards, then press the release button. While holding the button, lower the parking brake lever all the way down to the released position.



### **▼ Brake System Warning Light**



This warning has the following functions:

#### **Parking brake warning**

The light comes on when the parking brake is applied with the ignition switch in the START or ON position. It goes off when the parking brake is fully released.

#### **Low brake fluid level warning**

If the light stays on after the parking brake is fully released, you may have a brake problem.

Drive to the side of the road and park off the right-of-way.

You may notice that the pedal is harder to push or that it may go closer to the floor. In either case, it will take longer to stop the vehicle.

1. With the engine stopped, check the brake fluid level immediately and add fluid as required (page 8-22).
2. After adding fluid, check the light again.

If the warning light remains on, or if the brakes do not operate properly, do not drive the vehicle. Have it towed to an Authorized Mazda Dealer.

Even if the light goes out have your brake system inspected as soon as possible by an Authorized Mazda Dealer.

#### NOTE

*Having to add brake fluid is sometimes an indicator of leakage. Consult an Authorized Mazda Dealer as soon as possible even if the brake light is no longer illuminated.*

### 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.*

### ▼ Anti-Lock Brake System (ABS)

The ABS control unit continuously monitors the speed of each wheel. If one 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 when the ABS operates. Don't pump the brakes, continue to press down on the brake pedal.

### WARNING

**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.*

#### NOTE

- *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.*
- *The sound of the ABS operating may be heard when starting the engine or immediately after starting the vehicle. However, it does not indicate a malfunction.*

## Starting and Driving

---

### ▼ ABS Warning Light



The warning light stays on for a few seconds when the ignition switch is turned to the ON position.

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**

*When the engine is jump-started to charge the battery, uneven rpm occurs and the ABS warning light comes on. This is due to a weak battery, not a malfunction.*

*Recharge the battery.*

### ▼ Electronic Brake Force Distribution System Warning



**BRAKE**



If the electronic brake force distribution control unit determines that some components are operating incorrectly, the control unit may turn the brake system warning light and the ABS warning light on at the same time. The problem is likely to be the electronic brake force distribution system.

#### **! WARNING**

***Do not drive with both the ABS warning light and brake warning light illuminated. Have the vehicle towed to an Authorized Mazda Dealer to have the brakes inspected as soon as possible:***

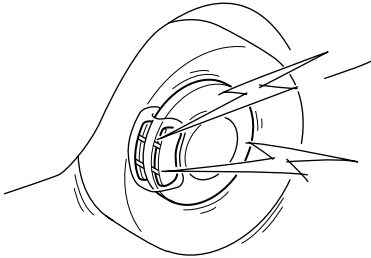
*Driving when the brake system warning light and ABS warning light are illuminated at the same time is dangerous.*

*When both lights are illuminated, the rear wheels could lock more quickly in an emergency stop than under normal circumstances.*



### ▼ 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.



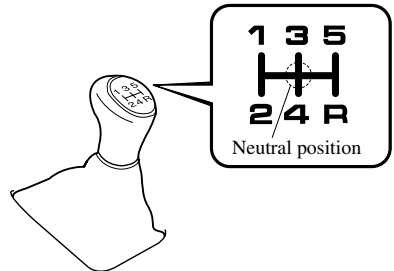
When you hear this noise, consult an Authorized Mazda Dealer as soon as possible.

### **⚠ WARNING**

***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.*

## Manual Transaxle Operation

### ▼ Manual Transaxle Shift Pattern



The shift pattern of the transaxle is conventional, as shown.

Depress the clutch pedal all the way down while shifting; then release it slowly.

A safety feature prevents accidental shifting from 5 to R (reverse). The shift lever must be put in neutral before being shifted to R.

# Starting and Driving

## ⚠ WARNING

**Do not use sudden engine braking on slippery road surfaces or at high speeds:**

*Shifting down while driving on wet, snowy, or frozen roads, or while driving at high speeds causes sudden engine braking, which is dangerous. The sudden change in tire speed could cause the tires to skid. This could lead to loss of vehicle control and an accident.*

**Be sure to leave the shift lever in 1 or R position and set the parking brake when leaving the vehicle unattended:**

*Otherwise the vehicle could move and cause an accident.*

## ⚠ CAUTION

- *Keep your foot off the clutch pedal except when shifting gears. Also, don't use the clutch to hold the vehicle on an upgrade. Riding the clutch will cause needless clutch wear and damage.*
- *Make sure the vehicle comes to a complete stop before shifting to R. Shifting to R while the vehicle is still moving may damage the transaxle.*

### NOTE

*If shifting to R is difficult, shift back into neutral, release the clutch pedal, and try again.*

## ▼ Recommendations for Shifting

### Upshifting

#### 2.3-liter engine

For normal acceleration, we recommend these shift points.

Gear	Vehicle speed
1 to 2	26 km/h (16 mph)
2 to 3	45 km/h (28 mph)
3 to 4	53 km/h (33 mph)
4 to 5	63 km/h (39 mph)

For cruising

Gear	Vehicle speed
1 to 2	13 km/h (8 mph)
2 to 3	32 km/h (20 mph)
3 to 4	50 km/h (31 mph)
4 to 5	68 km/h (42 mph)

#### 3.0-liter engine

For normal acceleration, we recommend these shift points.

Gear	Vehicle speed
1 to 2	27 km/h (17 mph)
2 to 3	48 km/h (30 mph)
3 to 4	56 km/h (35 mph)
4 to 5	63 km/h (39 mph)

For cruising

Gear	Vehicle speed
1 to 2	13 km/h (8 mph)
2 to 3	34 km/h (21 mph)
3 to 4	52 km/h (32 mph)
4 to 5	66 km/h (41 mph)

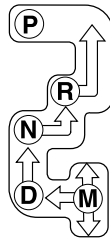
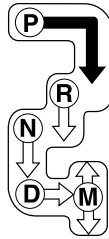
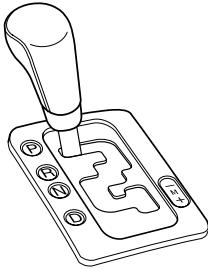
**Downshifting**

When you must slow down in heavy traffic or on a steep **upgrade**, downshift before the engine starts to overwork. This reduces the chance of stalling and gives better acceleration when you need more speed.

On a steep downgrade, downshifting helps maintain safe speed and prolongs brake life.

# Starting and Driving

## Automatic Transaxle Controls



### Various Lockouts:



Indicates that you must depress the brake pedal to shift (The ignition switch must be in the ACC or ON position).



Indicates the shift lever can be shifted freely into any position.

### NOTE

*This Sport AT has an option that is not included in traditional automatic transaxle - giving the driver the option of selecting each gear instead of leaving it to the transaxle to shift gears. Even if you intend to use the automatic transaxle functions as a traditional automatic, you should also be aware that you can inadvertently shift into manual shift mode and an inappropriate gear may be retained as you change speeds. If you notice the engine speed going higher or hear the engine racing, confirm you have not accidentally slipped into manual shift mode (page 5-14).*

### ▼ Transaxle Ranges

The shift lever must be in P or N to operate the starter.

#### **P (Park)**

P locks the transaxle and prevents the front wheels from rotating.

#### **⚠ WARNING**

**Always set the shift lever to P and set the parking brake:**

*Only setting the shift 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.*

#### **⚠ CAUTION**

- *Shifting into P, N or R while the vehicle is moving can damage your transaxle.*
- *Shifting into a driving gear or reverse when the engine is running faster than idle can damage the transaxle.*

#### **R (Reverse)**

In position R, the vehicle moves only backward. You must be at a complete stop before shifting to or from R, except under rare circumstances as explained in *Rocking the Vehicle* (page 4-8).

#### **N (Neutral)**

In N, the wheels and transaxle are not locked. The vehicle will roll freely even on the slightest incline unless the parking brake or brakes are on.

#### **⚠ WARNING**

**If the engine is running faster than idle, do not shift from N or P into a driving gear:**

*It's dangerous to shift from N or P into a driving gear when the engine is running faster than idle. If this is done, the vehicle could move suddenly, causing an accident or serious injury.*

**Do not shift into N when driving the vehicle:**

*Shifting into N while driving is dangerous. Engine braking cannot be applied when decelerating which could lead to an accident or serious injury.*

#### **⚠ CAUTION**

*Do not shift into N when driving the vehicle. Doing so can cause transaxle damage.*

#### **NOTE**

*Apply the parking brake or depress the brake pedal before moving the shift lever from N to prevent the vehicle from moving unexpectedly.*

#### **D (Drive)**

D is the normal driving position. From a stop, the transaxle will automatically shift through a 5-gear/6-gear\* sequence.

\* 3.0-liter engine model

#### **M (Manual)**

M is the manual shift mode position. Gears can be shifted up or down by operating the shift lever.

Refer to Manual Shift Mode (page 5-14).

# Starting and Driving

## ▼ Shift-Lock System

The shift-lock system prevents shifting out of P unless the brake pedal is depressed.

To shift from P:

1. Depress and hold the brake pedal.
2. Start the engine.
3. Move the shift lever.

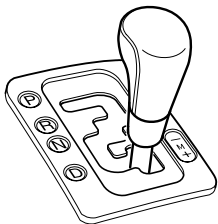
### NOTE

- When the ignition switch is in the LOCK position, the shift lever cannot be shifted from P.
- To be sure the vehicle is in park, the ignition key cannot be removed unless the shift lever is in P.

## ▼ Manual Shift Mode

This mode gives you the feel of driving a manual transaxle vehicle by operating the shift lever and allows you to control engine rpm and torque to the front wheels much like a manual transaxle when more control is desired.

To change to manual shift mode, shift the lever from D to M.



To return to automatic shift mode, shift the lever from M to D.

### NOTE

- If you change to manual shift mode when the vehicle is stopped, the gear will shift to M1.
- If you shift up once when the vehicle is stopped and the gear is at M1, the gear will shift to M2. M2 is helpful for starting on slippery surfaces.
- (2.3-liter engine model)  
If you change to manual shift mode without depressing the accelerator pedal when driving in D range, 5th gear, the gear will shift to M4.
- (3.0-liter engine model)  
If you change to manual shift mode without depressing the accelerator pedal when driving in D range, the gear will shift to a lower gear (Ex; the gear changes from D range, 5th to M4).

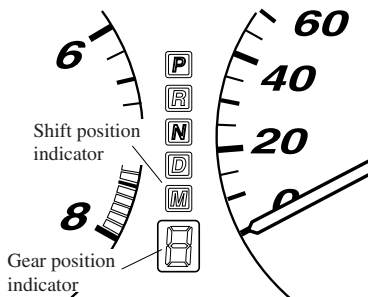
## Indicators

### Shift position indicator

In manual shift mode, the “M” of the shift position indicator in the instrument panel illuminates.

### Gear position indicator

The numeral for the selected gear illuminates.



**NOTE**

- If the gears cannot be shifted down when driving at higher speeds, the gear position indicator will flash twice to signal that the gears cannot be shifted down.

• **(2.3-liter engine model)**

If the automatic transaxle fluid (ATF) temperature becomes too high, there is the possibility that the transaxle will switch to automatic shift mode, canceling manual shift mode and turning off the gear position indicator illumination. This is a normal function to protect the AT. After the ATF temperature has decreased, the gear position indicator illumination turns back on and driving in manual shift mode is restored.

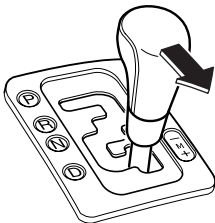
**Shifting**

**Manually Shifting up**

(M1→M2→M3→M4→M5→M6\*)

To shift up to a higher gear, tap the shift lever back (+) once.

\* 3.0-liter engine model



**NOTE**

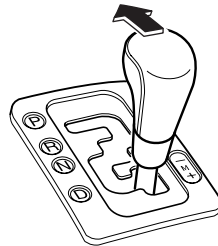
- When driving slowly, the gears may not shift up depending on vehicle speed.
- In manual shift mode, gears do not shift up automatically. Don't run the engine with the tachometer needle in the RED ZONE. If the tachometer needle enters the RED ZONE, you may feel engine-braking because the fuel delivery will be stopped to protect the engine. However, this does not indicate an abnormality.
- Gears may not be shifted from M1 to M2 right after shifting the lever from D to M. Wait a few seconds and then shift up to M2.
- When depressing the accelerator fully, the transaxle will shift to a lower gear, depending on vehicle speed.

**Manually Shifting down**

(M6\*→M5→M4→M3→M2→M1)

To shift down to a lower gear, tap the shift lever forward (-) once.

\* 3.0-liter engine model



# Starting and Driving

## **! WARNING**

**Do not use sudden engine braking on slippery road surfaces or at high speeds:**

*Shifting down while driving on wet, snowy, or frozen roads, or while driving at high speeds causes sudden engine braking, which is dangerous. The sudden change in tire speed could cause the tires to skid. This could lead to loss of vehicle control and an accident.*

### **NOTE**

- When driving at high speeds, the gear may not shift down depending on vehicle speed.
- During deceleration, the gear may automatically shift down depending on vehicle speed.
- When depressing the accelerator fully, the transaxle will shift to a lower gear, depending on vehicle speed.

### **Shifting specification (2.3-liter engine model)**

#### **Shifting up**

If the vehicle speed is lower than the speed specified for each gear, the gear cannot be shifted up to a higher gear.

Gear	Vehicle speed
M1→M2	You can shift up to M2 whether the vehicle is stopped or moving.
M2→M3	20 km/h (12 mph)
M3→M4	33 km/h (21 mph)
M4→M5	

#### **Shifting down**

If the vehicle speed is higher than the speed specified for each gear, the gear cannot be shifted down to a lower gear.

Gear	Vehicle speed
M5→M4	195 km/h (121 mph)
M4→M3	140 km/h (87 mph)
M3→M2	94 km/h (59 mph)
M2→M1	47 km/h (30 mph)

During deceleration, the gears shift down automatically when speed is reduced to the following:

Gear	Vehicle speed
M5 or M4→M3	30 km/h (18 mph)
M3 or M2→M1	10 km/h (6 mph)

### **NOTE**

*If the vehicle is driven at a low speed from a standing start while in M2, the gear will not shift down to M1 automatically until the shift lever is tapped back (+) or forward (-).*

If the vehicle is kicked down at the following speeds or lower, the gears shift down automatically:

Gear	Vehicle speed
M5→M4	182 km/h (113 mph)
M4→M3	133 km/h (82 mph)
M3→M2	48 km/h (30 mph)
M2→M1	12 km/h (7 mph)

### **Shifting specification (3.0-liter engine model)**

#### **Shifting up**

If the vehicle speed is lower than the speed specified for each gear, the gear cannot be shifted up to a higher gear.

Gear	Vehicle speed
M1→M2	You can shift up to M2 whether the vehicle is stopped or moving.
M2→M3	10 km/h (6 mph)
M3→M4	23 km/h (14 mph)
M4→M5	39 km/h (24 mph)
M5→M6	49 km/h (30 mph)



**Shifting down**

If the vehicle speed is higher than the speed specified for each gear, the gear cannot be shifted down to a lower gear.

Gear	Vehicle speed
M5→M4	175 km/h (109 mph)
M4→M3	130 km/h (81 mph)
M3→M2	83 km/h (52 mph)
M2→M1	43 km/h (27 mph)

During deceleration, the gears shift down automatically when speed is reduced to the following:

Gear	Vehicle speed
M6→M5	50 km/h (31 mph)
M5→M4	38 km/h (23 mph)
M4→M3	27 km/h (16 mph)
M3 or M2→M1	10 km/h (6 mph)

**NOTE**

*If the vehicle is driven at a low speed from a standing start while in M2, the gear may not shift down to M1 automatically.*

If the vehicle is kicked down at the following speeds or lower, the gears shift down automatically:

Gear	Vehicle speed
M6→M5	212 km/h (131 mph)
M6→M4	161 km/h (100 mph)
M5→M4	161 km/h (100 mph)
M5→M3	70 km/h (44 mph)
M4→M3	70 km/h (44 mph)
M4→M2	46 km/h (28 mph)
M3→M2	46 km/h (28 mph)

**Recommendations for shifting****Upshifting**

For normal acceleration and cruising, we recommend these shift points.

**(2.3-liter engine model)**

Gear	Vehicle speed
M1 to M2	24 km/h (15 mph)
M2 to M3	40 km/h (25 mph)
M3 to M4	65 km/h (40 mph)
M4 to M5	73 km/h (45 mph)

**(3.0-liter engine model)**

Gear	Vehicle speed
M1 to M2	24 km/h (15 mph)
M2 to M3	40 km/h (25 mph)
M3 to M4	65 km/h (40 mph)
M4 to M5	73 km/h (45 mph)
M5 to M6	80 km/h (50 mph)

**Downshifting**

When you must slow down in heavy traffic or on a steep **upgrade**, downshift before the engine starts to overwork. This gives better acceleration when you need more speed.

On a steep **downgrade**, downshifting helps maintain safe speed and prolongs brake life.

**▼ Driving Tips****Passing**

For extra power when passing another vehicle or climbing steep grades, depress the accelerator fully. The transaxle will shift to a lower gear, depending on vehicle speed.

**Climbing steep grades from a stop**

To climb a steep grade from a stopped position:

1. Depress the brake pedal.

## Starting and Driving

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2. Shift to D or M1, depending on the load weight and grade steepness.
3. Release the brake pedal while gradually accelerating.

### Descending steep grades

When descending a steep grade, shift to lower gears, depending on load weight and grade steepness. Descend slowly, using the brakes only occasionally to prevent them from overheating.

## Power Steering

Power steering is only operable when the engine is running. If the engine is off or if the power steering system is inoperable, you can still steer, but it requires more physical effort.

If the steering feels stiffer than usual during normal driving, consult an Authorized Mazda Dealer.

### CAUTION

*Never hold the steering wheel to the extreme left or right for more than 5 seconds with the engine running. This could damage the power steering system.*

## 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

### ▼ Cruise Main Indicator Light

## CRUISE MAIN

This light comes on when the ON/OFF switch is pressed and the cruise control system is activated.

### ▼ Cruise Set Indicator Light

## CRUISE

This light comes on when a cruising speed is set.

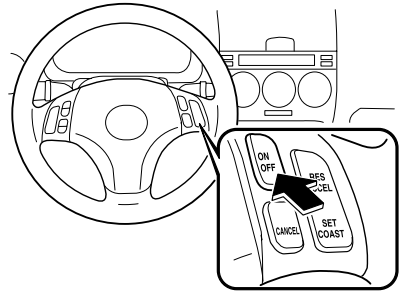
### ▼ Activation/Deactivation

To activate the system, press the ON/OFF switch.

The cruise main indicator light illuminates.

To deactivate the system, press the switch again.

The cruise main indicator light turns off.



### **⚠ WARNING**

**Keep the ON/OFF switch off when cruise control is not in use:**

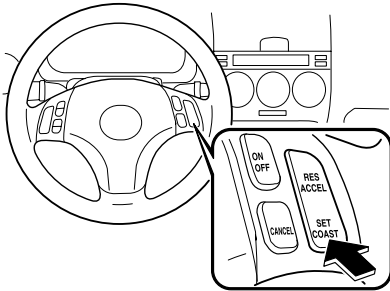
*Leaving the ON/OFF switch on when not using the cruise control is dangerous as you may hit one of the other buttons and put the vehicle in cruise control unexpectedly. This could result in loss of vehicle control.*

### ▼ To Set Speed

1. Activate the cruise control system by pressing the ON/OFF switch.
2. Accelerate to the desired speed, which must be more than 30 km/h (19 mph).

## Starting and Driving

3. Press the SET/COAST button and release it at the speed you want. Release the accelerator at the same time.



Don't continue to hold in the button. Until you release it, speed will continue to drop (unless you continue to accelerate) and you'll miss the desired speed.

### NOTE

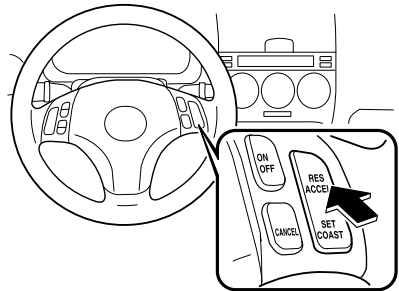
- The SET function can't be activated until about 2 seconds after the ON/OFF switch has been engaged.
- On a steep grade, the vehicle may momentarily slow down going up or speed up while going down.
- Cruise control will turn off if vehicle speed drops below 30 km/h (19 mph) when cruise is activated, such as when climbing a steep grade.

### ▼ To Increase Cruising Speed

Follow either of these procedures.

#### To increase speed using cruise control switch

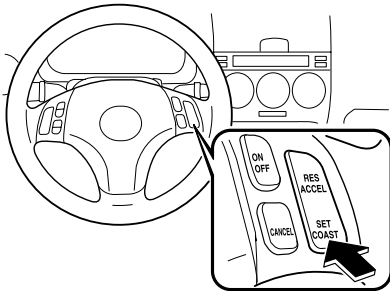
Press the RES/ACCEL button and hold it. Your vehicle will accelerate. Release the button at the speed you want.



Your vehicle has a tap-up feature that allows you to increase your current speed in increments of 1.6 km/h (1 mph) by a momentary tap of the RES/ACCEL button. Multiple taps will increase your vehicle speed 1.6 km/h (1 mph) for each tap.

### **To increase speed using accelerator pedal**

Depress the accelerator pedal to accelerate to the desired speed.  
Press the SET/COAST button and release it immediately.

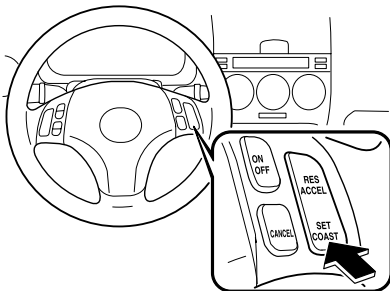


#### **NOTE**

*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 Decrease Cruising Speed**

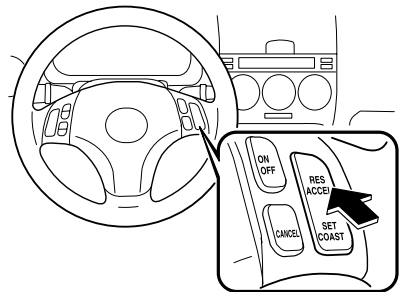
Press the SET/COAST button and hold it. The vehicle will gradually slow. Release the button at the speed you want.



Your vehicle has a tap-down feature that allows you to decrease your current speed in decrements of 1.6 km/h (1 mph) by a momentary tap of the SET/COAST button. Multiple taps will decrease your vehicle speed 1.6 km/h (1 mph) for each tap.

### **▼ To Resume Cruising Speed at More Than 30 km/h (19 mph)**

If some other method besides the ON/OFF switch was used to cancel cruising speed (such as applying the brake pedal) and the system is still activated, the most recent set speed will automatically resume when the RES/ACCEL button is pressed. If vehicle speed is below 30 km/h (19 mph), increase the vehicle speed up to 30 km/h (19 mph) and press the RES/ACCEL button.



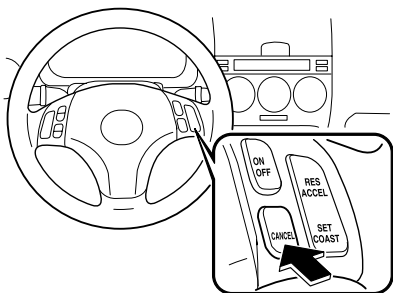
### **▼ To Cancel**

To cancel the system, use **one** of these methods:

- Press the ON/OFF switch.
- Slightly depress the brake pedal.
- Depress the clutch pedal (Manual transaxle only).

## Starting and Driving

- Press the CANCEL button.



The system is off when the ignition is off.

### NOTE

Cruise control will cancel at about 15 km/h (9 mph) below the preset speed (such as may happen when climbing a long, steep grade) or below 30 km/h (19 mph).

## Traction Control System (TCS)\*

The Traction Control System (TCS) enhances traction and safety by controlling engine torque. When the TCS detects driving wheel slippage, it lowers engine torque to prevent loss of traction.

This means that on a slick surface, the engine adjusts automatically to provide optimum power to the drive wheels without causing them to spin and lose traction.

### ! WARNING

**Do not rely on the traction control system 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 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.*

### ▼ TCS Indicator Light



This indicator light stays on for a few seconds when the ignition switch is turned to the ON position. If the TCS is operating, the indicator light flashes.

If the light stays on, the TCS may have a malfunction and it may not operate correctly. Take your vehicle to an Authorized Mazda Dealer.

#### NOTE

- In addition to the indicator light flashing, a slight lugging sound will come from the engine. This indicates that the TCS is operating properly.
- On slippery surfaces, such as fresh snow, it will be impossible to achieve high rpm when the TCS is on.

### ▼ TCS OFF Indicator Light

# TCS OFF

This indicator light stays on for a few seconds when the ignition switch is turned to the ON position.

It also comes on when the TCS OFF switch is pressed and TCS is switched off.

If the light stays on when the TCS is not switched off, take your vehicle to an Authorized Mazda Dealer. The TCS may have a malfunction.

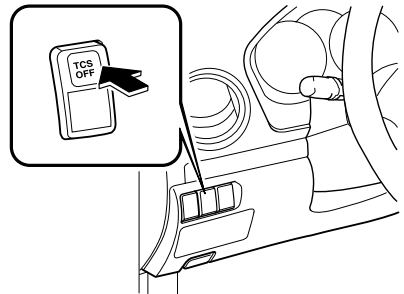
#### NOTE

##### (3.0-liter engine model)

After starting the engine when the coolant temperature is extremely low, the TCS is automatically turned off. At this time, the TCS OFF indicator light will remain on, but this does not indicate an abnormality. After the engine has warmed, TCS will resume normal operation and the indicator light will go out.

### ▼ TCS OFF Switch

Press the TCS OFF switch to turn off the TCS. The TCS OFF indicator light will illuminate.



Press the switch again to turn the TCS back on. The TCS OFF indicator light will go out.

## Starting and Driving

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### **NOTE**

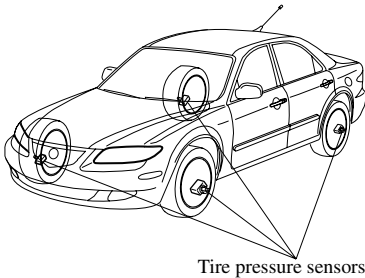
- *When TCS is on and you attempt to free the vehicle when it is stuck, or drive it out of freshly fallen snow, the TCS will activate. Depressing the accelerator will not increase engine power and freeing the vehicle may be difficult. When this happens, turn off the TCS.*
- *If the TCS is off when the engine is turned off, it automatically activates when the ignition switch is turned on.*
- *Leaving the TCS on will provide the best traction.*



## Tire Pressure Monitoring System \*

The tire pressure monitoring system (TPMS) monitors the pressure for each tire. If tire pressure is too low in one or more tires, the system will inform the driver via the warning light in the instrument panel and by the warning beep sound.

The tire pressure sensors installed on each wheel send tire pressure data by radio signal to the receiver unit in the vehicle.



### **NOTE**

*When the ambient temperature is low due to seasonal changes, tire temperatures are also lower. When the tire temperature decreases, the air pressure decreases as well. The TPMS warning light may illuminate more frequently. Visually inspect the tires daily before driving, and check tire pressures monthly with a tire pressure gauge. When checking tire pressures, use of a digital tire pressure gauge is recommended.*

TPMS does not alleviate your need to check the pressure and condition of all four tires regularly.

## Starting and Driving

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### 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.

### NOTE

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.

### ▼ Tire Pressure Monitoring System Warning Light



This warning light illuminates for a few seconds when the ignition switch is turned to the ON position.

Thereafter, the warning light illuminates and a beep is heard when tire pressure is too low in one or more tires, and flashes when there is a system malfunction.

### **! WARNING**

*If the tire pressure monitoring system warning light illuminates or flashes, or the tire pressure warning beep sound is heard, decrease vehicle speed immediately and avoid sudden maneuvering and braking:*

*If the tire pressure monitoring system warning light illuminates or flashes, or the tire pressure warning beep sound is heard, it is dangerous to drive the vehicle at high speeds, or perform sudden maneuvering or braking. Vehicle drivability could worsen and result in an accident. To determine if you have a slow leak or a flat, pull over to a safe position where you can check the visual condition of the tire and determine if you have enough air to proceed to a place where air may be added and the system monitored again, an Authorized Mazda Dealer or a tire repair station.*

**Do not ignore the TPMS Warning Light:** *Ignoring the TPMS warning light is dangerous, even if you know why it is illuminated. Have the problem taken care of as soon as possible before it develops into a more serious situation that could lead to tire failure and a dangerous accident.*

### **Warning light illuminates/Warning beep sounds**

When the warning light illuminates, and the warning beep sound is heard (about 3 seconds), tire pressure is too low in one or more tires.

## Starting and Driving

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Adjust the tire pressure to the correct tire pressure. Refer to the specification charts (page 10-7).

### CAUTION

*When replacing/repairing the tires or wheels or both, have the work done by an Authorized Mazda Dealer, or the tire pressure sensors may be damaged.*

### NOTE

- *Perform tire pressure adjustment when the tires are cold. Tire pressure will vary according to the tire temperature, therefore let the vehicle stand for 1 hour or only drive it 1.6 km (1 mile) or less before adjusting the tire pressures. When pressure is adjusted on hot tires to the cold inflation pressure, the TPMS warning light/beeep may turn on after the tires cool and pressure drops below specification. Also, an illuminated TPMS warning light, resulting from the tire air pressure dropping due to cold ambient temperature, may go out if the ambient temperature rises. In this case, it will also be necessary to adjust the tire air pressures. If the TPMS warning light illuminates due to a drop in tire air pressure, make sure to check and adjust the tire air pressures.*
- *After adjusting the tire air pressures, it may require some time for the TPMS warning light to go out. If the TPMS warning light remains illuminated, drive the vehicle at a speed of at least 25 km/h (16 mph) for 10 minutes, and then verify that it goes out.*
- *Tires can loose a little air quite naturally over time and the TPMS cannot tell if the tires are getting too soft over time or you have a flat. However, when you find one low tire in a set of four - that is an indication of trouble; you should have someone drive the vehicle slowly forward so you can inspect any low tire for cuts and any metal sticking through tread or sidewall. Put a few drops of water in the valve stem to see if it bubbles indicating a bad valve. Leaks need to be addressed by more than simply refilling the trouble tire as leaks are dangerous - take it to an Authorized Mazda Dealer which has all the equipment to fix tires, TPMS systems and order the best replacement tire for your vehicle.*

If the warning light illuminates again even after the tire pressures are adjusted, there may be a tire puncture. Replace the punctured tire with the temporary spare tire (page 7-8).

**NOTE**

A tire pressure sensor is not installed to the temporary spare tire. The warning light will flash continuously while the temporary spare tire is being used.

**Warning light flashes**

When the warning light flashes, there may be a system malfunction. Consult an Authorized Mazda Dealer.

**▼ System Error Activation**

When the TPMS warning light flashes, there may be a system malfunction. Consult an Authorized Mazda Dealer. A system error activation may occur in the following cases:

- When there is equipment or a device near the vehicle using the same radio frequency as that of the tire pressure sensors.
- When using the following devices in the vehicle that may cause radio interference with the receiver unit.
  - A digital device such as a personal computer.
  - A current converter device such as a DC-AC converter.
- When excess snow or ice adheres to the vehicle, especially around the wheels.
- When the tire pressure sensor batteries are exhausted.
- When using a wheel with no tire pressure sensor installed.
- When using tires with steel wire reinforcement in the side walls.

**▼ Tires and Wheels****⚠ CAUTION**

*When inspecting or adjusting the tire air pressures, do not apply excessive force to the stem part of the wheel unit. The stem part could be damaged.*

**Changing tires and wheels**

The following procedure allows the TPMS to recognize a tire pressure sensor's unique ID signal code whenever tires or wheels are changed, such as changing to and from winter tires.

**NOTE**

*Each tire pressure sensor has a unique ID signal code. The signal code must be registered with the TPMS before it can work. The easiest way to do it is to have an Authorized Mazda Dealer change your tire and complete ID signal code registration.*

**When having tires changed at an Authorized Mazda Dealer**

Tire pressure sensor ID signal code registration is completed when an Authorized Mazda Dealer changes your vehicle's tires.

**When changing tires yourself**

If you or someone else changes tires, you or someone else can also undertake the steps for the TPMS to complete the ID signal code registration.

1. After tires have been changed, turn the ignition switch to the ON position, then turn it back to the ACC or LOCK position.
2. Wait for about 15 minutes.

## Starting and Driving

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3. After about 15 minutes, drive the vehicle at a speed of at least 25 km/h (16 mph) for 10 minutes and the tire pressure sensor ID signal code will be registered automatically.

### **NOTE**

*If the vehicle is driven within about 15 minutes of changing tires, the tire pressure monitoring system warning light will flash because the sensor ID signal code would not have been registered. If this happens, park the vehicle for about 15 minutes, after which the sensor ID signal code will register upon driving the vehicle for 10 minutes.*

### **Replacing tires and wheels**

#### **⚠ CAUTION**

- *When replacing/repairing the tires or wheels or both, have the work done by an Authorized Mazda Dealer, or the tire pressure sensors may be damaged.*
- *The wheels equipped on your Mazda are specially designed for installation of the tire pressure sensors. Do not use non-genuine wheels, otherwise it may not be possible to install the tire pressure sensors.*

Be sure to have the tire pressure sensors installed whenever tires or wheels are replaced.

When having a tire or wheel or both replaced, the following types of tire pressure sensor installations are possible.

- The tire pressure sensor is removed from the old wheel and installed to the new one.
- The same tire pressure sensor is used with the same wheel. Only the tire is replaced.

- A new tire pressure sensor is installed to a new wheel.

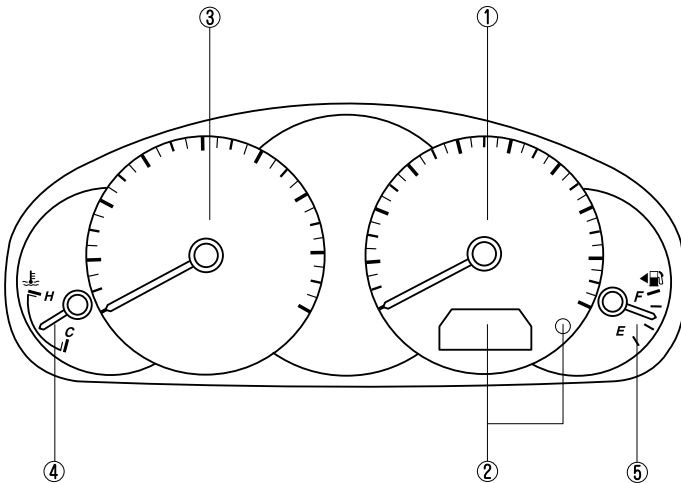
### **NOTE**

- *The tire pressure sensor ID signal code must be registered when a new tire pressure sensor is purchased. For purchase of a tire pressure sensor and registration of the tire pressure sensor ID signal code, consult an Authorized Mazda Dealer.*
- *When reinstalling a previously removed tire pressure sensor to a wheel, replace the grommet (seal between valve body/sensor and wheel) for the tire pressure sensor.*

## Meters and Gauges

### (Black-out meter)

When the ignition switch is in the ON position, the dashboard gauges illuminate.



- ① Speedometer ..... page 5-32
- ② Odometer, Trip Meter and Trip Meter Selector ..... page 5-32
- ③ Tachometer ..... page 5-33
- ④ Engine Coolant Temperature Gauge ..... page 5-33
- ⑤ Fuel Gauge ..... page 5-34

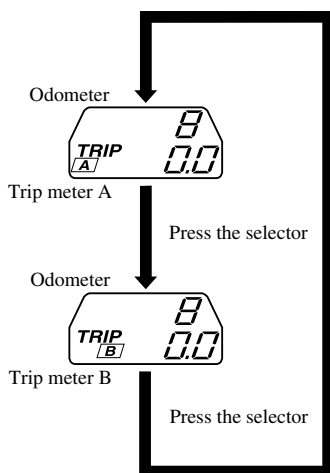
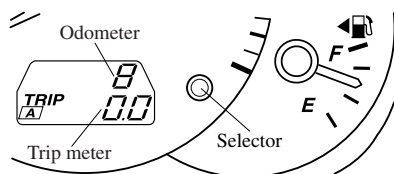
## Instrument Cluster and Indicators

### ▼ Speedometer

The speedometer indicates the speed of the vehicle.

### ▼ Odometer, Trip Meter and Trip Meter Selector

The display mode can be changed between trip meter A and trip meter B by pressing the selector while one of them is displayed. The selected mode will be displayed.



### **NOTE**

#### **(Standard meter)**

The odometer and trip meter can be displayed as follows even when the ignition switch is in the ACC or LOCK position.

The headlight switch must be in the ● or ☰ position to see the display.

- Displays for 10 minutes after the ignition switch is turned to the ACC or LOCK position from the ON position.
- Displays for 10 minutes after any door is opened.

### **Odometer**

The odometer records the total distance the vehicle has been driven.

### **Trip meter**

The trip meter can record the total distance of two trips. One is recorded in trip meter A, and the other is recorded in trip meter B.

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 fuel tank is filled.

When trip meter A is selected, pressing the selector again within one second will change to trip meter B mode.

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 records the total distance the vehicle is driven until the meter is again reset. Return it to "0.0" by holding the selector depressed for more than 1 second. Use this meter to measure trip distances and to compute fuel consumption.



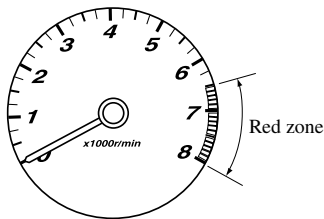
## Instrument Cluster and Indicators

### NOTE

- Only the trip meters record tenths of kilometers (miles).
- The trip record will be erased when:
  - The power supply is interrupted (blown fuse or the battery is disconnected).
  - The vehicle is driven over 999.9 km (mile).

### ▼ Tachometer

The tachometer shows engine speed in thousands of revolutions per minute (rpm).

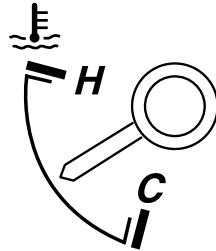


### ⚠ CAUTION

Don't run the engine with the tachometer needle in the RED ZONE. This may cause severe engine damage.

### ▼ Engine Coolant Temperature Gauge

The engine coolant temperature gauge shows the temperature of the engine coolant.



If the needle is near H, it indicates overheating.

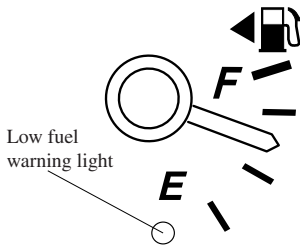
### ⚠ CAUTION

Driving with an overheated engine can cause serious engine damage (page 7-14).

## Instrument Cluster and Indicators

### ▼ Fuel Gauge

The fuel gauge shows approximately how much fuel is in the tank. We recommend keeping the tank over 1/4 full. When the low fuel warning light illuminates or when the needle is near E, refuel as soon as possible.



#### NOTE

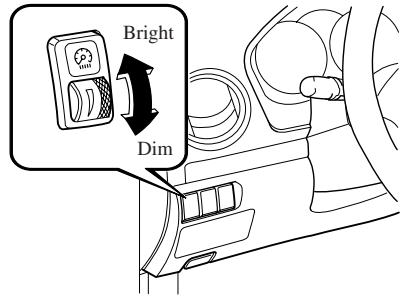
The direction of the arrow (⬅️) shown that the fuel-filler lid is on the left side of the vehicle.

### ▼ Dashboard Illumination

Rotate the thumb wheel to adjust the brightness of the instrument cluster and other illuminations in the dashboard.

#### NOTE

- The brightness of dashboard illuminations (except instrument cluster) can be adjusted when the headlight switch is in the ● or ☰ position.
- **(Black-out meter)**  
The brightness of the instrument cluster illumination can be adjusted when the headlight switch is in any position.



### Canceling the illumination dimmer (Black-out meter and dashboard illuminations)

When the headlight switch is in the ● or ☰ position, the illumination of the instrument cluster and the information display dims.

When driving on snowy or foggy roads, or in other situations when the instrument cluster or information display's visibility is reduced due to glare from surrounding brightness, cancel the illumination dimmer and increase the illumination intensity.

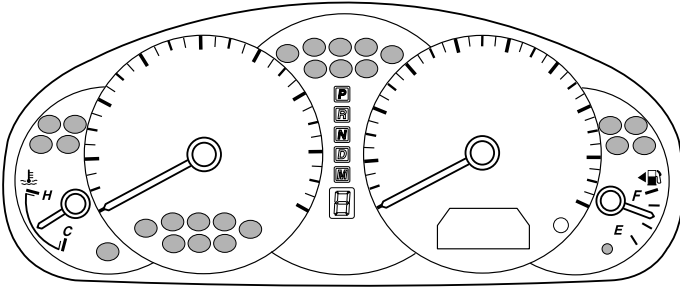
To cancel the illumination dimmer, rotate the thumb wheel upward fully. You may hear a click sound and the illumination dimmer will be canceled.

#### NOTE








If the dashboard illumination switch is kept at the illumination dimmer cancel position, the instrument cluster and the information display will not dim when the headlight switch is turned to the ● or ☰ position again.

# Warning/Indicator Lights and Beep Sounds










## Warning/Indicator Lights



Warning/Indicator lights will appear in any of the highlighted areas

Signal	Warning/Indicator Lights	Page
 BRAKE	Brake System Warning Light	5-37
	Charging System Warning Light	5-38
	Engine Oil Pressure Warning Light	5-38
	Check Engine Light	5-39
	ABS Warning Light	5-37
	Air Bag/Front Seat Belt Pretensioner System Warning Light	5-39
	Low Fuel Warning Light	5-40

## Warning/Indicator Lights and Beep Sounds

Signal	Warning/Indicator Lights	Page
	Seat Belt Warning Light/Beep	5-40
	Door-Ajar Warning Light	5-41
	Low Washer Fluid Level Warning Light	5-41
<b>AT</b>	Automatic Transaxle Warning Light	5-41
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<i>PANDM</i>	Shift Position Indicator Light	5-44
	TCS Indicator Light	5-44
<b>TCS OFF</b>	TCS OFF Indicator Light	5-45
<b>CRUISE MAIN</b>	Cruise Main Indicator Light	5-45
<b>CRUISE</b>	Cruise Set Indicator Light	5-45
	Light-On Indicator Light	5-45
	Turn Signal/Hazard Warning Indicator Lights	5-45

## Warning/Indicator Lights and Beep Sounds

### ▼ Brake System Warning Light



This warning has the following functions:

#### **Parking brake warning**

The light comes on when the parking brake is applied with the ignition switch in the START or ON position. It goes off when the parking brake is fully released.

#### **Low brake fluid level warning**

If the light stays on after the parking brake is fully released, you may have a brake problem.

Drive to the side of the road and park off the right-of-way.

You may notice that the pedal is harder to push or that it may go closer to the floor. In either case, it will take longer to stop the vehicle.

1. With the engine stopped, check the brake fluid level immediately and add fluid as required (page 8-22).
2. After adding fluid, check the light again.

If the warning light remains on, or if the brakes do not operate properly, do not drive the vehicle. Have it towed to an Authorized Mazda Dealer.

Even if the light goes out have your brake system inspected as soon as possible by an Authorized Mazda Dealer.

### **NOTE**

*Having to add brake fluid is sometimes an indicator of leakage. Consult an Authorized Mazda Dealer as soon as possible even if the brake light is no longer illuminated.*

### **⚠ 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.*

### ▼ ABS Warning Light



The warning light stays on for a few seconds when the ignition switch is turned to the ON position.

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.

## Warning/Indicator Lights and Beep Sounds

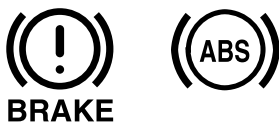
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### NOTE

When the engine is jump-started to charge the battery, uneven rpm occurs and the ABS warning light comes on. This is due to a weak battery, not a malfunction.

Recharge the battery.

### ▼ 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 turn the brake system warning light and the ABS warning light on at the same time. The problem is likely to be the electronic brake force distribution system.

### ! WARNING

**Do not drive with both the ABS warning light and brake 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 at the same time is dangerous.*

*When both lights are illuminated, the rear wheels could lock more quickly in an emergency stop than under normal circumstances.*

### ▼ Charging System Warning Light



This warning light illuminates when the ignition switch is turned to the ON position and turns off when the engine is started.

If the warning light illuminates while driving, it indicates a malfunction of the alternator or of the charging system. Drive to the side of the road and park off the right-of-way. Consult an Authorized Mazda Dealer.

### ! CAUTION

*Don't continue driving when the charging system warning light is illuminated because the engine could stop unexpectedly.*

### ▼ Engine Oil Pressure Warning Light



This warning light illuminates when the ignition switch is turned to the ON position and turns off when the engine is started.

This warning light indicates low engine oil pressure.

## Warning/Indicator Lights and Beep Sounds

If the light illuminates while driving:

1. Drive to the side of the road and park off the right-of-way on level ground.
2. Turn off the engine and wait 5 minutes for the oil to drain back into the oil pan.
3. Inspect the engine oil level (page 8-19). If it's low, add oil.
4. Start the engine and check the warning light.

If the light remains illuminated even after you add oil, stop the engine immediately and have your vehicle towed to an Authorized Mazda Dealer.

### **CAUTION**

*Don't run the engine if oil pressure is low. It could result in extensive engine damage.*

#### ▼ Check Engine Light



This indicator light illuminates when the ignition switch is turned to the ON position and goes off when the engine is started.

If this light comes on while driving, the vehicle may have a problem. It is important to note the driving conditions when the light came on and consult an Authorized Mazda Dealer.

The check engine light may come on in the following cases:

- The fuel tank level being very low or approaching empty.
- The engine's electrical system has a problem.
- The emission control system has a problem.
- The fuel-filler cap is missing or not tightened securely.

If the check engine light remains on or flashes continuously, do not drive at high speeds and consult an Authorized Mazda Dealer as soon as possible.

#### ▼ Air Bag/Front Seat Belt Pretensioner System Warning Light



If the air bag/front seat belt pretensioner system is working properly, the warning light illuminates when the ignition switch is turned to the ON position or after the engine is cranked. The warning light turns off after a specified period of time.

A system malfunction is indicated if the warning light constantly flashes, constantly illuminates or does not illuminate at all when the ignition switch is turned to the ON position. If any of these occur, consult an Authorized Mazda Dealer as soon as possible. The system may not work in an accident.

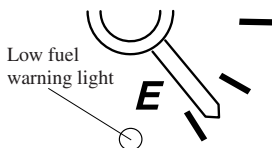
## Warning/Indicator Lights and Beep Sounds

### ! 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.*

### ▼ Low Fuel Warning Light



This warning light in the fuel gauge signals that the fuel tank will soon be empty.

Refuel as soon as possible.

### ▼ Seat Belt Warning Light/Beep



The seat belt warning light illuminates and a beep sound will be heard if the driver's seat belt is not fastened when the ignition switch is turned to the ON position.

### Conditions of operation

Condition	Result
The driver's seat belt is not fastened when the ignition switch is turned to the ON position.	The warning light flashes and a beep sound will be heard for about 6 seconds.
The driver's seat belt is fastened while the warning light and the beep sound are activated.	The warning light turns off and the beep sound stops.
The driver's seat belt is fastened before the ignition switch is turned to the ON position.	The warning light will not illuminate and the beep sound will not be heard.

### Belt minder

#### NOTE

*The belt minder can be deactivated. Consult an Authorized Mazda Dealer to deactivate and restore the seat belt minder.*

The belt minder is a supplemental warning to the seat belt warning function. If the driver's seat belt is not fastened when the ignition switch is turned to the ON position, the warning light/beep operates to give you further reminders according to the chart below.

Condition	Vehicle speed			
	Between 0 — 20 km/h (0 — 12 mph)		20 km/h (12 mph) or more	
Seat belt	○	×	○	×
Indicator		⦿		⦿
Beep				♪

- : Fastened
- ×
- ⦿ : Illuminated
- ⦿ : Flashing
- ♪ : Beep



## Warning/Indicator Lights and Beep Sounds

Once the beep sound is heard, it continues sounding even if the vehicle speed lowers to 20 km/h (12 mph) or less until the seatbelt is fastened or the beep sound period has passed.

### ▼ Door-Ajar Warning Light



This warning light comes on when any door isn't securely closed. Close the door securely.

### ▼ Low Washer Fluid Level Warning Light\*



This warning light indicates that little washer fluid remains. Add fluid (page 8-26).

### ▼ Automatic Transaxle Warning Light

# AT

This warning light stays on for a few seconds when the ignition switch is turned to the ON position. The light illuminates when the transaxle has a problem.

#### **⚠ CAUTION**

*If the automatic transaxle warning light illuminates, the transaxle has an electrical problem. Continuing to drive your Mazda in this condition could cause damage to your transaxle. Consult an Authorized Mazda Dealer as soon as possible.*

### ▼ Tire Pressure Monitoring System (TPMS) Warning Light\*



This warning light illuminates for a few seconds when the ignition switch is turned to the ON position.

Thereafter, the warning light illuminates and a beep is heard when tire pressure is too low in one or more tires, and flashes when there is a system malfunction.

## Warning/Indicator Lights and Beep Sounds

---

### **WARNING**

*If the tire pressure monitoring system warning light illuminates or flashes, or the tire pressure warning beep sound is heard, decrease vehicle speed immediately and avoid sudden maneuvering and braking:*

*If the tire pressure monitoring system warning light illuminates or flashes, or the tire pressure warning beep sound is heard, it is dangerous to drive the vehicle at high speeds, or perform sudden maneuvering or braking. Vehicle drivability could worsen and result in an accident.*

*To determine if you have a slow leak or a flat, pull over to a safe position where you can check the visual condition of the tire and determine if you have enough air to proceed to a place where air may be added and the system monitored again, an Authorized Mazda Dealer or a tire repair station.*

**Do not ignore the TPMS Warning Light:**  
*Ignoring the TPMS warning light is dangerous, even if you know why it is illuminated. Have the problem taken care of as soon as possible before it develops into a more serious situation that could lead to tire failure and a dangerous accident.*

### **Warning light illuminates/Warning beep sounds**

When the warning light illuminates, and the warning beep sound is heard (about 3 seconds), tire pressure is too low in one or more tires.

Adjust the tire pressure to the correct tire pressure. Refer to the specification charts (page 10-7).

### **CAUTION**

*When replacing/repairing the tires or wheels or both, have the work done by an Authorized Mazda Dealer, or the tire pressure sensors may be damaged.*

## Warning/Indicator Lights and Beep Sounds

### NOTE

- Perform tire pressure adjustment when the tires are cold. Tire pressure will vary according to the tire temperature, therefore let the vehicle stand for 1 hour or only drive it 1.6 km (1 mile) or less before adjusting the tire pressures. When pressure is adjusted on hot tires to the cold inflation pressure, the TPMS warning light/beep may turn on after the tires cool and pressure drops below specification.

Also, an illuminated TPMS warning light, resulting from the tire air pressure dropping due to cold ambient temperature, may go out if the ambient temperature rises. In this case, it will also be necessary to adjust the tire air pressures. If the TPMS warning light illuminates due to a drop in tire air pressure, make sure to check and adjust the tire air pressures.

- After adjusting the tire air pressures, it may require some time for the TPMS warning light to go out. If the TPMS warning light remains illuminated, drive the vehicle at a speed of at least 25 km/h (16 mph) for 10 minutes, and then verify that it goes out.
- Tires can loose a little air quite naturally over time and the TPMS cannot tell if the tires are getting too soft over time or you have a flat. However, when you find one low tire in a set of four - that is an indication of trouble; you should have someone drive the vehicle slowly forward so you can inspect any low tire for cuts and any metal sticking through tread or sidewall. Put a few drops of water in the valve stem to see if it bubbles indicating a bad valve. Leaks need to be addressed by more than simply refilling the trouble tire as leaks are dangerous - take it to an Authorized Mazda Dealer which has all the equipment to fix tires, TPMS systems and order the best replacement tire for your vehicle.

If the warning light illuminates again even after the tire pressures are adjusted, there may be a tire puncture. Replace the punctured tire with the temporary spare tire (page 7-8).

### NOTE

A tire pressure sensor is not installed to the temporary spare tire. The warning light will flash continuously while the temporary spare tire is being used.

### Warning light flashes

When the warning light flashes, there may be a system malfunction. Consult an Authorized Mazda Dealer.

### ▼ Security Indicator Light



This indicator light starts flashing every 2 seconds when the ignition switch is turned from the ON to the ACC position and the immobilizer system is armed.

The light stops flashing when the ignition switch is turned to the ON position with the correct ignition key.

At this time, the immobilizer system is disarmed and the light illuminates for about 3 seconds and then goes out.

If the engine doesn't start with the correct ignition key, and the security indicator light keeps illuminating or flashing, the system may have a malfunction. Consult an Authorized Mazda Dealer.

## Warning/Indicator Lights and Beep Sounds

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### ▼ Headlight High-Beam Indicator Light

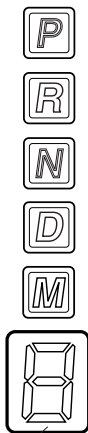


This light indicates one of two things:

- The high-beam headlights are on.
- The turn signal lever is in the flash-to-pass position.

### ▼ Shift Position Indicator Light (Automatic Transaxle)

This indicates the selected shift position when the ignition switch is in the ON position.



Gear position indicator

### Gear position indicator

When the shift lever is in the D or M position, the numeral for the selected gear displays.

### ▼ TCS Indicator Light \*



This indicator light stays on for a few seconds when the ignition switch is turned to the ON position. If the TCS is operating, the indicator light flashes.

If the light stays on, the TCS may have a malfunction and it may not operate correctly. Take your vehicle to an Authorized Mazda Dealer.

### **NOTE**

- In addition to the indicator light flashing, a slight lugging sound will come from the engine. This indicates that the TCS is operating properly.
- On slippery surfaces, such as fresh snow, it will be impossible to achieve high rpm when the TCS is on.

# Warning/Indicator Lights and Beep Sounds

## ▼ TCS OFF Indicator Light\*

# TCS OFF

This indicator light stays on for a few seconds when the ignition switch is turned to the ON position.

It also comes on when the TCS OFF switch is pressed and TCS is switched off.

If the light stays on when the TCS is not switched off, take your vehicle to an Authorized Mazda Dealer. The TCS may have a malfunction.

### NOTE

*(3.0-liter engine model)*

*After starting the engine when the coolant temperature is extremely low, the TCS is automatically turned off. At this time, the TCS OFF indicator light will remain on, but this does not indicate an abnormality. After the engine has warmed, TCS will resume normal operation and the indicator light will go out.*

## ▼ Cruise Main Indicator Light

# CRUISE MAIN

This light comes on when the ON/OFF switch is pressed and the cruise control system is activated.

## ▼ Cruise Set Indicator Light

# CRUISE

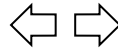
This light comes on when a cruising speed is set.

## ▼ Light-On Indicator Light (Black-out meter)



This indicator light comes on when the exterior lights and dashboard illumination are on.

## ▼ Turn-Signal/Hazard Warning Indicator Lights



When operating the turn signal lights, the left or right turn signal indicator light flashes to indicate which turn signal light is operating (page 5-49).

When operating the hazard warning lights, both turn signal indicator lights flash (page 5-53).

## Warning/Indicator Lights and Beep Sounds

---

### **NOTE**

*If an indicator light remains illuminated (does not flash) or if it flashes abnormally, one of the turn signal bulbs may be burned out.*

### **Beep Sounds**

#### **▼ Seat Belt Warning Beep**

If the driver's seat belt is not fastened when the ignition switch is turned to the ON position, a beep sound will be heard for about 6 seconds.

If the driver's seat belt is not fastened and the vehicle is driven at a speed faster than about 20 km/h (12 mph), a beep sound will be heard again for a specified period of time.

Refer to Seat Belt Warning Light/Beep on page 5-40.

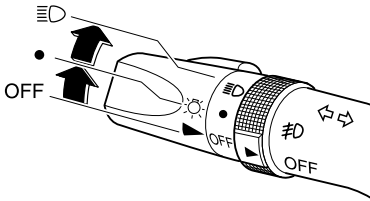
#### **▼ Ignition Key Reminder**

If the ignition switch is in the LOCK or ACC position with the key inserted, a continuous beep sound will be heard when the driver's door is opened.

#### **▼ Tire Inflation Pressure Warning Beep\***

The warning beep sound will be heard for about 3 seconds when there is any abnormality in tire inflation pressures (page 5-25).

## Lighting Control



### ▼ Headlights

To turn on the lights, turn the headlight switch on the end of the control lever.

Switch Position	OFF	●	☰☷
Headlights	Off	Off	On
Taillights			
Parking lights			
License lights	Off	On	On
Side-marker lights			
Dashboard illumination			

### NOTE

- If the light switch is left on, the lights will automatically switch off 30 seconds after turning the ignition switch to the LOCK position or removing the key.

The lights will automatically switch back on when the ignition switch is turned to the ACC or ON position.

- To prevent discharging the battery, don't leave the lights on while the engine is off unless safety requires them.

### Xenon fusion headlight bulbs \*

The low-beam bulbs of the headlights have xenon fusion bulbs that produce a bright white beam over a wide area.

## ⚠ WARNING

**Do not replace the xenon fusion bulbs yourself:**

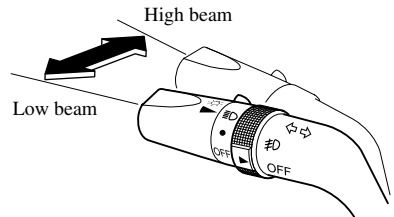
Replacing the xenon fusion bulbs yourself is dangerous. Because the xenon fusion bulbs require high voltage, you could receive an electric shock if the bulbs are handled incorrectly. Consult an Authorized Mazda Dealer when the replacement is necessary.

### NOTE

If the headlights flicker, or the brightness weakens, the bulb-life may be depleted and a replacement is necessary. Consult an Authorized Mazda Dealer.

### ▼ Headlight High-Low Beam

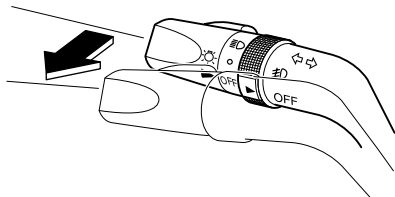
Push the lever forward for high beam. Pull back to original position for low beam.



## Switches and Controls

### ▼ Flashing the Headlights

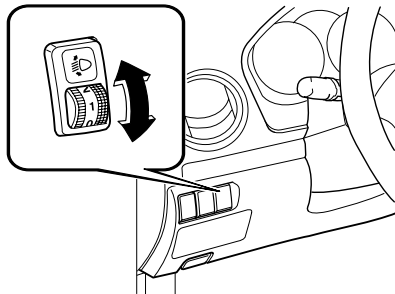
To flash the headlights, pull the lever fully toward you. The headlight switch does not need to be on, and the lever will return to the normal position when released.



### ▼ Headlight Leveling\*

The number of passengers and weight of cargo in the luggage compartment change the angle of the headlights.

The headlight leveling switch adjusts this angle.



Select the proper setting from the following chart.

Front seat		Rear seat	Load	Switch Position
Driver	Passenger			
×	—	—	—	0
×	×	—	—	0
×	×	×	—	1
×	×	×	×	2
×	—	—	×	3

×: Yes

—: No

### ▼ Daytime Running Lights (Canada)

In Canada, vehicles must be driven with the headlights on during daytime operation.

For that reason, the daytime running lights automatically turn on when the ignition switch is turned to the ON position.

#### **NOTE**

*The Daytime Running Lights turn off when the parking brake is applied.*

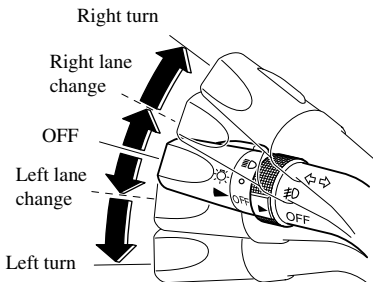


## Turn and Lane-Change Signals

### ▼ Turn Signal

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.



Green indicators on the dashboard show which signal is working.

### Lane-change signals

Move the lever slightly toward the direction of the change—until the indicator flashes—and hold it there. It will return to the off position when released.

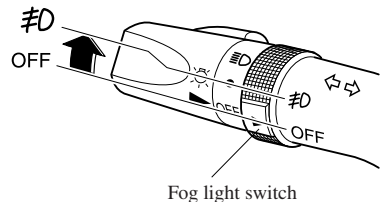
### **NOTE**

*If an indicator light stays on without flashing or if it flashes abnormally, one of the turn signal bulbs may be burned out.*

## Fog Lights \*

Use this switch to turn on the fog lights. They help you to see as well as to be seen.

To turn the front fog lights on, rotate the fog light switch to the ☼ position. The headlight switch must be in the ☼ position to turn on the front fog lights.



To turn them off, rotate the fog light switch to the OFF position or turn the headlight switch to the ● or OFF position.

### **NOTE**

*The fog lights will turn off when the headlights are set at high beam.*

## Switches and Controls

### Windshield Wipers and Washer

The ignition switch must be in the ON position.

#### **WARNING**

**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.*

**Do not use the washer without first warming the windshield and never use plain tap water:**

*Using windshield washer fluid without anti-freeze protection in freezing temperatures is dangerous. The washer fluid could freeze on the windshield and block your vision. You could have an accident.*

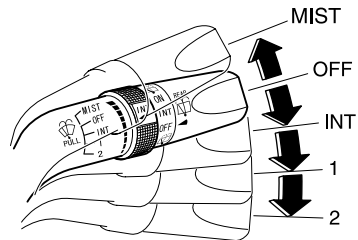
#### **NOTE**

*Because heavy ice and snow can jam the wiper blades, the wiper motor is protected from motor breakdown, overheating and possible fire by a circuit breaker. This mechanism will automatically stop operation of the blades, but only for about 5 minutes.*

*If this happens, turn off the wiper switch and park off the right-of-way, and remove the snow and ice.*

*After 5 minutes, turn on the switch and the blades should operate normally. If they don't resume functioning, consult an Authorized Mazda Dealer as soon as possible. Drive to the side of the road and park off the right-of-way. Wait until the weather clears before trying to drive with the wipers inoperative.*

### ▼ Windshield Wipers



Turn the wipers on by pulling the lever down.

**INT** — Intermittent

**1** — Low speed

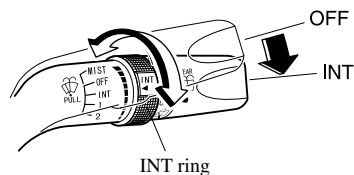
**2** — High speed

For a single wiping cycle, push the lever up to **MIST**.

**MIST** — Mist

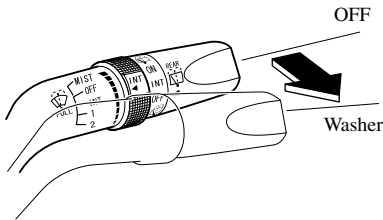
#### **Variable-speed intermittent wipers**

Set the lever to **INT** and choose the interval timing by rotating the ring.



### ▼ Windshield Washer

Pull the lever toward you and hold it to spray washer fluid.



#### NOTE

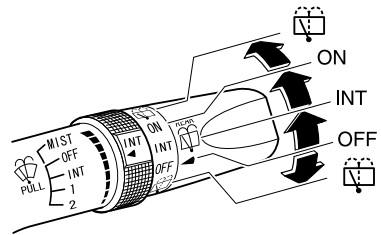
With the wiper lever in the OFF or INT position, the wipers will operate continuously until the lever is released.

If the washer doesn't work, inspect the fluid level (page 8-26). If it's OK, consult an Authorized Mazda Dealer.

### Rear Window Wiper and Washer\*

The ignition switch must be in the ON position.

#### ▼ Rear Window Wiper




Turn the wiper on by turning the rear wiper/washer switch.

**ON** — Normal

**INT** — Intermittent

#### ▼ Rear Window Washer

To spray washer fluid, turn the rear wiper/washer switch to the  position. After the switch is released, the washer will stop.

If the washer doesn't work, inspect the fluid level (page 8-26). If it's OK and the washer still doesn't work, consult an Authorized Mazda Dealer.

## Switches and Controls

### Rear Window Defroster

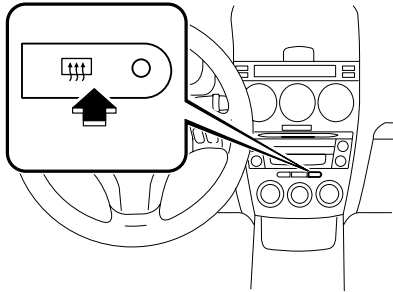
The rear window defroster clears frost, fog, and thin ice from the rear window.

The ignition switch must be in the ON position.

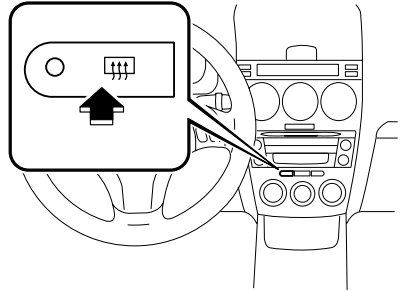
Press the switch to turn on the rear window defroster. The rear window defroster operates for about 15 minutes and turns off automatically. The indicator light illuminates during operation.

To turn off the rear window defroster before the 15 minutes has elapsed, press the switch again.

### Manual Type Air-Conditioning



### Fully Automatic Type Air-Conditioning




### **CAUTION**

*Don't use sharp instruments or window cleaners with abrasives to clean the inside of the rear window surface. They may damage the defroster grid inside the window.*

### **NOTE**

*This defroster is not designed for melting snow. If there is an accumulation of snow on the rear window, remove it before using the defroster.*

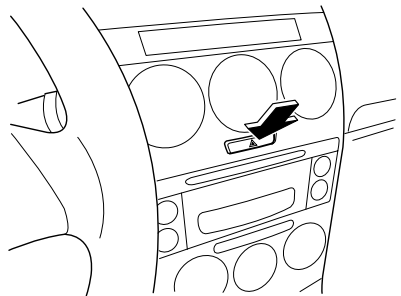
## Horn

To sound the horn, press the  mark on the steering wheel.

## 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.

### **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.*

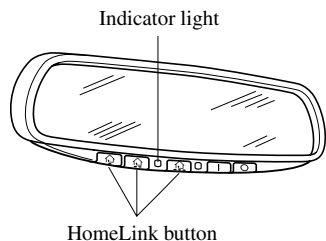
## Switches and Controls

### HomeLink Wireless Control System\*

#### NOTE

*HomeLink and HomeLink house are registered trademarks of Johnson Controls.*

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.



### **⚠ WARNING**

**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.)

Using these garage door openers can increase the risk of serious injury or death. For further information, contact HomeLink at 1-800-355-3515 or [www.homelink.com](http://www.homelink.com) or your 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.

### **⚠ CAUTION**

HomeLink has been tested and complies with FCC and Industry Canada rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

**NOTE**

FCC ID: NZLOBIHL3

CANADA:4112A-OB1HL3

*This device complies with FCC rules part 15. Operation is subject to the following conditions:*

- 1- *This device may not cause any harmful interference and*
- 2- *This device must accept any interference that may be received including interference that may cause undesired operation.*

**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.
- Disconnect the power to the device.

### ▼ Programming the HomeLink System

#### CAUTION

*When programming a garage door opener or a gate, disconnect the power to these devices before performing programming, as continuous operation of the devices could damage the motor.*

The HomeLink system provides 3 buttons which can be individually selected and programmed using the transmitters for current, on-market devices as follows:

1. Press and hold the two outer HomeLink buttons (buttons one and three) — releasing only when the indicator light begins to flash (after 20 seconds). **Do not** hold the buttons for longer than 30 seconds and **do not repeat step 1** to program a second and/or third hand-held transmitter to the remaining two HomeLink buttons.
2. Position the end of your hand-held transmitter 2.5—7.5 cm (1—3 inches) away from the HomeLink button you wish to program while keeping the indicator light in view.
3. Simultaneously press and hold both the chosen HomeLink and hand-held transmitter buttons. **Do not release the buttons until step 4 has been completed.**

**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.*

4. After the HomeLink indicator light changes from a slow to a rapidly blinking light, release both the HomeLink and hand-held transmitter buttons.

**NOTE**

*If the HomeLink indicator light does not change to a rapidly blinking light, contact HomeLink at [www.homelink.com](http://www.homelink.com) or call 1-800-355-3515 for assistance.*

## Switches and Controls

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5. Press and hold the just-trained HomeLink button and observe the indicator light.

If the indicator light **stays on constantly, programming is complete** and your device should activate when the HomeLink button is pressed and released.

### NOTE

*To program the remaining two HomeLink buttons, begin with "Programming" — step 2. Do not repeat step 1.*

If the indicator light blinks **rapidly for two seconds and then turns to a constant light, continue with "Programming" steps 6—8** to complete the programming of a rolling code equipped device (most commonly a garage door opener).

6. 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.
7. Firmly press and release the "learn" or "smart" button. (The name and color of the button may vary by manufacturer.)

### NOTE

*There are 30 seconds in which to initiate step 8.*

8. Return to the vehicle and firmly **press, hold for two seconds and release** the programmed HomeLink button. 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.

HomeLink should now activate your rolling code equipped device.

### NOTE

*To program the remaining two HomeLink buttons, begin with "Programming" — step 2. Do not repeat step 1.*

For questions or comments, please contact HomeLink at [www.homelink.com](http://www.homelink.com) or 1-800-355-3515.

## ▼ 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 you are having difficulties programming a gate operator by using the "Programming" procedures (regardless of where you live), **replace "Programming HomeLink" step 3** 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.*



Continue to press and hold the HomeLink button while you **press and release** — **every two seconds** (“cycle”) your handheld transmitter until the frequency signal has successfully been accepted by HomeLink. (The indicator light will flash slowly and then rapidly.)

Proceed with “Programming” step 4 to complete.

### ▼ **Operating the HomeLink System**



Press the programmed HomeLink button to operate a programmed device. The code will continue being transmitted for a maximum of 20 seconds.

### ▼ **Reprogramming the HomeLink system**

To program a device to HomeLink using a HomeLink button previously trained, follow these steps:

1. Press and hold the desired HomeLink button. **DO NOT** release the button.
2. The indicator light will begin to flash after 20 seconds. Without releasing the HomeLink button, proceed with “Programming” - step 2.

### ▼ **Erasing Programmed HomeLink Buttons**

To erase the existing programming from all three operating channels, press and hold the two outside buttons (  ,  ) on the auto-dimming mirror until the HomeLink indicator light begins to flash after approximately 20 seconds.

Verify that the programming has been erased when you resell the vehicle.



# 6

## Interior Comfort

Use of various features for drive comfort, including air-conditioning and audio system.

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Operating Tips .....	6-2
Vent Operation .....	6-3
Types of the Climate Control System .....	6-5
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Fully Automatic Type .....	6-10
<b>Audio System .....</b>	<b>6-14</b>
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## Climate Control System

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### Operating Tips

#### ▼ Operating the Climate Control System

Operate the climate control system with the engine running.

#### **NOTE**

*To prevent the battery from being discharged, do not leave the fan control dial on for a long period of time with the ignition switch in the ACC position when the engine is not running.*

#### ▼ Clearing the Air Inlet

Clear all obstructions like leaves, snow and ice from the hood and the air inlet in the cowl grille to improve the system efficiency.

#### ▼ Foggy Windows

The windows may fog up easily in humid weather. Use the climate control system to defog the windows.

To help defog the windows, operate the air conditioner to dehumidify the air.

#### **NOTE**

*The air conditioner may be used along with the heater to dehumidify the air.*

#### ▼ Outside/Recirculated Air Position

Use the outside air position in normal conditions. The recirculated air position should be used only when driving on dusty roads or for quick cooling of the interior.

#### ▼ Parking in Direct Sunlight

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.

#### ▼ Not Using for a Long Period

Run the air conditioner about 10 minutes at least once a month to keep internal parts lubricated.

#### ▼ Check the Refrigerant before the Weather Gets Hot

Have the air conditioner checked before the weather gets hot. Lack of refrigerant may make the air conditioner less efficient. Consult an Authorized Mazda Dealer for refrigerant inspection.

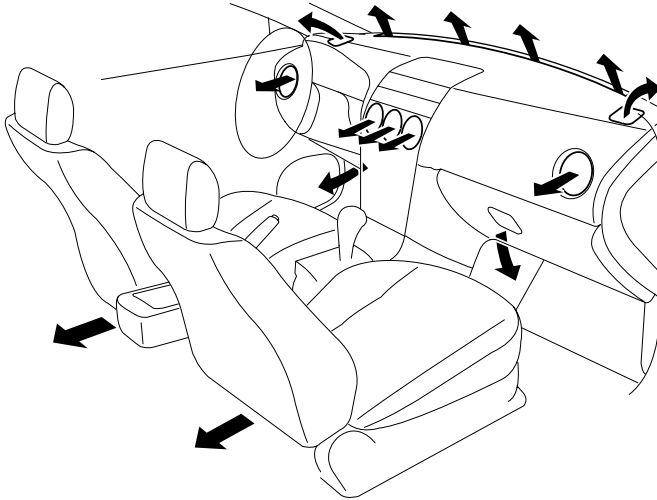
The air conditioner is filled with HFC134a (R134a), a refrigerant that will not damage the ozone layer.

If the air conditioner is low on refrigerant or has a malfunction, consult an Authorized Mazda Dealer.

#### ▼ Replacement of the Cabin Air Filter

If your vehicle is equipped with an air filter for the air conditioner, it is necessary to change the filter periodically as indicated in scheduled maintenance (page 8-3). Consult an Authorized Mazda Dealer for replacement of the cabin air filter.

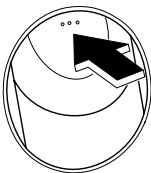
## Vent Operation



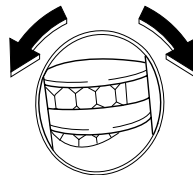
### ▼ Adjusting the Vents

#### Directing airflow

1. Press the upper part of the air vent to open it.



2. Rotate the air vent left and right to adjust the direction of airflow.



#### **NOTE**

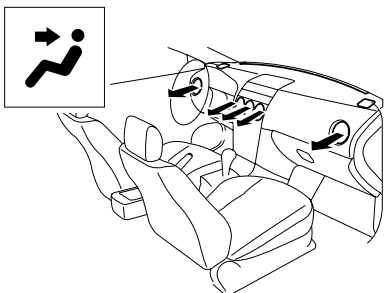
*When using the air conditioner, mist may come out from the vents. This is not a sign of trouble but a result of humid air being suddenly cooled.*

# Climate Control System

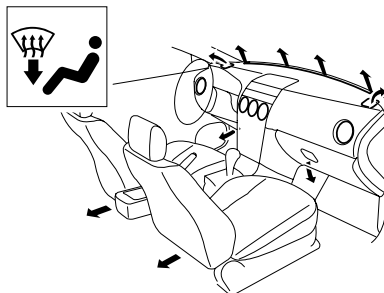
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## ▼ Selecting the Airflow Mode

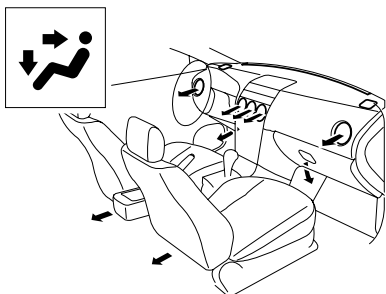
### Dashboard Vents



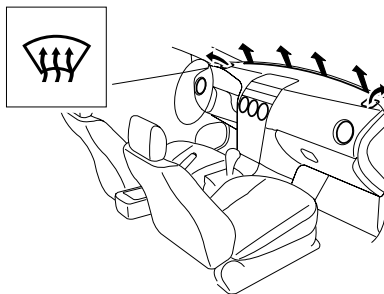
### Defroster and Floor Vents



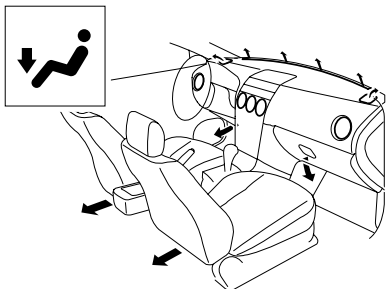
### Dashboard and Floor Vents



### Defroster Vents



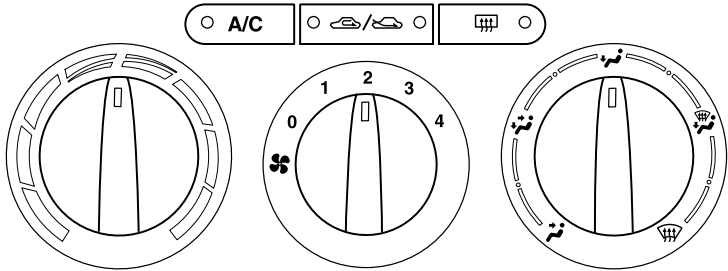
### Floor Vents



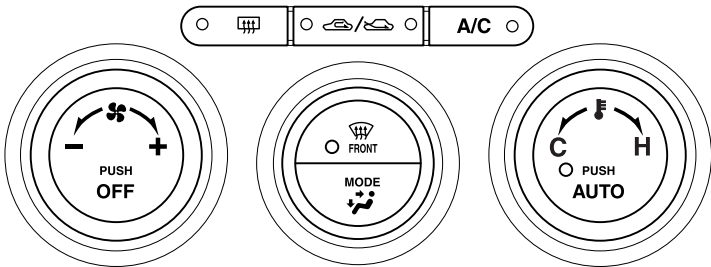
## Types of the Climate Control System

Manual type and fully automatic type climate control systems are explained separately. Check your vehicle's climate control type and read the appropriate pages.

Manual Type ..... page 6-6

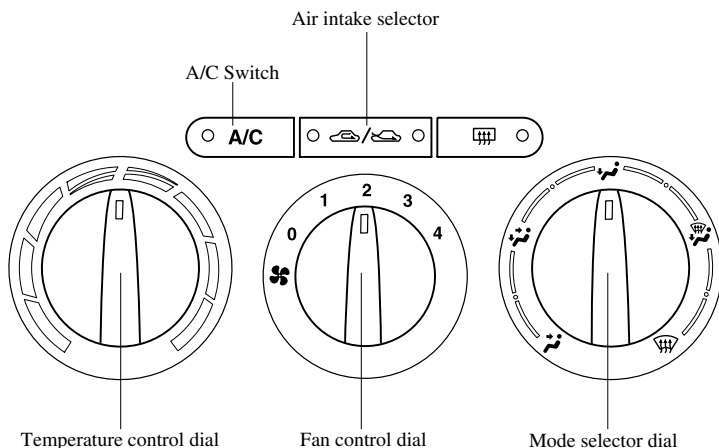


Fully Automatic Type ..... page 6-10



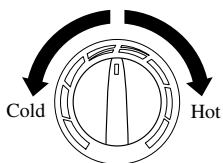
# Climate Control System

## Manual Type



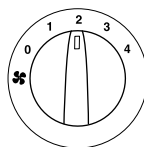
### ▼ Control Switches

#### Temperature control dial



This dial controls temperature. Turn it clockwise for hot and counterclockwise for cold.

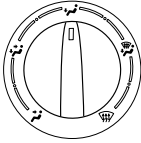
#### Fan control dial



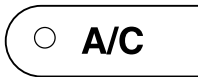
This dial allows variable fan speeds.

- 0—Fan off
- 1—Low speed
- 2—Medium low speed
- 3—Medium high speed
- 4—High speed



**Mode selector dial**

Turn the mode selector dial to select airflow mode (page 6-4).

**A/C switch**

Push the A/C switch to turn the air conditioner on. The indicator light on the switch will illuminate when the fan control dial is set at position 1, 2, 3, or 4.



Push the switch once again to turn the air conditioner off.

**NOTE**

The air conditioner may not function when the outside temperature approaches 0 °C (32 °F).

**Air intake selector**

This switch controls the source of air entering the vehicle.

Press the switch to alternate between the  and  positions. The indicator light for the selected mode will illuminate.

It is recommended that under normal conditions the switch be kept in the outside air position.

**Outside air position (  )**

Outside air is taken into the vehicle. Use this position for normal ventilation and heating.


**Recirculated air position (  )**

Outside air is shut off. Air within the vehicle is recirculated.



This position can be used when driving on a dusty road or in similar conditions. It also helps to provide quicker cooling of the interior.

** WARNING**

**Do not use the  position in cold or rainy weather:**

*Using the  position in cold or 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.*



**▼ Heating**

1. Set the mode selector dial to the  position.
2. Set the air intake selector to the  position.
3. Set the temperature control dial to the hot position.


# Climate Control System

- Set the fan control dial to the desired speed.
- If dehumidified heating is desired, turn on the air conditioner.

## NOTE

- If the windshield fogs up easily, set the mode selector dial to the  position.
- If cooler air is desired at face level, set the mode selector dial at the  position and adjust the temperature control dial to maintain maximum comfort.
- The air to the floor is warmer than air to the face (except when the temperature control dial is set at the extreme hot or cold position).



## ▼ Cooling (With Air Conditioner)

- Set the mode selector dial to the  position.
- Set the temperature control dial to the cold position.
- Set the fan control dial to the desired speed.
- Turn on the air conditioner by pressing the A/C switch.
- Adjust the fan control dial and temperature control dial to maintain maximum comfort.



## ⚠ CAUTION

When using the air conditioner while driving up long hills or in heavy traffic, closely monitor the temperature gauge (page 5-33). The air conditioner may cause engine overheating. If the gauge indicates overheating, turn the air conditioner off (page 7-14).


## NOTE

- When maximum cooling is desired, set the temperature control dial to the extreme cold position and set the air intake selector to the  position, then set the fan control dial to position 4.
- If warmer air is desired at floor level, set the mode selector dial at the  position and adjust the temperature control dial to maintain maximum comfort.
- The air to the floor is warmer than air to the face (except when the temperature control dial is set at the extreme hot or cold position).


## ▼ Ventilation



- Set the mode selector dial to the  position.
- Set the air intake selector to the  position.
- Set the temperature control dial to the desired position.
- Set the fan control dial to the desired speed.

## ▼ Windshield Defrosting and Defogging









- Set the mode selector dial to the  position.
- Set the temperature control dial to the desired position.
- Set the fan control dial to the desired speed.

**⚠ WARNING**

**Do not defog the windshield using the  position with the temperature control set to the cold 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. Set the temperature control to the hot or warm position when using the .

**NOTE**

- For maximum defrosting, set the temperature control dial to the extreme hot position and the fan control dial to position 4.
- If warm air is desired at the floor, set the mode selector dial to the  position.
- In the , or  position, the air conditioner is automatically turned on (however, the indicator light does not illuminate) and the  position is automatically selected to defrost the windshield.  
In the  or  position, the  position cannot be changed to the  position.

**▼ Dehumidifying (With Air Conditioner)**

Operate the air conditioner in cool or cold weather to help defog the windshield and side windows.

1. Set the mode selector dial to the desired position.
2. Set the air intake selector to the  position.

3. Set the temperature control dial to the desired position.
4. Set the fan control dial to the desired speed.
5. Turn on the air conditioner by pressing the A/C switch.

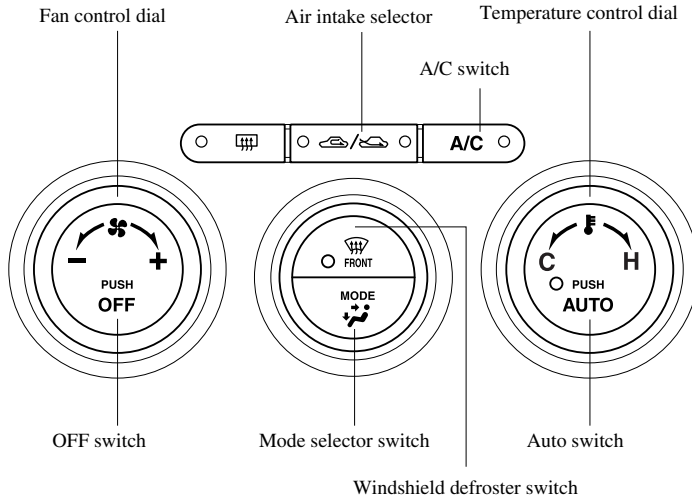
**NOTE**

One of the functions of the air conditioner is dehumidifying the air and, to use this function, the temperature does not have to be set to cold. Therefore, set the temperature control dial to the desired position (hot or cold) and turn on the air conditioner when you want to dehumidify the cabin air.

# Climate Control System

## Fully Automatic Type

Climate control information is displayed on the information display.



### ▼ Control Switches

#### AUTO switch



By pressing the AUTO switch the following functions will be automatically controlled in accordance with the set temperature:

- Airflow temperature
- Amount of airflow
- Selection of airflow mode

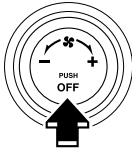
- Outside/Recirculated air selection
- Air conditioner operation

#### **NOTE**

*AUTO switch indicator light*

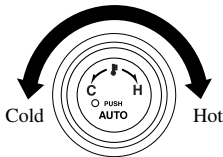
- *When on, it indicates AUTO operation, and the system will function automatically.*
- *When off, it indicates the operation of other switches such as the mode selector switch, fan control dial, A/C switch and windshield defroster switch. Other functions will continue to operate automatically.*

### OFF switch



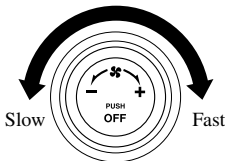
Pressing the OFF switch shuts off the climate control system.

### Temperature control dial



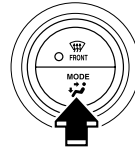
This dial controls temperature. Turn it clockwise for hot and counterclockwise for cold.

### Fan control dial





The fan has seven speeds. The selected speed will be displayed.

### Mode selector switch

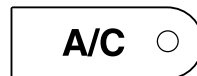


The desired airflow mode can be selected (page 6-4).

### **NOTE**

- With the airflow mode set to  position and the temperature control dial set at a medium temperature, heated air is directed to the feet and a comparably lower air temperature will flow through the central, left and right vents.
- To set the air vent to , press the windshield defroster switch.

### A/C switch



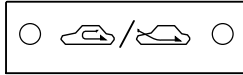
With the AUTO or fan control dial ON, press the A/C switch to select the air conditioning (cooling/dehumidifying functions) on or off.

### **NOTE**

The air conditioner may not function when the outside temperature approaches 0 °C (32 °F). (Indicator remains on even when system is off.)

# Climate Control System

## Air intake selector



Outside or recirculated air positions can be selected. Press the switch to select outside/recirculated air positions.

### Recirculated air position (☁)

Use this position when going through tunnels, driving in congested traffic (high engine exhaust areas) or when quick cooling is desired.

### Outside air position (🚗)

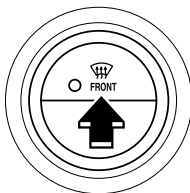
Use this position for normal conditions and defogging.

## **! WARNING**

**Do not use the ☁ position in cold or rainy weather:**

*Using the ☁ position in cold or 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.*

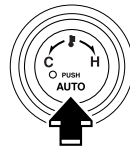
## Windshield defroster switch



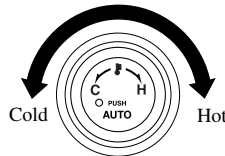
Press the switch to defrost the windshield and front door windows.

## ▼ Operation of Automatic Air Conditioning

1. Press the AUTO switch. Selection of the airflow mode, air intake selector and amount of airflow will be automatically controlled.



2. Use the temperature control dial to select a desired temperature.

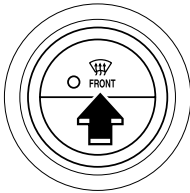



To turn off the system, press the OFF switch.

### **NOTE**


- Setting the temperature to maximum high or low will not provide the desired temperature at a faster rate.
- When selecting heat, the system will restrict airflow until it has warmed to prevent cold air from blowing out of the vents.


### ▼ Windshield Defrosting and Defogging



Press the windshield defroster switch. In this position, the  position is automatically selected, and the air conditioner automatically turns on (however, the indicator light does not illuminate). The air conditioner will directly dehumidify the air to the front windshield and side windows (page 6-4). Airflow amount will be increased.

### ⚠ WARNING

**Set the temperature control to the hot or warm position when defogging ( 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.*

### NOTE

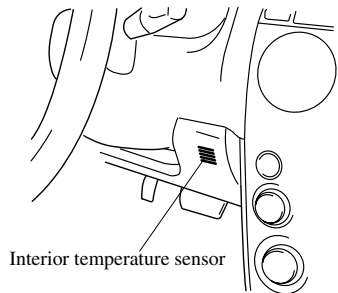
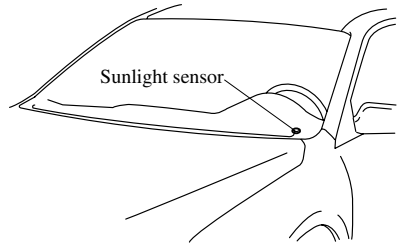
*Use the temperature control dial to increase the air flow temperature and defog the windshield more quickly.*

### ▼ Sunlight/Temperature Sensor

The fully automatic air conditioner function measures inside and outside temperatures, and sunlight. It then sets temperatures inside the passenger compartment accordingly.

### ⚠ CAUTION

*Do not obstruct either sensor, otherwise the automatic air conditioner will not operate properly.*



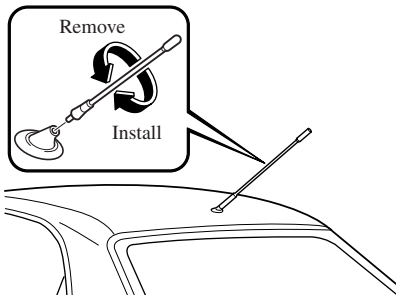
## Audio System

### Antenna

#### ▼ Detachable Type

To remove the antenna, turn it counterclockwise.

To install the antenna, turn it clockwise. Make sure the antenna is securely installed.



#### ⚠ CAUTION

- To prevent damage to the antenna, remove it before entering a car wash facility or passing beneath a low overhead clearance.
- Be careful around the antenna when removing snow from the roof. Otherwise the antenna could be damaged.

#### NOTE

When leaving your vehicle unattended, we recommend that you remove the antenna and store it inside the vehicle.

### Operating Tips for Audio System

#### ⚠ WARNING

**Do not adjust the audio control switches while driving the vehicle:**

Adjusting the audio 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 the audio while the vehicle is stopped. Even if the audio 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.

#### ⚠ CAUTION

For the purposes of safe driving, adjust the audio volume to a level that allows you to hear sounds outside of the vehicle.

#### NOTE

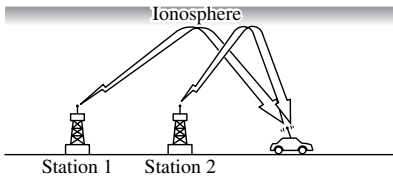
- Do not use the audio for long periods of time while the engine is off. Otherwise the battery could go dead.
- If a cellular phone or CB radio is used in or near the vehicle, it could cause noise to occur from the audio system, however, this does not indicate that the system has been damaged.



## ▼ Radio Reception

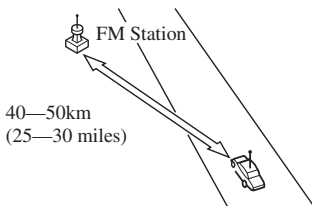
### AM characteristics

AM signals bend around such things as buildings or mountains and bounce off the ionosphere. Therefore, they can reach longer distances than FM signals. Because of this, two stations may sometimes be picked up on the same frequency at the same time.

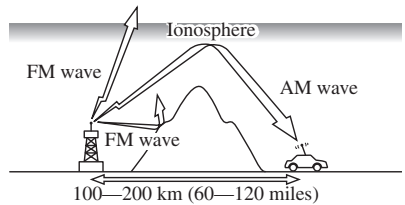


### FM characteristics

An FM broadcast range is usually about 40—50 km (25—30 miles) from the source. Because of extra coding needed to break the sound into two channels, stereo FM has even less range than monaural (non-stereo) FM.



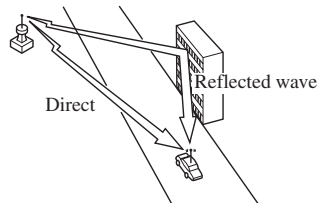
Signals from an FM transmitter are similar to beams of light because they do not bend around corners, but they do reflect. Unlike AM signals, FM signals cannot travel beyond the horizon. Therefore, FM stations cannot be received at the great distances possible with AM reception.



Atmospheric conditions can also affect FM reception. High humidity will cause poor reception. However, cloudy days may provide better reception than clear days.

### **Multipath noise**

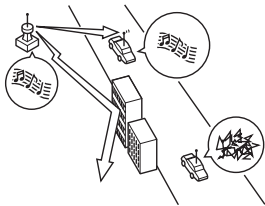
Since FM signals can be reflected by obstructions, it is possible to receive both the direct signal and the reflected signal at the same time. This causes a slight delay in reception and may be heard as a broken sound or a distortion. This problem may also be encountered when in close proximity to the transmitter.



# Audio System

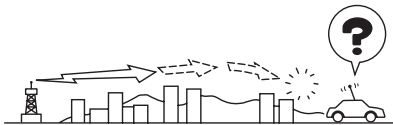
## Flutter/Skip noise

Signals from an FM transmitter move in straight lines and become weak in valleys between tall buildings, mountains, and other obstacles. When a vehicle passes through such an area, the reception conditions may change suddenly, resulting in annoying noise.



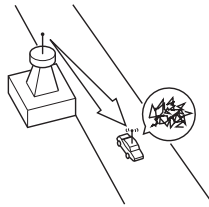
## Weak signal noise

In suburban areas, broadcast signals become weak because of distance from the transmitter. Reception in such fringe areas is characterized by sound breakup.



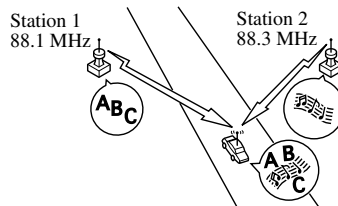
## Strong signal noise

This occurs very close to a transmitter tower. The broadcast signals are extremely strong, so the result is noise and sound breakup at the radio receiver.



## Station drift noise

When a vehicle reaches the area of two strong stations broadcasting at similar frequencies, the original station may be temporarily lost and the second station picked up. At this time there will be some noise from this disturbance.



## ▼ Operating Tips for Cassette Tape Player

### Cleaning the cassette tape player

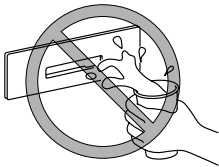
The tape head, capstans, and pinch rollers will gather oxide residue from cassette tapes. This can cause weak or wavering sounds and damage to the cassette tapes and player. Use a good quality head-cleaning tape or a liquid cleaner cassette tape to remove it.

Should the unit not operate normally, consult an Authorized Mazda Dealer. Never attempt to repair it or insert a screwdriver or anything else.

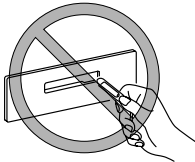
### Handling the cassette tape player

The following precautions should be observed.

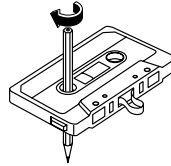
- Do not spill any liquid on the audio system.



- Do not insert any objects, other than cassette tape, into the slot.



- If the cassette tape is loose, it may produce poor sound or performance during playback. Use a pencil or something similar to remove any slack.



- Only cassette tapes that play no longer than 90 minutes should be used. Cassette tape exceeding 90 minutes are thin and may easily break.
- Do not leave a cassette tape in the tape player slot when not in use. Remove it completely to permit the slot door to close and to protect the mechanism from dust.
- Store cassette tapes away from extreme heat, magnetic fields, and direct sunlight. Protect the exposed cassette tape from dirt and damage. Store cassette tapes in their original cases or other protective cases.

## Audio System

### ▼ Operating Tips for CD Player/In-Dash CD Changer

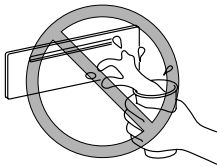
#### Condensation phenomenon

Immediately after turning on the heater when the vehicle is cold, the CD or optical components (prism and lens) in the CD player/In-dash CD changer may become clouded with condensation. At this time, the CD will eject immediately when placed in the unit. A clouded CD can be corrected simply by wiping it with a soft cloth. Clouded optical components will clear naturally in about an hour. Wait for normal operation to return before attempting to use the unit.

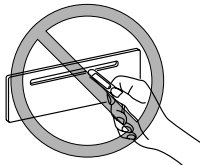
#### Handling the CD player/In-dash CD changer

The following precautions should be observed.

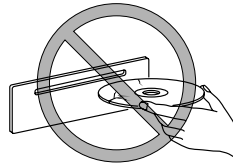
- Do not spill any liquid on the audio system.



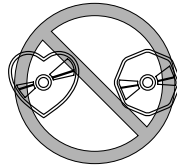
- Do not insert any objects, other than CDs, into the slot.



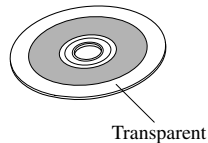
- The CD revolves at high speed within the unit. Defective (cracked or badly bent) CDs should never be used.



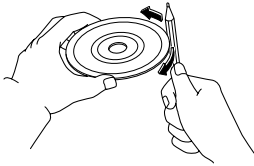
- Do not use non-conventional discs such as heart-shaped, octagonal discs, etc. The disc may not eject resulting in a malfunction.



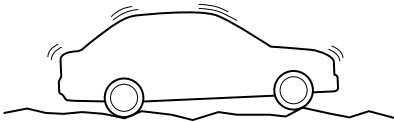
- If the memory portion of the CD is transparent or translucent, do not use the disc.



- A new CD may have rough edges on its inner and outer perimeters. If a disc with rough edges is used, proper setting will not be possible and the CD player/In-dash CD changer will not play the CD. In addition, the disc may not eject resulting in a malfunction. Remove the rough edges in advance by using a ball-point pen or pencil as shown below. To remove the rough edges, rub the side of the pen or pencil against the inner and outer perimeter of the CD.

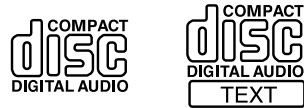


- When driving over uneven surfaces, the sound may jump.



- The CD player/In-dash CD changer has been designed to play CDs bearing the identification logo as shown. No other discs can be played.
- Use discs that have been legitimately produced. If illegally-copied discs such as pirated discs are used, the system may not operate properly.

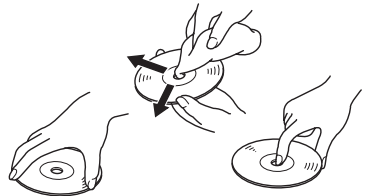
## CD Player



## In-dash CD changer



- Be sure never to touch the signal surface when handling the CDs. Pick up a CD by grasping the outer edge or the edge of the hole and the outer edge.



- Do not stick paper or tape on the CD. Avoid scratching the reverse side (the side without a label). The disc may not eject resulting in a malfunction.
- Dust, finger smudges, and dirt can decrease the amount of light reflected from the signal surface, thus affecting sound quality. If the CD should become soiled, gently wipe it with a soft cloth from the center of the CD to the edge.

## Audio System

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- Do not use record sprays, antistatic agents, or household spray cleaners. Volatile chemicals such as benzine and thinner can also damage the surface of the CD and must not be used. Anything that can damage, warp, or fog plastic should never be used to clean CDs.
- Insert discs one by one. If two discs are inserted at the same time, the system may not operate properly.
- CD TEXT textual information cannot be displayed by audio units other than the In-dash CD changer (MP3 compatible type only). (Only playback is possible.)
- The following player can play MP3 files recorded in CD-ROM, CD-R, and CD-RW.
  - In-dash CD changer (MP3 compatible type only)
- The CD player/In-dash CD changer ejects the CD if the CD is inserted upside down. Also dirty and/or defective CDs may be ejected.
- An 8 cm (3 in) CD cannot be played in the CD player even if an 8 cm (3 in) CD adapter is used.

The In-dash CD changer is specially made for 12 cm (5 in) CDs.  
An 8 cm (3 in) CD can be played in the In-dash CD changer if an 8 cm (3 in) CD adapter is used.  
If an 8 cm (3 in) CD adapter is not used, the In-dash CD changer may be damaged. Always use a CD adapter.
- Do not insert cleaning discs in the CD player/In-dash CD changer.
- Do not insert any disc with a peel-off seal affixed to it.

### **Handling the In-dash CD changer**

- This unit may not be able to play certain CD-R/CD-RWs made using a computer or music CD recorder due to disc characteristics, scratches, smudges, dirt, etc., or due to dust or condensation on the lens inside the unit.
- Storing CDs in the vehicle exposed to direct sunlight or high temperature may damage the CD-R/CD-RWs, and make them unplayable.
- CD-R/CD-RW exceeding 700 MB cannot be played.
- This unit may not be able to play certain discs made using a computer due to the application (writing software) setting used. (For details, consult the store where the application was purchased.)
- It is possible that certain text data, such as titles, recorded on a CD-R/CD-RW may not be displayed when musical data (CD-DA) is playing.
- The period from when a CD-RW is inserted to when it begins playing is longer than a normal CD or CD-R.
- Completely read the instruction manual and cautions for CD-R/CD-RWs.
- Do not use discs with cellophane tape adhering, partially peeled off labels, or adhesive material exuding from the edges of the CD label. Also, do not use discs with a commercially-available CD-R label affixed. The disc may not eject resulting in a malfunction.

### ▼ Operating tips for MP3

#### **NOTE**

*Supply of this product only conveys a license for private, non-commercial use and does not convey a license nor imply any right to use this product in any commercial (i.e. revenue-generating) real time broadcasting (terrestrial, satellite, cable and/or any other media), broadcasting/streaming via the Internet, intranets and/or other networks or in other electronic content distribution systems, such as pay-audio or audio-on-demand applications. An independent license for such use is required. For details, please visit <http://www.mp3licensing.com>.*

- This audio system handles MP3 files that have been recorded on CD-R/CD-RW/CD-ROMs. Discs that have been recorded using the following formats can be played:
    - ISO 9660 level 1
    - ISO 9660 level 2
    - Joliet extended format
    - Romeo extended format
  - This unit handles MP3 files conforming to the MP3 format containing both header frames and data frames.
  - This unit can play multi-session recorded discs that have up to 40 sessions.
  - This unit can play MP3s with sampling frequencies of 16/22.05/24/32/44.1/48 kHz.
  - This unit can play MP3 files that have been recorded in bit rates of 8 kbps to 320 kbps. Nonetheless, to insure enjoyment of music with consistent sound quality, it is recommended to use discs that have been recorded at a bit rate of 128 kbps or more.
- If a disc has both music data (CD-DA) and MP3 files, playback of the two file types differs depending on how the disc was recorded.
  - Packet written discs cannot be played on this unit.
  - This unit does not play CDs recorded using MP3i (MP3 interactive), MP3 PRO and RIFF MP3 formats.

# Audio System

## About folders and files

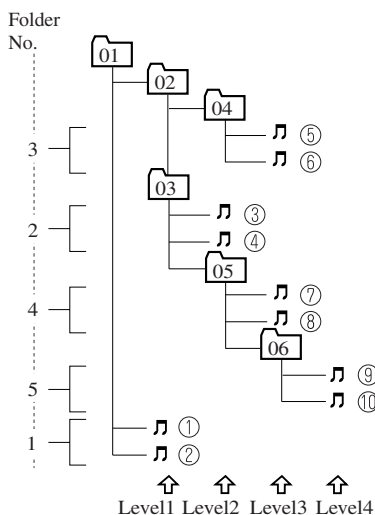
- The order of hierarchy for MP3 files and folders during playback or other functions is from shallow to deep. The arrangement and playing order of a recorded disc containing MP3 files is as follows:

- File number

A numerical file number is assigned to each file in a folder in the order of hierarchy from shallow to deep.

- Folder number

A numerical folder number is assigned to each folder in the order of hierarchy from shallow to deep.



- The folder order is automatically assigned and this order cannot be optionally set.
- Any folder without an MP3 file will be ignored. (It will be skipped and the folder number will not be displayed.)

- MP3 files not conforming to the MP3 format containing both header frames and data frames will be skipped and not played.
- This unit will play MP3 files that have up to eight levels. However, the more levels a disc has, the longer it will take to initially start playing. It is recommended to record discs with two levels or less.
- A single disc with up to 512 files can be played and a single folder with up to 255 files can be played.
- When naming an MP3 file, be sure to add an MP3 file extension (.mp3) after the file name.
- The maximum number of characters that can be used for file names is as follows. However, this unit will only display up to 30 characters, including the file extension (.mp3).

	Maximum number of characters in a file name (including a separator “.” and the three letters of the file extension)
ISO9660 level 1	12*
ISO9660 level 2	31*
Joliet extended format	64
Romeo extended format	128

\* English one-byte characters (capitalized only) and underbar “\_” are available.

### **CAUTION**

*This unit can only play MP3 files that have an MP3 file extension (.mp3) attached. Do not attach an MP3 file extension to any other type file as it could cause noise to be emitted or a malfunction in the unit.*



### **About ID3 Tag display**

- This unit can only display ID3 Tag album, track and artist names that have been input using Ver.1.0/1.1/2.2/2.3 formats. Any other data that may have been input cannot be displayed.
- This unit can only display English (including numerals) one-byte characters. Use only English (including numerals) one-byte characters when inputting ID3 tags. Two-byte characters and some special symbols cannot be displayed.

### **Specialized glossary**

#### **MP3**

Abbreviation for “MPEG Audio Layer 3”. A technical standard for audio compression as decided by an ISO (International Organization for Standardization) MPEG working group. Use of MP3 allows for audio data to be compressed to approximately a tenth of the source data size.

#### **ISO 9660**

An international standard for logical formatting of CD-ROM files and folders. It is divided into three separate levels based on differences in file naming procedures, data configuration and other characteristics.

#### **Multi-session**

A session is the complete amount of data recorded from the beginning to the end of a single period of CD-ROM, CD-R/CD-RW data recording. Multi-session refers to the existence of data from two or more sessions on a single disc.

### **Sampling**

Refers to the process of encoding analog audio data at regular intervals and converting it to digital data. The sampling rate refers to the number of times a sample is taken in one second and is expressed in Hz units. Increasing the sampling rate improves the sound quality but also increases the data size.

### **Bit rate**

Refers to the volume of data per second, expressed in bps (bits per second). Generally, the larger the number of the transfer bit rate when compressing an MP3 file, the more information regarding musical reproduction it carries, and therefore the better the sound quality.

### **Packet writing**

A general term for the method, similar to that used for floppy discs or hard drives, of recording the required file in a single increment on a CD-R and similar.

### **ID3 Tag**

ID3 tag is a method for storing information related to the music in an MP3 file. Information such as track, artist and album name can be stored. This content can be freely edited using ID3 editing function software.

### **VBR**

Abbreviation for Variable Bit Rate. While CBR (Constant Bit Rate) is generally used, VBR varies the bit rate for audio compression according to compression conditions and this allows for compression with preference given to sound quality.

# MEMO

## Audio Set

- Audio information is displayed on the information display.
- There are two types of In-dash CD changers. Check which In-dash CD changer your vehicle is equipped with.

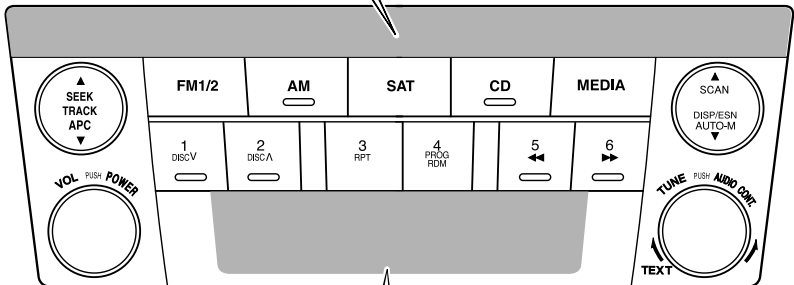
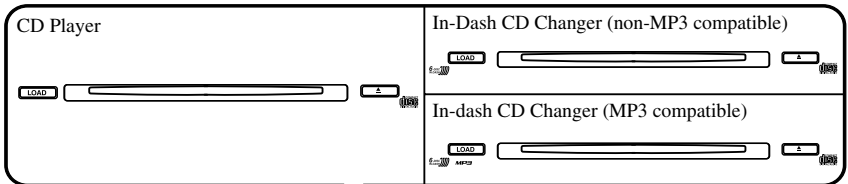
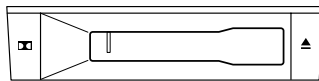


Illustration is of a representative audio unit.

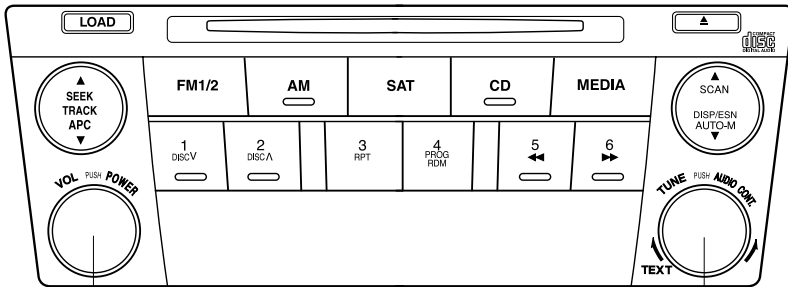
Cassette Tape Player



Power/Volume/Sound Controls .....	page 6-26
Operating the Radio .....	page 6-28
Operating the Cassette Tape Player .....	page 6-32
Operating the Compact Disc (CD) Player .....	page 6-34
Operating the In-Dash CD Changer .....	page 6-36
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# Audio System

## ▼ Power/Volume/Sound Controls



Power/Volume dial

Audio control dial

### Power ON/OFF

Turn the ignition switch to the ACC or ON position.

Press the power/volume dial to turn the audio system on.

Press the power/volume dial again to turn the audio system off.

### **NOTE**

To prevent the battery from being discharged, do not leave the audio system on for a long period of time when the engine is not running.

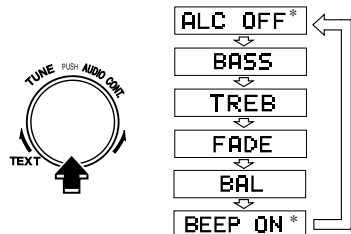
### Volume adjustment

To adjust the volume, turn the power/volume dial.

Turn the power/volume dial to the right to increase volume, to the left to decrease it.

### Audio sound adjustment

1. Press the audio control dial to select the function. The selected function will be indicated.



\* Depending on the mode selected, the indication changes.

2. Turn the audio control dial to adjust the selected functions as follows:

Indication	Turn Left	Turn Right
ALC	Select mode	
BASS	Decrease bass	Increase bass
TREB	Decrease treble	Increase treble
FADE	Shift the sound to the front	Shift the sound to the rear
BAL	Shift the sound to the left	Shift the sound to the right
BEEP	OFF	ON

**NOTE**

About 5 seconds after selecting any mode, the volume function will be automatically selected. To reset bass, treble, fade, and balance, press the audio control dial for 2 seconds. The unit will beep and "CLEAR" will be displayed.

**Automatic Level Control (ALC)**

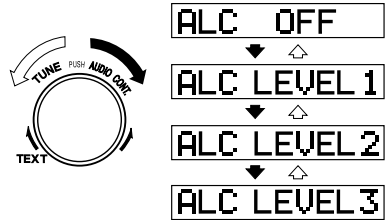
The automatic level control is a feature that automatically adjusts audio volume and sound quality according to the vehicle speed.

The volume increases in accordance with the increase in vehicle speed, and decreases as vehicle speed decreases.

The following four modes are available. Select the desired mode.

Mode	Volume change
ALC OFF	No change
ALC LEVEL 1	Minimum
ALC LEVEL 2	Medium
ALC LEVEL 3	Maximum

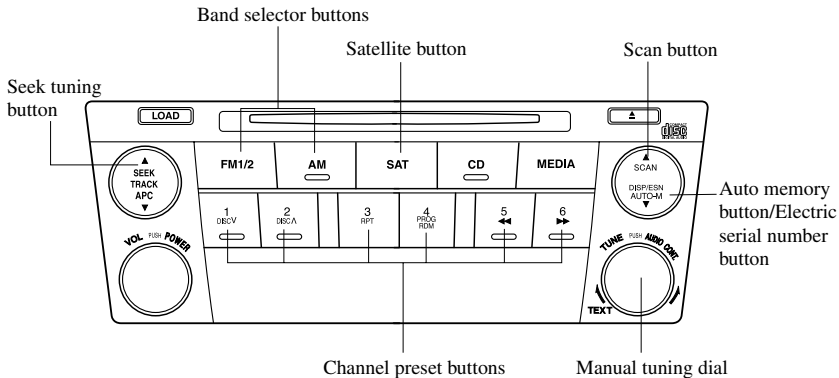
Turn the audio control dial to select ALC OFF or ALC LEVEL1—3 modes. The selected mode will be indicated.



**BEEP setting**

The beep-sound when operating the audio system can be set on or off.

## ▼ Operating the Radio



### Radio ON

Press a band selector button (**AM** , **FM1/2** ) to turn the radio on.

### Band selection

Choose AM by pressing the AM button (**AM** ) and FM by pressing the FM1/2 button (**FM1/2** ).

The selected mode will be indicated. If FM stereo is being received, “ST” will be displayed.

### **NOTE**

*If the FM broadcast signal becomes weak, reception automatically changes from STEREO to MONO for reduced noise, and the “ST” indicator will go out.*

### Tuning

The radio has the following tuning methods: Manual, Seek, Scan, Preset channel, and Auto memory tuning. The easiest way to tune stations is to set them on preset channels.

### **NOTE**

*If the power supply is interrupted (fuse blows or the battery is disconnected), the preset channels will be canceled.*

### Manual tuning

Turning the manual tuning dial will change the frequency higher or lower.

### Seek tuning

Pressing the seek tuning button (**▲** , **▼** ) will cause the tuner to seek a higher or lower frequency automatically.

**NOTE**

*If you continue to press and hold the button, the frequency will continue changing without stopping.*

**Scan tuning**

Press the scan button (**SCAN**) to automatically sample strong stations. Scanning stops at each station for about 5 seconds. To hold a station, press the scan button (**SCAN**) again during this interval.

**Preset channel tuning**

The 6 preset channels can be used to store 6 AM and 12 FM stations.

1. To set a channel first select AM, FM1, or FM2. Tune to the desired station.
2. Depress a channel preset button for about 2 seconds until a beep sound is heard. The preset channel number and station frequency will be displayed. The station is now held in the memory.
3. Repeat this operation for the other stations and bands you want to store. To tune one in the memory, select AM, FM1, or FM2 and then press its channel preset button. The station frequency and the channel number will be displayed.

**NOTE**

*If the power supply is interrupted (fuse blows or the battery is disconnected), the preset channels will be canceled.*

**Auto memory tuning**

This is especially useful when driving in an area where the local stations are not known. Additional AM/FM stations can be stored without disturbing the previously set channels.

Press and hold the auto memory button (**AUTO-M**) for about 2 seconds until a beep sound is heard; the system will automatically scan and temporarily store up to 6 stations with the strongest frequencies in each selected band in that area.

After scanning is completed, the station with the strongest frequency will be tuned and its frequency displayed.

Press and release the auto memory button (**AUTO-M**) to recall stations from the auto-stored stations. One stored station will be selected each time; its frequency and channel number will be displayed.

**NOTE**

*If no stations can be tuned after scanning operations, "A" will be displayed.*

**SATELLITE RADIO (SAT)**

Vehicles equipped with the separately purchased SIRIUS digital satellite radio unit have the ability to receive channels of digital quality programming coast to coast via satellite. For information on use, read the Satellite Radio Kit manual accompanying the SIRIUS digital satellite radio unit. A subscription to SIRIUS digital satellite radio service is required (available in the U.S. - Except Alaska and Hawaii) to enable this feature once the separately purchased SIRIUS digital satellite radio unit has been installed. For subscription and channel information, or for digital satellite radio technical issues, contact SIRIUS directly at:

- Web: [www.siriusradio.com](http://www.siriusradio.com)
- Phone (24 hrs/day, 7 days/week): 888-539-SIRI (7474)
- E-mail: [customer@sirius-radio.com](mailto:customer@sirius-radio.com)
- Mailing Address: Sirius Satellite Radio

## Audio System

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1221 Avenue Of The Americas  
New York, NY 10020  
Attention: Customer Care

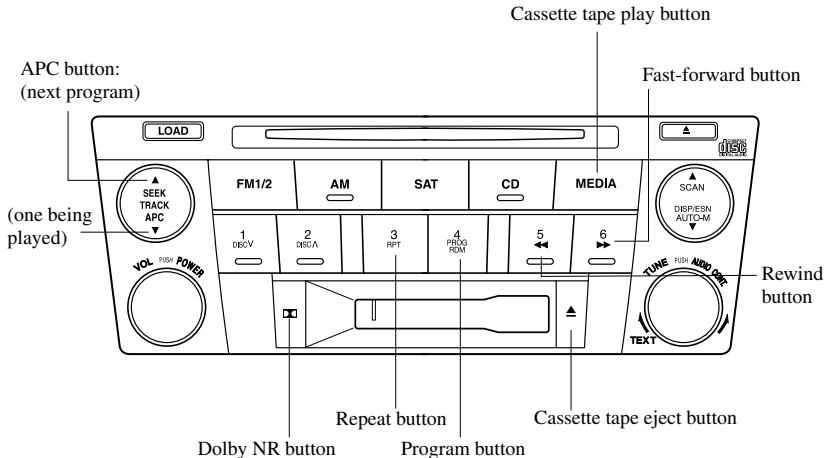
Include your Sirius Radio ESN (Electronic Serial Number) when subscribing or requesting technical assistance. See the Satellite Radio Kit manual accompanying the SIRIUS unit for complete satellite radio activation procedures and information on how to display the ESN#.



# MEMO

# Audio System

## ▼ Operating the Cassette Tape Player \*



### Cassette tape insert

Insert the cassette tape into the slot, open edge to the right and cassette tape will begin play, and "TAPE PLAY" will be displayed. At the end of the cassette tape, the unit automatically reverses cassette tape play. When ▲ is lit, the cassette tape's top side is playing. When ▼ is lit, the bottom side is on.

### Playback

Press the cassette tape play button (MEDIA) to start play when a cassette tape is in the unit. If a cassette tape is not in the unit when the cassette tape play button (MEDIA) is pressed, "NO TAPE" will flash on and off.

### Dolby noise reduction

When using a tape with Dolby NR\*, push the Dolby NR button (DD). The DD symbol will be displayed. To play a tape without Dolby NR, push the button once again.

\* Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. Dolby and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

### Ejecting the cassette tape

Press the cassette tape eject button (▲) to eject the cassette tape.

### **NOTE**

*The cassette tape can be ejected when the ignition switch is in the OFF position.*

### **Fast-forward/Rewind**

Press the fast-forward button (▶▶) to fast-forward.

Press the rewind button (◀◀) to rewind. To stop this operation and play the cassette tape, press the button again.

#### **NOTE**

*When the cassette tape ends during fast-forward or rewind, it automatically stops and starts playing.*

### **Reversing**

Press the program button (PROG) to change cassette tape-play direction.

#### **NOTE**

*When the cassette tape ends, the unit automatically reverses play.*

### **Automatic program control (APC)**

APC is used to find the beginning of either the next program or the one being played.

Press the APC button (▲) to the beginning of the next selection.

Press the APC button (▼) to the beginning of the one being played. To stop this operation and play the cassette tape, press the button again.

#### **NOTE**

*APC may not operate properly if:*

- *A tape was recorded at a low level.*
- *A tape has long, silent intervals.*
- *A tape is a live recording.*
- *A tape has very short intervals of less than 3 seconds.*

### **Repeat playback**

This operation makes it possible to listen to a selection repeatedly.

Press the repeat button (RPT) during playback. The current selection playing will be repeated ("RPT" will be displayed).

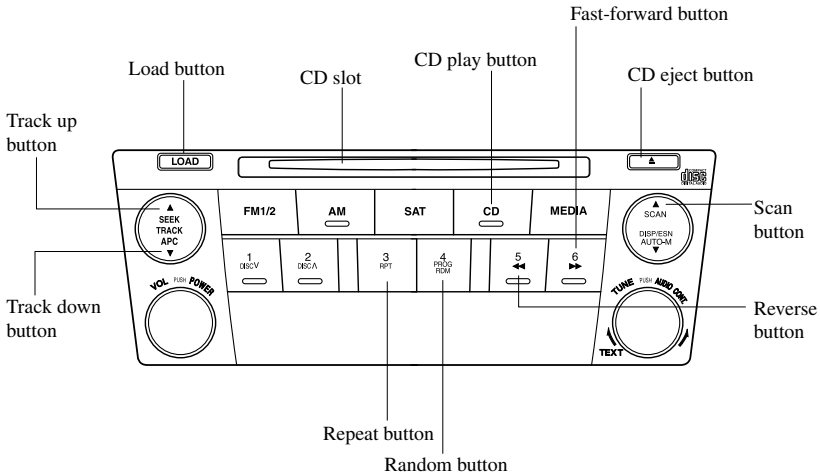
Press the repeat button (RPT) once again to cancel repeat playback.

#### **NOTE**

*RPT may not operate properly if:*

- *A tape was recorded at a low level.*
- *A tape has long, silent intervals.*
- *A tape is a live recording.*
- *A tape has very short intervals of less than 3 seconds.*

## ▼ Operating the Compact Disc (CD) Player\*



Type	Playable data
Music CD player (non-MP3 compatible)	Music data (CD-DA)

### Inserting the CD

Insert the CD into the slot, label-side up. The auto-loading mechanism will set the CD and begin play. There will be a short lapse before play begins while the player reads the digital signals on the CD.

### Ejecting the CD

Press the CD eject button ( $\blacktriangle$ ) to eject the CD.

### Playback

Press the CD play button (**CD**) to start play when a CD is in the unit. If a CD is not in the unit when the CD play button (**CD**) is pressed, "NO DISC" will flash on and off.

### **NOTE**

When the load button (**LOAD**) is pressed, the CD will load and play even if the CD eject button ( $\blacktriangle$ ) had been previously pressed.

### Fast-forward/Reverse

Press and hold the fast-forward button ( $\blacktriangleright\blacktriangleright$ ) to advance through a track at high speed.

Press and hold the reverse button ( $\blacktriangleleft\blacktriangleleft$ ) to reverse through a track at high speed.

### Track search

Press the track up button ( $\blacktriangle$ ) once to skip forward to the beginning of the next track.

Press the track down button ( $\blacktriangledown$ ) once to skip back to the beginning of the current track.

### **Music scan**

This feature helps to find a program by playing about the first 10 seconds of each track.

Press the scan button (▲ , ▼ ) during playback to start the scan play operation (the track number will flash).

Press the scan button (▲ , ▼ ) again to cancel scan playback.

#### ***NOTE***

*If the unit is left in scan, normal playback will resume where scan was selected.*

### **Repeat playback**

This feature makes it possible to listen to a selection repeatedly.

Press the repeat button (RPT ) during playback. The current selection will be repeated (“RPT” will be displayed).

Press the repeat button (RPT ) once again to cancel repeat playback.

### **Random playback**

This feature allows the CD player to randomly select the order of the songs.

Press the random button (RDM ) during playback. The next selection will be randomly selected (“RDM” will be displayed).

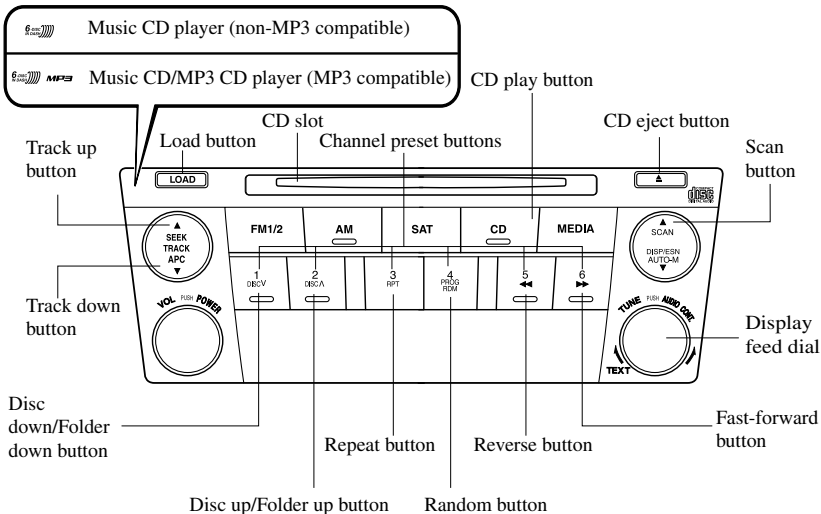
Press the random button (RDM ) once again to cancel random playback.

### **Message display**

If “CHECK CD” is displayed, it means that there is some CD malfunction. Check the CD for damage, dirt, or smudges, and then properly reinsert. If the message appears again, take the unit to an Authorized Mazda Dealer for service.

# Audio System

## ▼ Operating the In-Dash CD Changer \*



There are two types of In-dash CD changers. Check which In-dash CD changer your vehicle is equipped with.

Type	Playable data
Music CD player (non-MP3 compatible)	· Music data (CD-DA)
Music CD/MP3 CD player (MP3 compatible)	· Music data (CD-DA) · MP3 file

### NOTE

If a disc has both music data (CD-DA) and MP3 files, playback of the two file types differs depending on how the disc was recorded.

### Inserting the CD

The CD must be label-side up when inserting. The auto-loading mechanism will set the CD and begin play. There will be a short lapse before play begins while the player reads the digital signals on the CD.

The disc number and the track number will be displayed.

### NOTE

The CD will begin playback automatically after insertion.

A CD cannot be inserted while the display reads "WAIT". A beeping sound can be heard during this waiting time. Simultaneously pressing the power/volume dial and the load button (LOAD) for about 2 seconds will turn this beeping sound ON or OFF.

### **Normal insertion**

1. Press the load button (**LOAD** ).
2. When “IN” is displayed, insert the CD.

### **Inserting CDs into desired tray number**

1. Press and hold the load button (**LOAD** ) for about 2 seconds until a beep sound is heard.
2. Press the channel preset button for the desired tray number while “WAIT” is displayed.
3. When “IN” is displayed, insert the CD.

#### **NOTE**

*The CD cannot be inserted to the desired tray number if the number is already occupied.*

### **Multiple insertion**

1. Press and hold the load button (**LOAD** ) for about 2 seconds until a beep sound is heard.
2. When “IN” is displayed, insert the CD.
3. When “IN” is displayed again, insert the next CD.

#### **NOTE**

*The first-inserted CD will be played automatically when:*

- No other CD is inserted within 15 seconds after “IN” is displayed.
- The CD trays are full.

### **Ejecting the CD**

#### **Normal ejection**

1. Press the CD eject button (**▲** ). The disc number and “DISC OUT” will be displayed.
2. Pull out the CD.

#### **NOTE**

*When the CD is ejected during play, the next CD will be played automatically.*

### **Ejecting CDs from desired tray number**

1. Press and hold the CD eject button (**▲** ) for about 2 seconds until a beep sound is heard.  
The “DISC OUT” display flashes.
2. Press the channel preset button for the desired CD number for less than 5 seconds after the beep sound is heard.
3. Pull out the CD.

### **Multiple ejection**

1. Press and hold the CD eject button (**▲** ) for about 2 seconds until a beep sound is heard.  
The “DISC OUT” display flashes.
2. Press the CD eject button (**▲** ) again for less than 5 seconds after the beep sound is heard.

#### **NOTE**

*If the button is not pressed and about 5 seconds have elapsed while “DISC OUT” is flashing, CDs are automatically ejected.*

3. Pull out the CD, then the next CD will be ejected.

#### **NOTE**

- CDs will be ejected starting with the one with the lowest number.
- All CDs in the tray will be ejected continuously.
- CDs can be ejected when the ignition switch is off. Press and hold the CD eject button (**▲** ) for about 2 seconds and all CDs will eject.

## Audio System

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### **Playback**

Press the CD play button (CD) to start play when a CD is in the unit. If a CD is not in the unit when the CD play button (CD) is pressed, "NO DISC" will flash on and off.

### **Fast-forward/Reverse**

Press and hold the fast-forward button (▶▶) to advance through a track at high speed.

Press and hold the reverse button (◀◀) to reverse through a track at high speed.

### **Track search**

Press the track up button (▲) once to skip forward to the beginning of the next track.

Press the track down button (▼) once to skip back to the beginning of the current track.

### **Disc search**

#### **During music CD playback**

To change the disc, press the DISC button (DISC▲ or DISCV) during playback.

#### **During MP3 CD playback**

To change the disc, press the DISC button (DISC▲ or DISCV) for 1.5 seconds or more during playback.

### **Folder search (during MP3 CD playback)**

To change to the previous folder, press the folder down button (DISCV) for less than 1.5 seconds, or press the folder up button (DISC▲) for less than 1.5 seconds to advance to the next folder.

### **Music scan**

This feature helps to find a program by playing about the first 10 seconds of each track.

Press the scan button (▲, ▼) during playback to start the scan play operation (the track number will flash).

Press the scan button (▲, ▼) again to cancel scan playback.

### ***NOTE***

*If the unit is left in scan, normal playback will resume where scan was selected.*

### **Repeat playback**

#### **During music CD playback**

1. Press the repeat button (RPT) during playback to play the current track repeatedly. "RPT" is displayed.
2. Press the button again to cancel the repeat playback.

#### **During MP3 CD playback**

##### **(Track repeat)**

1. Press the repeat button (RPT) during playback to play the current track repeatedly. "RPT" is displayed.
2. To cancel the repeat playback, press the button again after 3 seconds.

##### **(Folder repeat)**

1. Press the repeat button (RPT) during playback, and then press the button again within 3 seconds to play the tracks in the current folder repeatedly. "RPT" is displayed.
2. Press the button again to cancel the repeat playback.

### **Random playback**

Tracks are randomly selected and played.



### During music CD playback

1. Press the random button (**RDM**) during playback to play the tracks in the CD randomly. "RDM" is displayed.
2. Press the button again to cancel the random playback.

### During MP3 CD playback

#### (Folder random)

1. Press the random button (**RDM**) during playback to play the tracks in the folder randomly. "RDM" is displayed.
2. To cancel the random playback, press the button again after 3 seconds.

#### (CD random)

1. Press the random button (**RDM**) during playback, and then press the button again within 3 seconds to play the tracks on the CD randomly. "RDM" is displayed.
2. Press the button again to cancel the random playback.

### Switching the display (MP3 compatible type)

Each time the display button (**DISP**) is pressed during playback, the display will switch in the following order.

### Music CD



Track number/Elapsed time display  
↓  
Disc tray number  
↓  
File name display  
↓  
Album name display  
↓  
Artist name display

### MP3 CD



Disc number/File number/Elapsed time  
↓  
Disc tray number  
↓  
Folder number/Track number  
↓  
Track name  
↓  
Folder name  
↓  
Album name (ID3 Tag)  
↓  
Song name (ID3 Tag)  
↓  
Artist name (ID3 Tag)

### **NOTE** (MP3 CD)

*This unit can only read English (including numerals) one-byte characters. Depending on the CD writing software used, proper display may not be possible.*

## Audio System

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### **Display scroll (MP3 compatible type)**

Only 12 characters can be displayed at one time. To display the rest of the characters of a long title, turn the display feed dial (**TEXT**) to the right. Hidden titles can be scrolled into the display one character at a time.

### ***NOTE***

*The displayable number of characters is limited. If the number of characters, including the file extension (.mp3), exceeds 32 characters, it may not be fully displayed.*

### **Message display**

If “CHECK CD” is displayed, it means that there is some CD malfunction. Check the CD for damage, dirt, or smudges, and then properly reinsert. If the message appears again, take the unit to an Authorized Mazda Dealer for service.

### ▼ Error Indications

If you see an error indication on the display, find the cause in the chart. If you cannot clear the error indication, take the vehicle to an Authorized Mazda Dealer.

Indication	Cause	Solution
CHECK CD	CD is inserted upside down	Insert the CD properly. If the error indication does not disappear, consult an Authorized Mazda Dealer
	CD is defective	Insert another CD properly. If the error indication does not disappear, consult an Authorized Mazda Dealer

# Audio System

## Audio Control Switch Operation (Steering Wheel)\*

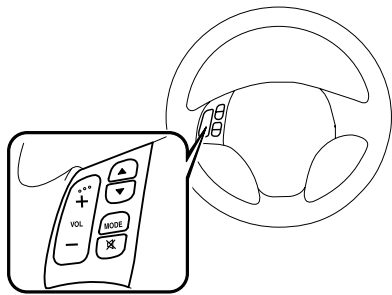
When the audio unit is turned on, operation of the audio unit from the steering wheel is possible.

### NOTE

Because the audio unit will be turned off under the following conditions, the switches will be inoperable.

- When the ignition switch is turned to the LOCK position.
- When the power button on the audio unit is pressed and the audio unit is turned off.
- When the CD being played is ejected and the audio unit is turned off.

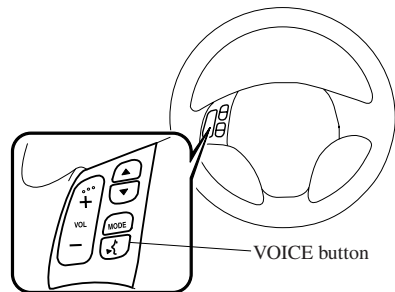
### Without navigation system



### With navigation system

Use the VOICE button for navigation system sound operation.

For details, refer to “NAVIGATION SYSTEM”.



### NOTE

- The VOICE button is operable with the audio unit turned off.
- Mazda has installed this system to prevent distraction while driving the vehicle and using audio controls on the dashboard. Always make safe driving your first priority.

### ▼ Adjusting the Volume

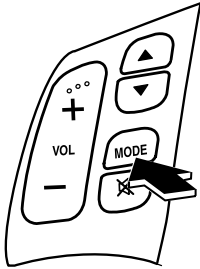
To increase the volume, press the volume button (+).

To decrease the volume, press the volume button (-).



### ▼ Changing the Source

Press the mode switch (MODE) to change the audio source (FM1 radio> FM2 radio> AM radio> CD player or CD changer> Cassette tape player> SIRIUS1> SIRIUS2> SIRIUS3> cyclical).

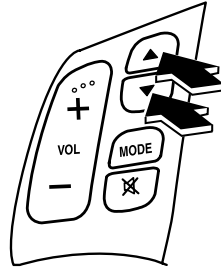


#### **NOTE**

*Cassette tape, CD, CD changer, and SIRIUS digital satellite radio modes cannot be selected in the following cases:*

- A cassette deck, CD, CD changer, or SIRIUS digital satellite radio unit is not equipped on the audio system.
- A cassette tape, or CD has not been inserted.

### ▼ Seek Switch



#### **When listening to the radio**

Press the seek switch (▲, ▼), the radio switches to the next/previous stored station in the order that it was stored (1—6).

Press the seek switch (▲, ▼) for about 2 seconds until a beep sound is heard to seek all usable stations at a higher or lower frequency whether programmed or not.

#### **When playing a cassette tape**

Press the seek switch (▲), release, and it will advance to the next selection. Press the seek switch (▼), release, and it will repeat the selection being played.

#### **When playing a CD**

Press the seek switch (▲) to skip to the next track. Press the seek switch (▼) to repeat the current track.

## Audio System

---

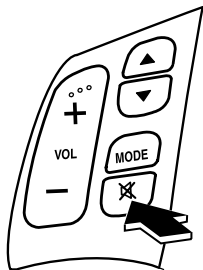
### ▼ Mute Switch

Press the mute switch (⊘) once to mute audio, press it again to resume audio output.

#### **NOTE**

*If the ignition switch is turned to the LOCK position with the audio muted, the mute will be canceled.*

*Therefore, when the engine is restarted, the audio is not muted. To mute the audio again, press the mute switch (⊘).*



## Safety Certification

This CD player is made and tested to meet exacting safety standards. It meets FCC requirements and complies with safety performance standards of the U.S. Department of Health and Human Services.

### **CAUTION**

- *This CD player should not be adjusted or repaired by anyone except qualified service personnel.  
If servicing is required, contact an Authorized Mazda Dealer.*
- *Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser exposure. Never operate the CD player with the top case of the unit removed.*
- *Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.*

### **NOTE**

*For CD player section:*

*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.*

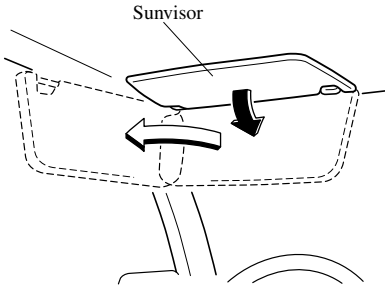
### **NOTE**

*This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed 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.*

## Interior Equipment

### Sunvisors

When you need a sunvisor, lower it for use in front or swing it to the side.



### ▼ Vanity Mirrors

To use the vanity mirror, lower the sunvisor.

The vanity mirror light will illuminate when you open the cover.

### Interior Lights

#### ▼ Illuminated Entry System

When the illuminated entry system operates, the overhead light (switch is in the DOOR position) and the courtesy lights turn on for:

- About 30 seconds after the driver's door is unlocked and the ignition switch is in the LOCK position (with the ignition key removed).
- About 15 seconds after all doors are closed.
- About 15 seconds after the ignition switch is in the LOCK position (with the ignition key removed) with all doors closed.

The light also turns off when:

- The ignition switch is turned to the ON position and all doors are closed.
- The driver's door is locked.

#### **NOTE**

##### **Battery saver**

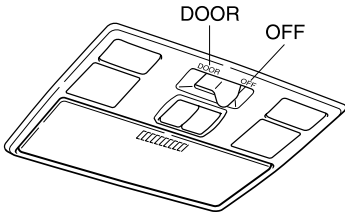
*If any door is left opened, the light goes out after about 30 minutes to save the battery.*

*The light turns on again when the ignition switch is turned to the ON position, or when any door is opened after all doors have been closed.*



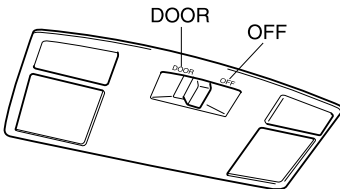
▼ **Overhead Lights**

**Front**



Switch Position	Front Overhead Lights
OFF	Light off
DOOR	<ul style="list-style-type: none"> <li>• Light is on when any door is open</li> <li>• Light is on or off when the illuminated entry system is on</li> </ul>

**Rear**

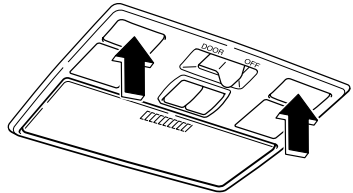


Switch Position	Rear Overhead Lights
OFF	Light off
DOOR	<ul style="list-style-type: none"> <li>• Light is on when any door is open</li> <li>• Light is on or off when the illuminated entry system is on</li> </ul>

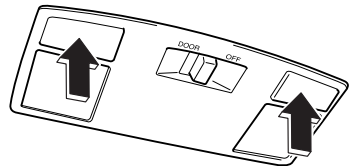
▼ **Map Lights**

The map lights are switched on or off by pressing the switches.

**Front**



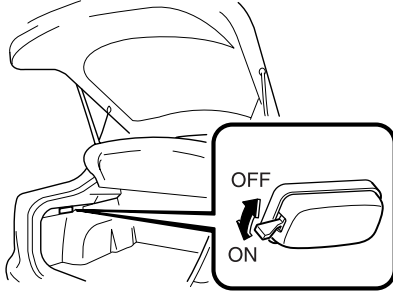
**Rear**



# Interior Equipment

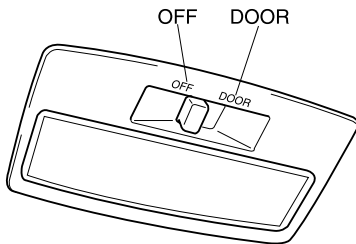
## ▼ Luggage Compartment Light

### 5-Door



Switch Position	Luggage Compartment Light
OFF	Light off
ON	Light on when the hatch is open

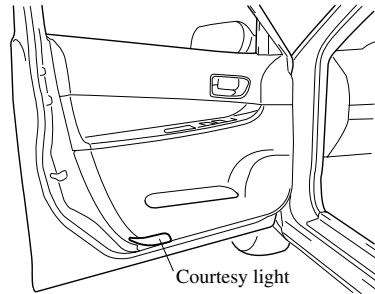
### Sport Wagon



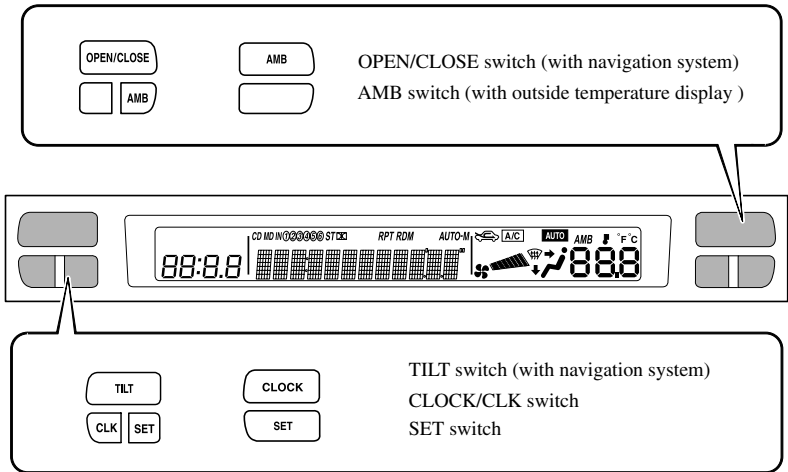
Switch Position	Luggage Compartment Light
OFF	Light off
DOOR	Light on when the liftgate is open

## ▼ Courtesy Lights

Turns on when any door is open or the illuminated entry system is on.



## Information Display



### ▼ Information Display Functions

The information display has the following functions:

- Clock
- Ambient Temperature Display (Outside Temperature Display)
- Climate Control Display
- Audio Display

## Interior Equipment

---

### ▼ Clock

When the ignition switch is in the ACC or ON position, the time is displayed.



12:00

### Time setting

1. Press the CLOCK/CLK switch until a beep sounds, and “12Hr” and “24Hr” will be displayed.
2. Press the SET switch to switch between “12Hr” and “24Hr” displays. The selected display will flash.  
To select the desired clock setting, press the CLOCK/CLK switch again while the preferred setting is flashing.
3. “Hr. ADJUST” will be displayed next, and the hour portion of the display will flash. Press the SET switch to set the hour, then press the CLOCK/CLK switch.
4. “Min. ADJUST” will be displayed next, and the minutes portion of the display will flash. Press the SET switch to set the minutes, then press the CLOCK/CLK switch.

### Time resetting

While the clock is displayed, press the SET switch 1.5 seconds or more. When the switch is released, a beep will sound and the clock will be reset as follows:

(Example)

12:01—12:29→12:00

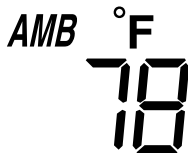
12:30—12:59→1:00

### **NOTE**

*When the SET switch is released, the seconds are reset to “00”.*

### ▼ Ambient Temperature Display

When the ignition switch is in the ON position, press the AMB switch to display the ambient temperature.



AMB °F  
70

**NOTE**

- Under the following conditions, the ambient temperature display may differ from the actual ambient temperature depending on the surroundings and vehicle conditions:
  - Significantly cold or hot temperatures.
  - Sudden changes in ambient temperature.
  - The vehicle is parked.
  - The vehicle is driven at low speeds.
- Press the AMB switch a few seconds or more to switch the display from Fahrenheit to Centigrade or vice versa.
- **(With fully automatic climate control system)**  
Press the AMB switch again to switch the display from ambient temperature to the temperature set for the air conditioner.

**▼ Climate Control Display**

The climate control system status is displayed. To operate the climate control system, refer to “Climate Control System” (page 6-2).

**▼ Audio Display**

The audio system status is displayed. To operate the audio system, refer to “Audio System” (page 6-14).

**Cup Holder****⚠ WARNING**

**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.

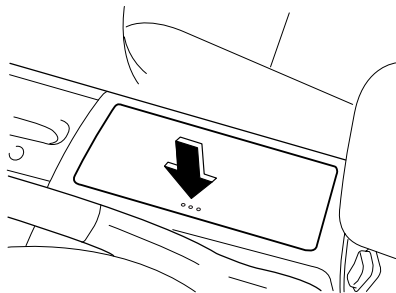
**⚠ CAUTION**

To reduce the possibility of injury in an accident or a sudden stop, keep cup holders closed when not in use.

## Interior Equipment

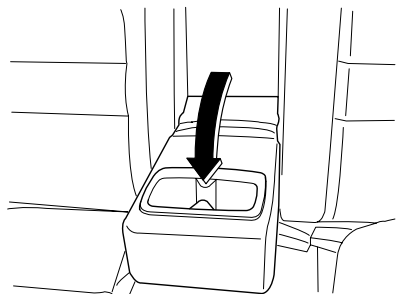
### ▼ Front

To use the cup holder, open the center console by pressing the lower center part of its cover.



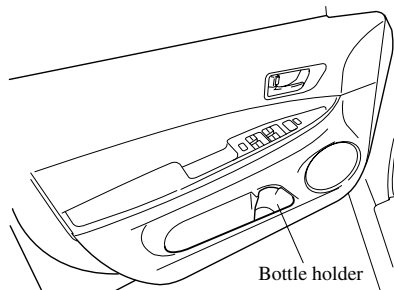
### ▼ Rear

The rear cup holder is on the rear center armrest.



## Bottle Holder

Bottle holders are on the inside of the front doors.



### ⚠ CAUTION

*Do not use the bottle holders for containers without caps. The contents may spill when the door is opened or closed.*

## Storage Compartments

### **⚠ WARNING**

*Keep storage boxes closed when driving:*

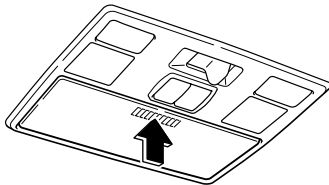
*Driving with the storage boxes open is dangerous. To reduce the possibility of injury in an accident or a sudden stop, keep the storage boxes closed when driving.*

### **⚠ 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.*

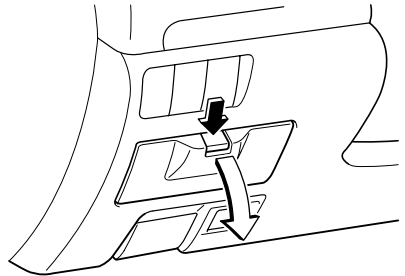
### ▼ Overhead Console

This console box is designed to store eyeglasses or other accessories. Push and release to open.



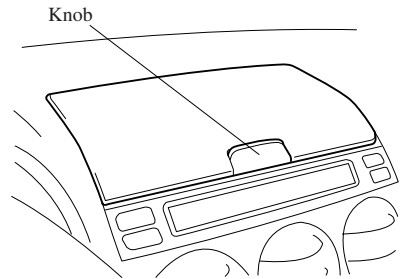
### ▼ Storage Pocket

To open, push the release catch down and pull the lid downward.



### ▼ Center Box with Lid (Without Navigation System)

To use, pull the knob, and the lid opens automatically.

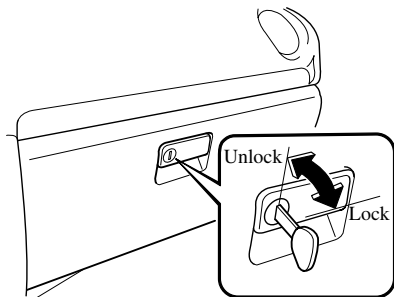


## Interior Equipment

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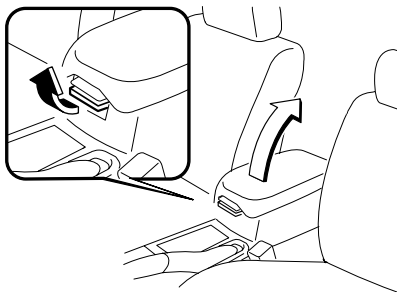
### ▼ Glove Box

To open the glove box, pull the latch toward you. Insert the key and turn it clockwise to lock, counterclockwise to unlock.

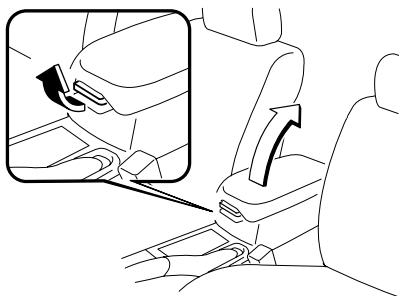


### ▼ Center Console

To open, pull the lower release latch.



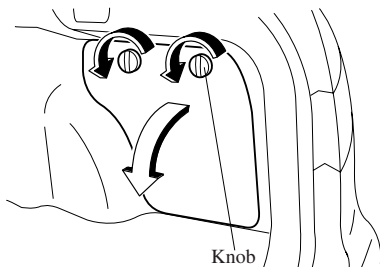
Small items can be placed in the tray of the center console lid. To open it, pull the upper release latch.



### ▼ Storage Box (5-Door/Sport Wagon)

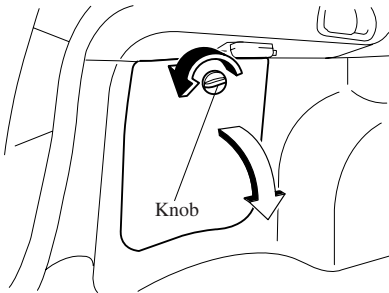
To open, turn the knobs and remove the cover.

**Luggage compartment, right side**





### Luggage compartment, left side



### ▼ Cargo Securing Loops (5-Door/ Sport Wagon)

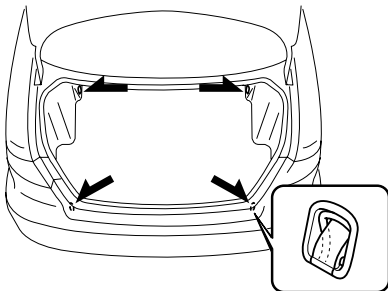
#### **⚠ WARNING**

**Make sure luggage and cargo is secured before driving:**

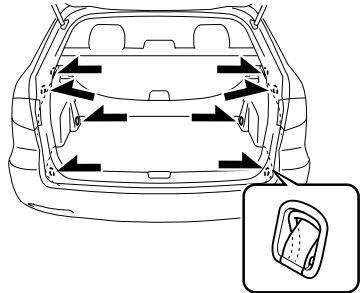
*Not securing cargo while driving is dangerous as it could move or be crushed during sudden braking or a collision and cause injury.*

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.

#### **5-Door**

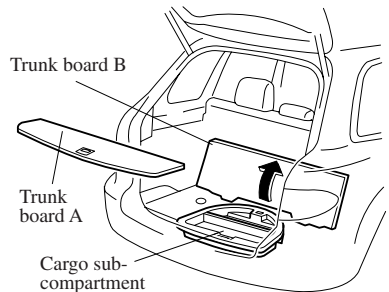


### Sport Wagon



### ▼ Cargo Sub-Compartment (Sport Wagon)

To use the cargo sub-compartment, remove trunk board A and open trunk board B.



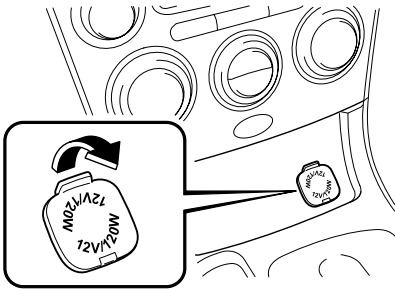
## Interior Equipment

### Accessory Sockets

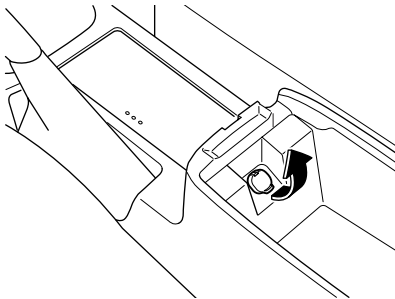
The ignition switch must be in the ACC or ON position.

Only use genuine Mazda accessories or the equivalent requiring no greater than 120 W (DC 12 V, 10 A).

#### Front



#### Rear



### **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).
- 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.

### **NOTE**

To prevent discharging of the battery, do not use the socket for long periods with the engine off or idling.

# 7

## In Case of an Emergency

Helpful information on what to do in an emergency.

<b>Parking in an Emergency</b> .....	<b>7-2</b>
Parking in an Emergency .....	7-2
<b>Flat Tire</b> .....	<b>7-3</b>
Spare Tire and Tool Storage .....	7-3
Changing a Flat Tire .....	7-8
<b>Overheating</b> .....	<b>7-14</b>
Overheating .....	7-14
<b>Emergency Starting</b> .....	<b>7-16</b>
Starting a Flooded Engine .....	7-16
Jump-Starting .....	7-17
Push-Starting .....	7-19
<b>Emergency Towing</b> .....	<b>7-20</b>
Towing Description .....	7-20
Recreational Towing .....	7-21

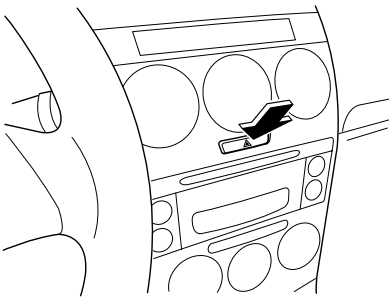
## Parking in an Emergency

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### 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.

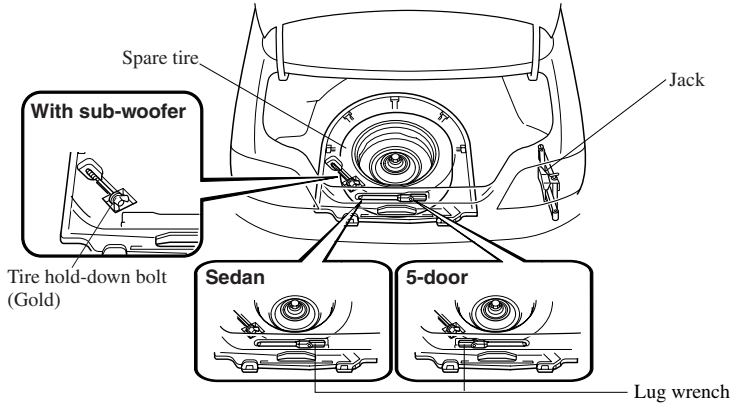
#### **NOTE**

- *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.*

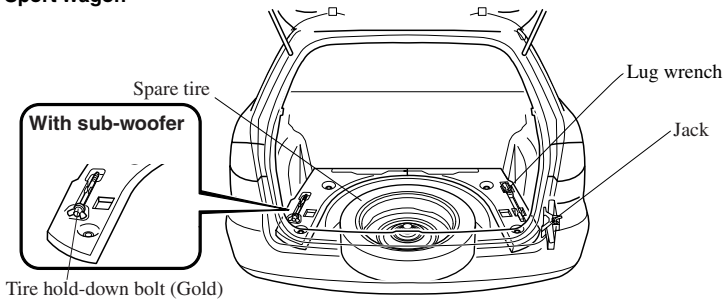
## Spare Tire and Tool Storage

Spare tire and tools are stored in the locations illustrated in the diagram.

### Sedan/5-door



### Sport Wagon



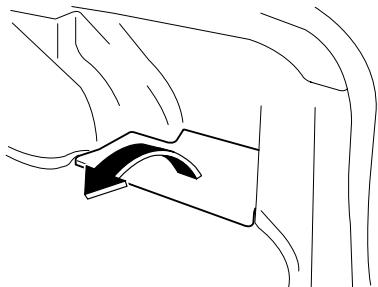
# Flat Tire

## ▼ Jack

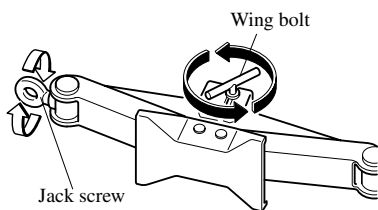
### To remove the jack

#### (Sedan)

1. Remove the jack container lid.



2. Turn the wing bolt and jack screw counterclockwise.

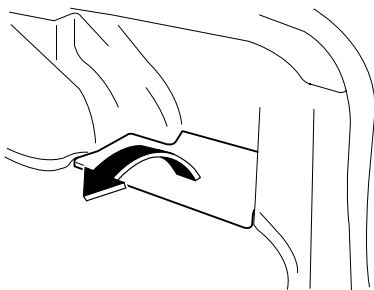


#### (5-Door/Sport Wagon)

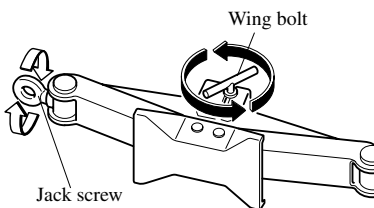
1. Turn the knob and remove the cover.



2. Remove the jack container lid.

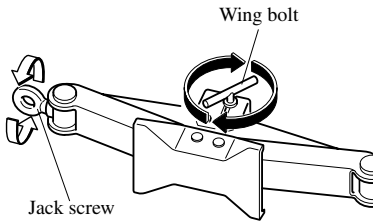


3. Turn the wing bolt and jack screw counterclockwise.



**To secure the jack**

1. Insert the wing bolt into the jack with the jack screw pointing front and turn the wing bolt clockwise to temporarily tighten it.
2. Turn the jack screw in the direction shown in the figure.



3. Turn the wing bolt completely to secure the jack.

**NOTE**

*If the jack is not completely secured, it could rattle while driving. Make sure the jack screw is sufficiently tightened.*

**▼ Spare Tire**

Your Mazda has a temporary spare tire. The temporary spare tire is lighter and smaller than a conventional tire, and is designed only for emergency use and should be used only for VERY short periods. Temporary spare tires should NEVER be used for long drives or extended periods.

**⚠ WARNING**

**Do not install the temporary spare tire on the front wheels (driving wheels):**

*Driving with the temporary spare tire on one of the front driving wheels is dangerous. Handling will be affected. You could lose control of the vehicle, especially on ice or snow bound roads, and have an accident. Move a regular tire to the front wheel and install the temporary spare tire to the rear.*

**⚠ CAUTION**

- When using the temporary spare tire, driving stability may decrease compared to when using only the conventional tire. Drive carefully.
- To avoid damage to the temporary spare tire or to the vehicle, observe the following precautions:
  - Do not exceed 80 km/h (50 mph).
  - Avoid driving over obstacles. Also, do not drive through an automatic car wash. This tire's diameter is smaller than a conventional tire, so the ground clearance is reduced about 35 mm (1.4 in).
  - Do not use tire chains on any type of tire, including the spare tire.
  - Do not use your temporary spare tire on any other vehicle, it has been designed only for your Mazda.
  - Use only one temporary spare tire on your vehicle at the same time.

# Flat Tire

## NOTE

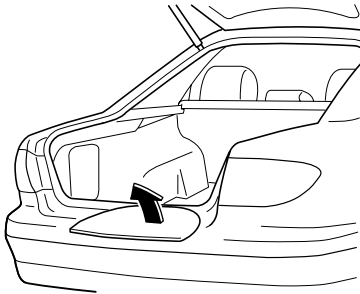
### *(With Tire Pressure Monitoring System)*

A tire pressure sensor is not installed to the temporary spare tire. The warning light will flash continuously while the temporary spare tire is being used (page 5-27).

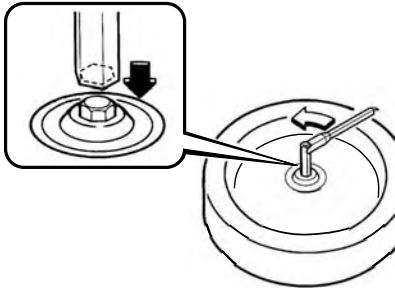
## **To remove the spare tire**

### **(Sedan)**

1. Remove the trunk board.

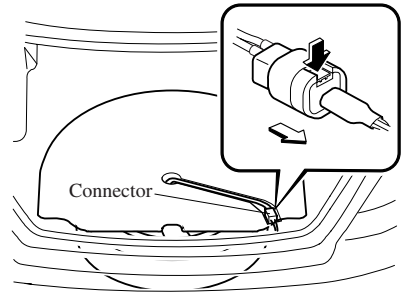


2. Turn the tire wing bolt counterclockwise.



### **(5-Door)**

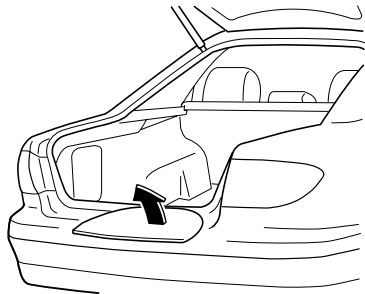
1. For vehicles equipped with a subwoofer, uncouple the connector.



## NOTE

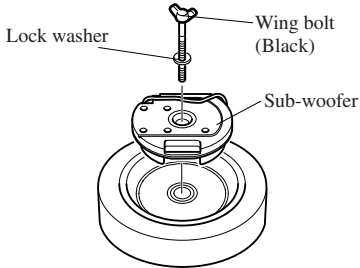
Extra strength may be required to uncouple the connector. Be sure to squeeze the tab firmly. If uncoupling is very difficult, remove the wiring from the groove in the trunk board. Then, pull the driver's side of the trunk board up to remove the spare tire.

2. Remove the trunk board.

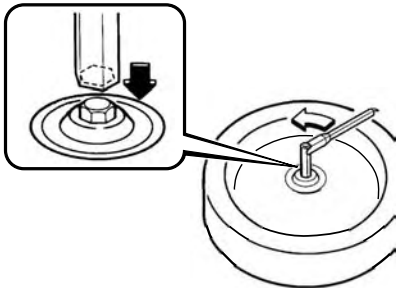




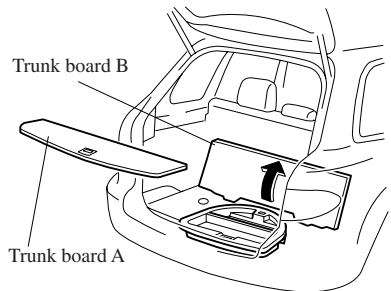
3. For vehicles equipped with a sub-woofer, loosen the wing bolt and remove the woofer and spare tire.



- For vehicles not equipped with a sub-woofer, loosen the hold-down bolt and remove the spare tire.

**(Sport Wagon)**

1. Remove trunk board A and open trunk board B.

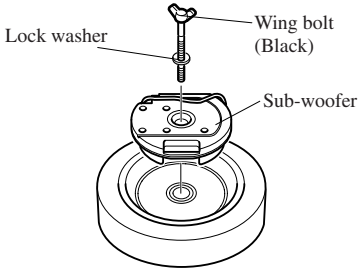


2. For vehicles equipped with a cargo sub-compartment, remove the cargo sub-compartment.

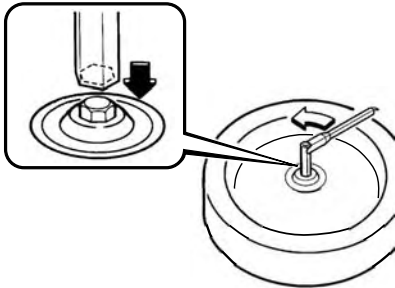


## Flat Tire

3. For vehicles equipped with a sub-woofer, loosen the wing bolt and remove the woofer and spare tire.



For vehicles not equipped with a sub-woofer, loosen the hold-down bolt and remove the spare tire.



### NOTE

For vehicles equipped with a sub-woofer, put the sub-woofer on the left side of the luggage compartment when removing the spare tire.

### To secure the spare tire

Perform the removal procedure in reverse.

## Changing a Flat Tire

### NOTE

If the following occurs while driving, it could indicate a flat tire.

- Steering becomes difficult.
- The vehicle begins to vibrate excessively.
- The vehicle pulls in one direction.

If you have a flat tire, drive slowly to a level spot that is well off the road and out of the way of traffic to change the tire. Stopping in traffic or on the shoulder of a busy road is dangerous.

### ⚠ WARNING

**Be sure to follow the directions for changing a tire, and never get under a vehicle that is supported only by a jack:**

Changing a tire is dangerous if not done properly. The vehicle can slip off the jack and seriously injure someone.

**Never allow anyone inside a vehicle supported by a jack:**

Allowing someone to remain in a vehicle supported by a jack is dangerous. The occupant could cause the vehicle to fall resulting in serious injury.

### ⚠ CAUTION

**(With Tire Pressure Monitoring System)**

The wheels equipped on your Mazda are specially designed for installation of the tire pressure sensors. Do not use non-genuine wheels, otherwise it may not be possible to install the tire pressure sensors.

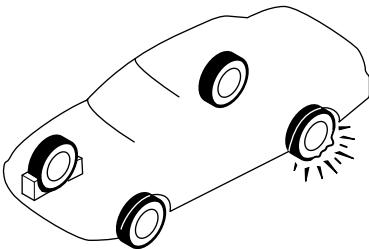
**NOTE**

- Make sure the jack is well lubricated before using it.

**(With Tire Pressure Monitoring System)**

- Be sure to register the tire pressure sensor ID signal code whenever tires or wheels are changed (page 5-29).

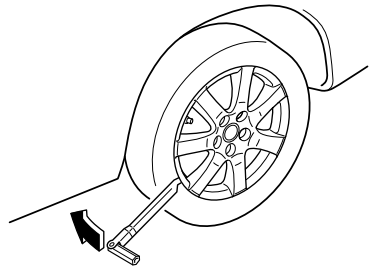
1. Park on a level surface off the right-of-way and firmly set the parking brake.
2. Put a vehicle with an automatic transaxle in Park (P), a manual transaxle in Reverse (R) or 1, and turn off the engine.
3. Turn on the hazard warning flasher.
4. Have everyone get out of the vehicle and away from the vehicle and traffic.
5. Remove the jack, tool, and spare tire (page 7-3).
6. Block the wheel diagonally opposite the flat tire. When blocking a wheel, place a tire block both in front and behind the tire.

**NOTE**

When blocking a tire, use rocks or wood blocks of sufficient size if possible to hold the tire in place.

**▼ Removing a Flat Tire**

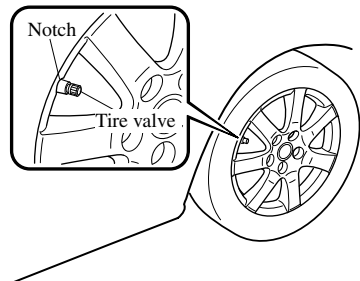
1. If your vehicle is equipped with a wheel cover, pry off the wheel cover with the beveled end of the lug wrench.

**NOTE**

Force the end of the lug wrench firmly between wheel and cover; or removal will be difficult.

**⚠ CAUTION**

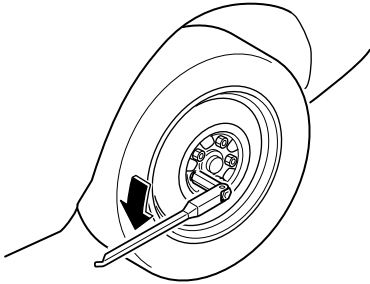
Align the notch on the wheel cover with the valve stem when installing it.



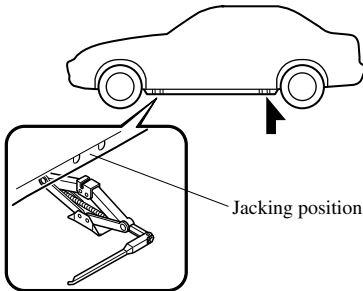
Damage could occur during installation if the wheel cover is not properly aligned.

## Flat Tire

2. Loosen the lug nuts by turning them counterclockwise one turn each, but don't remove any lug nuts until the tire has been raised off the ground.



3. Place the jack under the jacking position closest to the tire being changed.



### **⚠ WARNING**

***Use only the front and rear jacking positions recommended in this manual:***

*Attempting to jack the vehicle in positions other than those recommended in this manual is dangerous. The vehicle could slip off the jack and seriously injure or even kill someone. Use only the front and rear jacking positions recommended in this manual.*

***Use only the jack provided with your Mazda:***

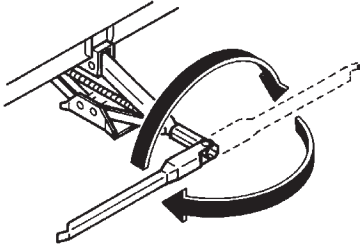
*Using a jack that is not designed for your Mazda is dangerous. The vehicle could slip off the jack and seriously injure someone.*

***Never place objects under the jack:***

*Jacking the vehicle with an object under the jack is dangerous. The jack could slip and someone could be seriously injured by the jack or the falling vehicle.*

4. Insert the lug wrench into the jack.

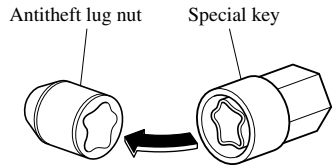
5. Turn the lug wrench clockwise and raise the vehicle high enough so that the spare tire can be installed. Before removing the lug nuts, make sure your Mazda is firmly in position and that it cannot slip or move.



6. Remove the lug nuts by turning them counterclockwise; then remove the wheel.

### ▼ Locking Lug Nuts\*

If your vehicle has optional antitheft wheel lug nuts, one on each wheel will lock the tires and you must use a special key to unlock them. This key is attached to the lug wrench and is stored with the spare tire. Register them with the lock manufacturer by filling out the card provided in the glove box and mailing it in the accompanying envelope. If you lose this key, consult an Authorized Mazda Dealer or use the lock manufacturer's order form, which is with the registration card.



### **To remove an antitheft lug nut**

1. Obtain the key for the antitheft lug nut.
2. Place the 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. Don't use a power impact wrench.
3. Place the lug wrench on top of the key and apply pressure. Turn the wrench counterclockwise.

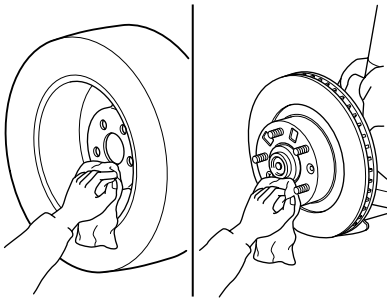
## Flat Tire

### To install the nut

1. Place the 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. Don't use a power impact wrench.
2. Place the lug wrench on top of the key, apply pressure, and turn it clockwise.

### ▼ Mounting the Spare Tire

1. Remove dirt and grime from the mounting surfaces of the wheel and hub, including the hub bolts, with a cloth.



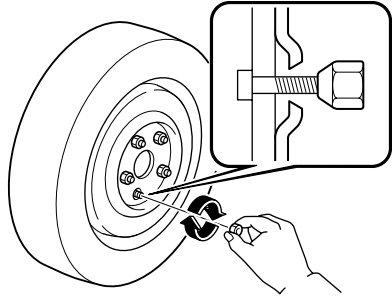
### ⚠ WARNING

**Make sure the mounting surfaces of the wheel, hub and lug nuts are clean before changing or replacing tires:**

*When changing or replacing a tire, not removing dirt and grime from the mounting surfaces of the wheel, hub and hub bolts is dangerous. The lug nuts could loosen while driving and cause the tire to come off, resulting in an accident.*

2. Mount the spare tire.

3. Install the lug nuts with the beveled edge inward; tighten them by hand.

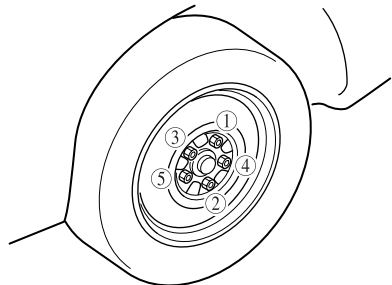


### ⚠ WARNING

**Do not apply oil or grease to lug nuts and bolts and do not tighten the lug nuts beyond the recommended tightening torque:**

*Applying oil or grease to lug nuts and bolts is dangerous. The lug nuts could loosen while driving and cause the tire to come off, resulting in an accident. In addition, lug nuts and bolts could be damaged if tightened more than necessary.*

4. Turn the lug wrench counterclockwise and lower the vehicle. Use the lug wrench to tighten the nuts in the order shown.



If you're unsure of how tight the nuts should be, have them inspected at an Authorized Mazda Dealer.

Nut tightening torque	
N·m (kgf·m, ft·lbf)	88—118 (9—12, 65—87)

### **⚠ WARNING**

**Always securely and correctly tighten the lug nuts:**

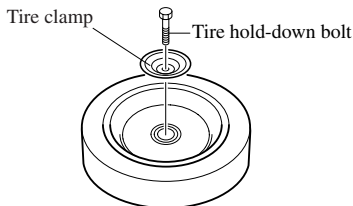
*Improperly or loosely tightened lug nuts are dangerous. The wheel could wobble or come off. This could result in loss of vehicle control and cause a serious accident.*

**Be sure to reinstall the same nuts you removed or replace them with metric nuts of the same configuration:**

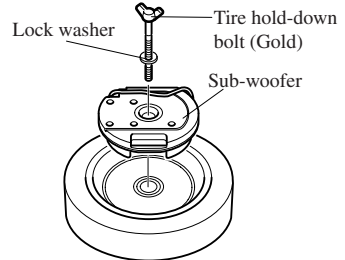
*Because the wheel studs and lug nuts on your Mazda have metric threads, using a non-metric nut is dangerous. On a metric stud, it would not secure the wheel and would damage the stud, which could cause the wheel to slip off and cause an accident.*

5. Store the damaged tire, using the tire hold-down bolt to hold it in place.

#### Without sub-woofer



#### With sub-woofer



6. Check the inflation pressure. Refer to the specification charts on page 10-7.
7. Have the flat tire repaired or replaced as soon as possible.

### **⚠ WARNING**

**Do not drive with any tires that have incorrect air pressure:**

*Driving on tires with incorrect air pressure is dangerous. Tires with incorrect pressure could affect handling and result in an accident. When you check the regular tires' air pressure, check the spare tire, too.*

#### NOTE

##### **(5-Door with sub-woofer)**

*When storing a damaged conventional tire in the luggage compartment, the sub-woofer can be stored in its original position, however, the sub-woofer connector on the trunk board cannot be connected.*

#### NOTE

*To prevent the jack and tool from rattling, store them properly.*

## Overheating

### Overheating

If the temperature gauge indicates overheating, the vehicle loses power, or you hear a loud knocking or pinging noise, the engine is probably too hot.

#### **WARNING**



**Turn off the ignition switch 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 engine has stopped and the engine compartment temperature is high. You could be hit by the fan and seriously injured.*



**Do not remove either cooling system caps when the engine and radiator are hot:**

*When the engine and radiator are hot, scalding coolant and steam may shoot out under pressure and cause serious injury.*

**Open the hood ONLY after steam is no longer escaping from the engine:**

*Steam from an overheated engine is dangerous. The escaping steam could seriously burn you.*

If the temperature gauge indicates overheating:

1. Drive safely to the side of the road and park off the right-of-way.

2. Put a vehicle with an automatic transaxle in park (P), a manual transaxle in neutral.
3. Apply the parking brake.
4. Turn off the air conditioner.
5. Check whether coolant or steam is escaping from under the hood or from the engine compartment.

#### **If steam is coming from the engine compartment:**

Don't go near the front of the vehicle. Stop the engine.

Wait until the steam dissipates, then open the hood and start the engine.

#### **If neither coolant nor steam is escaping:**

Open the hood and idle the engine until it cools.

#### **CAUTION**

*If the cooling fan does not operate while the engine is running, the engine temperature will increase. Stop the engine and call an Authorized Mazda Dealer.*

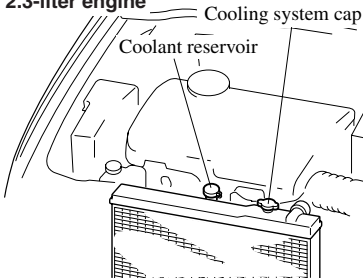
6. Make sure the cooling fan is operating, then turn off the engine after the temperature has decreased.
7. When cool, check the coolant level. If it's low, look for coolant leaks from the radiator and hoses.



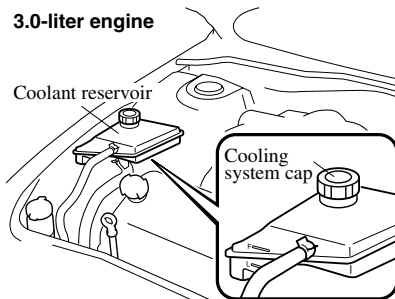
**If you find a leak or other damage, or if coolant is still leaking:**

Stop the engine and call an Authorized Mazda Dealer.

**2.3-liter engine**



**3.0-liter engine**



**If you find no problems, the engine is cool, and no leaks are obvious:**

Carefully add coolant as required (page 8-20).

**⚠ CAUTION**

*If the engine continues to overheat or frequently overheats, have the cooling system inspected. The engine could be seriously damaged unless repairs are made. Consult an Authorized Mazda Dealer.*

## Emergency Starting

---

### Starting a Flooded Engine

If the engine fails to start, it may be flooded (excessive fuel in the engine).

Follow this procedure:

1. If the engine does not start within 5 seconds on the first try, turn the key to the LOCK position, wait 10 seconds and try again.
2. Depress the accelerator all the way and hold it there.
3. Turn the ignition switch to the START position and hold it there—for up to 10 seconds. If the engine starts, release the key and accelerator immediately because the engine will suddenly rev up.
4. If the engine fails to start, crank it without depressing the accelerator—for up to 10 seconds.

If the engine still does not start using the above procedure, have your vehicle inspected by an Authorized Mazda Dealer.

## Jump-Starting

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.

### **WARNING**

**Always wear eye protection when working near the battery:**

*Working without eye protection is dangerous. Battery fluid contains SULFURIC ACID which could cause blindness if splashed into your eyes. Also, hydrogen gas produced during normal battery operation, could ignite and cause the battery to explode.*

**Wear eye protection and protective gloves to prevent contact with battery fluid:**

*Spilled battery fluid is dangerous.*

*Battery fluid contains SULFURIC ACID which could cause serious injuries if it gets in eyes, 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 batteries out of the reach of children:**

*Allowing children to play near batteries is dangerous. Battery fluid could cause serious injuries if it gets in the eyes or on the skin.*

**Do not allow the positive (+) terminal to contact any other metal object that could cause sparks:**

*Flames and sparks near open battery cells are dangerous. Hydrogen gas, produced during normal battery operation, could ignite and cause the battery to explode. An exploding battery can cause serious burns and injuries. When working near a battery, do not allow metal tools to contact the positive (+) or negative (-) terminal of the battery.*

**Keep all flames, including cigarettes, and sparks away from open battery cells:**

*Flames and sparks near open battery cells are dangerous. Hydrogen gas, produced during normal battery operation, could ignite and cause the battery to explode. An exploding battery can cause serious burns and injuries.*

**Do not jump-start a frozen battery or one with a low fluid level:**

*Jump-starting a frozen 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 battery:**

*Connecting the end of the second jumper cable to the negative (-) terminal of the discharged battery is dangerous.*

*A spark could cause the gas around the battery to explode and injure someone.*

## Emergency Starting

### Route the jumper cables away from parts that will be moving:

Connecting a jumper cable near or to moving parts (cooling fans, belts) is dangerous. The cable could get caught when the engine starts and cause serious injury.

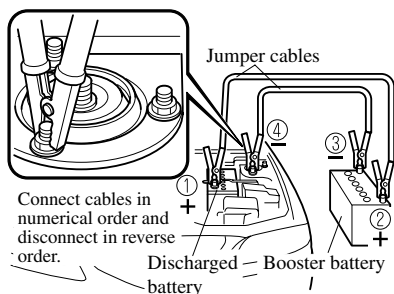
### **CAUTION**

Use only a 12 V booster system. You can damage a 12 V starter, ignition system, and other electrical parts beyond repair with a 24 V power supply (two 12 V batteries in series or a 24 V motor generator set).

1. Make sure the booster battery is 12 V and that its negative terminal is grounded.
2. If the booster battery is in another vehicle, don't allow the vehicles to touch. Turn off the engine of the vehicle with the booster battery and all unnecessary electrical loads in both vehicles.
3. Connect the jumper cables in the exact sequence as in the illustration.

- Connect one end of a cable to the positive terminal on the discharged battery (1).
- Attach the other end to the positive terminal on the booster battery (2).
- Connect one end of the other cable to the negative terminal of the booster battery (3).

- Connect the other end to a solid, stationary, exposed metallic point (for example, the strut mounting bolt) away from the discharged battery (4).



4. Start the engine of the booster vehicle and run it a few minutes. Then start the engine of the other vehicle.
5. When finished, carefully disconnect the cables in the reverse order described in Step 3.

## Push-Starting

Do not push-start your Mazda.

### **WARNING**

**Never tow a vehicle to start it:**

*Towing a vehicle to start it is dangerous. The vehicle being towed could surge forward when its engine starts, causing the two vehicles to collide. The occupants could be injured.*

### **CAUTION**

*Do not push-start a vehicle that has a manual transaxle. It can damage the emission control system.*

### **NOTE**

*You can't start a vehicle with an automatic transaxle by pushing it.*

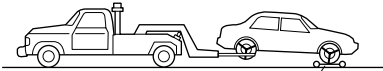
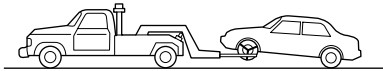
## Emergency Towing

### Towing Description

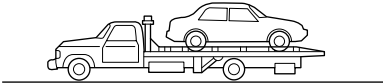
We recommend that towing be done only by an Authorized Mazda Dealer or a commercial tow-truck service.

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.



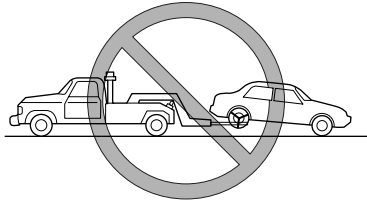
Wheel dollies



When towing with the rear wheels on the ground, release the parking brake.

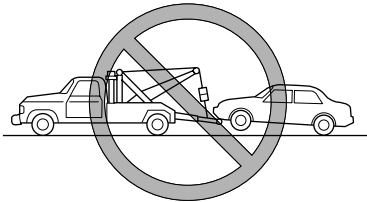
### CAUTION

*Don't tow the vehicle pointed backward with driving wheels on the ground. This may cause internal damage to the transaxle.*



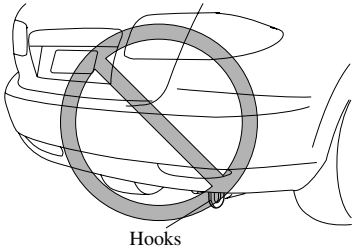
### CAUTION

*Don't tow with sling-type equipment. This could damage your vehicle. Use wheel-lift or flatbed equipment.*



**⚠ CAUTION**

*Do not use the hooks under the rear bumper for towing and tying down, as they cannot hold the load and it will damage the bumper.*



**Recreational Towing**

An example of “recreational towing” is towing your vehicle behind a motorhome. The transaxle is not designed for towing this vehicle on all 4 wheels.

When doing recreational towing refer to “Towing Description” (page 7-20) and carefully follow the instructions.





# 8

## Maintenance and Care

How to keep your Mazda in top condition.

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## Introduction

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### Introduction

Be extremely careful and prevent injury to yourself and others or damage to your vehicle when using this manual for inspection and maintenance.

If you're unsure about any procedure it 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.

The owner should retain evidence that proper maintenance has been performed as prescribed.

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.**

**Scheduled Maintenance (USA, Canada, and Puerto Rico)**

Follow Schedule 1 if the vehicle is operated mainly where none of the following conditions apply.

- Repeated short-distance driving
- Driving in dusty conditions
- Driving with extended use of brakes
- Driving in areas where salt or other corrosive materials are being used
- Driving on rough or muddy roads
- Extended periods of idling or low-speed operation
- Driving for long periods in cold temperatures or extremely humid climates
- Driving in extremely hot conditions
- Driving in mountainous conditions continually

If any do apply, follow Schedule 2 (Canada and Puerto Rico residents follow Schedule 2).

**NOTE**

*After the prescribed period, continue to follow the described maintenance at the recommended intervals.*

# Scheduled Maintenance

## ▼ Schedule 1

Maintenance Interval	Number of months or kilometers (miles), whichever comes first								
	Months	6	12	18	24	30	36	42	48
	×1000 km	12	24	36	48	60	72	84	96
	×1000 miles	7.5	15	22.5	30	37.5	45	52.5	60
<b>ENGINE</b>									
Drive belts (tension)	2.3-liter engine					I			
	3.0-liter engine				I				I
Engine valve clearance (for 2.3-liter engine)	Audible inspect every 120,000 km (75,000 miles), if noisy, adjust								
Engine oil	R	R	R	R	R	R	R	R	R
Engine oil filter	R	R	R	R	R	R	R	R	R
<b>COOLING SYSTEM</b>									
Cooling system					I				I
Engine coolant	FL22 type*1	Replace at first 192,000 km (120,000 miles) or 10 years; after that, every 96,000 km (60,000 miles) or 5 years							
	Others	Replace at first 168,000 km (105,000 miles) or 5 years; after that, every 48,000 km (30,000 miles) or 2 years							
<b>FUEL SYSTEM</b>									
Air filter						R			
Fuel lines and hoses*2					I				I
Hoses and tubes for emission*2									I
<b>IGNITION SYSTEM</b>									
Spark plugs	Replace every 120,000 km (75,000 miles)								
<b>CHASSIS and BODY</b>									
Brake lines, hoses and connections					I				I
Disc brakes		I			I		I		I
Tire (Rotation)	Rotate every 12,000 km (7,500 miles)								
Steering operation and linkages					I				I
Front and rear suspension, ball joints and wheel bearing axial play					I				I
Driveshaft dust boots					I				I
Bolts and nuts on chassis and body					T				T
Exhaust system and heat shields	Inspect every 72,000 km (45,000 miles) or 5 years								
All locks and hinges	L	L	L	L	L	L	L	L	L

## Scheduled Maintenance

Maintenance Interval	Number of months or kilometers (miles), whichever comes first								
	Months	6	12	18	24	30	36	42	48
	×1000 km	12	24	36	48	60	72	84	96
	×1000 miles	7.5	15	22.5	30	37.5	45	52.5	60
<b>AIR CONDITIONER SYSTEM</b>									
Cabin air filter				Replace every 40,000 km (25,000 miles) or 2 years					

### Chart symbols:

**I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.

**R:** Replace

**L:** Lubricate

**T:** Tighten

### Remarks:

- \*1 Use FL22 type coolant in vehicles with the inscription “FL22” on the radiator cap itself or the surrounding area. Use FL22 when replacing the coolant.
- \*2 According to state/provincial and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or mileage/kilometer period to ensure long-term reliability.

# Scheduled Maintenance

## ▼ Schedule 2

Maintenance Interval	Number of months or kilometers (miles), whichever comes first												
	Months	4	8	12	16	20	24	28	32	36	40	44	48
	×1000 km	8	16	24	32	40	48	56	64	72	80	88	96
	×1000 miles	5	10	15	20	25	30	35	40	45	50	55	60
<b>ENGINE</b>													
Drive belts (tension)	2.3-liter engine							I					
	3.0-liter engine						I						I
Engine valve clearance (for 2.3-liter engine)	Audible inspect every 120,000 km (75,000 miles), if noisy, adjust												
Engine oil	Puerto Rico	Replace every 5,000 km (3,000 miles) or 3 months											
	Others	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	R
<b>COOLING SYSTEM</b>													
Cooling system							I						I
Engine coolant	FL22 type*1	Replace at first 192,000 km (120,000 miles) or 10 years; after that, every 96,000 km (60,000 miles) or 5 years											
	Others	Replace at first 168,000 km (105,000 miles) or 5 years; after that, every 48,000 km (30,000 miles) or 2 years											
Engine coolant level		I	I	I	I	I	I	I	I	I	I	I	I
<b>FUEL SYSTEM</b>													
Air filter	Puerto Rico						R						R
	Others							R					
Fuel lines and hoses*2							I						I
Hoses and tubes for emission*2													I
<b>IGNITION SYSTEM</b>													
Spark plugs	USA	Replace every 96,000 km (60,000 miles)											
	Others*3	Replace every 120,000 km (75,000 miles)											
<b>ELECTRICAL SYSTEM</b>													
Function of all lights		I	I	I	I	I	I	I	I	I	I	I	I

## Scheduled Maintenance

Maintenance Interval	Number of months or kilometers (miles), whichever comes first												
	Months	4	8	12	16	20	24	28	32	36	40	44	48
	×1000 km	8	16	24	32	40	48	56	64	72	80	88	96
	×1000 miles	5	10	15	20	25	30	35	40	45	50	55	60
<b>CHASSIS and BODY</b>													
Brake lines, hoses and connections							I						I
Brake fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Disc brakes			I				I			I			I
Tire (Rotation)	Rotate every 8,000 km (5,000 miles)												
Tire inflation pressure and tire wear	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering operation and linkages							I						I
Power steering fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Front and rear suspension, ball joints and wheel bearing axial play							I						I
Driveshaft dust boots							I						I
Bolts and nuts on chassis and body							T						T
Exhaust system and heat shields	Inspect every 72,000 km (45,000 miles) or 5 years												
All locks and hinges	L	L	L	L	L	L	L	L	L	L	L	L	L
Washer fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
<b>AIR CONDITIONER SYSTEM</b>													
Cabin air filter	Replace every 40,000 km (25,000 miles) or 2 years												

### Chart symbols:

**I:** Inspect and clean, repair, adjust, or replace if necessary.

**R:** Replace

**L:** Lubricate

**T:** Tighten

### Remarks:

- \*1 Use FL22 type coolant in vehicles with the inscription "FL22" on the radiator cap itself or the surrounding area. Use FL22 when replacing the coolant.
- \*2 According to state/provincial and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or mileage/kilometer period to ensure long-term reliability.
- \*3 If the vehicle is operated under any of the following conditions, replace the spark plugs at every 96,000 km (60,000 miles) or shorter.
  - a) Repeated short-distance driving
  - b) Extended periods of idling or low-speed operation
  - c) Driving for long periods in cold temperatures or extremely humid climates

## Scheduled Maintenance

---

### Scheduled Maintenance (Mexico)

Follow Schedule 1 if the vehicle is operated mainly where none of the following conditions apply.

- Repeated short-distance driving
- Driving in dusty conditions
- Driving with extended use of brakes
- Driving in areas where salt or other corrosive materials are being used
- Driving on rough or muddy roads
- Extended periods of idling or low-speed operation
- Driving for long periods in cold temperatures or extremely humid climates
- Driving in extremely hot conditions
- Driving in mountainous conditions continually

If any do apply, follow Schedule 2.

#### **NOTE**

*After the prescribed period, continue to follow the described maintenance at the recommended intervals.*



# Scheduled Maintenance

## ▼ Schedule 1

Maintenance Interval	Number of months or kilometers, whichever comes first												
	Months	6	12	18	24	30	36	42	48	54	60	66	72
	×1000 km	10	20	30	40	50	60	70	80	90	100	110	120
<b>ENGINE</b>													
Drive belts (tension)					I				I				I
Engine valve clearance (for 2.3-liter engine)	Audible inspect every 120,000 km, if noisy, adjust												
Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R
<b>COOLING SYSTEM</b>													
Cooling system					I				I				I
Engine coolant	FL22 type* <sup>1</sup>	Replace at first 190,000 km or 10 years; after that, every 60,000 km or 3 years											
	Others				R				R				R
<b>FUEL SYSTEM</b>													
Air filter		R		R		R		R		R		R	R
Fuel lines and hoses				I* <sup>2</sup>				I* <sup>2</sup>					I
Hoses and tubes for emission				I* <sup>2</sup>				I* <sup>2</sup>					I
Fuel filter				R				R					R
<b>IGNITION SYSTEM</b>													
Spark plugs	Replace every 60,000 km												
<b>CHASSIS and BODY</b>													
Brake lines, hoses and connections		I		I		I		I		I		I	I
Brake fluid level	I	I	I		I	I	I		I	I	I		
Brake fluid				R				R					R
Disc brakes	I	I	I	I	I	I	I	I	I	I	I	I	I
Tire (Rotation)	Rotate every 10,000 km												
Tire inflation pressure and tire wear	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering operation and linkages	I	I	I	I	I	I	I	I	I	I	I	I	I
Power steering fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Front and rear suspension, ball joints and wheel bearing axial play		I		I		I		I		I			I
Driveshaft dust boots		I		I		I		I		I			I
Bolts and nuts on chassis and body		T		T		T		T		T			T
Exhaust system and heat shields		I		I		I		I		I			I
All locks and hinges	L	L	L	L	L	L	L	L	L	L	L	L	L
Washer fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I

## Scheduled Maintenance

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Maintenance Interval	Number of months or kilometers, whichever comes first												
	Months	6	12	18	24	30	36	42	48	54	60	66	72
	×1000 km	10	20	30	40	50	60	70	80	90	100	110	120
<b>AIR CONDITIONER SYSTEM</b>													
Cabin air filter					R				R				R

**Chart symbols:**

**I:** Inspect and clean, repair, adjust, or replace if necessary.

**R:** Replace

**L:** Lubricate

**T:** Tighten

**Remarks:**

- \*1 Use FL22 type coolant in vehicles with the inscription "FL22" on the radiator cap itself or the surrounding area. Use FL22 when replacing the coolant.
- \*2 According to state/provincial and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or kilometer period to ensure long-term reliability.

# Scheduled Maintenance

## ▼ Schedule 2

Maintenance Interval	Number of months or kilometers, whichever comes first												
	Months	3	6	9	12	15	18	21	24	27	30	33	36
	×1000 km	5	10	15	20	25	30	35	40	45	50	55	60
<b>ENGINE</b>													
Drive belts (tension)									I				
Engine valve clearance (for 2.3-liter engine)	Audible inspect every 120,000 km, if noisy, adjust												
Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R
<b>COOLING SYSTEM</b>													
Cooling system									I				
Engine coolant	FL22 type*1	Replace at first 190,000 km or 10 years; after that, every 60,000 km or 3 years											
	Others								R				
Engine coolant level	I	I	I	I	I	I	I	I	I	I	I	I	I
<b>FUEL SYSTEM</b>													
Air filter		C		R		C		R		C		R	
Fuel lines and hoses								I*2					
Hoses and tubes for emission								I*2					
Fuel filter								R					
<b>IGNITION SYSTEM</b>													
Spark plugs	Replace every 60,000 km												
<b>ELECTRICAL SYSTEM</b>													
Function of all lights	I	I	I	I	I	I	I	I	I	I	I	I	I
<b>CHASSIS and BODY</b>													
Brake lines, hoses and connections				I				I					I
Brake fluid level		I		I		I				I			I
Brake fluid								R					
Disc brakes		I		I		I		I		I			I
Tire (Rotation)	Rotate every 10,000 km												
Tire inflation pressure and tire wear		I		I		I		I		I			I
Steering operation and linkages		I		I		I		I		I			I
Power steering fluid level		I		I		I		I		I			I
Front and rear suspension, ball joints and wheel bearing axial play				I				I					I
Driveshaft dust boots				I				I					I
Bolts and nuts on chassis and body				T				T					T
Exhaust system and heat shields				I				I					I
All locks and hinges		L		L		L		L		L			L
Washer fluid level		I		I		I		I		I			I

## Scheduled Maintenance

---

Maintenance Interval	Number of months or kilometers, whichever comes first												
	Months	3	6	9	12	15	18	21	24	27	30	33	36
	×1000 km	5	10	15	20	25	30	35	40	45	50	55	60
<b>AIR CONDITIONER SYSTEM</b>													
Cabin air filter					R				R				R

**Chart symbols:**

**I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.

**R:** Replace

**C:** Clean

**L:** Lubricate

**T:** Tighten

**Remarks:**

- \*1 Use FL22 type coolant in vehicles with the inscription "FL22" on the radiator cap itself or the surrounding area. Use FL22 when replacing the coolant.
- \*2 According to state/provincial and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or kilometer period to ensure long-term reliability.

## Scheduled Maintenance

(Cont.)

Maintenance Interval	Number of months or kilometers, whichever comes first												
	Months	39	42	45	48	51	54	57	60	63	66	69	72
	×1000 km	65	70	75	80	85	90	95	100	105	110	115	120
<b>ENGINE</b>													
Drive belts (tension)				I									I
Engine valve clearance (for 2.3-liter engine)	Audible inspect every 120,000 km, if noisy, adjust												
Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R
<b>COOLING SYSTEM</b>													
Cooling system				I									I
Engine coolant	FL22 type*1	Replace at first 190,000 km or 10 years; after that, every 60,000 km or 3 years											
	Others				R								R
Engine coolant level	I	I	I	I	I	I	I	I	I	I	I	I	I
<b>FUEL SYSTEM</b>													
Air filter		C		R		C		R		C			R
Fuel lines and hoses				I <sup>2</sup>									I
Hoses and tubes for emission				I <sup>2</sup>									I
Fuel filter				R									R
<b>IGNITION SYSTEM</b>													
Spark plugs	Replace every 60,000 km												
<b>ELECTRICAL SYSTEM</b>													
Function of all lights	I	I	I	I	I	I	I	I	I	I	I	I	I
<b>CHASSIS and BODY</b>													
Brake lines, hoses and connections				I					I				I
Brake fluid level		I					I		I		I		
Brake fluid				R									R
Disc brakes		I		I		I		I		I		I	I
Tire (Rotation)	Rotate every 10,000 km												
Tire inflation pressure and tire wear		I		I		I		I		I		I	I
Steering operation and linkages		I		I		I		I		I		I	I
Power steering fluid level		I		I		I		I		I		I	I
Front and rear suspension, ball joints and wheel bearing axial play				I				I					I
Driveshaft dust boots				I				I					I
Bolts and nuts on chassis and body				T				T					T
Exhaust system and heat shields				I				I					I
All locks and hinges		L		L		L		L		L		L	L
Washer fluid level		I		I		I		I		I		I	I

## Scheduled Maintenance

---

Maintenance Interval	Number of months or kilometers, whichever comes first													
	Months	39	42	45	48	51	54	57	60	63	66	69	72	
	×1000 km	65	70	75	80	85	90	95	100	105	110	115	120	
<b>AIR CONDITIONER SYSTEM</b>														
Cabin air filter					R				R					R

### Chart symbols:

**I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.

**R:** Replace

**C:** Clean

**L:** Lubricate

**T:** Tighten

### Remarks:

- \*1 Use FL22 type coolant in vehicles with the inscription "FL22" on the radiator cap itself or the surrounding area. Use FL22 when replacing the coolant.
- \*2 According to state/provincial and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or kilometer period to ensure long-term reliability.

## Owner Maintenance Schedule

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 Refueling

- Brake and clutch fluid level (page 8-22)
- Engine coolant level (page 8-20)
- Engine oil level (page 8-19)
- Washer fluid level (page 8-26)

### ▼ At Least Monthly

Tire inflation pressures (page 8-33)

### ▼ At Least Twice a Year (For Example, Every Spring and Fall)

- Automatic transaxle fluid level (page 8-24)
- Power steering fluid level (page 8-23)

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.

- Engine coolant (page 8-20)
- Engine oil (page 8-18)

## Owner Maintenance

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### Owner Maintenance Precautions

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 8-2), 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. For details, read the separate Mazda Warranty statement provided with the vehicle. If you're 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 oil and fluids. Please dispose of your waste properly and with due regard to the environment.

We recommend that you entrust the oil and 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 engine 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 engine or cooling fan which may turn on unexpectedly:***

*Working under the hood with the engine running is dangerous. It becomes even more dangerous when you wear jewelry or loose clothing.*

*Either can become entangled in moving parts and result in injury.*

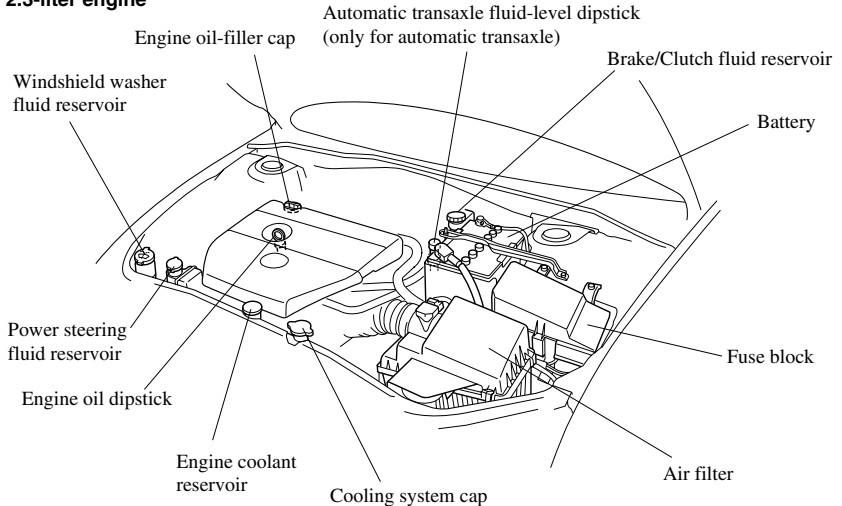
***Turn off the ignition switch and make sure the fan is not running before attempting to work near the cooling fan:***

*Working near the cooling fan when it is running is dangerous. The fan could continue running indefinitely even if the engine has stopped and the engine compartment temperature is high. You could be hit by the fan and seriously injured.*

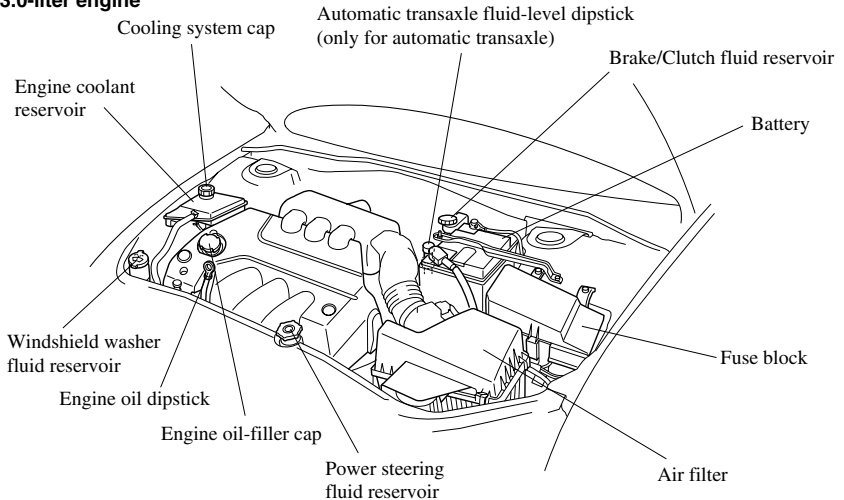


## Engine Compartment Overview

### 2.3-liter engine



### 3.0-liter engine



# Owner Maintenance

## Engine Oil

### NOTE

*Changing the engine oil should be done by an Authorized Mazda Dealer.*

### ▼ Recommended Oil

#### Use SAE 5W-20 engine oil.

Oil container labels provide important information.

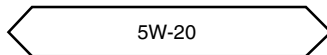
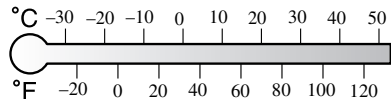
A chief contribution this type of oil makes to fuel economy is reducing the amount of fuel necessary to overcome engine friction.

#### U.S.A. and CANADA

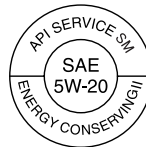


(ILSAC)

Only use oils "Certified For Gasoline Engines" by the American Petroleum Institute (API). An oil with this trademark symbol conforms to the current engine and emission system protection standards and fuel economy requirements of the International Lubricant Standardization and Approval Committee (ILSAC), comprised of U.S. and Japanese automobile manufacturers.



#### Except U.S.A. and CANADA

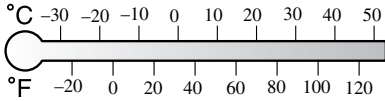


(ILSAC)

#### Mexico

Use SAE 5W-20 engine oil. If SAE 5W-20 engine oil is not available in your market. Use SAE 5W-30 engine oil.

The quality designation SM, or ILSAC must be on the label.

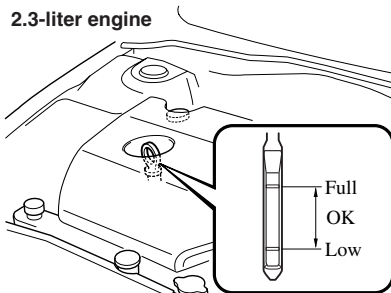


5W-20

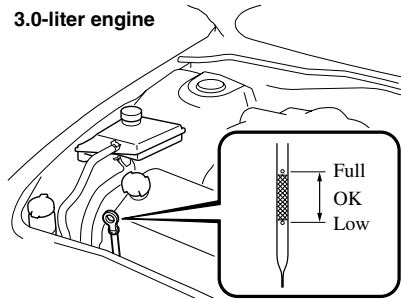
### ▼ Inspecting Engine Oil Level

1. Be sure the vehicle is on a level surface.
2. Warm up the engine to normal operating temperature.
3. Turn it off and wait at least 5 minutes for the oil to return to the oil pan.
4. Pull out the dipstick, wipe it clean, and reinsert it fully.

#### 2.3-liter engine



#### 3.0-liter engine



5. Pull it out again and examine the level. It's OK between Low and Full. But if it's near or below Low, add enough oil to bring the level to Full.

### **CAUTION**

*Don't add engine oil over Full. This may cause engine damage.*

6. Make sure the O-ring on the dipstick is positioned properly before reinserting the dipstick.

# Owner Maintenance

## Engine Coolant

### ▼ Inspecting Coolant Level

#### ⚠ WARNING

**Do not use a match or live flame in the engine compartment. DO NOT ADD COOLANT WHEN THE ENGINE IS HOT:**

*A hot engine is dangerous. If the engine has been running, parts of the engine compartment can become very hot. You could be burned.*

*Carefully inspect the engine coolant in the coolant reservoir, but do not open it.*



**Turn off the ignition switch 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 engine has stopped and the engine compartment temperature is high. You could be hit by the fan and seriously injured.*



**Do not remove the cooling system cap when the engine and radiator are hot:**

*When the engine and radiator are hot, scalding coolant and steam may shoot out under pressure and cause serious injury.*

#### NOTE

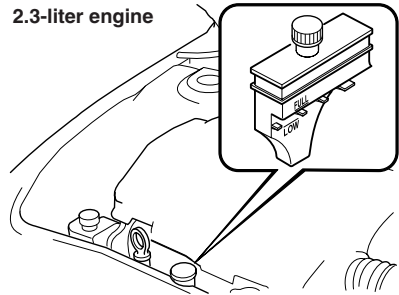
*Changing the coolant should be done by an Authorized Mazda Dealer.*

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.

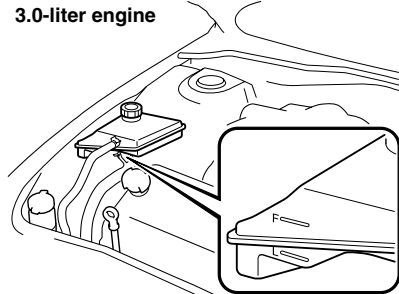
Inspect the condition and connections of all cooling system and heater hoses. Replace any that are swollen or deteriorated.

The coolant should be at full in the radiator and between the FULL or F and LOW or L marks on the coolant reservoir when the engine is cool.

#### 2.3-liter engine



#### 3.0-liter engine



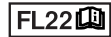
If it's at or near LOW or L, add enough coolant to the coolant reservoir to provide freezing and corrosion protection and to bring the level to FULL or F.

**CAUTION**

- Radiator coolant will damage paint.  
Rinse it off quickly if spilled.
- Use only soft (demineralized) water in the coolant mixture. Water that contains minerals will cut down on the coolant's effectiveness.
- Don't add only water. Always add a proper coolant mixture.
- The engine has aluminum parts and must be protected by an ethylene-glycol-based coolant to prevent corrosion and freezing.
- DO NOT USE coolants Containing Alcohol, methanol, Borate or Silicate.  
These coolants could damage the cooling system.
- DO NOT MIX alcohol or methanol with the coolant. This could damage the cooling system.
- Don't use a solution that contains more than 60% antifreeze.  
This would reduce effectiveness.

**NOTE**

If the "FL22" mark is shown on or near the cooling system cap, use FL22 type engine coolant. If engine coolant other than FL22 type is used, the engine coolant must be replaced earlier than the specified replacement interval indicated in the scheduled maintenance (page 8-3).



If the coolant reservoir is empty or new coolant is required frequently, consult an Authorized Mazda Dealer.

## Owner Maintenance

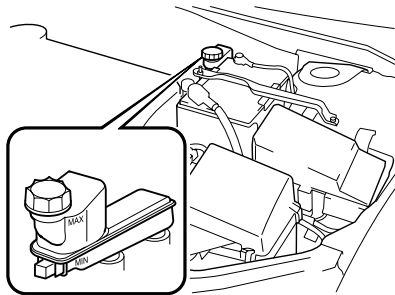
### Brake/Clutch Fluid

#### ▼ Inspecting Brake/Clutch Fluid Level

The brakes and clutch draw fluid from the same reservoir.

Inspect the fluid level in the reservoir regularly. It should be kept at MAX.

The level normally drops with accumulated distance, a condition associated with wear of brake and clutch linings. If it is excessively low, have the brake/clutch system inspected by an Authorized Mazda Dealer.



#### ▼ Adding Brake/Clutch Fluid

#### **⚠ WARNING**

*Be careful not to spill brake fluid on yourself or on the engine:*

*Spilled brake fluid is dangerous. If it gets in your eyes, they could be seriously injured. If this happens, immediately flush your eyes with water and get medical attention. Brake fluid spilled on a hot engine could cause a fire.*

*If the brake/clutch fluid level is low, have the brakes and clutch inspected:*

*Low brake/clutch fluid levels are dangerous. Low levels could signal brake lining wear or a brake system leak. Your brakes could fail and cause an accident.*

If the fluid level is low, add fluid until it reaches MAX.

Before adding fluid, thoroughly clean the area around the cap.

#### **⚠ CAUTION**

- *Brake and clutch fluid will damage painted surfaces. If brake or clutch fluid does get on a painted surface, wash it off with water immediately.*
- *Using nonspecified brake and clutch fluids (page 10-4) will damage the systems. Mixing different fluids will also damage them.*

*If the brake/clutch system frequently requires new fluid, consult an Authorized Mazda Dealer.*

## Power Steering Fluid

### ▼ Inspecting Power Steering Fluid Level

#### **CAUTION**

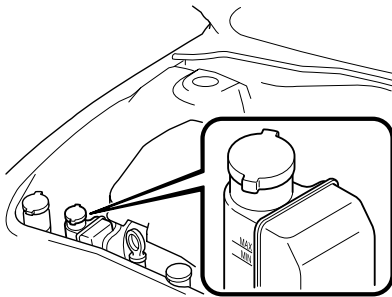
To avoid damage to the power steering pump, don't operate the vehicle for long periods when the power steering fluid level is low.

#### **NOTE**

Use specified power steering fluid (page 10-4).

#### 2.3-liter engine

Inspect the fluid level in the reservoir at each engine oil change with the engine off and cold. Add fluid if necessary; it does not require periodic changing.



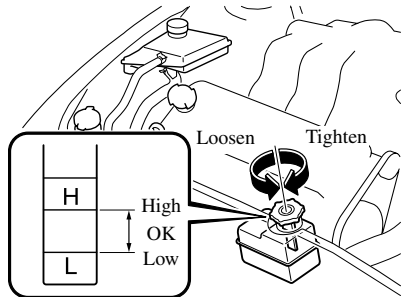
The level must be kept between MIN and MAX.

Visually examine the lines and hoses for leaks and damage.

If new fluid is required frequently, consult an Authorized Mazda Dealer.

#### 3.0-liter engine

Inspect the fluid level at each engine oil change. Add fluid if necessary; it does not require periodic changing.



The level must be kept between the H and L marks.

Visually examine the lines and hoses for leaks and damage.

1. Park on a level surface, well off the right-of-way, and set the parking brake firmly.
2. Turn off the engine and allow it to cool.
3. Remove the filler cap and attached dipstick.
4. Wipe them clean and put them back.
5. Remove again and inspect the level.
6. It must be between H and L. Add fluid if necessary.

#### **Don't overfill.**

If new fluid is required frequently, consult an Authorized Mazda Dealer.

# Owner Maintenance

## Automatic Transaxle Fluid (ATF)

### ▼ Inspecting Automatic Transaxle Fluid Level

The automatic transaxle fluid level should be inspected regularly. Measure it as described below.

#### 2.3-liter engine

#### **⚠ CAUTION**

- Always check the automatic transaxle fluid level according to the following procedure. If the procedure is not done correctly, the automatic transaxle fluid level cannot be measured accurately which could lead to automatic transaxle damage.
- A low fluid level can cause transaxle slippage. Overfilling can cause foaming, loss of fluid, and transaxle malfunction.
- Use only the specified fluid. A non-specified fluid could result in transaxle malfunction and failure.

1. Park on a level surface and set the parking brake firmly.
2. Make sure there is no ATF leakage from the ATF hose or the housing.
3. Shift the shift lever to the park position (P), start the engine and warm it up.

#### **⚠ CAUTION**

Do not shift the shift lever while the engine is warming up. If the ATF level is extremely low, the automatic transaxle could be damaged.

4. While the engine is still idling, pull out the dipstick and wipe it clean, and then put it back.
5. Check the ATF level. If there is no ATF adhering 5 mm from the end of the dipstick, add ATF.

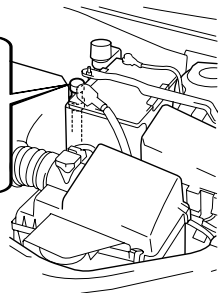
#### **⚠ CAUTION**

*If there is no ATF adhering to the dipstick even after the engine has been warmed up, do not drive the vehicle. Otherwise, the automatic transaxle could be damaged.*

6. Shift the shift lever to each range and position, and make sure there is no abnormality.
7. Drive the vehicle on city roads for 5 km (3.1 mile) or more.
8. Park on a level surface and set the parking brake firmly.
9. Shift the shift lever to the park position (P), check the ATF level while the engine is idling, and make sure that the ATF level is within the proper level. If the ATF level is not within the proper level, add ATF.  
The proper fluid level is marked on the dipstick as follows.

#### **2.3-liter engine**

Full  
Low





### 3.0-liter engine

The volume of fluid changes with temperature. Fluid must be checked while idling the engine without driving at normal operating temperature.

#### **CAUTION**

- *Low fluid level causes transaxle slippage. Overfilling can cause foaming, loss of fluid, and transaxle malfunction.*
- *Use specified fluid (page 10-4). A nonspecified fluid could result in transaxle malfunction and failure.*

1. Park on a level surface and set the parking brake firmly.
2. Start the engine and depress the brake pedal.
3. Move the shift lever through all ranges, then set it at P.

#### **WARNING**

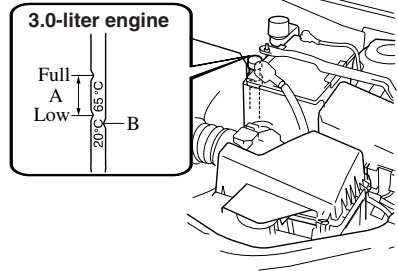
**Make sure the brake pedal is applied before shifting the shift lever:**

*Shifting the shift lever without first depressing the brake pedal is dangerous. The vehicle could move suddenly and cause an accident.*

4. With the engine still idling, pull out the dipstick, wipe it clean, and put it back.

5. Pull it out again.

The proper fluid level is marked on the dipstick as follows.



#### **Fluid hot scale A**

When the vehicle has been driven and the fluid is at normal operating temperature, about 65°C (150°F), the level must be between Full and Low.

#### **Fluid cold scale B**

When the engine has not been running and the outside temperature is about 20°C (70°F), the fluid level should be close to, but not above, the bottom notch on the dipstick.

#### **CAUTION**

- *Use the cold scale only as a reference.*
- *If outside temperature is lower than about 20°C (70°F), start the engine and inspect the fluid level after the engine reaches operating temperature.*
- *If the vehicle has been driven for an extended period at high speeds or in city traffic in hot weather, inspect the level only after stopping the engine and allowing the fluid to cool for 30 minutes.*

## Owner Maintenance

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Fully insert the dipstick. When adding fluid, inspect with the dipstick to make sure it doesn't pass full.

### **NOTE**

*Inspect the fluid on both sides of the dipstick in a well lit area for an accurate reading.*

## Washer Fluid

### ▼ Inspecting Washer Fluid Level

### **WARNING**

**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.*

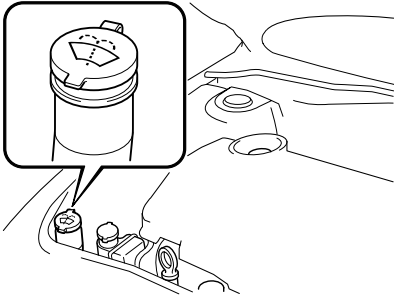
### **Using Washer Fluid Without Anti-freeze Protection in Cold Weather:**

*Operating your vehicle in temperatures below 4 degrees C (40 degrees 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.



Use plain water if washer fluid is unavailable.  
But use only washer fluid in cold weather to prevent it from freezing.

## Body Lubrication

All moving points of the body, such as door and hood hinges and locks, should be lubricated each time the engine oil is changed. 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.

## Owner Maintenance

### Wiper Blades

#### CAUTION

- *Hot waxes applied by automatic car washers have been known to affect the wiper's ability to clean windows.*
- *To prevent damage to the wiper blades, don't use gasoline, kerosene, paint thinner, or other solvents on or near them.*

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.

#### CAUTION

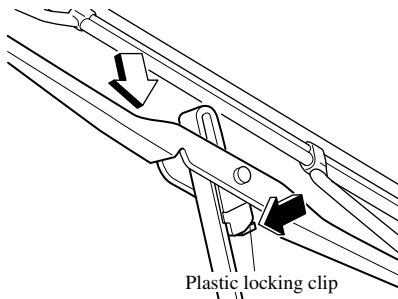
*To prevent damage to the wiper arms and other components, don't try to sweep the wiper arm by hand.*

#### NOTE

*To prevent damage to the wiper arm blades when raising both the driver and passenger side wiper arms, raise the driver side wiper arm first. Conversely, when setting down the wiper arms, set the passenger side wiper arm down first.*

1. Raise the wiper arm and turn the blade assembly to expose the plastic locking clip.

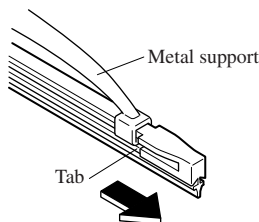
Compress the clip and slide the assembly downward; then lift it off the arm.



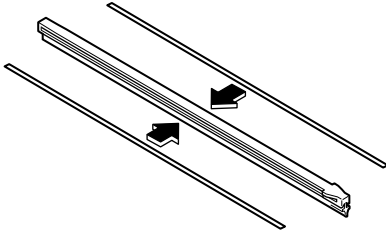
#### CAUTION

*To prevent damage to the windshield let the wiper arm down easily, don't let it slap down on the windshield.*

2. Hold the end of the rubber and pull until the tabs are free of the metal support.



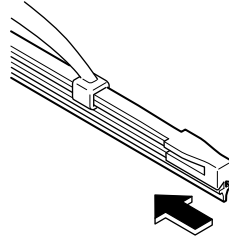
3. Remove the metal stiffeners from each blade rubber and install them in the new blade.



### **CAUTION**

- Don't bend or discard the stiffeners. You need to use them again.
- If the metal stiffeners are switched, the blade's wiping efficiency could be reduced. So don't use the driver's side metal stiffeners on the passenger's side, or vice versa.
- Be sure to reinstall the metal stiffeners in the new blade rubber so that the curve is the same as it was in the old blade rubber.

4. Carefully insert the new blade rubber. Then install the blade assembly in the reverse order of removal.



### **NOTE**

Install the blade so that the tabs are toward the bottom of the wiper arm.

### **▼ Replacing Rear Window Wiper Blade (5-Door/Sport Wagon)**

When the wiper no longer cleans well, the blade is probably worn or cracked. Replace it.

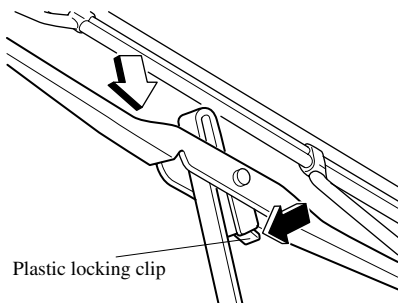
### **CAUTION**

To prevent damage to the wiper arm and other components, don't move the wiper by hand.

## Owner Maintenance

### (5-Door)

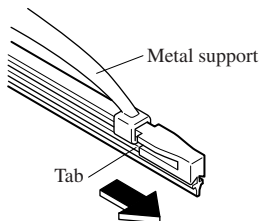
1. Raise the wiper arm and turn the blade assembly to expose the plastic locking clip. Compress the clip and slide the assembly downward; then lift it off the arm.



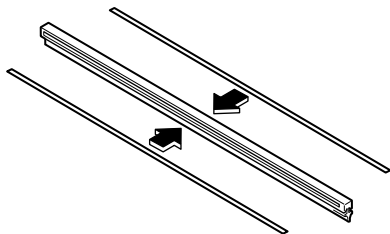
### **CAUTION**

*To prevent damage to the rear window, don't let the wiper arm fall on it.*

2. Hold the end of the blade rubber and pull until the tabs are free of the metal support.



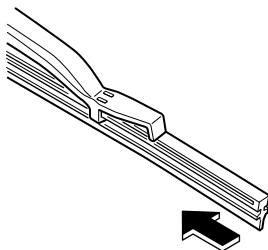
3. Remove the metal stiffeners from each blade rubber and install them in the new blade.



### **CAUTION**

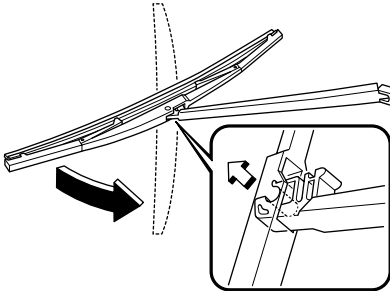
*Don't bend or discard the stiffeners. You need to use them again.*

4. Carefully insert the new blade rubber. Then install the blade assembly in the reverse order of removal.



**(Sport Wagon)**

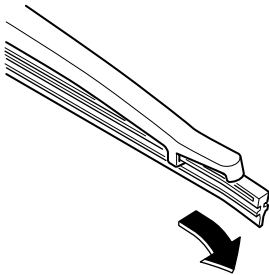
1. Raise the wiper arm and rotate the wiper blade to the right until it unlocks, then remove the blade.



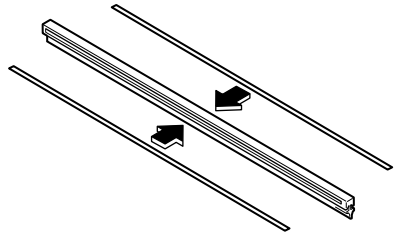
**CAUTION**

*To prevent damage to the rear window, don't let the wiper arm fall on it.*

2. Pull down the blade rubber and slide it out of the blade holder.



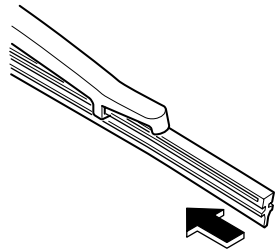
3. Remove the metal stiffeners from the blade rubber and install them in the new blade.



**CAUTION**

*Don't bend or discard the stiffeners. You need to use them again.*

4. Carefully insert the new blade rubber. Then install the blade assembly in the reverse order of removal.



### Battery

#### **WARNING**

***Wash hands after handling the battery and related accessories:***

*Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.*

***Always wear eye protection when working near the battery:***

*Working without eye protection is dangerous. Battery fluid contains SULFURIC ACID which could cause blindness if splashed into your eyes. Also, hydrogen gas produced during normal battery operation, could ignite and cause the battery to explode.*

***Wear eye protection and protective gloves to prevent contact with battery fluid:***

*Spilled battery fluid is dangerous.*

*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 batteries out of the reach of children:***

*Allowing children to play near batteries is dangerous. Battery fluid could cause serious injuries if it gets in the eyes or on the skin.*

***Keep flames and sparks away from open battery cells and do not allow metal tools to contact the positive (+) or negative (–) terminal of the battery when working near a battery. Do not allow the positive (+) terminal to contact the vehicle body:***

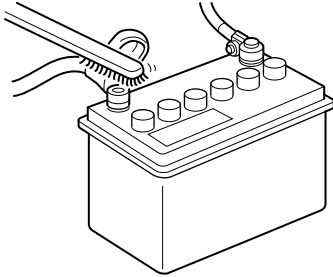
*Flames and sparks near open battery cells are dangerous. Hydrogen gas, produced during normal battery operation, could ignite and cause the battery to explode. An exploding battery can cause serious burns and injuries. Keep all flames including cigarettes and sparks away from open battery cells.*

***Keep all flames, including cigarettes, and sparks away from open battery cells:***

*Flames and sparks near open battery cells are dangerous. Hydrogen gas, produced during normal battery operation, could ignite and cause the battery to explode. An exploding battery can cause serious burns and injuries.*



## ▼ Battery Maintenance



To get the best service from a 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 battery cables and charge the battery every six weeks.

## Tires

For reasons of proper performance, safety, and better fuel economy, always maintain recommended tire inflation pressures and stay within the recommended load limits and weight distribution.

### ⚠ WARNING

#### 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 your Mazda (page 10-7) 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 your Mazda.*

## ▼ Tire Inflation Pressure

### ⚠ WARNING

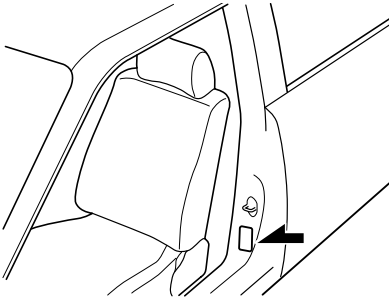
**Always inflate the tires to the correct pressure:**

*Overinflation or underinflation of tires is dangerous. Adverse handling or unexpected tire failure could result in a serious accident. Refer to specification charts on page 10-7.*

## Owner Maintenance

The Tire Pressure Monitoring System\* does not alleviate the need to check the tire condition every day, including whether the tires all look inflated properly. Inspect all tire pressure monthly (including the spare) when the tires are cold. Maintain recommended pressures for the best ride, handling, and minimum tire wear.

When checking the tire pressures, use of a digital tire pressure gauge is recommended.



Refer to the specification charts (page 10-7).

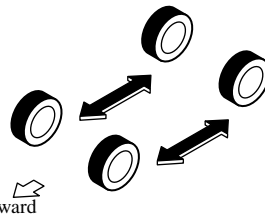
### NOTE

- Always check tire pressure when tires are cold.
- Warm tires normally exceed recommended pressures. Don't release air from warm tires to adjust the pressure.
- Underinflation can cause reduced fuel economy, 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

To equalize tread wear, rotate the tires if irregular wear develops. According to the scheduled maintenance charts. Refer to Scheduled Maintenance on page 8-3. During rotation, inspect them for correct balance.



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 (page 10-7) and inspect the lug nuts for tightness.

**CAUTION**

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

**WARNING**

Always use tires that are in good condition:

Driving with worn tires is dangerous. Reduced braking, steering, and traction could result in an accident.

**CAUTION**

(With Tire Pressure Monitoring System)

When replacing/repairing the tires or wheels or both, have the work done by an Authorized Mazda Dealer, or the tire pressure sensors may be damaged.

**NOTE**

(With Tire Pressure Monitoring System)

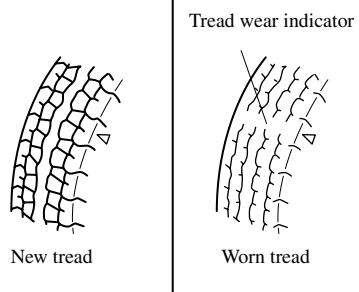
- When tires with steel wire reinforcement in the sidewalls are used, the system may not function correctly even with a genuine wheel.

Refer to System Error Activation on page 5-29.

- Be sure to install the tire pressure sensors whenever tires or wheels are replaced. Refer to Tires and Wheels on page 5-29.

If a tire wears evenly, a wear indicator will appear as a solid band across the tread.

Replace the tire when this happens.



You should replace it before the band is across 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. Regarding the manufacturing week and year is indicated with 4 digit.

Refer to The tire labeling on page 9-22.

## Owner Maintenance

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### ▼ Temporary Spare Tire

Inspect the temporary spare tire at least monthly to make sure it's properly inflated and stored.

#### **NOTE**

*The temporary spare tire condition gradually deteriorates even if it has not been used.*

The temporary spare tire is easier to handle because of its construction which is lighter and smaller than a conventional tire. This tire should be used only for an emergency and only for a short distance.

Use the temporary spare tire only until the conventional tire is repaired, which should be as soon as possible.

Maintain its pressure at 420 kPa (4.2 kgf/cm<sup>2</sup> or bar, 60 psi).

#### **CAUTION**

- Do not use your temporary spare tire rim with a snow tire or a conventional tire. Neither will properly fit and could damage both tire and rim.
- The temporary spare tire has a tread life of less than 5,000 km (3,000 miles). The tread life may be shorter depending on driving conditions.
- The temporary spare tire is for limited use, however, if the tread wear solid-band indicator appears, replace the tire with the same type of temporary spare (page 8-35).

#### **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. Regarding the manufacturing week and year is indicated with 4 digit.*

*Refer to The tire labeling on page 9-22.*

### ▼ Replacing a Wheel

#### **WARNING**

**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.*

**⚠ CAUTION**

- A wrong-sized wheel may adversely affect:
  - Tire fit
  - Wheel and bearing life
  - Ground clearance
  - Speedometer calibration
  - Headlight aim
  - Bumper height
  - Tire Pressure Monitoring System
- **(With Tire Pressure Monitoring System)**
  - When replacing/repairing the tires or wheels or both, have the work done by an Authorized Mazda Dealer, or the tire pressure sensors may be damaged.
  - The wheels equipped on your Mazda are specially designed for installation of the tire pressure sensors. Do not use non-genuine wheels, otherwise it may not be possible to install the tire pressure sensors.

**NOTE**

*Be sure to install the tire pressure sensors whenever tires or wheels are replaced. Refer to Tires and Wheels on page 5-29.*

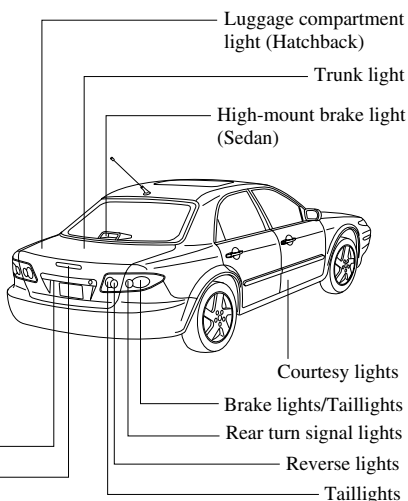
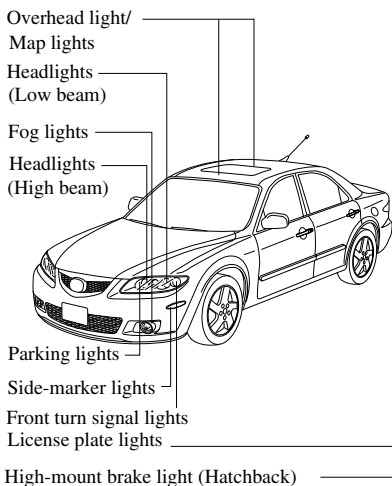
When replacing a wheel, make sure the new one is the same as the original factory wheel in diameter, rim width, and offset.

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.

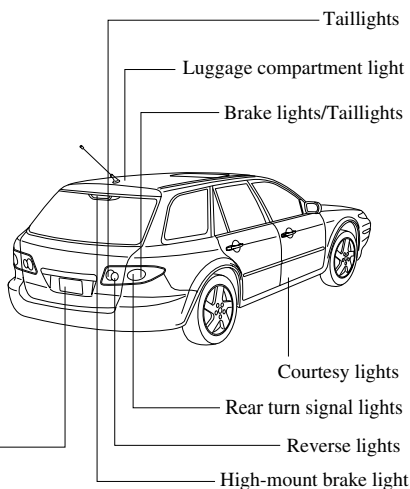
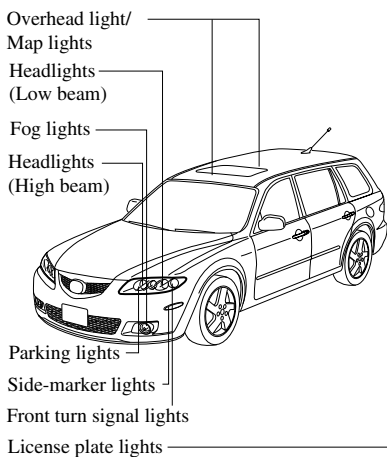
# Owner Maintenance

## Light Bulbs

### Sedan/5-Door



### Sport Wagon



**⚠ WARNING**

**Do not replace the xenon fusion bulbs yourself:**

Replacing the xenon fusion bulbs yourself is dangerous. Because the xenon fusion bulbs require high voltage, you could receive an electric shock if the bulbs are handled incorrectly. Consult an Authorized Mazda Dealer when the replacement is necessary.

**Never touch the glass portion of a halogen bulb with your bare hands and always wear eye protection when handling or working around the bulbs:**

When a halogen bulb breaks, it is dangerous. These bulbs contain pressurized gas. If one is broken, it will explode and serious injuries could be caused by the flying glass. If the glass portion is touched with bare hands, body oil could cause the bulb to overheat and explode when lit.

**Always keep halogen bulbs out of the reach of children:**

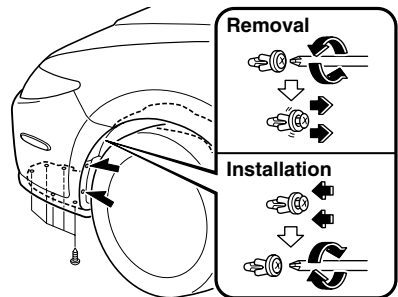
Playing with a halogen bulb is dangerous. Serious injuries could be caused by dropping a halogen bulb or breaking it some other way.

**▼ Replacing Exterior Light Bulbs****Replacing the headlight and parking light bulbs**

Due to the complexity and difficulty of the procedure, the bulbs should be replaced by an Authorized Mazda Dealer.

**Fog lights**

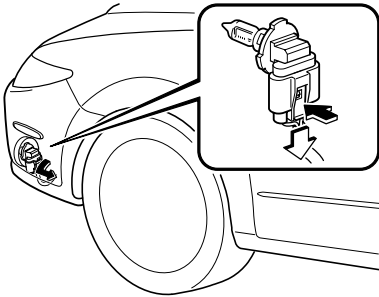
1. If you are changing the left fog light bulb, start the engine, turn the steering wheel all the way to the right, and turn off the engine. If you are changing the right fog light bulb, turn the steering wheel to the left.
2. Turn the screws counterclockwise and remove them.
3. Turn the center section of the plastic retainers counterclockwise and remove them, and partially peel back the mudguard.



4. Turn the socket and bulb assembly counterclockwise, and carefully pull it backward.

## Owner Maintenance

5. Disconnect the socket and bulb assembly from the electrical connector by pressing the tab on the connector with your finger and pulling it.



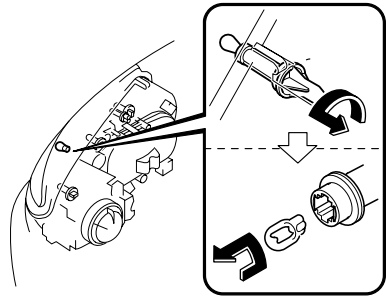
### NOTE

- If the halogen bulb is accidentally touched, it should be cleaned with rubbing alcohol before being used.
  - To replace the bulb, contact an Authorized Mazda Dealer.
  - Use the protective cover and carton for the replacement bulb to dispose of the old bulb promptly and out of the reach of children.
6. Install the new socket and bulb assembly in the reverse order of removal.

### Front turn signal lights

1. Turn the socket and bulb assembly counterclockwise and remove it.

2. Remove the bulb by pushing it in slightly and turning it counterclockwise.



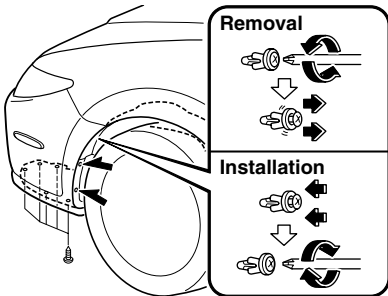
3. Install the new bulb in the reverse order of removal.

### Side-marker lights

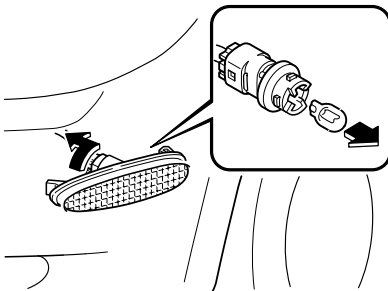
1. If you are changing the left side-maker light, start the engine, turn the steering wheel all the way to the right, and turn off the engine. If you are changing the right side-maker light, turn the steering wheel to the left.
2. Turn the screws counterclockwise and remove them.



- Turn the center section of the plastic retainers counterclockwise and remove them, and partially peel back the mudguard.



- Turn the socket and bulb assembly counterclockwise and remove it.
- Disconnect the bulb from the socket.

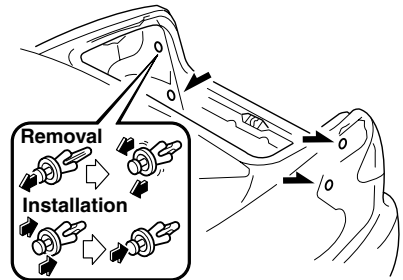


- Install the new bulb in the reverse order of removal.

### **Brake lights/Taillights, Rear turn signal lights**

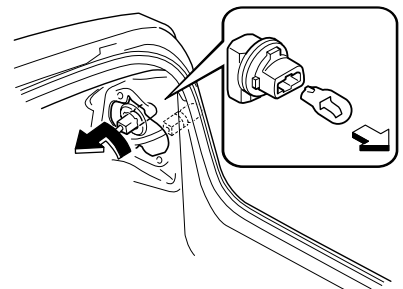
#### **(Sedan)**

- Pull the center section of the plastic retainer and remove the retainers and partially open the trunk side trim.



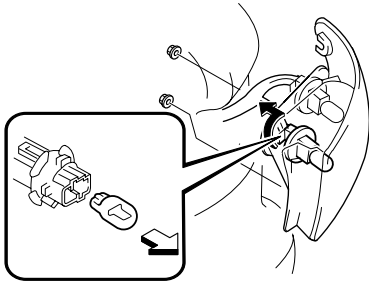
- Turn the socket and bulb assembly counterclockwise and remove it.
- Disconnect the bulb from the socket.

#### **Brake lights/Taillights**



# Owner Maintenance

## Rear turn signal lights



4. Install the new bulb in the reverse order of removal.

### NOTE

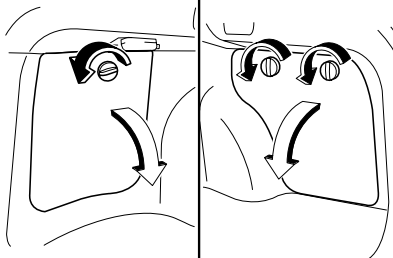
To replace the bulb, contact an Authorized Mazda Dealer.

### (5-Door)

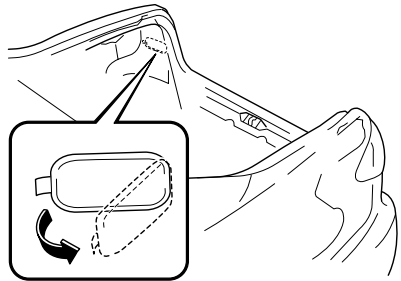
1. Turn the knob and remove the cover.

Left side

Right side

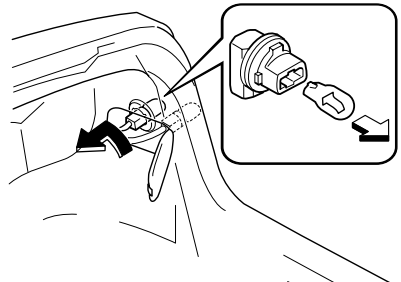


2. Pull the strap and remove the cover.

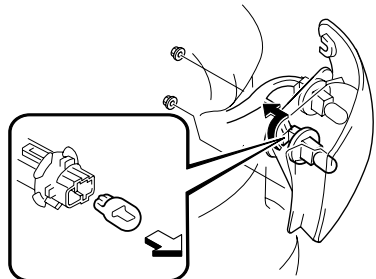


3. Turn the socket and bulb assembly counterclockwise and remove it.
4. Disconnect the bulb from the socket.

## Brake lights/Taillights



## Rear turn signal lights



5. Install the new bulb in the reverse order of removal.

**NOTE**

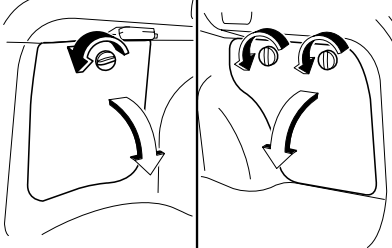
To replace the bulb, contact an Authorized Mazda Dealer.

**(Sport Wagon)**

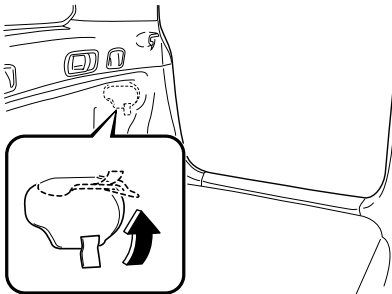
1. Turn the knob and remove the cover.

**Left side**

**Right side**

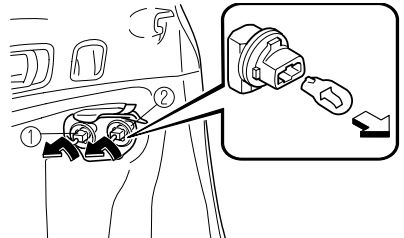


2. Pull the strap and remove the cover.



3. Turn the socket and bulb assembly counterclockwise and remove it.

4. Disconnect the bulb from the socket.



- ① Rear turn signal lights
- ② Brake lights/Taillights

5. Install the new bulb in the reverse order of removal.

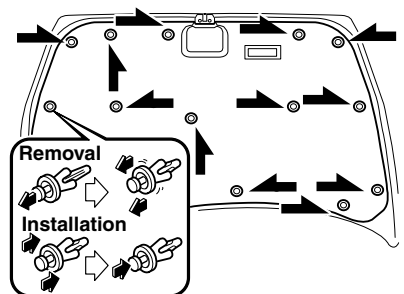
**NOTE**

To replace the bulb, contact an Authorized Mazda Dealer.

**Reverse lights, Taillights**

**(Sedan)**

1. Pull the center section of the plastic retainer and remove the retainers, then remove the trunk rear trim.

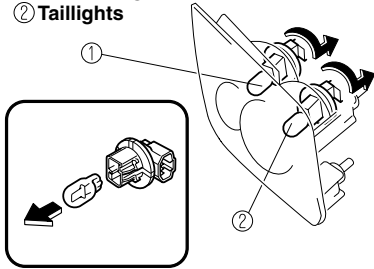


2. Turn the socket and bulb assembly counterclockwise and remove it.

## Owner Maintenance

3. Disconnect the bulb from the socket.

- ① Reverse lights
- ② Taillights

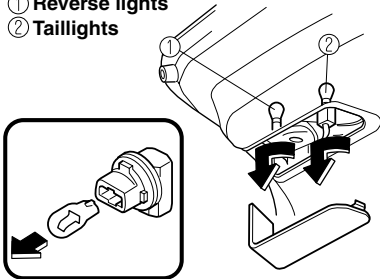


4. Install the new bulb in the reverse order of removal.

### (5-Door/Sport Wagon)

1. Remove the cover.
2. Turn the socket and bulb assembly counterclockwise and remove it.
3. Disconnect the bulb from the socket.

- ① Reverse lights
- ② Taillights



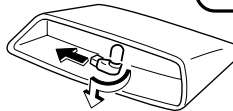
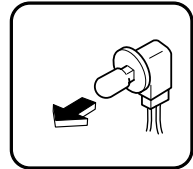
4. Install the new bulb in the reverse order of removal.

### High-mount brake light

#### (Sedan)

1. Remove the high-mount brake light component.

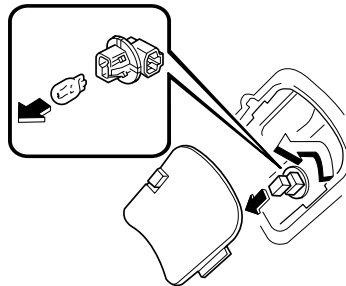
2. Detach the electrical connector from the socket.
3. Turn the socket and bulb assembly counterclockwise and remove it.
4. Disconnect the bulb from the socket.



5. Install the new bulb in the reverse order of removal.

### (5-Door)

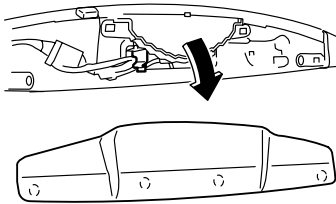
1. Remove the cover.
2. Turn the socket and bulb assembly counterclockwise and remove it.
3. Disconnect the bulb from the socket.



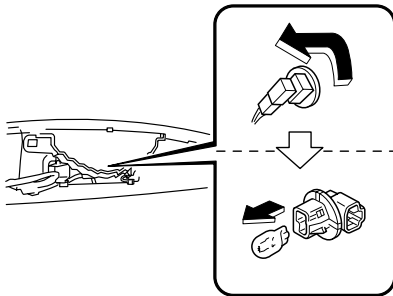
4. Install the new bulb in the reverse order of removal.

**(Sport Wagon)**

1. Remove the liftgate upper trim and high-mount brake light component.



2. Turn the socket and bulb assembly counterclockwise and remove it.
3. Disconnect the bulb from the socket.

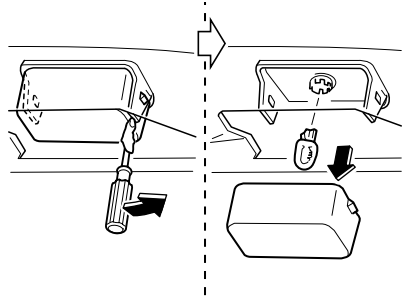


4. Install the new bulb in the reverse order of removal.

**License plate lights**

1. Wrap a flathead screwdriver with a soft cloth to prevent damage to the lens and remove the lens by carefully prying on the edge of the lens.

2. Disconnect the bulb by pulling it out.

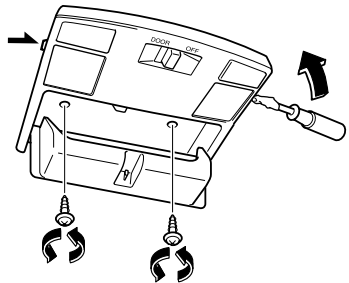


3. Install the new bulb in the reverse order of removal.

**▼ Replacing Interior Light Bulbs**

**Overhead light/Map lights (With overhead console)**

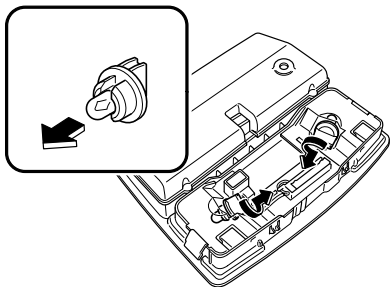
1. Remove the screws.
2. Wrap a flathead screwdriver with a soft cloth to prevent damage to the trim and gently insert it in the overhead light as shown in the figure, and then remove the overhead light unit.



3. Turn the socket and bulb assembly counterclockwise and remove it.

## Owner Maintenance

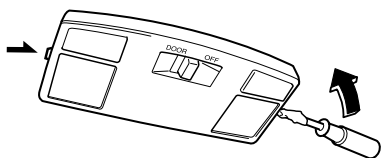
4. Disconnect the bulb from the socket.



5. Install the new bulb in the reverse order of removal.

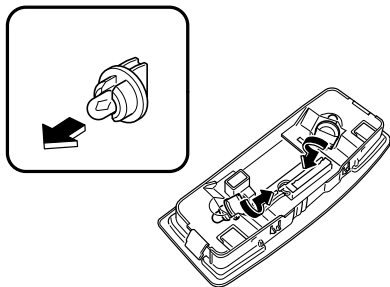
### Overhead light/Map lights (Without overhead console)

1. Wrap a flathead screwdriver with a soft cloth to prevent damage to the trim and gently insert it in the overhead light as shown in the figure, and then remove the overhead light unit.



2. Turn the socket and bulb assembly counterclockwise and remove it.

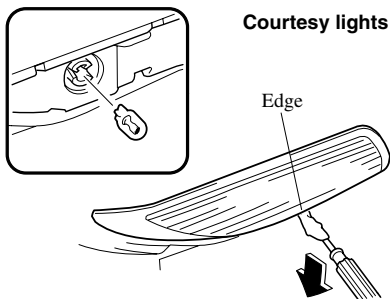
3. Disconnect the bulb from the socket.

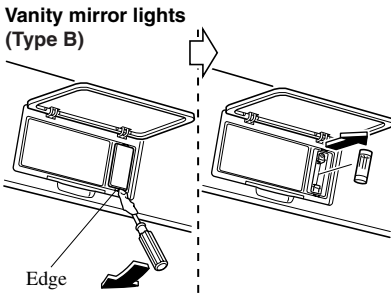
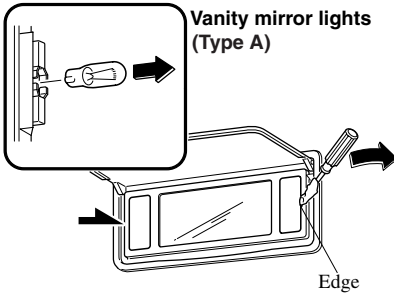


4. Install the new bulb in the reverse order of removal.

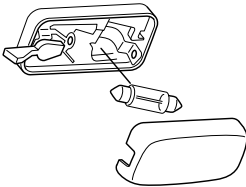
### Courtesy lights, Vanity mirror lights, and Luggage compartment light

1. Wrap a small flathead screwdriver with a soft cloth to prevent damage to the lens and remove the lens by carefully prying on the edge of the lens.
2. Disconnect the bulb by pulling it out.

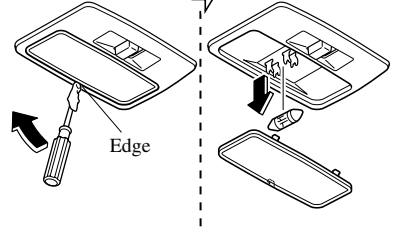




**Luggage compartment light  
(5-Door)**



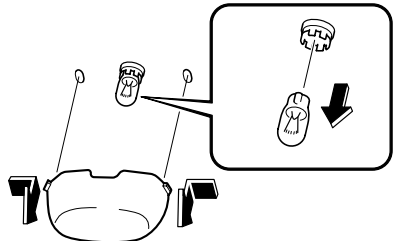
**Luggage compartment light  
(Sport Wagon)**



3. Install the new bulb in the reverse order of removal.

**Trunk light (Sedan)**

1. Press both sides of the lens cap to remove it.
2. Disconnect the bulb by pulling it out.



3. Install the new bulb in the reverse order of removal.

# Owner Maintenance

## Fuses

Your vehicle's electrical system is protected by fuses.

If any lights, accessories, or controls don't work, inspect the appropriate circuit protector. If a fuse has blown, the inside element will be melted.

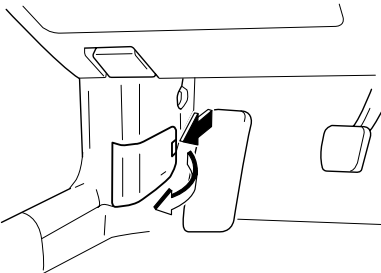
If the same fuse blows again, avoid using that system and consult an Authorized Mazda Dealer as soon as possible.

### ▼ Fuse Replacement

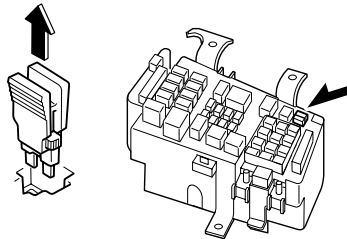
#### Replacing the fuses on the driver's side kick-panel

If the electrical system does not work, first inspect the fuses on the driver's side kick-panel.

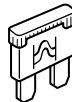
1. Turn off the ignition switch and other switches.
2. Open the fuse panel cover by sliding the cover straight back toward you.



3. Pull the fuse straight out with the fuse puller provided on the fuse block located in the engine compartment.



4. Inspect the fuse and replace it if it's blown.



Normal



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. We recommend 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 CIGAR circuit.

### ⚠ CAUTION

*Pulling the cover off sideways may break the retaining tabs off.*

### ⚠ CAUTION

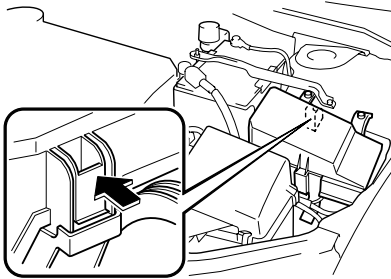
*Always replace a fuse with one of the same rating. Otherwise you may damage the electric system.*



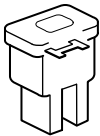
**Replacing the fuses under the hood**

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:

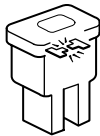
1. Turn off the ignition switch and all other switches.
2. Remove the fuse block cover.



3. If any fuse but the MAIN fuse is blown, replace it with a new one **of the same amperage rating**.



Normal



Blown

**! WARNING**

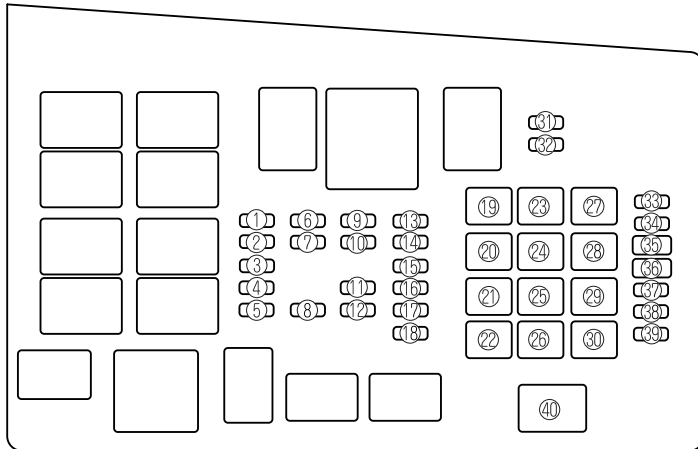
**Do not replace the main fuse by yourself. Have an Authorized Mazda Dealer perform the replacement:**

*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.*

# Owner Maintenance

## ▼ Fuse Panel Description

### Fuse block (Engine compartment)



DESCRIPTION		FUSE RATING	PROTECTED COMPONENT
1	SPARE	—	—
2	SPARE	—	—
3	SPARE	—	—
4	M.DEF	7.5A	Mirror defroster*
5	—	—	—
6	INJ	15A	Injector
7	ENG BAR	10A <sup>*1</sup>	Air flow sensor, EGR control valve
		15A <sup>*2</sup>	
8	— <sup>*1</sup>	—	—
	ENG BB <sup>*2</sup>	5A	Cooling fan
9	HEAD LR	15A	Headlight-low beam (Right)
10	HEAD LL	15A	Headlight-low beam (Left)
11	HEAD HL	10A	Headlight-high beam (Left)
12	HEAD HR	10A	Headlight-high beam (Right)
13	ETC	7.5A	Accelerator position sensor
14	HAZARD	10A	Turn signal lights
15	STOP	20A	Brake/Horn

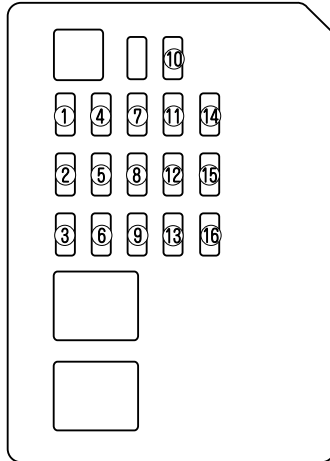
DESCRIPTION		FUSE RATING	PROTECTED COMPONENT
16	TCM	15A <sup>*1</sup>	TCM
		10A <sup>*2</sup>	
17	ENG+B	7.5A	PCM, TCM
18	FUEL PUMP	15A	Fuel pump
19	IG KEY1	30A	Engine control unit, Lighter
20	P.WIND	30A	Power window
21	—	—	—
22	DRL	20A	DRL
23	—	—	—
24	BLOWER	40A	Blower motor
25	BTN	40A	Overhead light, Power door lock
26	IG KEY2	40A	Rear wiper motor*, Heater control unit, Windshield wiper and washer
27	DEFOG	40A	Rear window defroster
28	ABS	60A	ABS*
29	AD FAN <sup>*1</sup>	30A	Cooling fan
	FAN2 <sup>*2</sup>		
30	FAN <sup>*1</sup>	30A	Cooling fan
	FAN1 <sup>*2</sup>		
31	TAIL	10A	Taillights, License plate lights, Parking lights
32	ILLUMI	10A	Dashboard illumination
33	MAG	10A	Magnet clutch
34	AUDIO	15A	Audio system
35	P.SEAT	30A	Power seat*
36	OPENER	7.5A	Trunk opener motor*
37	—	—	—
38	— <sup>*1</sup>	—	—
	IG1 <sup>*2</sup>	15A	CAT SSR
39	FOG	15A	Fog lights*
40	MAIN	120A	For protection of all circuits

\*1 2.3-liter engine

\*2 3.0-liter engine

# Owner Maintenance

## Fuse block (Driver's side kick-panel)



DESCRIPTION	FUSE RATING	PROTECTED COMPONENT	
1	CIGAR	15 A	Accessory socket
2	ENGINE IG	15 A	Engine control system
3	A/C	10 A	Heater
4	MIRROR	5 A	Power control mirror
5	SAS	10 A	ABS unit, SAS unit
6	SEAT	15 A	Seat warmer*
7	METER ACC	5 A	Audio light off unit
8	METER IG	15 A	Instrument cluster
9	R.WIP	10 A	Rear wiper*
10	D.LOCK	30 A	Power door locks
11	R.CIGAR	15 A	Accessory socket
12	WIPER	20 A	Windshield wiper and washer
13	ROOM	15 A	Overhead light
14	SPARE	—	—
15	SPARE	—	—
16	SPARE	—	—

## How to Minimize Environmental Paint Damage

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 aren't 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 one to two hours. After removing the newspaper, rinse off the loosened debris with water.

## Appearance Care

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### ▼ 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.*

## Exterior Care

Follow **all** label and container directions when using a chemical cleaner or polish. Read all warnings and cautions.

### ▼ Maintaining the Finish

#### Washing

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.
- Don't use abrasive cleansers or wax that contain abrasives.

#### **⚠ CAUTION**

- *Don't 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.*
- *To prevent damaging the antenna, remove it before entering a car wash facility or passing beneath a low overhead clearance.*

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. Don't allow soap to dry on the finish.

## Appearance Care

---

After washing the vehicle, dry it with a clean chamois to prevent water spots from forming.

### **WARNING**

***Dry wet brakes by driving very slowly and applying the brakes lightly until brake performance is 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.*

### **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.

1. Use wax which contains no abrasives. Waxes containing abrasive will remove paint 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 doesn't 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.

### **CAUTION**

*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.

### **CAUTION**

*Don't 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 fuel lines, frame, floor pan, and exhaust system, 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 wet brakes by driving very slowly and applying the brakes lightly until brake performance is 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.*

### ▼ Aluminum Wheel Maintenance

A protective coating is provided over the aluminum wheels. Special care is needed to protect this coating.

#### NOTE

- *Don't use a wire brush or any abrasive cleaner, polishing compound, or solvent on aluminum wheels. They may damage the coating.*
- *Only use a mild soap or neutral detergent and always use a sponge or soft cloth to clean the wheels. Rinse thoroughly with lukewarm or cold water. Also, be sure to clean the wheels after driving on dusty or salted roads. This helps prevent corrosion.*
- *Avoid washing your vehicle in an automatic car wash that uses high-speed or hard brushes.*
- *If your aluminum wheels lose luster, wax the wheels.*

## Appearance Care

### Interior Care

#### ▼ Dashboard Precautions

Prevent caustic solutions such as perfume and cosmetic oils from contacting the dashboard. They'll damage and discolor it. If these solutions get on the dashboard, wipe them off immediately.

#### CAUTION

*Do not use glazing agents. Glazing agents contain ingredients which may cause discoloration, wrinkling, cracks and peeling.*

#### ▼ Cleaning the Upholstery and Interior Trim

##### Vinyl

Remove dust and loose dirt from vinyl with a whisk broom or vacuum cleaner. Clean vinyl with a leather-and-vinyl cleaner.

##### Leather\*

Real leather isn't uniform and may have scars, scratches, and wrinkles. Clean it with a leather cleaner or mild soap.

Wipe it with a **damp** soft cloth; then dry and buff it with a **dry** soft cloth.

##### Fabric\*

Remove dust and loose dirt from fabric with a whisk broom or vacuum cleaner. Clean it with a mild soap solution good for upholstery and carpets. Remove fresh spots immediately with a fabric spot cleaner.

To keep the fabric looking clean and fresh, take care of it. Otherwise its color will be affected, it can be stained easily, and its fire-resistance may be reduced.

#### CAUTION

*Use only recommended cleaners and procedures. Others may affect appearance and fire-resistance.*

#### ▼ Cleaning the Lap/Shoulder Belt Webbing

Clean the webbing with a mild soap solution recommended for upholstery or carpets. Follow instructions. Don't bleach or dye the webbing; this may weaken it.

After cleaning the belts, thoroughly dry the belt webbing and make sure there is no remaining moisture before retracting them.

#### WARNING

*Have an Authorized Mazda Dealer replace damaged seat belts immediately:*

*Using damaged seat belts is dangerous. In a collision, damaged belts cannot provide adequate protection.*

#### ▼ Cleaning the Window Interiors

If the windows become covered with an oily, greasy, or waxy film, clean them with glass cleaner. Follow the directions on the container.

#### CAUTION

*Don't scrape or scratch the inside of the rear window. You may damage the rear window defroster grid.*

# 9

## Customer Information and Reporting Safety Defects

Important consumer information including warranties and add-on equipment.

<b>Customer Assistance</b> .....	<b>9-2</b>	<b>Tire Information (U.S.A.)</b> .....	<b>9-22</b>
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## Customer Assistance

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### Customer Assistance (U.S.A.)

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:

#### ▼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.

#### ▼STEP 2: Contact Mazda North American Operations

If for any reason you feel the need for further assistance after contacting your dealership management, you can reach Mazda North American Operations by one of the following ways.

Log on: at [www.mazdaUSA.com](http://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" at the bottom of the page at [www.mazdaUSA.com](http://www.mazdaUSA.com)

By phone at: 1 (800) 222-5500

By letter at:

Attn: Customer Assistance  
Mazda North American Operations  
7755 Irvine Center Drive  
Irvine, CA 92618-2922  
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.

## Customer Assistance

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### 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 9-6).

#### ▼ 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
3. Vehicle Identification Number (VIN). Refer to the "Vehicle Identification Labels" page of section 10 of this manual 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.

## Customer Assistance

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 as listed below:

Province/Territory	CAMVAP Number
British Columbia & Yukon 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	AREAS COVERED
MAZDA CANADA INC. WESTERN REGION 8171 ACKROYD ROAD SUITE 2000 RICHMOND B.C. V6X 3K1 (604) 303-5670	ALBERTA, BRITISH COLUMBIA, MANITOBA, SASKATCHEWAN, YUKON
MAZDA CANADA INC. CENTRAL/ATLANTIC REGION 55 VOGELL ROAD, RICHMOND HILL, ONTARIO, L4B 3K5 (905) 787-7000	ONTARIO
MAZDA CANADA INC. QUEBEC REGION 6111 ROUTE TRANS CANADIENNE POINTE CLAIRE, QUEBEC H9R 5A5 (514) 694-6390	QUEBEC, NEW BRUNSWICK, NOVA SCOTIA, PRINCE EDWARD ISLAND, NEWFOUNDLAND



## Customer Assistance (Puerto Rico)

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 (Indicated on the next page).

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 front driver's side corner of the dash)
4. Purchase date and current mileage
5. Your dealer's name and location
6. Your question(s)

## Customer Assistance

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### Customer Assistance (Mexico)

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:

#### ▼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 STEP2.

#### ▼STEP 2: Contact Mazda Motor de Mexico

If for any reason you feel the need for further assistance after contacting your dealership management and 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 Motor de Mexico by one of the following ways.

Log on: at [www.MazdaMexico.com.mx](http://www.MazdaMexico.com.mx)

Answers to many questions, including how to locate or contact a local Mazda dealership in Mexico, can be found here.

E-mail: click on “Contactanos” at the top of the page at [www.MazdaMexico.com.mx](http://www.MazdaMexico.com.mx)

By phone at: 1 (866) 315 0220

By letter at:

Attn: Customer Assistance  
Mazda North American Operations  
7755 Irvine Center Drive  
Irvine, CA 92618-2922  
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)

## Mazda Importer/Distributors

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### Importer/Distributor

#### ▼ U.S.A.

##### **Mazda North American Operations**

7755 Irvine Center Drive

Irvine, CA 92618-2922 U.S.A.

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.)

### Distributor in Each Area

#### ▼ 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

##### **Plaza Motors Corp. (Mazda de Puerto Rico)**

P.O. Box 362722, San Juan, Puerto Rico

00936-2722

TEL: (787) 641-9300

#### ▼ MEXICO

##### **Mazda Motor de Mexico**

Circuito Guillermo Gonzalez Camarena N

1500 Col. Centro de Ciudad Santa Fe.

01210, Mexico, D.F.

TEL: Center of Attention to Clients:

01 (800) 016 2932. in Mexico

#### ▼ 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

## Warranty

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### Warranties for Your Mazda

- New Vehicle Limited Warranty
- Distributor Major Component Limited Warranty (Canada only)
- Safety Restraint System Limited Warranty
- Anti-perforation Limited Warranty
- Federal Emission Control Warranty (U.S.A. only)
  - Emission Defect Warranty
  - Emission Performance Warranty
- California Emission Control Warranty (U.S.A. only)
- Emission Control Warranty (Canada only)
- Replacement Parts and Accessories Limited Warranty
- Tire Warranty

#### **NOTE**

*Detailed warranty information is provided with your Mazda.*

## Outside the United States

Government regulations in the United States require that automobiles meet specific emission regulations and safety standards. Therefore, vehicles built for use in the United States 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. 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 requirements (CMVSS).

**NOTE**

*The above is applicable for a permanent import/export situation and not related to travelers on vacation.*

You may have the following problems if you do take your vehicle outside of the United States:

- Recommended fuel may be unavailable. Any kind of leaded fuel or low-octane fuel will affect vehicle performance and damage the emission controls and engine.
- Proper repair facilities, tools, testing equipment, and replacement parts may not be available.

Please refer to your Manufacturer's Warranty Booklet for more information.

## Warranty

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### Outside Canada

Government regulations in Canada require that automobiles meet specific emission regulations and safety regulations. Therefore, vehicles built for use in 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 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.*

You may have the following problems if you do take your vehicle outside of Canada:

- Recommended fuel may be unavailable. Any kind of leaded fuel or low-octane fuel will affect vehicle performance and damage the emission controls and engine.
- 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)**

Government regulations in your country could require that automobiles meet specific emission and safety standards.

Vehicles built for your country may differ from those built for other countries. In addition to registration problems, satisfactory service may be difficult or even impossible in another country.

The fuel specified for your vehicle may be unavailable.

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.

## Warranty

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### 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:***

*Installation of non-genuine parts or accessories is dangerous. 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 engine stalling, air-bag (SRS) activation, ABS 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

### **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.*

## Type Approval of Equipment

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### Type Approval of Equipment

#### Immobilizer system

Type approval of the Antenna Coil Transceiver			
Country	Approval Number	Country	Approval Number
CDN	3043104475A5 3	USA	NT8-15607PAT3XCVR
MX	RLVVIVP03-324		

## Type Approval of Equipment

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### Keyless entry system

Type approval of Radio Keyless Entry	
Country	Approval Number
MX	RCPVITX05-540-A1 RCPVITX05-540-A2

## Uniform Tire Quality Grading System (UTQGS)

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### 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.

#### WARNING

*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)

### **⚠ WARNING**

**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.**

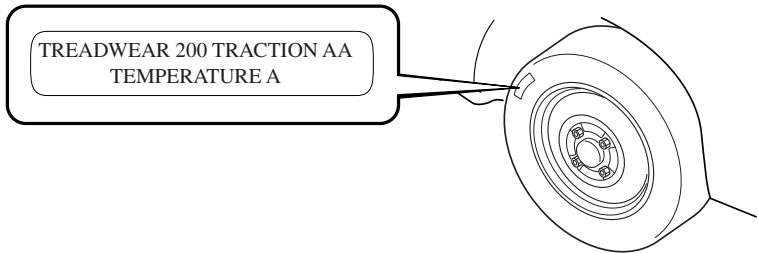
### ▼ Uniform Tire Quality Grading

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)**



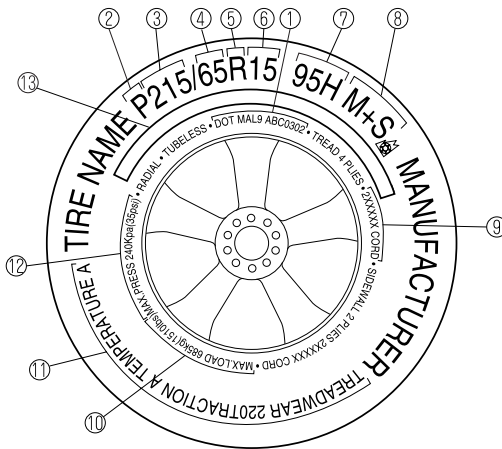
## Tire Information (U.S.A.)

### 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 diagram below.



1. TIN: U.S. DOT tire identification number
2. Passenger car tire
3. Nominal width of tire in millimeters
4. Ratio of height to width (aspect ratio)
5. Radial
6. Rim diameter code
7. Load index & speed symbol
8. Severe snow conditions
9. Tire ply composition and materials used
10. Max. load rating



11. Tread wear, traction and temperature grades
12. Max. permissible inflation pressure
13. SAFETY WARNING

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.

## **P**

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.

## **95**

“95” is the Load Index. This two-or three-digit number indicates how much weight each tire can support.

## Tire Information (U.S.A.)

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### **H**

“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
T	118 mph
U	124 mph
H	130 mph
V	149 mph
W	168* mph
Y	186* mph

\* 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 45th 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:

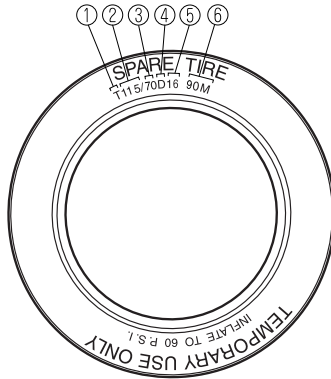
- EXPLOSION OF TIRE/RIM ASSEMBLY DUE TO IMPROPER MOUNTING-MATCH TIRE DIAMETER TO RIM DIAMETER; NEVER EXCEED 40 psi (275 kPa) TO SEAT BEADS-ONLY SPECIALLY TRAINED PERSONS SHOULD MOUNT TIRES.
- TIRE FAILURE DUE TO UNDER-INFLATION/OVERLOADING/DAMAGE-FOLLOW OWNER'S MANUAL AND PLACARD IN VEHICLE-FREQUENTLY CHECK INFLATION PRESSURE AND INSPECT FOR DAMAGE.

## Tire Information (U.S.A.)

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### ▼ Information on Temporary Tires

Please refer to the diagram 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

T115/70D 16 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.

### **T**

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.)**

---

**70**

“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.

**90**

“90” is the Load Index. This two-or three-digit number indicates how much weight each tire can support.

**M**

“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
M	81 mph

## Tire Information (U.S.A.)

### 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 driver's door frame.

#### SAMPLE



### TIRE AND LOADING INFORMATION

SEATING CAPACITY : TOTAL 5 : FRONT 2 : REAR 3

The combined weight of occupants and cargo should never exceed 385kg or 850 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S
FRONT	215/45R18 XL	240KPA, 35PSI	MANUAL FOR
REAR	215/45R18 XL	240KPA, 35PSI	ADDITIONAL
SPARE	T115/70D16	420KPA, 60PSI	INFORMATION

(XXX)

### ▼ 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 10-7.

#### 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**

1. 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.

**NOTE**

*Warm tires normally exceed recommended pressures. Don't release air from warm tires to adjust the pressure.*

*Under-inflation can cause serious failures and accidents.*

*Over-inflation can produce a harsh ride and the greater possibility of damage from road hazards.*

## Tire Information (U.S.A.)

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### ▼ 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 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

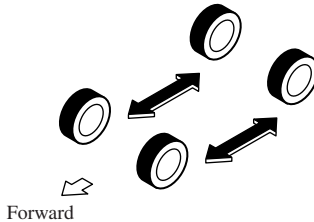
Improper or inadequate vehicle maintenance can cause tires to wear abnormally. Here are some important maintenance points:

### ▼ 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 12,000 km (7,500 miles) or sooner if irregular wear develops. During rotation, inspect them for correct balance.



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 (page 10-7) and inspect the lug nuts for tightness.

## Tire Information (U.S.A.)

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### **⚠ CAUTION**

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.

#### **(With limited-slip differential)**

Don't use the following:

- Tires not of the designated size
- Tires of different sizes or types at the same time
- Tires not sufficiently inflated

If these instructions aren't followed, the rotation of the left and right wheels will be different and will thus apply a constant load on the limited-slip differential.

This will cause a malfunction.

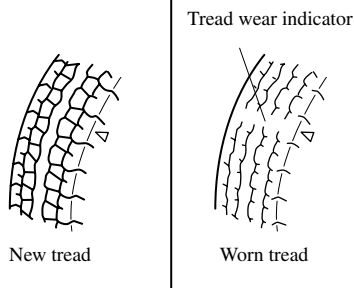
### ▼ Replacing a Tire

### **⚠ WARNING**

**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.



You should replace it before the band is across 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. Regarding the manufacturing week and year is indicated with 4 digit. Refer to The tire labeling on page 9-22.

**▼ 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
- 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

** 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.)

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### Vehicle Loading

#### **WARNING**

**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 and/or trailer, to keep your loaded vehicle weight within its design rating capability, with or without a trailer. 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, with or without a trailer, 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.*

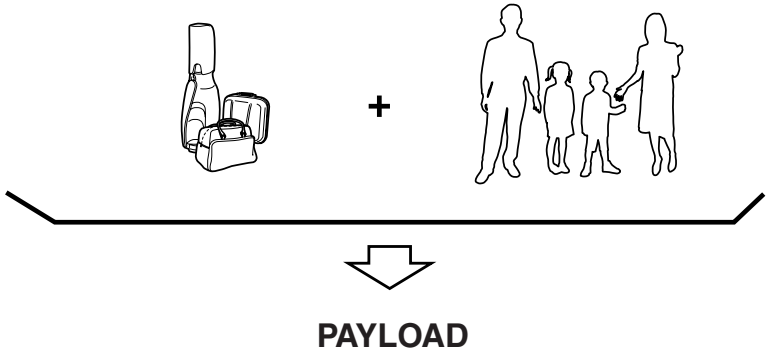
*Never overload the vehicle and always observe the vehicle's weight ratings from the vehicle's Safety Certification and Tire and Load Information labels.*

## Tire Information (U.S.A.)

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**Base Curb Weight** is the weight of the vehicle including a full tank of fuel and 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** 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 driver's door frame 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.

## Tire Information (U.S.A.)

### SAMPLE



TIRE AND LOADING INFORMATION

SEATING CAPACITY
TOTAL 5
FRONT 2
REAR 3

The combined weight of occupants and cargo should never exceed 385kg or 850 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S
FRONT	215/45R18 XL	240KPA, 35PSI	MANUAL FOR
REAR	215/45R18 XL	240KPA, 35PSI	ADDITIONAL
SPARE	T115/70D16	420KPA, 60PSI	INFORMATION

(XXX)



## CARGO

**Cargo Weight** includes all weight added to the Base Curb Weight, including cargo and optional equipment. When towing, trailer tongue load or king pin weight is also part of cargo weight.

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.

## Tire Information (U.S.A.)

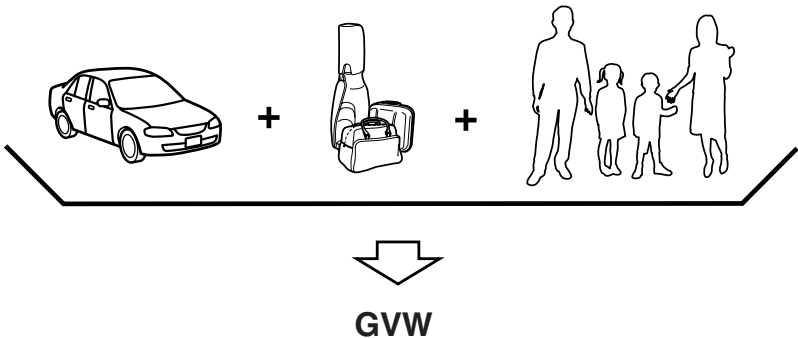
Examples: Based on a single occupant weight of 68 kg (150 lbs), and a value of 385 kg (849 lbs) for the “combination weight of occupants and cargo should never exceed”:  
 The cargo weight limit with one occupant is 385 kg (849 lbs) – 68 kg (150 lbs) = 317 kg (699 lbs)

The cargo weight limit with two occupants is 385 kg (849 lbs) – (68 × 2) kg ((150 × 2) 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 driver's door frame or door pillar. The total load on each axle must never exceed its GAWR.**

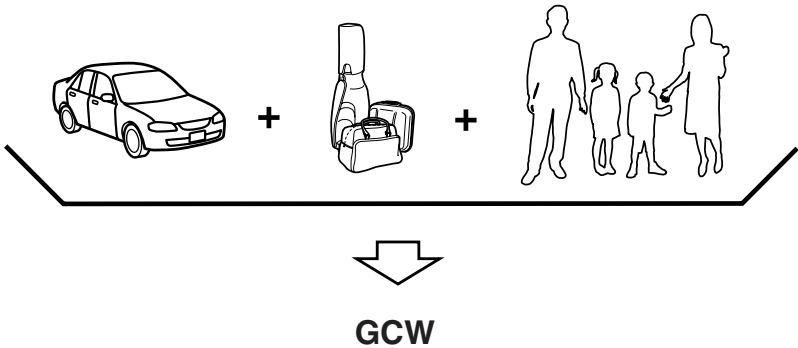


**GVW (Gross Vehicle Weight)** is the Vehicle Curb Weight + cargo + passengers.

**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 driver's door frame or door pillar. The GVW must never exceed the GVWR.**







**GCW (Gross Combination Weight)** is the weight of the loaded vehicle (GVW) plus the weight of the fully loaded trailer.

**GCWR (Gross Combination Weight Rating)** is the maximum allowable weight of the vehicle and the loaded trailer - including all cargo and passengers - that the vehicle can handle without risking damage. (Important: The towing vehicle's braking system is rated for operation at GVWR, not at GCWR. Separate functional brakes should be used for safe control of towed vehicles and for trailers weighing more than 1,500 lbs). **The GCW must never exceed the GCWR.**

**Maximum Loaded Trailer Weight** is the highest possible weight of a fully loaded trailer the vehicle can tow. It assumes a vehicle with only mandatory options, no cargo (internal or external), a tongue load of 10–15% (conventional trailer) or king pin weight of 15–25% (fifth-wheel trailer), and driver only (150 lbs). **Consult your dealership (or the RV and Trailer Towing Guide provided by your dealership) for more detailed information.** **Tongue Load or Fifth-Wheel King Pin Weight** refers to the amount of the weight that a trailer pushes down on a trailer hitch.

**Examples:** For a 5000 lb conventional trailer, multiply 5000 by 0.10 and 0.15 to obtain a proper tongue load range of 500 to 750 lbs. For an 11,500 lb fifth-wheel trailer, multiply by 0.15 and 0.25 to obtain a proper king pin load range of 1,725 to 2,875 lbs.

## Tire Information (U.S.A.)

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### **WARNING**

#### **Exceeding 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 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.  $(1400 - 750 (5 \times 150) = 650$  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, the 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.

## Reporting Safety Defects

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### Reporting Safety Defects (U.S.A.)

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, 400 Seventh Street, SW., 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*

*7755 Irvine Center Drive*

*Irvine, California 92618-2922*

*P.O. Box 19734*

*Irvine, CA 92623-9734*

*Customer Assistance 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 (page 9-10) in this booklet.*

## Reporting Safety Defects

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### Reporting Safety Defects (Canada)

Canadian customers who wish to report a safety-related defect to Transport Canada, Defect Investigations and Recalls, may telephone the toll free hotline 1-800-333-0510, or contact Transport Canada by mail at: Transport Canada, ASFAD, Place de Ville Tower C, 330 Sparks Street, Ottawa ON K1A 0N5.

For additional road safety information, please visit the Road Safety website at:  
<http://www.tc.gc.ca/roadsafety/menu.htm>

## Service Publications

### Service Publications

Factory-authorized Mazda service publications are available for owners who wish to do some of their own maintenance and repair.

When requesting any of our publications through an Authorized Mazda Dealer, refer to the chart below.

If they don't have what you need in stock, they can order it for you.

PUBLICATION ORDER NUMBER	PUBLICATION DESCRIPTION
9999-95-063B-08	2008 WORKSHOP MANUAL (English)
9999-MX-063B-08	2008 WORKSHOP MANUAL (Spanish)
9999-95-039G-08	2008 WIRING DIAGRAM (English)
9999-MX-039G-08	2008 WIRING DIAGRAM (Spanish)
9999-95-078C-08 (U.S.A. only)	2008 OWNER'S MANUAL
9999-EC-078C-08 (Canada only)	2008 OWNER'S MANUAL
9999-PR-078C-08 (Puerto Rico, Mexico only)	2008 OWNER'S MANUAL
9999-95-MODL-08	2008 SERVICE HIGHLIGHTS

#### ▼ WORKSHOP MANUAL:

Covers recommended maintenance and repair procedures of the drive train, body and chassis.

#### ▼ WIRING DIAGRAM:

Provides electrical schematics as well as component location for the entire electrical system.

#### ▼ OWNER'S MANUAL:

This booklet contains information regarding the proper care and operation of your vehicle. This is not a technician's manual.

#### ▼ SERVICE HIGHLIGHTS:

Provides description and operation of the many systems of your Mazda.

# 10

## Specifications

Technical information about your Mazda.

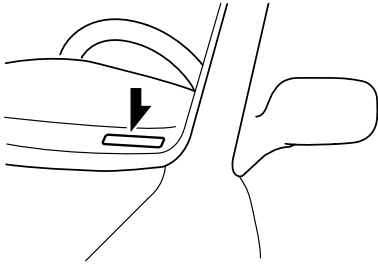
<b>Identification Numbers .....</b>	<b>10-2</b>
Vehicle Information Labels .....	10-2
<b>Specifications .....</b>	<b>10-4</b>
Specifications .....	10-4

# Identification Numbers

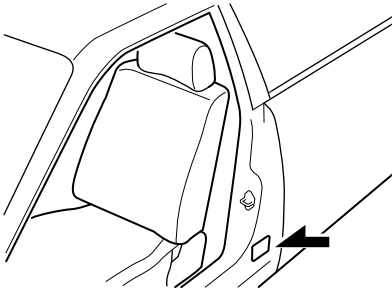
## Vehicle Information Labels

### ▼ Vehicle Identification Number

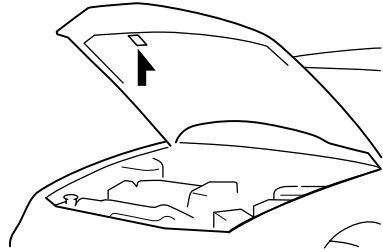
The vehicle identification number legally identifies your vehicle. The number is on a plate attached to the left top side of the dashboard. This plate can easily be seen through the windshield.



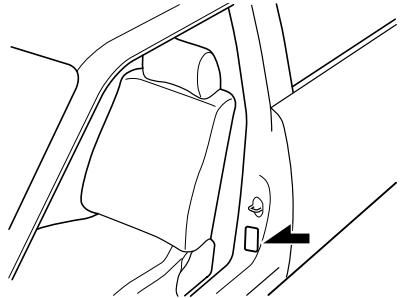
### ▼ Motor Vehicle Safety Standard Label



### ▼ Vehicle Emission Control Information Label

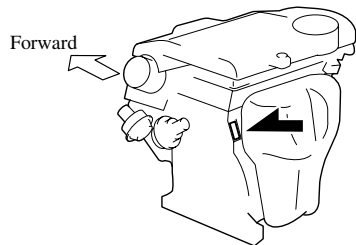


### ▼ Tire Pressure Label



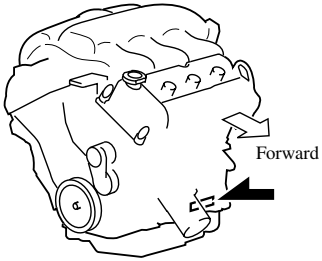
### ▼ Engine Number

2.3-liter engine





## 3.0-liter engine



# Specifications

## Specifications

### ▼ Engine

Item	Specification	
	2.3-liter engine	3.0-liter engine
Type	DOHC-16V in-line, 4-cylinder	DOHC-24V 60°V, 6-cylinder
Bore×Stroke	87.5 × 94.0 mm (3.44 × 3.70 in)	89.0 × 79.5 mm (3.50 × 3.13 in)
Displacement	2,261 ml (2,261 cc, 137.9 cu in)	2,967 ml (2,967 cc, 181.0 cu in)
Compression ratio	9.7	10.0

### ▼ Electrical System

Item		Classification
Battery		12V-50AH/5HR
Spark-plug number	2.3-liter engine	LFG1 18 110*1
	3.0-liter engine	L3Y2 18 110
Spark-plug gap	2.3-liter engine	AJ57 18 110*1*2
	3.0-liter engine	1.25—1.35 mm (0.050—0.053 in)
		1.29—1.45 mm (0.051—0.057 in)

\*1 ex factory

\*2 Verify the spark plug type from the spark plug itself. If the spark plug type cannot be determined, consult an Authorized Mazda Dealer.

### CAUTION

*When cleaning the iridium plugs, do not use a wire brush. The fine particulate coating on the iridium alloy and platinum tips could be damaged.*

### ▼ Lubricant Quality

Lubricant			Classification	
Engine oil			Refer to the recommended SAE viscosity numbers on page 8-18.	
Manual transaxle oil	2.3-liter engine	Any temperature	API Service	GL-4 or GL-5
			SAE	75W-90
	3.0-liter engine	Above 10°C (50°F)	API Service	GL-4 or GL-5
			SAE	80W-90
		API Service	GL-4 or GL-5	
		SAE	75W-90	
Automatic transaxle fluid		2.3-liter engine	ATF M-V	
		3.0-liter engine	JWS3309	
Power steering fluid			ATF M-V, or equivalent (e.g. Dexron® III)	
Brake fluid			SAE J1703, or FMVSS116 DOT-3	

## ▼ Capacities

(Approximate Quantities)

Item		Capacity	
Engine oil	2.3-liter engine	With oil filter replacement	4.3 L (4.5 US qt, 3.8 Imp qt)
		Without oil filter replacement	3.9 L (4.1 US qt, 3.4 Imp qt)
	3.0-liter engine	With oil filter replacement	5.7 L (6.0 US qt, 5.0 Imp qt)
		Without oil filter replacement	5.2 L (5.5 US qt, 4.6 Imp qt)
Coolant	2.3-liter engine	7.0 L (7.4 US qt, 6.2 Imp qt)	
	3.0-liter engine	8.5 L (9.0 US qt, 7.5 Imp qt)	
Manual transaxle oil	2.3-liter engine	2.87 L (3.03 US qt, 2.53 Imp qt)	
	3.0-liter engine	2.3 L (2.4 US qt, 2.0 Imp qt)	
Automatic transaxle fluid	2.3-liter engine	8.14 L (8.60 US qt, 7.16 Imp qt)	
	3.0-liter engine	7.0 L (7.4 US qt, 6.1 Imp qt)	
Fuel tank		68.0 L (18.0 US gal, 15.0 Imp gal)	

Check oil and fluid levels with dipsticks or reservoir gauges.

## ▼ Dimensions

Item	Specification	
Overall length	Sedan	4,745 mm <sup>*3</sup> (186.8 in), 4,765 mm <sup>*4</sup> (187.6 in)
	5-Door	4,745 mm <sup>*3</sup> (186.8 in), 4,765 mm <sup>*4</sup> (187.6 in)
	Sport Wagon	4,770 mm <sup>*3</sup> (187.8 in), 4,785 mm <sup>*4</sup> (188.4 in)
Overall width	1,780 mm (70.1 in)	
Overall height	Sedan/5-Door	1,440 mm (56.7 in)
	Sport Wagon	1,455 mm (57.3 in)
Track, front	1,540 mm <sup>*1</sup> (60.6 in), 1,530 mm <sup>*2</sup> (60.2 in)	
Track, rear	1,540 mm <sup>*1</sup> (60.6 in), 1,530 mm <sup>*2</sup> (60.2 in)	
Wheelbase	2,675 mm (105.3 in)	

\*1 16-inch wheel vehicle

\*2 17-inch/18-inch wheel vehicle

\*3 Without license plate holder

\*4 With license plate holder

# Specifications

## ▼ Weights

Specification	Item		Weight
2.3-liter engine	GVWR (Gross Vehicle Weight Rating)		1,940 kg (4,279 lbs)
	GAWR (Gross Axle Weight Rating)	Front	1,005 kg (2,216 lbs)
		Rear	936 kg (2,064 lbs)
3.0-liter engine	GVWR (Gross Vehicle Weight Rating)		2,052 kg (4,526 lbs)
	GAWR (Gross Axle Weight Rating)	Front	1,084 kg (2,390 lbs)
		Rear	968 kg (2,136 lbs)

## ▼ Air Conditioner

Item	Classification
Refrigerant Type	HFC134a (R-134a)

## ▼ Light Bulbs

### Exterior light

Light bulb			Category	
			Wattage	ECE R (SAE)
Headlights	High beam		55	H1 (—)
	Low beam	Halogen	55	H1 (—)
		Xenon fusion	35	D2S (—)
Front turn signal lights			27	— (#2357A)
Parking lights			5	W5W (—)
Fog lights *			55	H11 (H11)
Side-marker lights			5	— (—)
High-mount brake light	Sedan	Non-LED bulb	18.4	W16W (#921)
		LED bulb <sup>*2</sup>	4	— (—)
	5-Door		21	W21W (#7440)
	Sport Wagon	Non-LED bulb	21	W21W (#7440)
		LED bulb <sup>*2</sup>	4	— (—)
Rear turn signal lights	Sedan/5-Door		21	WY21W (—)
	Sport wagon		21	W21W (#7440)
Brake lights/Taillights			21/5	W21/5W (#7443)
Taillights			5 <sup>*1</sup>	W21/5W (#7443)
Reverse lights			18.4	W16W (#921)
License plate lights			5	W5W (—)

\*1 Use a 21/5W type bulb.

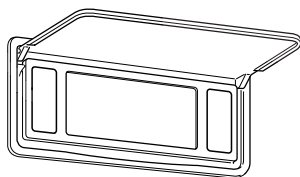
\*2 Bulb replacement is not possible because it is built into the unit. Replace the unit.

## Interior light

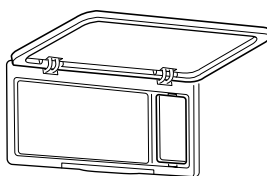
Light bulb		Category	
		Wattage	ECE R
Trunk light (Sedan)		3	—
Overhead light/Map lights		5	W5W
Courtesy lights		5	W5W
Vanity mirror lights*	Type A	1.2	—
	Type B	3	—
Luggage compartment light	5-Door	5	—
	Sport Wagon	10	—

\* Vanity mirror lights

**Type A**



**Type B**



## ▼ 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 Inflation Pressure on page 8-33.

### Standard tire

Tire size	Inflation pressure	
	Front	Rear
P205/60R16 91V	220 kPa	220 kPa
P215/50R17 93V	(2.2 kgf/cm <sup>2</sup> , 32 psi or lb/po <sup>2</sup> )	(2.2 kgf/cm <sup>2</sup> , 32 psi or lb/po <sup>2</sup> )
215/45R18 93W	240 kPa	240 kPa
	(2.4 kgf/cm <sup>2</sup> , 35 psi or lb/po <sup>2</sup> )	(2.4 kgf/cm <sup>2</sup> , 35 psi or lb/po <sup>2</sup> )

# Specifications

---

## **Temporary spare tire**

Tire size	Inflation pressure
T115/70D16	420 kPa (60 psi)

## **▼ Fuses**

Refer to the fuse rating on page 8-48.



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# NAVIGATION SYSTEM

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<b>Immediate use</b> See page 4 for specific information.	<b>Getting started</b>
	<b>Routing</b>
<b>Advanced use</b> See page 5 for specific information.	<b>Address Book</b>
	<b>Voice Recognition</b>
	<b>Volume Adjustment</b>
<b>If necessary</b> See page 5 for specific information.	<b>If necessary</b>

## Accessories

Please contact an Authorized Mazda Dealer if you are missing the following accessory.



I Map Disc

### **CAUTION:**

**THIS PRODUCT IS A CLASS I LASER PRODUCT. HOWEVER THIS PRODUCT USES A VISIBLE/ INVISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE THIS PRODUCT CORRECTLY AS INSTRUCTED.**

**USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.**

### **Laser products:**

Wave length: 650 nm

Laser power: No hazardous radiation is emitted with safety protection.



# MEMO



Before Use

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# Safety Information

- n Read this owner's manual for your Navigation System carefully before using the system. It contains instructions about how to use the system in a safe and effective manner. Mazda assumes no responsibility for any problems resulting from failure to observe the instructions given in this manual.
- n This manual uses pictographs to show you how to use the product safely and to alert you to potential dangers resulting from improper connections and operation. The meanings of the pictographs are explained below. It is important that you fully understand the pictographs and explanations in order to use this manual and the system properly.



Warning

## Warning

The presence of this Warning symbol in the text is intended to alert you to the importance of heeding the operation instructions. Failure to heed the instructions may result in severe injury or death.



Warnings

- n **Do not keep your eyes fixed on the monitor screen or operate the system while driving.**  
Do not change the settings and destination locations while driving. Minimize the time spent on viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and can cause accidents. Always stop the vehicle in a safe location and use the parking brake before operating the system.
- n **Always obey local traffic regulations.**  
Your guided route may include roads that are not open to vehicles or are closed due to traffic regulations. Comply with the local traffic regulations and take another route.
- n **Do not use the unit when it is out of order.**  
If the unit is out of order (no image, no sound) or in an abnormal state (has foreign matter in it, is exposed to water, is smoking, or smells), then turn it off immediately and consult with an Expert dealer, we recommend an Authorized Mazda Dealer. Using the unit in an out-of-order condition may lead to accidents, fires, or electric shocks.
- n **Use the proper power supply.**  
This product is designed for operation with a negative grounded 12 V DC battery system.
- n **Do not disassemble.**  
Do not disassemble the product or attempt to repair it yourself. If the product needs to be repaired, take it to an Expert dealer, we recommend an Authorized Mazda Dealer.



Caution

**Caution**

The presence of this Caution symbol in the text is intended to alert you to the importance of heeding the operation instructions. Failure to heed the instructions may result in injury or material damage.



Cautions

- n **Do not use the product where it is exposed to water, moisture, or dust.**  
Exposure to water, moisture, or dust may lead to smoke, fire, or other damage to the unit. Make especially sure that the unit does not get wet in car washes or on rainy days.
- n **Keep the voice guidance volume at an appropriate level.**  
Keep the volume level low enough to be aware of road and traffic conditions while driving.
- n **Protect the Deck Mechanism.**  
Do not insert any foreign objects into the slot of this unit.
- n **This navigation system is designed exclusively for use in automobiles.**  
This navigation system should only be installed in an automobile. Do not install it in a ship, aircraft, or any other vehicles except an automobile. Do not use it detached from the vehicle.
- n **Do not insert or allow your hand or fingers to be caught in the unit.**  
To prevent injury, do not get your hand or fingers caught in moving parts or in the disc slot. Especially watch out for infants.

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.

# Introduction

## Use This Product Safety

### **n Extremely low or high temperatures may interfere with normal operation**

The inside of the vehicle can become very hot or cold when it is parked for extended periods in direct sunlight or in cold places with the engine turned off. The navigation system may not operate normally under such circumstances. Turn off the navigation system until the inside of the vehicle has cooled down or warmed up. If the system does not operate thereafter, consult an Authorized Dealer, we recommend an Authorized Mazda Dealer.

## Navigation System

This navigation system utilizes GPS\* satellite signals, a speed sensor and gyrosensor to track and display your vehicle's current position, and to guide you from your starting point to your destination along a calculated route.

\* : GPS (Global Positioning System) is a position detecting system utilizing the signals from GPS satellites deployed by the U.S. Defense Department.

## Screens

**Screens displayed in this manual may differ from those on the actual display.**

## LCD (Liquid crystal display)


Direct sunlight or other outside light sources makes it difficult to view the images on the display. For moonroof-equipped vehicles, close the sunshade to better view the display.

# MEMO





Before Use


# Names and Functions

 **Joystick**


- | Selects items by tilting it up, down, right, and left.
- | Scrolls map.


 **ZOOM key**

Changes the map scale. (  page 27)

 **RET key**


Returns to the previous screen.

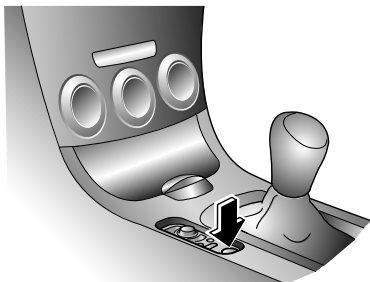
 **VOICE key**

- | Initiates vocal guidance for route manoeuvres.
- | Adjusts screen quality. (  page 26)

Infrared transmitter



| To remove the remote control from the cradle press 



| When placing the remote control back in the cradle, press it until you hear it engage.

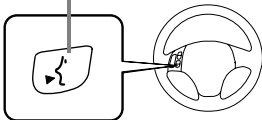


**POS (Position) key**  
 Displays your current position.

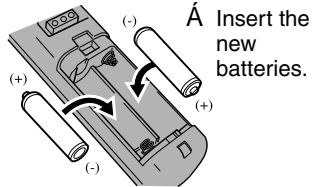
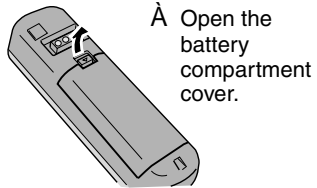
**ENTER key**  
 | Executes a selected item.  
 | Displays pop up menu.

**MENU key**  
 Select a menu.  
 (☞ page 14)

**TALK Switch**  
 Use for switching to voice recognition or canceling.

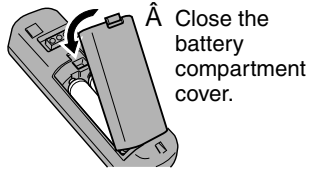


### Battery Inserting



**Note**

Match the polarity of the batteries with the ⊕ and ⊖ marks in the battery case.



- | **Battery:** Two AA batteries (R6PU)
- | **Battery life:** Approximately 5 months of normal use (when using manganese batteries at ambient temperatures)
- | **Battery replacement:** Replace the batteries as soon as possible when the infrared receiver does not respond properly to remote control operations, or when the remote control does not work.

**Note**

Make sure that there is not any pressure applied to any of the remote control buttons when placing the remote control in the console box. Pressure on any of the buttons will drain the batteries.

# Activation

Insert the map disc into the unit to start the Mobile Navigation System.



## n Map Disc

- Refer to “Handling and Care of Map Discs” to know how to handle a map disc (📖 page 58).

## Note

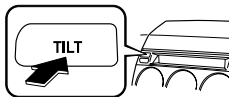
- The map disc cannot be inserted or ejected while the ignition switch is in the OFF position.
- Remember that the battery can run down if the ignition switch is kept in the ON or ACC position for a long time while the engine not running.

- Turn the ignition switch to the ON position and press **OPEN/CLOSE** to open the display.



## Note

- This display angle can be adjusted by pressing **TILT**.



When the **TILT** is pressed, the display angle changes in stages.

- Press **OPEN/CLOSE** to close the display.

- Insert the map disc with the printed side facing up.



## Note

- The main unit is located under the front passenger seat.
- Condensation may form on the optical lens or the map disc inside the unit when the temperature in the vehicle increases in a short time such as when heating the car on a cold day. This condensation may cause malfunctions. If so, unload the map disc and do not operate the unit for approximately 1 hour. Wipe the condensation off the map disc with a soft cloth.
- If the unit does not operate correctly after 1 hour, consult an Authorized Mazda Dealer.



(CAUTION) screen



### 3 Read CAUTION carefully, and select **Agree** and press

**ENTER**.



| The Current Position screen appears.

#### Note

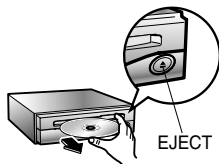
- | You can select the language by select  and press **ENTER**. You can also change the selected language using Language Selection. (  page 20)
- | The CAUTION screen remains on the display unless you select **Agree** and press **ENTER**.



Most functions are inhibited while the vehicle is in motion. Please read the handbook for operation instructions. Always obey traffic regulations.

## Removing the Map Disc

When the ignition switch is in the ACC position and press **▲** (EJECT).



Do not get your hand or fingers caught in moving parts or in the disc slot. This can cause injuries. Children are inquisitive, try to install or remove the map disc without infants looking on.


## Buttons on the screen


Select the buttons by using Joystick and press **ENTER**.  
Colors for unavailable buttons will be pale.


# Menu


Menu appears when pressing **MENU**.



Destination Entry and Route Search (  page 28)

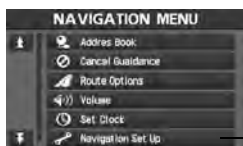
Address Book (  page 44)

Cancel Guidance (  page 39)

Route Options (  page 40)

Volume (  page 50)

Set Clock (  page 15)



Navigation Set Up (  page 16)

# Set Clock

The current time is set using this function. Since time notification is provided by a GPS satellite.

Before Steps

MENU

ENTER

select

Set Clock

ENTER

Open the [SET CLOCK] screen



Select **24H** if you prefer 24-hour display; **12H** for 12-hour display.

Select **+1 hour** to move the setting ahead by one hour, and similarly, select **-1 hour** to move it back by one hour.

How to exit **OK**.

## Note

Minutes and seconds are adjusted by the GPS, however, it is necessary to adjust hours under the following conditions:

- | Driving across different time zones
- | Daylight saving time start and end

# Navigation Set Up

You can alter the map display conditions, the route guidance conditions and show the system information.



Warning

## **n Stop your vehicle before the following operations.**

Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location and put the parking brake on before operating the system.

Before Steps

MENU



ENTER

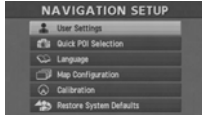
select

Navigation Set Up

ENTER

Open

[NAVIGATION SETUP]



- User Settings (page 17)
- Quick POI Selection (page 19)
- Language (page 20)
- Map Configuration (page 21)
- Calibration (page 22)
- Restore System Defaults (page 24)

# Navigation Set Up

User Setting

Before Steps



## Open the [USERSETTINGS] screen



### Map Color



Select a screen color from **1** to **3** options.

### Map Mode



- | **Auto** : The display will automatically switch between Day and Night illumination mode when the headlights are turned off and on respectively.
- | **Day** : The display will be presented in Day illumination mode regardless of whether the headlights are on or off.
- | **Night** : The display will be presented in Night illumination mode regardless of whether the headlights are on or off.

### Distance



Select the distance unit from **km** or **Miles**.

### Average Speed



Set the average speed for each road to be driven. (This function sets the standard speed (average vehicle speed for each route) used for calculating the estimated arrival time when calculating the route time.)



- | **Left Arrow** : Average speed setting
- | **Default** : Changes back to default

### Road Restriction Warnings



The display of warnings during route guidance when passing through areas with traffic restrictions can be turned on or off.

Getting started

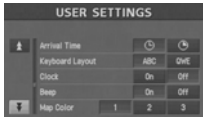
# Navigation Set Up

User Setting



Getting started

## Open the [USERSETTINGS] screen



### Arrival Time



The time which is displayed until reaching the destination or a way point can be set as an estimated arrival time or the remaining time.

Select to display the estimated arrival time, or to display the remaining time.

### Keyboard Layout



The layout of input keys can be selected as or .

### Clock



Allows selection of whether clock is to be displayed.

### Beep



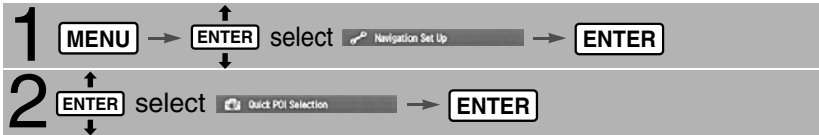
Allows selection of whether beep will sound.



# Navigation Set Up

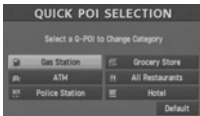
## Quick POI Selection

This function allows you set the categories on the area displayed when the (Point of Interest) menu is selected on the map. Quick POI enables you store up to six different kinds of categories which you use most regularly.



Getting started

### Open the [QUICK POI SELECTION] screen



Select the button for Quick POI storage.

#### Note

Select the category to be changed

**Default** : This button allows you to restore the factory settings.



Select a category.

Once selected, subcategories will be displayed.

**List All Categories** : Subcategories from all of the individual categories will be displayed together.



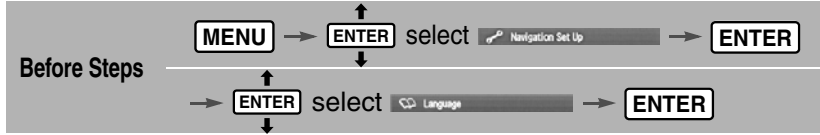
Select the subcategories to be displayed on the map.

Repeat the above steps to add further POI markers displayed on the menu.

# Navigation Set Up

Language

You can change the language of the menu and the voice guidance.



## Open the [LANGUAGE] screen



Select your preferred language from the list.

Getting started

# Navigation Set Up

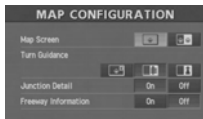
## Map Configuration

Before Steps



Getting started

Open the [MAP CONFIGURATION] screen



### n Map Screen

Map Screen  
Select single or dual map display.

#### Single map



#### Dual map



### n Turn Guidance

Turn Guidance  
Turn Arrow (on first screen)



While using route guidance, the directions for the next junction where you have to turn are shown as a Turn Arrow in the upper right.

### n Turn List



While using route guidance, the directions for the next junction where you have to turn are shown as Turn List.

### n Turn Arrow (on second screen)



While using route guidance, the directions for the next junction where you have to turn are shown as Turn Arrow.

### Note

Before a fork in the road, an enlarged diagram of the junction automatically appears in a second screen. This is to make route guidance even clearer.

### n Junction Detail

Junction Detail On Off

Select whether the Enlarged Junction diagram screen is displayed automatically.

### n Freeway Information

Freeway Information On Off

Allows selection of whether the guidance screen is to be displayed while driving on a freeway.

# Navigation Set Up

Calibration

This function allows you to correct any error in the position or direction of your vehicle display.




## Adjusting Current Position and Direction





Open the [Calibrate Position] screen



Move  to the correct position and select **ENTER**.



Use  or  to adjust the direction in which you are heading, and select **OK**.

## Distance

This function automatically corrects any error in the display of the current position that might occur after tire replacement.



You will have to drive about 6 miles (10 km) before distance correction is complete.

→ ENTER → ENTER select Calibration → ENTER

## Map Version

The map and software version numbers can be confirmed using this function.

↑  
ENTER select Map Version → ENTER

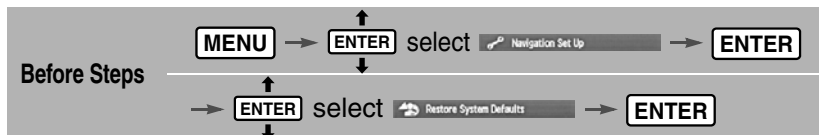
↓  
Map and software versions are now displayed.



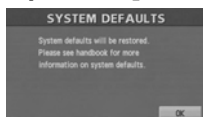
# Navigation Set Up

## Restore System Defaults

This function replaces all the settings in the mobile navigation system with the initial default settings.



### Open the [SYSTEM DEFAULTS] screen



Select **OK** .

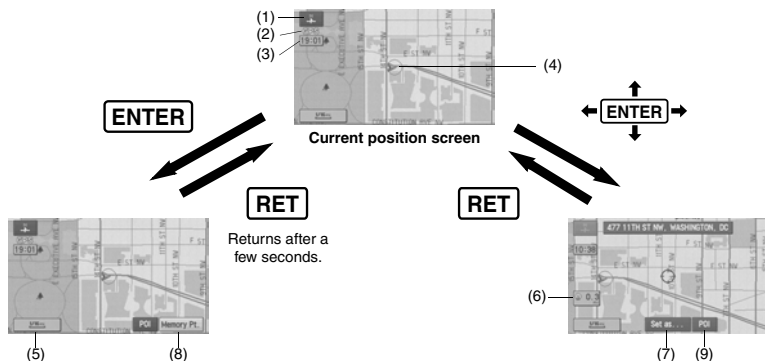
If you execute Restore System Defaults, all of your stored setting data will be deleted.

### [Default List]

Item	Initial condition
<b>Menu names</b>	
Map Orientation	North up
Map display mode	Single-screen display
Map Display scale/Map scale for Dual-screen is not object of backup.	Single-screen: 10,000 map (1/16 mi)
Display guidance language	English
Quick-POI map display	All Off
Quick-POI Selection	A : Gas station B : ATM C : Police Station D : Grocery store E : All Restaurant F : Hotel
Search Area	US9 (including Washington DC)
Map Color	1
Day/Night/Auto Setting	Auto
Distance Units (Miles/KM) (Global setting)	Miles
Volume Presets	4
Time display change (12h/24h)	24h
Keyboard layout	ABC
Arrival Time	Time
Navigation Setup (Clock)	Off
Navigation Setup (Beep)	On
<b>Map Configuration</b>	
Freeway Information	Off
Guidance Screen	ON
Map screen	Single
Turn Guidance Screen	Turn List

# Screen Names and Functions

## Screens Before Setting Route



**(1) Map Orientation control**

(☞ page 27)

**(2) GPS (Global Positioning System) marker**

(☞ page 52)

**(3) Clock**

Clock will be displayed when you set up Clock on Navigation Set Up On.

**(4) Vehicle marker**

Shows the current position and direction of your vehicle.

**(5) Scale display**

Displays the scale of the map.

**(6) Distance from current position**

Displays the distance from the current position to the position pointed by ○.

**(7) Set Destination button**

The destination, memory point or way point will be set at the position pointed by ○ in the scroll screen.

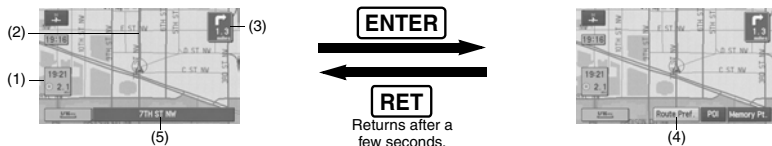
**(8) Store Memory Point button**

Stores markers on the map.

**(9) POI (Point of Interest) Display button**

(☞ page 36)

## Screens During Route Guidance



**(1) Distance and Time to Destination display**

Displays the time\* and distance to the destination or way point. Selecting this will display the next and further information on the way point or time and distance to the destination. (\* Either required time or estimated time arrival)

**(2) Route display**

Shows the provided route as a thick blue line.

**(3) Turn Arrow display**

Shows the direction to turn at the next junction and the distance to the junction.

**(4) Route Preferences button**

(☞ page 40)

**(5) Current Road Name**

Shows the name of the road you are currently driving on.

## Screen adjustments and settings

Display Menu screen will be shown when you press **VOICE** (DISP) and hold.

### Note

Display Menu screen will be disappeared when they have been unused during a few seconds.

### n Adjusting the screen quality

- | Adjusts the screen brightness  
Select "ADJ", and then "BRIGHT". The screen will brighten when scrolling to the right, or darken when scrolling to the left.
- | Adjusts the screen contrast  
Select "ADJ", and then "CONTRAST". The screen will lighten when scrolling to the right, or deepen when scrolling to the left.

### Note

- | Adjust by scrolling the Joystick to the right and left.
- | Restore the adjustment value to the default when selecting "RESET", press **ENTER**.

### n Clearing the screen

Select "DISP OFF", press **ENTER** and the screen will disappear.  
The screen will appear again when pressing any buttons.

### n Daytime screen/Night screen

The screen can be returned to the daytime screen when the headlights or running lights are on. Press **VOICE** (DISPLAY) and hold, then select "DAY MODE" and press **ENTER**.  
| The screen can be returned to the daytime screen while the headlights or running lights are on using the dashboard illumination switch in the dashboard (Black-out meter).



# Screen change Changing the Map Orientation/Scale



**Warning** Do not keep your eyes fixed on the monitor screen or operate the system while driving

Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location and use the parking brake before operating the system.

## Map orientation

- 1 Press **ENTER**
- 2 Select , and press **ENTER**

North Up: Geographic north is up.



Head Up: The direction you are heading is up.



## Map scale

- 1 **ZOOM**
- The map can be displayed in 13 steps with scales from to .



	Position before change					<Scale bar>				
Imperial display (mile)	1/32 mi	1/4 mi	2 mi	16 mi	128 mi					
Metric display	50 m	500 m	4 km	32 km	256 km					

ZOOM OUT



**ZOOM**

ZOOM IN (more detail.)



# Destination Entry and Route Search

| You can set the destination using various methods provided by the system.



Routing

Change  
(Change  
Search Area)

Open the [DESTINATION ENTRY] Menu



Select **Change**

Address

Open the [DESTINATION ENTRY] Menu

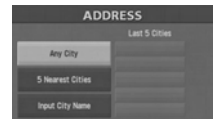


Select



When narrowing down to city name

Select **City**



When narrowing down to street name

Select **Street**





Warnings

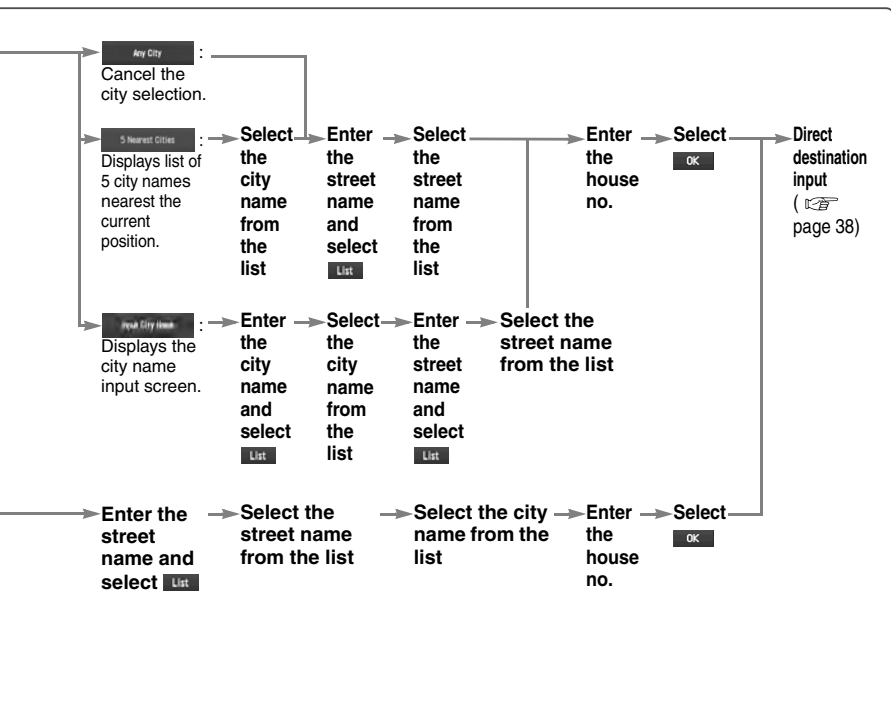
**Do not keep your eyes fixed on the monitor screen or operate the system while driving.**

Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location before operating the system.

Route searches with the navigation system can include roads that you cannot drive on and roads that you are prohibited from driving on due to traffic regulations. Please comply with the traffic regulations.

**Select the desired Search Area**

- US1 : ID, OR, WA,                      US7 : AR, AL, LA, MS, TN
  - US2 : CA, NV,                         US8 : CT, MA, ME, NH, NJ, NY, RI, VT
  - US3 : AZ, CO, MT, NM, UT, WY,    US9 : DC, DE, MD, PA, VA, WV
  - US4 : IA, KS, MN, MO, ND, NE, SD US10 : FL, GA, NC, SC
  - US5 : OK, TX,                         CAN : CANADA
  - US6 : IL, IN, KY, MI, OH, WI
- ENTER → OK



| For Character Entry, please refer to page 37.

# Destination Entry and Route Search

Point of interest

Open the [DESTINATION ENTRY] Menu



Select



When entering the destination point directly  
Select



When narrowing down to city name  
Select



When narrowing down to category name  
Select

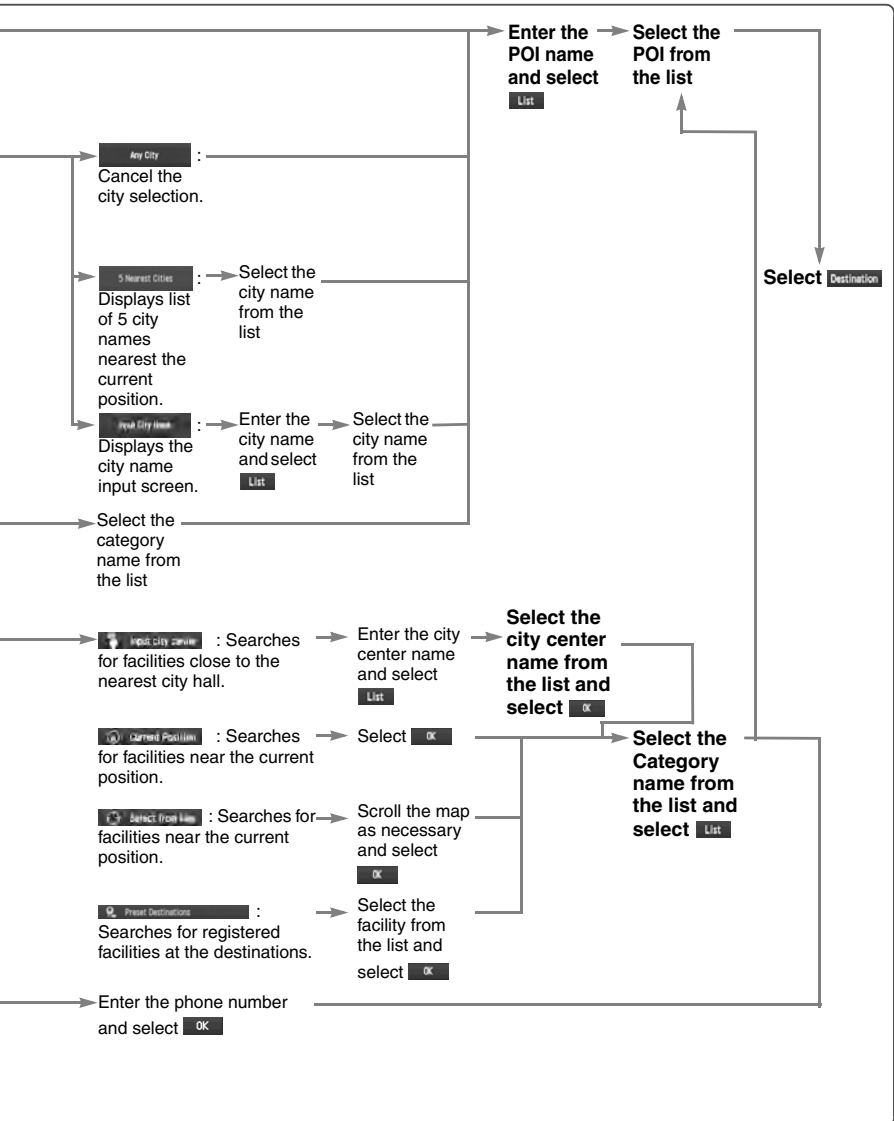


When narrowing down to the nearest facility  
Select



When narrowing down to a phone number  
Select





| For Character Entry, please refer to page 37.

# Destination Entry and Route Search

## Emergency

### Select



### When stopped

★ Police Station  
Displays the police station select screen.

⬆ Hospital  
Displays the hospital select screen.

### When driving

★ Nearby Police Station  
Sets the destination to the nearest police station automatically.

⬆ Nearby Hospital  
Sets the destination to the nearest hospital automatically.

→ **Select the sort methods**

**Dist.** : Sorts the police station or the hospital by Distance.

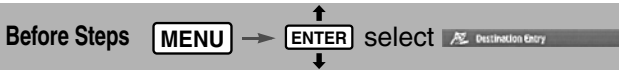
**Name** : Sorts the police station or the hospital by name.

→ **Select the name from the list**

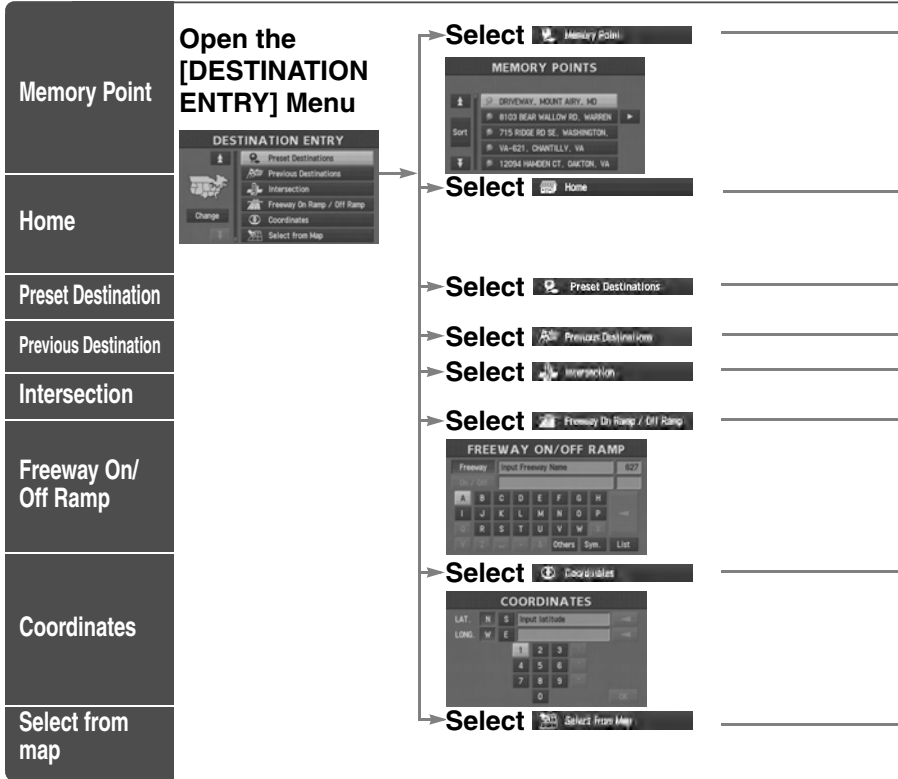
→ **Select**

**Destination**

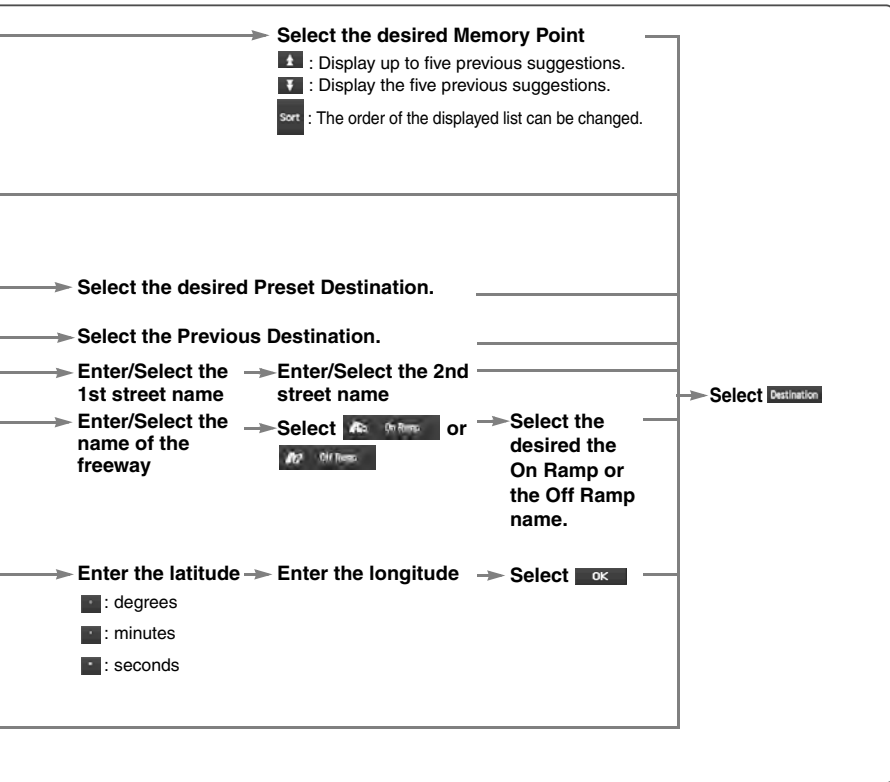
# Destination Entry and Route Search



Routing







| For Character Entry, please refer to page 37.

# Quick POI

You can select one of the Six Categories on the menu or List Categories and then select the POI(s) to be displayed on the map.

Before Steps

ENTER → ← ENTER → → Select POI

Routing

Displaying  
POI(s) on a  
Map

Open the  
[QUICK POI]



Select the  
categories to be  
displayed up to a  
maximum of five.

→ Show

POI icon chart  
(page 39)  
For categories  
other than the six  
displayed, select  
List Categories and  
select them from  
the list shown.

Search Selected POI

→ Select the POI  
you want to list  
from the listed  
categories.

After you make a  
selection, the point of  
interest you selected  
appears on the map.  
Route Search POI  
along the route  
during the guidance  
and show the list.

POI Off

Local  
Search

Deleting  
POI  
Markers

Before Steps

Displaying POI(s) on a Map (above)

Showing  
POI Data

Display the POI.



→ Select the desired  
POI by moving on  
top of the POI icon.  
The name of the selected  
POI appears.

If no data is stored for the  
selected POI, the POI  
name is not displayed.

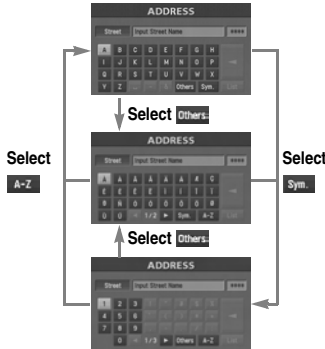
→ Select Info.  
(Information)

The POI(s) data is  
displayed.

# Character Entry

To enter the street name, city name, and other.

Select the first several characters on the screen. (Step 1)



- : Move the cursor to the previous position and delete a character.
- : The list appears.

Select your target in the list.



Names of which spelling starts with the entered character appear.

If a desired name is not in the list, go back to Step 1, and try fewer characters.

- : Display up to five previous suggestions.
- : Display the previous suggestions.
- : Text flow (Right)
- : Text flow (Left)
- : The order of the displayed list can be changed. (Displayed list varies or may not be displayed depending on what was input.)
- : Additional text can be input. (Use when inputting additional characters after the list is displayed.)

Examples

Street: CANAL

Enter by selecting characters:

C A [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Street: MAIN STREET

Enter by selecting characters:

M A I N [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Street: 52nd Ave.

Enter by selecting characters:

5 2 n d [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

To enter the house phone number, and other.

Select the characters on the screen.



- : Move the cursor to the previous position and delete a character.

Select

Routing

# Direct Destination Input

## Direct Destination Input

1

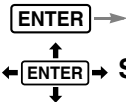


**Position the cursor on your destination on the map**

Scroll the map and change the map scale if necessary.



2



**Select**

Set as...



3

**Select Destination.**

Route calculation will be carried out and the entire route will be displayed on the map.

Select **Way Point** (Way point) to set the address as a way point on your route ( page 44). You can set up to 5 way-points per trip.

4

**Select Guide.**

Route guidance begins using displayed route.

### Note

- | If your desired route cannot be found, **Route Opt.** (Route Options) allows the route option settings to be changed. ( page 40)
- | Selecting **Guide** for five seconds or more will launch the Demo mode.

## Selecting Route

Operate after Step 3 of [Direct Destination Input]

4

The calculation route can be selected from one of three types namely, Quick (the fastest route), Altern. (the standard route), or Short (the shortest route).

5

**Select Info. (Information).**

Details regarding the individual routes (i.e., required time total distance, roads used, etc.)

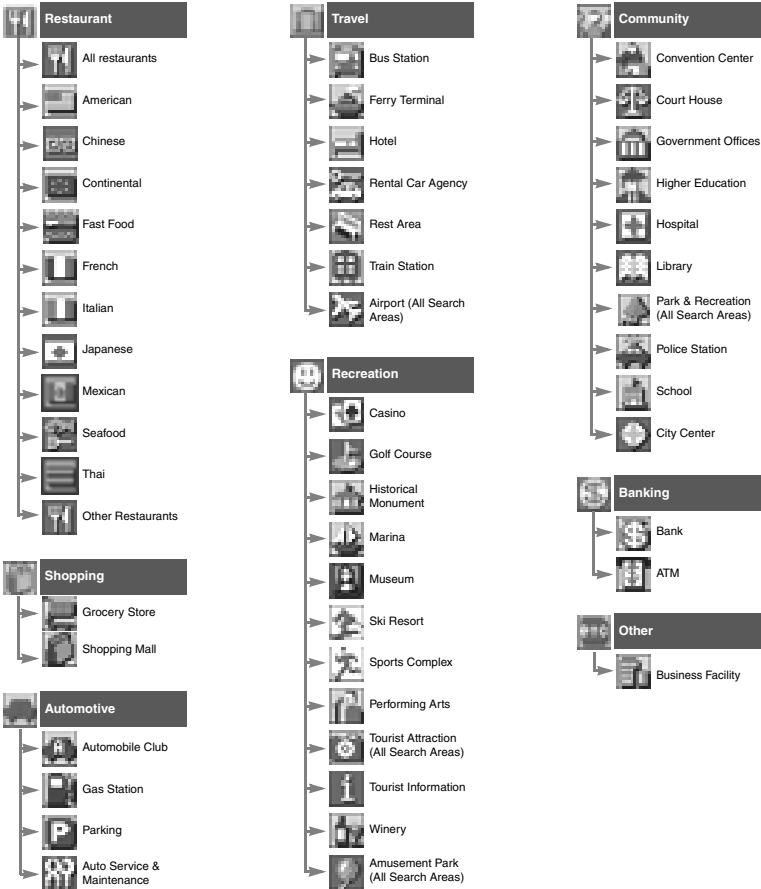
**Select either Quick, Altern., or Short, and then select Guide when you have decided on the route to be used.**

INFO FOR 3 ROUTES			
	Quick	Altern.	Short
	0h 27m	0h 29m	0h 28m
	20 miles	20 miles	20 miles
	0.0 miles	0.0 miles	0.0 miles
	0.0 miles	19 miles	0.0 miles
	0.0 miles	0.0 miles	0.0 miles
	0.0 miles	0.0 miles	0.0 miles

# POI Icons on Maps / Delete Destination

## n POI (Point of Interest) Icons

The following are POI icons shown on maps.



Routing

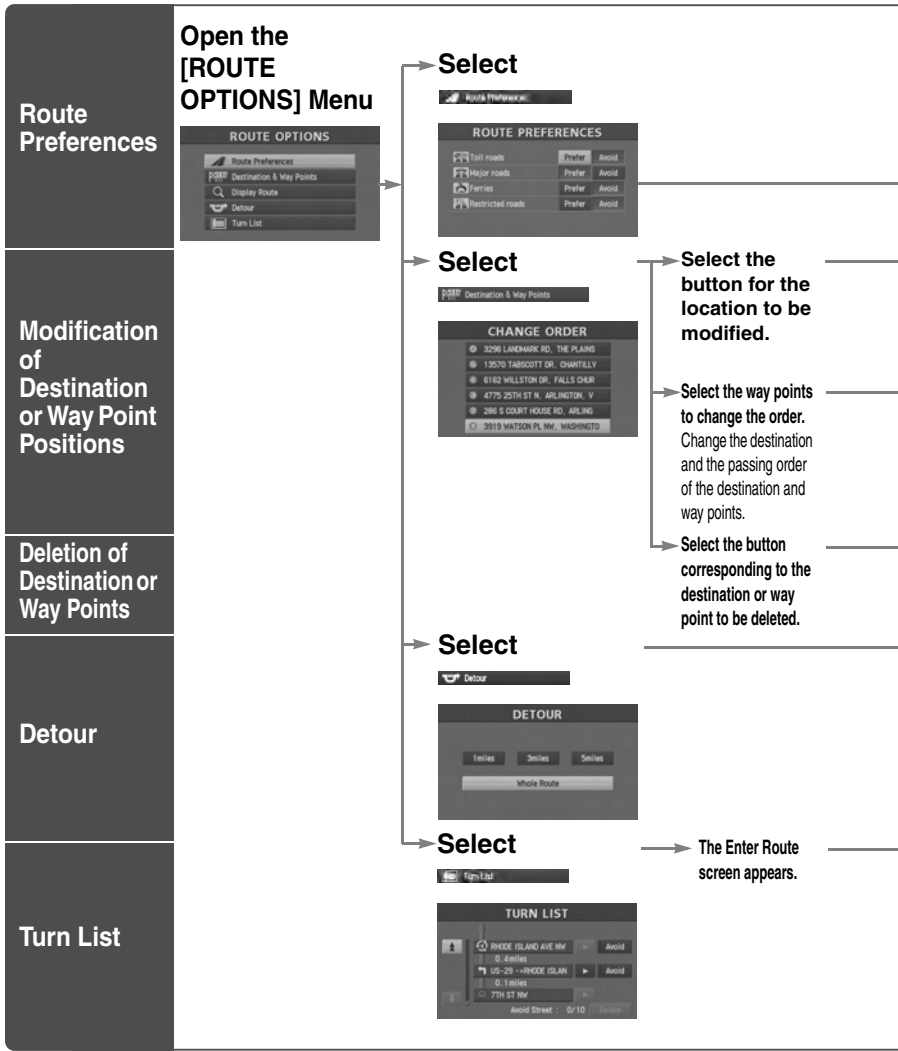


# Route Options

During route guidance you can change the route options, stop or check the route.



Routing





**Warning** Do not keep your eyes fixed on the monitor screen or operate the system while driving. Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location and use the parking brake before operating the system.

Select **Prefer** or **Avoid** for toll roads, major roads, and ferry and restricted roads.

The route will not necessarily follow the specified conditions.

Select **Chg Loc.** → **Move** to location and then press **ENTER**.

Shows the map for the destination/way points.

Press **▲ ▼** to change the order.

Select **Delete**

**Yes** :  
**No** :Cancel the deletion

**1miles 3miles 5miles** :  
**Whole Route**

Searches the detour routes at one, three, and five miles from the present position to the selected routes. (Display range varies according to the set distance of the selected route.) Whole Route searches the route that detours from the present position for all routes.

Select **Avoid** from the roads to be avoided.

**Yes** :  
**No** :Cancel the setting

**ENTER**

**POS**

**Guide**

**POS**

**Guide**

**POS**

**Guide**

**POS**

**Guide**

# Route Options

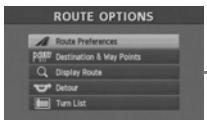
Before Steps **MENU** → **ENTER** select 

Routing

Display Preview

Route Preview

Open the [ROUTE OPTIONS] Menu



Select 










**ENTER**

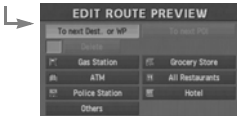
Select 









→ **Use the buttons displayed on-screen to carry out a simulation run.**

-  : Move the start point.
-  : Carry out a simulation run in the direction of the start point. When the Simulation starts the button will be displayed as , and when selected, it will cause the Simulation to advance quickly.
-  : Stop the simulation run.
-  : Carry out a simulation run in the direction of the destination. When the Simulation starts the button will be displayed as , and when selected, it will cause the Simulation to advance quickly.
-  : Move to the destination.
- Edit** : Displays the [EDIT ROUTE PREVIEW] screen.



-  : Stops at the destination or the next way-point.
-  : Stops at a point of interest which has been setup on the route.
-  : Delete the POI which has been selected.

POIs: Display the six POIs from Quick-POI storage. When one of these is selected, it will be displayed on the map; furthermore,  can be selected to display items other than shown here. For more details, refer to page 19.

**RET**

# Address Book

| You can, edit, or delete any marked point.

Before Steps

**MENU** →

↑  
**ENTER**  
↓

select

Address Book

Memory Point Storage

Open the  
[ADDRESS BOOK]

ADDRESS BOOK

Memory Points/Home  
Hold Area  
Previous Destinations

→ **Select**

Memory Points/Home

Add

List

Memory Point Confirmation and Modification

Preset Destinations or Home storage

Memory Point Deletion

All Memory Point Deletion

Displays Icons at Memory Points

Delete

Delete All

Show all icon **On** or **Off**

Address Book

→ **Set a memory point using your preferred method.**

→ **Select a memory point to be modified**

**Icon** : Allows the display icon to be selected. Page 1 and 2 contain standard icons, whereas the With Sound page contains icons which also playback sounds. (With direction icon function) The beep alert only activates when the vehicle approaches to within about 500m of the memory point from the set direction.

**Name** : Allows the name to be changed. When editing has been completed, select **OK** . Furthermore, select **On** to display names on the map, or **Off** if these names are not to be displayed.

**Position** : Allows memory points to be checked and modified on the map screen. After checking.

**Tel.** : Allows the telephone number to be modified. When editing has been completed, select **OK** .

→ **ENTER**

→ **Select a memory point to be stored in Preset Destinations or Home.**

**Category** : → **Preset Destinations** : Changes the category to Preset Destinations  
 Allows the storage category to be changed. Select the button corresponding to the new category.  
 → **Home** : Changes the category to Home

→ **Select a memory point to be deleted.**

**Yes**  
**No** : Cancel the deletion.

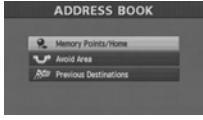
**Yes**  
**No** : Cancel the deletion.

# Address Book

Before Steps **MENU** → **ENTER** select **Address Book**

- Avoid Area Storage
- Avoid Area Confirmation and Modification
- Avoid Area Deletion
- All Avoid Area Deletion
- Category Name Modification
- Previous Destination Deletion
- All Preset Destination Deletion

Open the [ADDRESS BOOK]



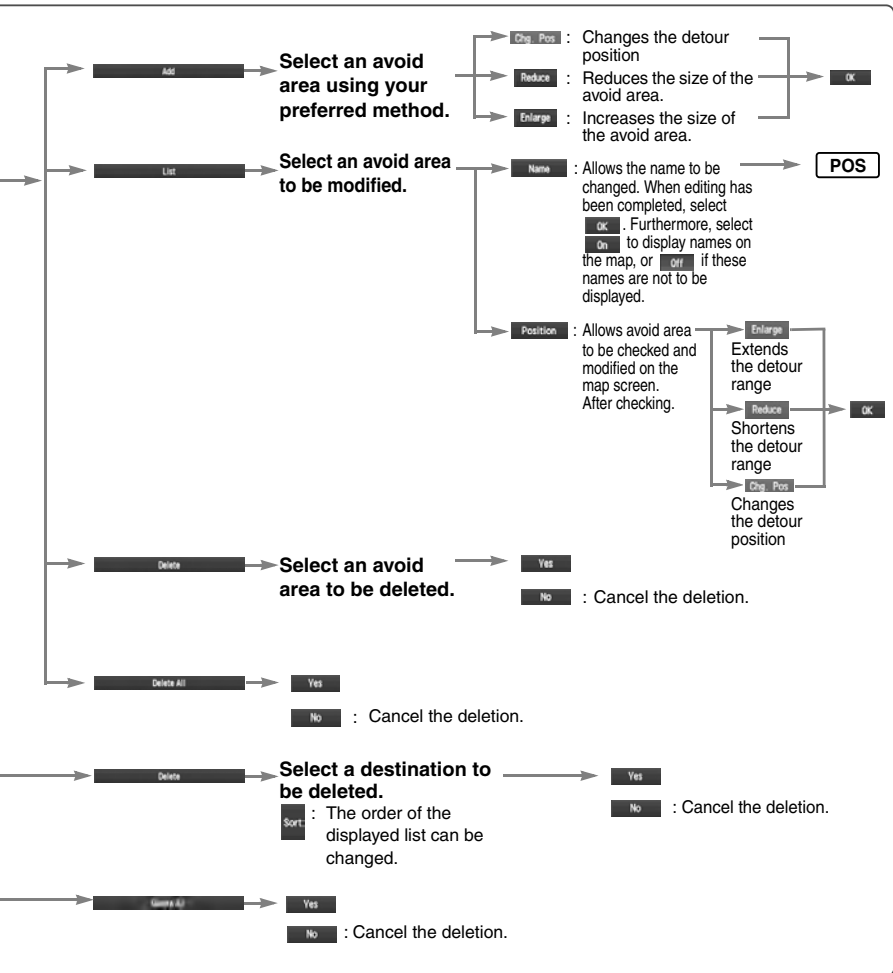
Select



Select



Address Book

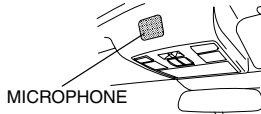


# Voice Recognition

Voice control can be carried out by simply Pressing **TALK** and using a voice command (page 49) spoken into the microphone.

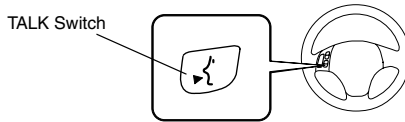
## Voice Recognition Structure

### Microphone surface Voice entry recognition.



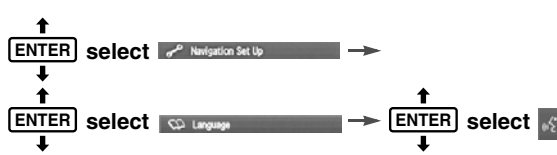
### **TALK** (Steering Wheel)

Use for switching to voice recognition or canceling.



Set up the language in advance.

## Select the Language

- 1 Press **MENU**
- 2 

The diagram shows a sequence of menu selections: Pressing **ENTER** selects 'Navigation Set Up', then another **ENTER** selects 'Language', and a final **ENTER** selects a language icon.
- 3 Select your preferred language from the list

## Basic Usage Pattern

- 1 Press **TALK** (Steering Wheel)
- 2 Speak the desired voice command

## Cancel Voice Recognition

- 1 Long press **TALK** (Steering Wheel)  
(Press it more than 0.7 seconds.)

### Note

After the navigation system has been set, voice recognition needs approximately 2 minutes for activation on preparation. Wait momentarily.

## Avoiding Voice Recognition Errors.

Read the notes listed below to allow the Voice Recognition function to recognize your voice properly.

- | Speak a voice command clearly.
- | Keep yourself in a safe driving position. Do not face or approach the microphone to make a voice command to recognize.
- Voice recognition may fail to recognize your command due to voice tone. If this happens, change the tone of your voice by speaking more loudly and clearly.
- | Keep the inside of the vehicle quiet when making a voice command. Your command may be compromised by noises made by people, blinkers, the horn, vehicle vibration, and noises from outside the vehicle.
- | Use the language you selected in voice recognition.

## Voice Recognition Command

The following voice commands can be used with voice control.

<b>Shortcut Commands</b>	School	(Go to/Previous) Starting Point
[Show] Current (Position/Location)	Amusement Park	[Go to] Previous Destination
[Show] Map	Casino	[Go to] Preset Destination [Number] 1
Repeat [Voice] [Guidance]	Golf Course	[Go to] Preset Destination [Number] 2
Cancel	Historical Monument	[Go to] Preset Destination [Number] 3
<b>Map Operation Commands</b>	Marina	[Go to] Preset Destination [Number] 4
Zoom In	Museum	[Go to] Preset Destination [Number] 5
Zoom Out	Ski Resort/Skiing	Cancel
Zoom In Maximum	Sports Complex/Stadium	<b>Guidance Commands</b>
Zoom Out Maximum	Performing Arts	Louder
Right Map Zoom In	Tourist Attraction	Softer
Right Map Zoom Out	Tourist Information	[Show] (Whole/Entire) Route [Map]
Right Map (Zoom In Maximum/Minimum Scale)	Winery	[Show] Next Way Point [Map]
Right Map (Zoom Out Maximum/Maximum Scale)	Restaurant/I'm Hungry/Show Restaurant	Show First Way Point [Map]
[Change to/Show] North up [Mode]	American Restaurant/American Food	Show Second Way Point [Map]
[Change to/Show] Heading up [Mode]	Chinese Restaurant/Chinese Food	Show Third Way Point [Map]
[Change] Map Direction	Continental Restaurant/Continental Food	Show Fourth Way Point [Map]
Right Map (Change to/Show) North up [Mode]	Fast Food/Fast Food Restaurant	Show Fifth Way Point [Map]
Right Map (Change to/Show) Heading Up [Mode]	French Restaurant/French Food	Show Destination [Map]
Right Map [Change Map] Direction	Italian Restaurant/Italian Food	(Delete/Cancel) Next Way Point
[Show/Change to] Dual Map [Mode]	Japanese Restaurant/Japanese Food	Yes
[Show/Change to] Single Map [Mode]	Mexican Restaurant/Mexican Food	No
(Store/Mark) [This Point]	Seafood Restaurant/Seafood	(Delete/Cancel) Destination
<b>POI Display Commands</b>	Thai Restaurant/Thai Food	(Delete/Cancel) All Way Points and Destination
Automobile Club	Other Restaurant/Other Food	Voice Guidance Off
Gas Station/Gas	Grocery Store	Voice Guidance On
Parking/Parking Lot/Parking Garage/Car Park	Shopping Mall	Quick
Auto Service & Maintenance/Auto Service	Airport	Alternative
ATM	Bus Station	Short
Bank	Ferry Terminal	Detour
Town Center/City Center	Hotel	Detour Entire Route
Convention Center/Exhibition Center	Rental Car Agency	[Change to] Arrow (Guide/Guidance)
Court House	Rest Area	[Change to] Turn List (Guide/Guidance)
Government Offices	Train Station	[Change to] Freeway (Guide/Guidance)
Higher Education/University/College	Business Facility	[Change to] Intersection (Guide/Guidance)
Hospital	POI Off	<b>Display Commands</b>
Library	<b>Destination Operation Commands</b>	display [set] day [mode]
Parks & Recreation/College	[Go] Home	display [set] night [mode]
Police Station	Enter Destination	display [set] auto [mode]
	Add to Waypoint	

( ): Indicates the commands to be the object of “/”

[ ]: Recognizes without saying the command in “[ ]”

“/”: Recognizes when saying either commands before and after “/”

# Volume Adjustment

You can adjust the volume control for the voice guidance.

Before Steps

**MENU** →



**ENTER**

select



Volume



**ENTER**

## Open the [VOLUME] screen



- 1 Select the appropriate button to set the volume between **1** (minimum) and **7** (maximum).

**OFF** : Sound output will be muted.

- 2 Press the **POS** button to return to the current vehicle position screen.



# Precautions/System Performance

## Voice Guidance

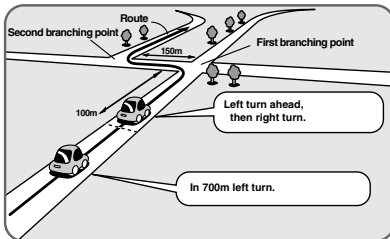


- | The navigation system is just a support system for the driver. The driver should always pay attention to the traffic situation to safely make decisions. You may be unable at times to arrive at your destination due to out-of-date information on a map disc. You should be especially careful when selecting an urgent destination such as a hospital or a police station.
- | Your route may sometimes include roads that are not open to vehicles or are closed due to traffic regulations. Please comply with the local traffic regulations.
- | Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location and use the parking brake before operating the system.

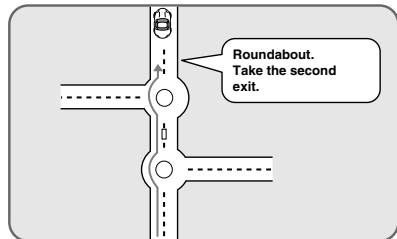
Voice guidance has the following functions:

### n Intersection guidance

- | The system voice announces the distance to an upcoming turn and the turning direction.
  - ⇒ This guidance function is automatic. Therefore, you do not have to set it, and it cannot be disabled.
- | The system vocally announces the distance to an upcoming highway branching point or junction.



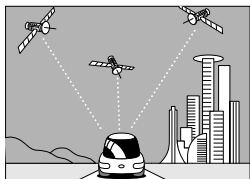
When two intersections are close together, the voice guidance may be late.



When two roundabouts are close together, the voice guidance for the second may be late.

If necessary

## GPS

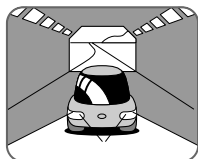


GPS is a position detecting system utilizing the signals from GPS satellites deployed by the U.S. Department of Defense. The Mobile Navigation System uses input from three or more satellites and calculates the vehicle position based on the principle of triangulation.

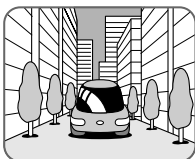
The positioning accuracy of the system corresponds to the error display of the GPS which is from about 30 to 200 meters.

- | If you are using the system for the first time, or if you have not used it for some time, it takes about 5 minutes (or about 2 minutes in open areas) to calculate your vehicle's position.

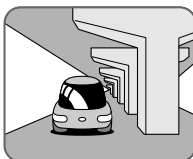
### n GPS signal reception is poor in the following places



In tunnels



Among high-rise buildings



Under elevated roads



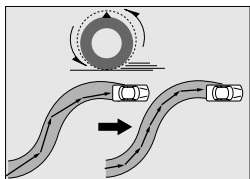
In wooded areas

- | The GPS satellites are controlled by the U.S. Defense Department, which may intentionally lower positioning accuracy. In such cases, there may be vehicle position deviations.
- | There may be vehicle position deviations for some time until GPS signals are received after turning on the ignition.

## Map Matching

This function compares your vehicle's tracking data with the road data on the map disc, applies dead reckoning to determine the road you are driving on, and displays your vehicle on that road on the map.

- | Intelligent map matching addresses the following problems to achieve high accuracy in vehicle positioning.



### Position Correction for Elevated Roads

Position accuracy is improved by detecting if the vehicle is running on or under an elevated road.

### Position Correction for Parking Garages

Position accuracy is improved by detecting if the vehicle is driving in an elevated or underground parking garage.

### High-precision Gyrosensor

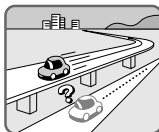
A gyro detects turns with an accuracy of  $0.05^\circ$  per second. Combined with a speed sensor, it enables the system to display the current vehicle position even where GPS signals may be blocked.

- | Using a spare tire in place of the regular one may cause vehicle position deviations.
- | Any difference between the direction which your vehicle actually travels and that shown on the map is automatically eliminated by azimuth correction.

# Precautions/System Performance

## Positioning Accuracy

In the following situations, your vehicle position may not be displayed correctly on the map. But, as you keep driving, your vehicle position will be automatically corrected utilizing map matching and GPS data.



Running on an elevated road



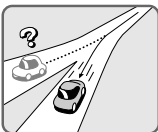
Making a turn after driving on a long straight road



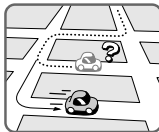
Running on a steep mountain road



Running on a spiral road



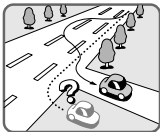
Entering an intersection where a road branches off at a small angle



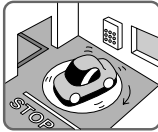
Running on gridiron layout of roads



Running on a slippery road with tire chains



Snaking on a wide road



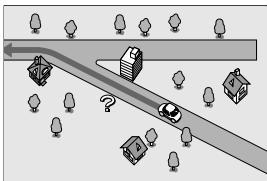
When your vehicle is on a turntable with the ignition turned off



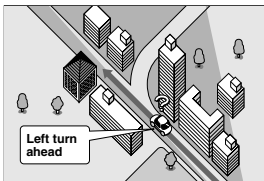
After getting off a ferryboat or vehicle train

## Route Guide

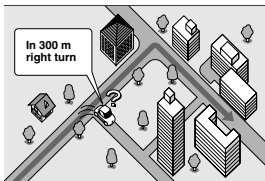
Although you may encounter the following problems in route guide, there is nothing wrong with the system.



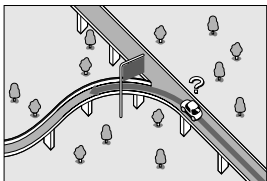
For certain intersection shapes, the upcoming turn or the name of the intersection may not be announced.



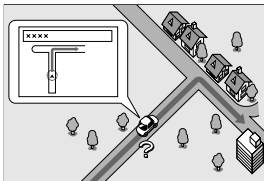
For certain intersection shapes, you may be prompted to turn right or left when you should actually stay on the same road.



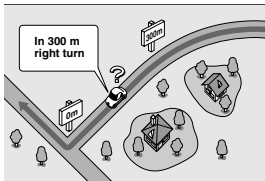
Voice guidance for the planned route may continue even after you have deviated from that route such as having turned too early.



Some points where the road divides on highways or toll roads may not be displayed or announced.



The Intersection Zoom Map may not always agree with the actual shape of the intersection.



The announced distance to an upcoming turn may differ slightly from reality.

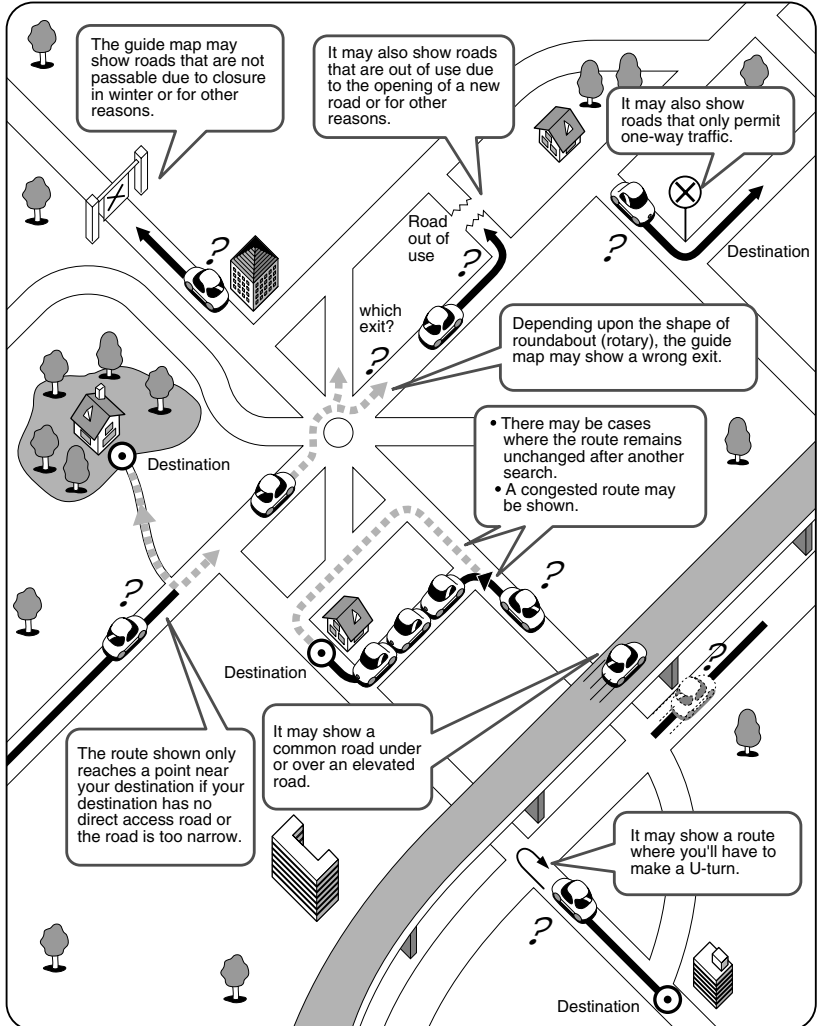
If necessary



The navigation system is just a support system for the driver. The driver should always pay attention to the traffic situation to safely make decisions. You may be unable to arrive at your destination due to out-of-date information on a map disc. You should be especially careful when selecting an urgent destination such as a hospital or a police station.

## Route Search

Although you may encounter the following problems in a route search, there is nothing wrong with the system.



If necessary

# Troubleshooting


Verification First

## Note

There may be some problems due to operational errors or mistakes. Please read this manual again and verify that there really is a problem before calling an Expert Dealer, we recommend an Authorized Mazda Dealer to ask for repair services.

Symptom	Check point
No picture	<ul style="list-style-type: none"><li>  Check if a fuse has blown.<ul style="list-style-type: none"><li>⇒ Consult an Expert Dealer, we recommend an Authorized Mazda Dealer.</li></ul></li></ul>
Display does not open or close	<ul style="list-style-type: none"><li>  Check if the voltage level of the vehicle battery is low.<ul style="list-style-type: none"><li>⇒ Recharge the battery or change batteries.</li></ul></li></ul>
The vehicle position is not correct	<ul style="list-style-type: none"><li>  Check if the vehicle position changed when ACC was set to OFF. When, for example,<ul style="list-style-type: none"><li>• The vehicle was transported by a ferry boat.</li><li>• The vehicle was rotated on a turn table in a parking lot.</li><li>• The vehicle was transported by a tow track or other such vehicle.<ul style="list-style-type: none"><li>⇒ Drive the vehicle for a while where you are receiving GPS signals.</li></ul></li></ul></li></ul>

If necessary

Symptom	Check point
No GPS symbols are displayed	<ul style="list-style-type: none"><li>  GPS signals may not be received because of obstructions. After moving the vehicle away from obstructions, the GPS signals can be received.</li></ul>
The vehicle position is not displayed	<ul style="list-style-type: none"><li>  Check if the mode is set to the current position screen. ⇒ Press <b>POS</b></li></ul>
No voice guidance	<ul style="list-style-type: none"><li>  Check if the volume control for the voice guidance has been turned off.</li><li>  Check if the vehicle is off the route. ⇒ Repeat the route search while checking the route guide screen.</li><li>  Check if you are driving the vehicle in the wrong direction on the route. ⇒ Repeat the route search checking the direction of the destination.</li></ul>
Buttons on the remote control do not beep	<ul style="list-style-type: none"><li>  Check if [Beep] is set to [Off] (  page 18).</li></ul>

# Troubleshooting

## Error Messages

Error message	Solution
<b>Please insert a MAP DVD.</b>	<ul style="list-style-type: none"><li>  The disc is not installed.<ul style="list-style-type: none"><li>⇒ Check if the disk is installed. If installed, check if the installed disk is correct.</li></ul></li></ul>
<b>MAP DVD-Read Error</b>	<ul style="list-style-type: none"><li>  The disc is wet, dirty, scratched, or upside down, or the disc cannot be played with this unit or the incorrect disk is installed.<ul style="list-style-type: none"><li>⇒ Eject the disc and check it.</li></ul></li></ul>
<b>The disc installed is not a MAP DVD.</b>	

# Maintenance

## Care of the Product

### n **Cleaning this product**

Use a dry, soft cloth to wipe it.

### n **Cautions for cleaning**

Never use solvents such as benzene and thinners, they could mar the surface of the unit.

### n **Map disc**

If you require the latest map disc, consult an Expert Dealer, we recommend an Authorized Mazda Dealer.

## Handling and Care of Map Discs

### n **How to hold the disc**

- | Do not touch the underside of the disc.
- | Do not scratch the disc.
- | Do not bend the disc.
- | When not in use, keep the disc in the case.

Label side



### n **Disc Cleaning**

- | Use a dry, soft cloth to wipe from the center outward.



<Right>



<Wrong>

### n **Do not leave discs in the following places:**

- | Direct sunlight
- | Near car heaters
- | In dirty, dusty and damp areas
- | On seats and dashboards



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