



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.

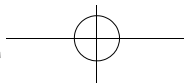
But as usual, children put it much better and simply call it "Go Zoom-Zoom."

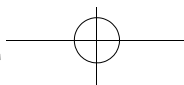
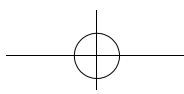
We practice it every day.

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

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

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

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

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

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

Mazda Motor Corporation
HIROSHIMA, JAPAN

Important Notes About This Manual

Keep this manual in the glove 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.

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.

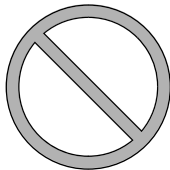
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How to Use This Manual

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.

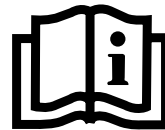
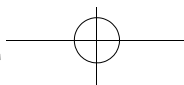
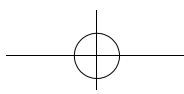


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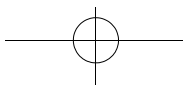


1 Your Vehicle at a Glance

Interior, exterior views and part identification of your Mazda.

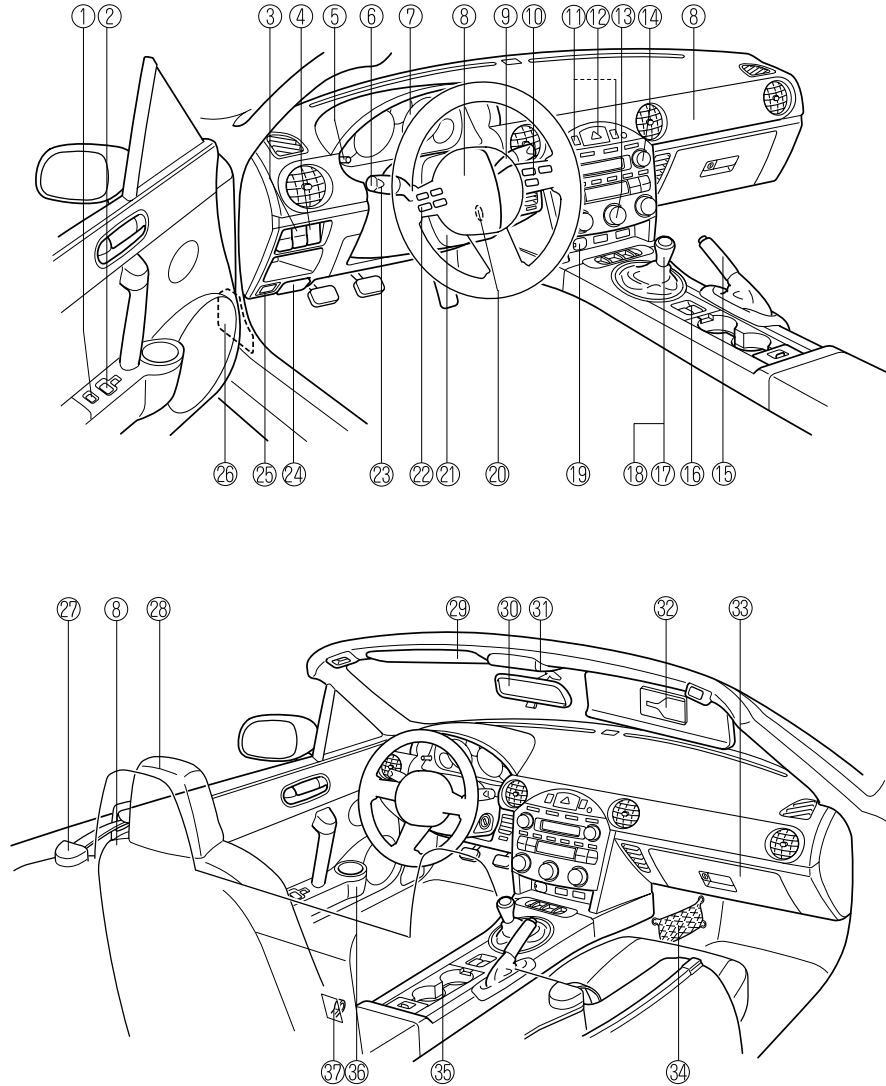
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Your Vehicle at a Glance

Dashboard and Interior Overview



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Your Vehicle at a Glance

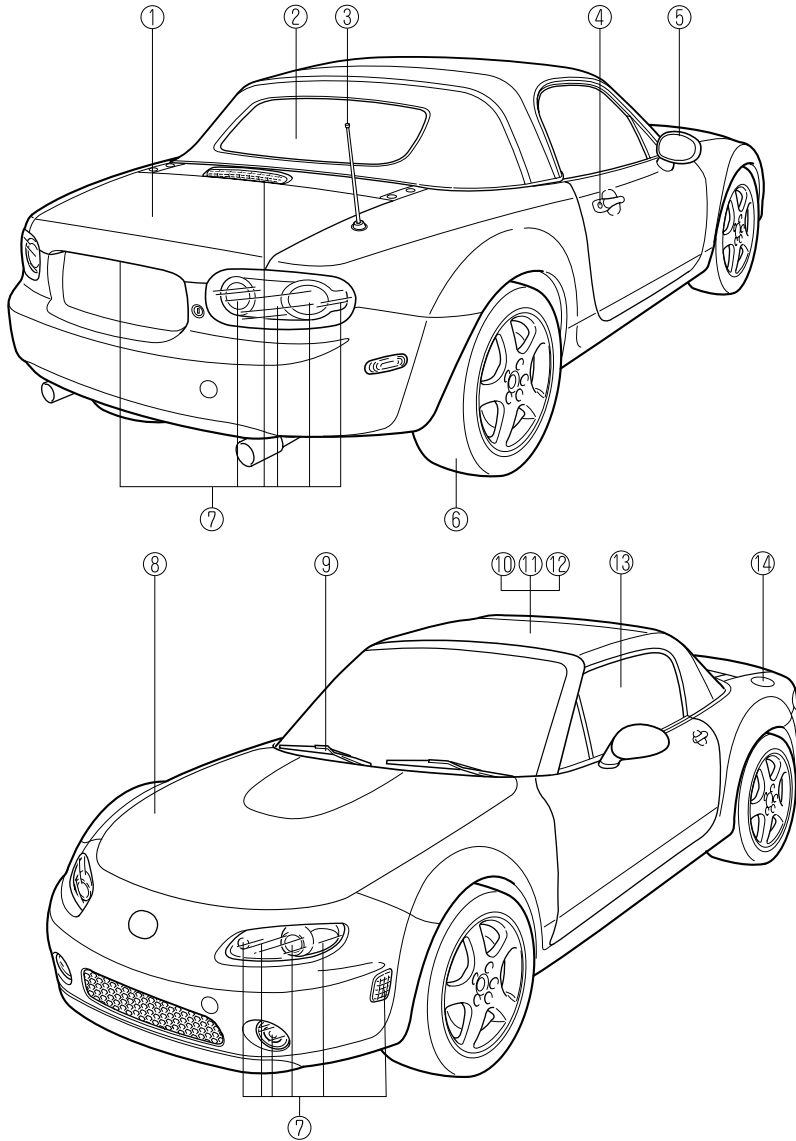
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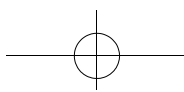
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Your Vehicle at a Glance

Exterior Overview

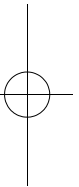
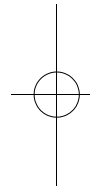


1-4 The equipment and installation position varies by vehicle

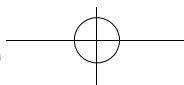


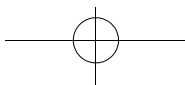
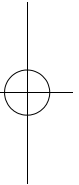
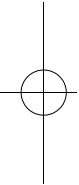
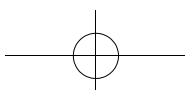
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2 Essential Safety Equipment

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

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Essential Safety Equipment

Seats

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.

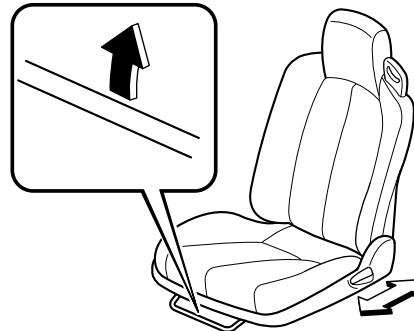
▼ Seat Slide

⚠ 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.

Essential Safety Equipment
Seats

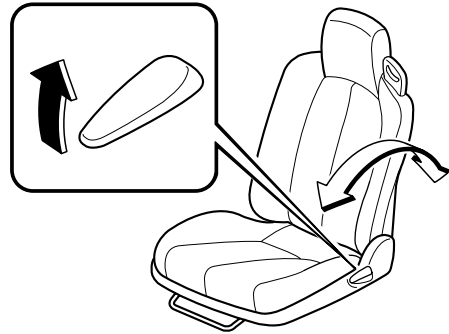
Always sit in a passenger seat properly with the seatback upright and feet on the floor:

If your vehicle is equipped with passenger seat weight sensors, sitting in the 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 passenger sensing system. As a result the 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.

CAUTION

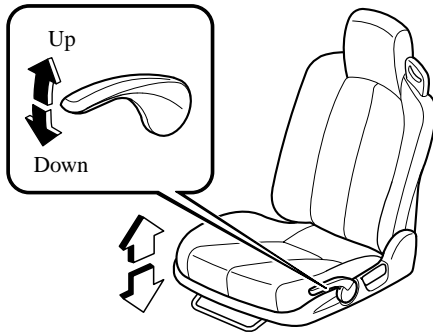
When returning a rear-reclined seatback to its upright position, make sure you hold onto the seatback with your other hand while operating the lever. If the seatback is not supported, it will flip forward suddenly and could cause injury.

Essential Safety Equipment

Seats

▼ Height Adjustment (Driver's Seat) *

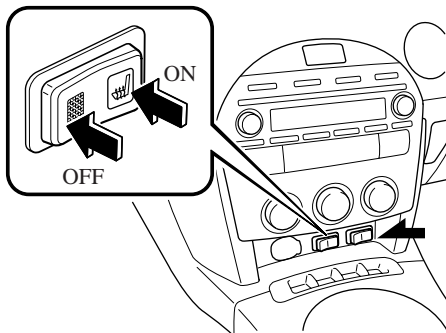
By moving the seat lever up or down, the seat bottom height can be adjusted.



▼ Seat Warmer *

The 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.

2-4 *Some models.



Essential Safety Equipment
Seat Belt Systems

Seat Belt Precautions

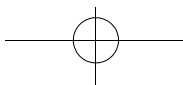
Seat belts help to decrease the possibility of severe injury during accidents and sudden stops. Mazda recommends that the driver and passenger always wear seat belts.

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 passenger's seat lap/shoulder belt retractors operate in two modes: emergency locking mode, and for child-restraint systems, automatic locking mode.

Your vehicle is equipped with LATCH lower anchors for securing the LATCH child-restraint system in the passenger seat but there is no child-restraint tether available. As there is no rear seat on this vehicle, the preferred location for children, following the manufacturer's instructions on the LATCH child restraint-system and this owner's manual is important (page 2-25).



Essential Safety Equipment

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.

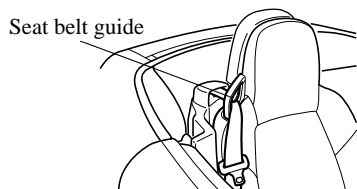
Have your seat belts changed immediately if the pretensioner or load limiter has been expended:

If the air bags deploy 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 seat belts inspected.

Essential Safety Equipment
Seat Belt Systems

CAUTION

Belt retraction may become difficult if the belts and seat belt guides 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 8-56).



▼ Pregnant Women and Persons with Serious Medical Conditions

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

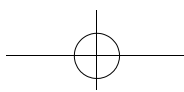
The lap belt should be worn **SNUGLY AND AS LOW AS POSSIBLE OVER THE HIPS**. The shoulder belt should be worn across your shoulder properly, but never across the stomach area.

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 to 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.

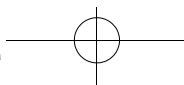


Essential Safety Equipment

Seat Belt Systems

▼ Automatic Locking Mode

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. If the LATCH lower anchors are not used alone for LATCH style junior seats and infant carriers without tethers, always use the automatic locking mode to keep the child-restraint system from shifting to an unsafe position in the event of an accident. See the section on child restraint (page 2-17).



Essential Safety Equipment
Seat Belt Systems

Seat Belt

⚠ WARNING

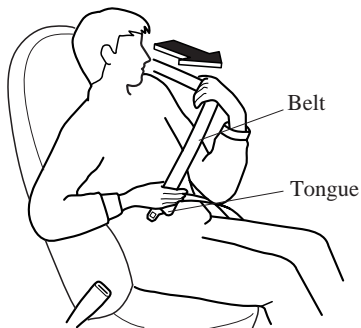
Always wear the seat belt with it correctly routed in its guide:

Wearing a seat belt without the seat belt routed in its guide is dangerous because the seat belt would not be able to provide adequate protection in an accident, which could result in serious injury.

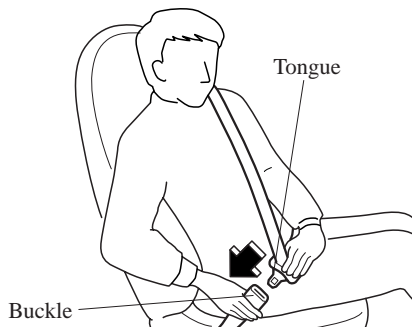


▼ Fastening the Seat Belt

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



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

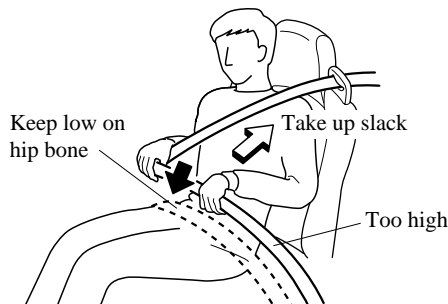


⚠ WARNING

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.



Essential Safety Equipment

Seat Belt Systems

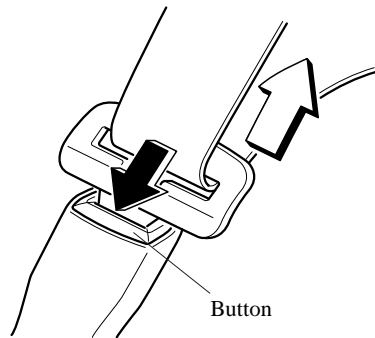
⚠ WARNING

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.



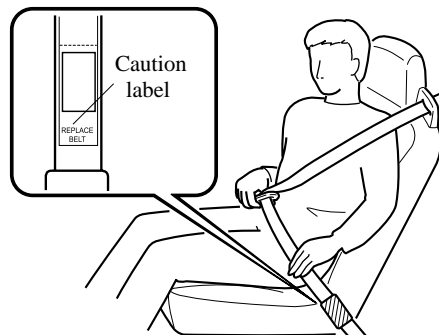
NOTE

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.

▼ Seat Belt Caution Label

A caution label has been placed inside the sleeve of the lap portion of the driver's seat belt. When an accident occurs while the seat belt is in use, the resulting stress on the seat belt will cause an indicator with the words "REPLACE BELT" visible on it to be pulled out of the sleeve below the caution label. This indicates that **THE SEAT BELT MUST BE REPLACED.**

Also note that if at any time the seat belt has undergone stress because of an accident or other reason, damage to the seat belt's webbing, metal fittings, or anchor bolt may have occurred, even though nothing appears to be wrong with the seat belt. For this reason we recommend that the seat belt be replaced after it has undergone stress, whether or not the indicator has been pulled out.



Essential Safety Equipment
Seat Belt Systems

Seat Belt Pretensioner and Load Limiting Systems

For optimum protection, the driver and 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 air bag and pretensioner systems deploy simultaneously. The seat belt retractors remove slack quickly as the air bags are expanding.

In addition, the pretensioner system for the passenger, like the passenger air bag, is designed to only deploy in accordance with the total seated weight on the passenger seat (page 2-38) or when the passenger air bag deactivation switch turned to the ON position (page 2-32). Any time the air bags and seat belt pretensioners have fired they must be replaced.

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 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 2-9).

Essential Safety Equipment

Seat Belt Systems

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

If the air bags deploy 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 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 passenger is designed to only deploy in accordance with the total seated weight on the 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 pretensioner system gets on the skin or in the eyes, wash it off as soon as possible.*

Essential Safety Equipment
Seat Belt Systems

▼ **Air Bag/Seat Belt Pretensioner System Warning Light**



If the air bag/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.

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.

Essential Safety Equipment

Seat Belt Systems

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.

Essential Safety Equipment
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**

NOTE

The belt minder can be deactivated. Consult an Authorized Mazda Dealer to deactivate and restore the seat belt minder.

Driver seated/Passenger not seated

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.

Essential Safety Equipment

Seat Belt Systems

Driver seated/Passenger seated

The seat belt warning function reminds the passenger to fasten the seat belt 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 (Driver)	○	○	×	×	○	○	×	×
Seat belt (Passenger)	○	×	○	×	○	×	○	×
Indicator			☼	☼	☼	☼	☼	
Beep					♪	♪	♪	

- : Fastened
- × : Unfastened
- ☼ : Illuminated
- ☼ : Flashing
- ♪ : Beep

Placing heavy items on the passenger seat may cause the passenger seat belt warning function to operate depending on the weight of the item.

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.

NOTE

- *To allow the passenger seat weight sensor to function properly, do not place and sit on an additional seat cushion on the passenger seat. The sensor may not function properly because the additional seat cushion could cause sensor interference.*
- *When a small child sits on the passenger seat, it is possible that neither the warning light nor the warning beep operate.*

Essential Safety Equipment
Child Restraint

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 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 .

A rear-facing child-restraint system should **NEVER** be used on the passenger seat with the air bag system activated.

If a small child or infant in the passenger seat — particularly a child secured in a rear-facing child-restraint system — it is critically important that you consciously deactivate the passenger air bag and not simply rely on the passenger air bag deactivation indicator light being turned on at all times. In a collision, the force of an air bag slamming the child-restraint system rearwards could result in death to the child even if the child is properly belted. Be alert to the operation of the indicator light and **BE SURE THE PASSENGER AIR BAG IS ALWAYS DEACTIVATED AS INDICATED BY PASSENGER AIR BAG DEACTIVATION INDICATOR LIGHT.**

Passenger air bag deactivation indicator light



Essential Safety Equipment

Child Restraint

To reduce the chance of injuries caused by the deployment of the passenger air bag, there are two methods to deactivate the passenger air bag for a child's safety as follows — however the surest way to avoid the passenger air bag not deploying is to use the key and turn off the passenger air bag and not rely on the passenger seat weight sensors, which will also detect other loads or objects on and around the passenger seat;

Passenger air bag deactivation switch

This switch should be used to deactivate the passenger front and side air bags and also the passenger seat belt pretensioner system if installing a child-restraint system is installed on the passenger seat.

Make sure the front passenger air bag deactivation switch is in the ON position except when a child-restraint system is installed on the front passenger seat.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

Passenger seat weight sensors

These sensors deactivate the passenger front and side air bags and also the passenger seat belt pretensioner system when the total seated weight on the passenger seat is less than approximately 30 kg (66 lb).

When an infant or small child is seated on the passenger seat, the system shuts off the passenger air bag, so make sure the passenger air bag deactivation indicator light illuminates.

Refer to Passenger seat weight sensors on page 2-38.

LATCH Child-Restraint System

We have installed lower LATCH anchor points for LATCH style junior seats and infant carriers that work without tethers only. Any other child-restraint system that has an upper tether cannot be used in this vehicle because there is no tether anchor. A child-restraint system with a tether cannot be properly mounted in this vehicle unless the child restraint manufacturer provides instructions on mounting the child-restraint system with only seat belts in automatic locking mode. Even then, without a tether, the child-restraint system may move forward more easily in seat belts, further degrading the safety provided if you were to put the child restraint in a tether anchor equipped rear seat of another vehicle. The seat and head restraint is designed for maximum adult space utilization in this vehicle. Do not try to secure the tether to something else in the vehicle, as too much slack will result and the serious risk of injury or death to the child. Use the seat belts to properly secure the non-tethered child-restraint systems other than the LATCH junior seats and non-tethered infant carriers. Turn off the passenger air bag deactivation switch. To expose and use the lower LATCH anchor points, which are affixed to the body and not the seat, slide the seat all the way rearward which is the optimal vehicle seat position for all children in this two seat car.

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.

2-18

Essential Safety Equipment
Child Restraint

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.

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

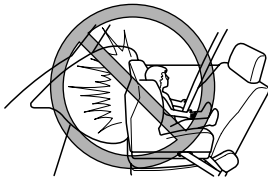
Holding a child in your arms while the vehicle is moving is extremely dangerous. No matter how strong the person may be, he or she cannot hold onto a child in a sudden stop or collision and it could result in serious injury or death to the child or other occupants. Even in a moderate accident, the child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

Always make sure the passenger air bag deactivation indicator light is illuminated when using a rear-facing child-restraint system:

Seating a child in a rear-facing child-restraint system that is installed on the passenger seat with the passenger air bag deactivation indicator light not illuminated is extremely dangerous. In an accident, a air bag could inflate and cause serious injuries or even death to the child seated in the rear-facing child-restraint system. Always make sure the passenger air bag deactivation indicator light is illuminated using the key to turn the passenger air bag off.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

Refer to Passenger seat weight sensors on page 2-38.



Essential Safety Equipment

Child Restraint

Seating a child in a child-restraint system on the front passenger seat is dangerous:

This vehicle is equipped with both a passenger seat weight sensor and a passenger air bag deactivation indicator light (page 2-38). Even with the passenger seat weight sensors, seating a child in a child-restraint system on the passenger seat under the following conditions increases the danger of the passenger air bag deploying and could result in serious injury or death to the child. These are among the reasons why the passenger air bag should be turned off using the key.

- *The total seated weight of the child with the child-restraint system on the 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.*
- *The seat is washed.*
- *Liquids are spilled on the seat.*
- *The passenger seat is moved backward, and it is pushed into luggage or other items placed behind it.*
- *Luggage or other items are placed between the passenger seat and center console.*
- *Any accessories, which might increase the total seated weight on the passenger seat, are attached to the passenger seat.*

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

Allowing anyone to lean over or against the door is dangerous. If the vehicle is equipped with side air bags, the impact of an inflating side air bag could cause serious injury or death to the person. Children are more likely to sleep in the vehicle; when they do, they are more at risk in the passenger's seat that has a side air bag because they may slump over into the path of the seatback-mounted air bag. Furthermore, leaning over or against the doors could block the side air bag and eliminate the advantages of supplemental protection. Because the side air bag deploys from the outboard shoulder of the seat, do not allow the child to lean over or against the side window, even if the child is seated in a child-restraint system.

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

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

Always use a child-restraint system designed for use without a tether:

Using a child-restraint system that requires a tether is dangerous. Your Mazda does not have a child-restraint tether. The child-restraint system cannot be properly secured. In a collision, it could move and injure other occupants as well as result in serious injuries or death to the child.



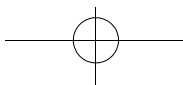
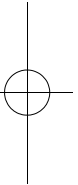
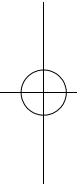
Essential Safety Equipment
Child Restraint

CAUTION

A seat belt or child-restraint system can become very hot when exposed to direct sunlight 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 behind the passenger seat that slide through the passenger seat when it is in the fully rearward position. When using these anchors to secure a child-restraint system, refer to "LATCH Child-Restraint Systems" (page 2-25).



Essential Safety Equipment

Child Restraint

Installing a Child-Restraint System

The passenger lap/shoulder belt can easily be converted into the automatic locking mode, which must be done to hold the child-restraint system.

Some child-restraint systems also employ specially designed LATCH attachments; refer to “LATCH Child-Restraint Systems” (page 2-25).

Follow these manufacturer's instructions when installing a child-restraint system on the passenger's seat, unless you are attaching a LATCH-equipped child-restraint system to the LATCH lower anchors. Refer to “LATCH Child-Restraint Systems” (page 2-25).

NOTE

Follow the child-restraint system manufacturer's instructions carefully. If you are not sure whether you have a LATCH system, 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, however if it uses an upper tether, it may not be mounted properly in this vehicle as there is no safe way to anchor the tether. Confirm whether the child-restraint system can be used with seat belts by reading the child-restraint system manufacturer's instructions.

Before installing a child-restraint system, make sure the passenger air bag deactivation indicator light illuminated by using the key to turn the passenger air bag off.

Refer to Passenger seat weight sensors on page 2-38.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

1. Make sure to remove articles from behind the passenger seat that would prevent the seat from sliding back fully, and then slide the seat as far back as possible.



2. Secure the child-restraint system with the lap portion of the lap/shoulder belt. See the 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.

Essential Safety Equipment
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 automatic locking mode. If the belt does not lock the seat down tight, repeat this step.
5. Make sure the passenger air bag deactivation indicator light illuminates by using the key to turn the passenger air bag off after installing a child-restraint system on the passenger seat.



! WARNING

Always make sure the passenger air bag deactivation indicator light is illuminated when using a rear-facing child-restraint system:

Seating a child in a rear-facing child-restraint system that is installed on the passenger seat with the passenger air bag deactivation indicator light not illuminated is extremely dangerous. In an accident, a air bag could inflate and cause serious injuries or even death to the child seated in the rear-facing child-restraint system. Always make sure the passenger air bag deactivation indicator light is illuminated using the key to turn the passenger air bag off.

Refer to Passenger seat weight sensors on page 2-38.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

Essential Safety Equipment

Child Restraint

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, however if it uses an upper tether, it may not be mounted properly in this vehicle as there is no safe way to anchor the tether. Confirm whether the child-restraint system can be used with seat belts by reading the child-restraint system manufacturer's instructions.*

Essential Safety Equipment
Child Restraint

LATCH Child-Restraint System

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems behind the passenger seat that slide through the passenger seat when it is in the fully rearward position. Only LATCH junior seats and infant carriers without upper tethers can be used in this position, as there is no good place to anchor the tether due to this vehicle's design. Both anchors must be used when installing these lower anchor only child-restraint systems, otherwise the seat will bounce around and put the child in danger.

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 any child-restraint system does not rely on an upper tether and then properly secure those non-tethered seats according to the child-restraint system manufacturer's instructions.

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.

Essential Safety Equipment

Child Restraint

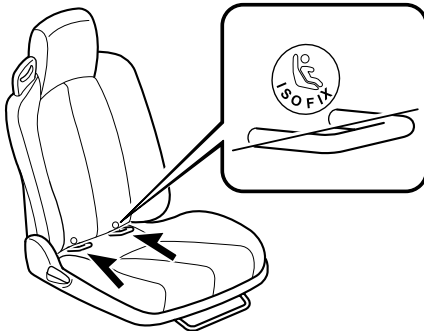
▼ LATCH Child-Restraint System Installation Procedure

Before installing a child-restraint system, make sure the passenger air bag deactivation indicator light illuminated by using the key to turn the passenger air bag off.

Refer to Passenger seat weight sensors on page 2-38.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

1. Make sure to remove articles from behind the passenger seat that would prevent the seat from sliding back fully, and then slide the seat as far back as possible to insert the LATCH lower anchors between the seat bottom and the seatback.
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 the 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, however if it uses an upper tether, it may not be mounted properly in this vehicle as there is no safe way to anchor the tether. Confirm whether the child-restraint system can be used with seat belts by reading the child-restraint system manufacturer's instructions.
4. Make sure the passenger air bag deactivation indicator light illuminates by using the key to turn the passenger air bag off after installing a child-restraint system on the passenger seat.



Essential Safety Equipment
Child Restraint

⚠ WARNING

Always make sure the passenger air bag deactivation indicator light is illuminated when using a rear-facing child-restraint system:

Seating a child in a rear-facing child-restraint system that is installed on the passenger seat with the passenger air bag deactivation indicator light not illuminated is extremely dangerous. In an accident, a air bag could inflate and cause serious injuries or even death to the child seated in the rear-facing child-restraint system. Always make sure the passenger air bag deactivation indicator light is illuminated using the key to turn the passenger air bag off.

Refer to Passenger seat weight sensors on page 2-38.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

Essential Safety Equipment

SRS Air Bags

Supplemental Restraint Systems (SRS) Precautions

The front and side supplemental restraint systems (SRS) include up to 4 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 passenger dashboard (passenger air bag)
- The outboard sides of the seatbacks (side air bags) *

These systems operate independently depending on the type of accident encountered; if you have side air bags, the side 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 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 in certain situations, so seat belts are always important in the following ways:

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

- Keep the occupant from being thrown into an inflating air bag.
- Reduce the possibility of injuries during an accident that is not designed for air bag inflation, such as 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 2-17).

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.

Do not use a child-restraint system which employs an upper tether because there is no appropriate means to anchor the tether.

2-28 *Some models.

Essential Safety Equipment
SRS Air Bags

⚠ WARNING

Seat belts must be worn in air bag equipped vehicles:

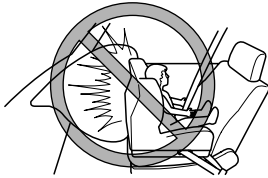
Depending only on the air bags for protection during an accident is dangerous. Alone, air bags may not prevent serious injuries. The appropriate air bags can be expected to inflate only in the first collision with frontal, near frontal or side forces that are at least moderate. Vehicle occupants should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

Always make sure the passenger air bag deactivation indicator light is illuminated when using a rear-facing child-restraint system:

Seating a child in a rear-facing child-restraint system that is installed on the passenger seat with the passenger air bag deactivation indicator light not illuminated is extremely dangerous. In an accident, a air bag could inflate and cause serious injuries or even death to the child seated in the rear-facing child-restraint system. Always make sure the passenger air bag deactivation indicator light is illuminated using the key to turn the passenger air bag off.

Refer to Passenger Air Bag Deactivation Switch on page 2-32.

Refer to Passenger seat weight sensors on page 2-38.



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

Sitting too close to the driver and passenger air bag modules or placing hands or feet on them is extremely dangerous. The driver and 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 seat passenger should keep both feet on the floor. Seat occupants should adjust their seats as far back as possible and always sit upright against the seatbacks with seat belts worn properly.

Essential Safety Equipment

SRS Air Bags

Do not sit too close to a front door or lean against doors in vehicles with side air bags:

Sitting too close to the side air bag modules or placing hands on them is extremely dangerous. A side air bag inflates with great force and speed directly out of the outboard shoulder of the seat and expands along the door on the side the car is hit. Serious injury could occur if someone is sitting too close to the door or leaning against a window in the seats. Furthermore, sleeping up against the door or hanging out the driver's-side window while driving could block the side air bag and eliminate the advantages of supplemental protection. Give the side 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 passenger air bags deploy:

Attaching an object to the driver and 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 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 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. Never use seat covers on the seats. Always keep the side air bag modules in your seats free to deploy in the event of a side collision.

Do not place luggage or other objects under the seats:

Placing luggage or other objects under the 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 seats.

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.

Essential Safety Equipment
SRS Air Bags

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. 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.*

Essential Safety Equipment
SRS Air Bags

Passenger Air Bag Deactivation Switch

⚠ WARNING

Do not deactivate the passenger air bag unnecessarily:

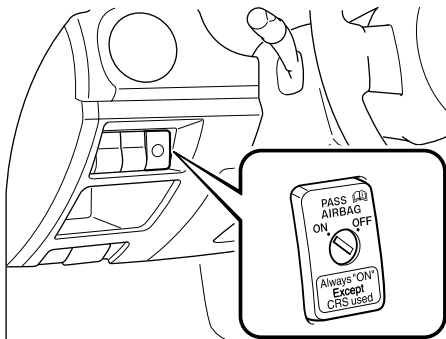
Unnecessary deactivation of the passenger air bag is dangerous. If turned off unnecessarily, the passenger will not receive the added protection of the air bag. Serious injuries or even death could occur. With the exception of passengers fitting the categories described below, do not turn the air bag deactivation switch to the OFF position.

Your vehicle is equipped with a passenger air bag deactivation switch. The switch is located in the position shown in the figure below. The switch must be used to deactivate the passenger front and side air bags and also the passenger seat belt pretensioner system when the occupant of the passenger seat fits into one of the following categories (as described in the request form for the passenger air bag deactivation switch, the appendix B to part 595 of National Highway Traffic Safety Administration [NHTSA]):



- Infants (less than one year old; for all types of restraint, but particularly the rear-facing child restraint.)
- Children aged 1 to 12
- People with certain medical conditions which, according to his/her physician, could be adversely affected by air-bag activation

For more government release information on air bag deactivation, contact an Authorized Mazda Dealer for the occupant categories as described in the request form for the air bag deactivation switch in the NHTSA rules.

The air bag deactivation switch turns off the passenger front and side air bags and the also seat belt pretensioner system. Make sure the passenger air bag deactivation switch is in the ON position except when a passenger fitting the previous categories occupies the front passenger seat.



Essential Safety Equipment
SRS Air Bags

Passenger Air Bag Deactivation Switch	Passenger Air Bag Deactivation Indicator Light	Passenger Front and Side Air Bag Operation	Passenger Seat Belt Pretensioner System
OFF position 	ON	Deactivate	Deactivate
ON position 	OFF	Ready	Ready

When the ignition switch is turned to the ON position, the passenger air bag deactivation indicator light comes on for a specified period of time.

If the passenger air bag deactivation switch is in the OFF position, the indicator light remains on to warn that the passenger front and side air bags and also the seat belt pretensioner system have been deactivated.

In addition to using the key to deactivate the passenger front and side air bags and the also seat belt pretensioner system, the passenger front and side air bags and the also seat belt pretensioner system is also deactivated and the passenger air bag deactivation indicator light is illuminated automatically when the total seated weight on the passenger seat is less than 30 kg (66 lb).



NOTE

Have the passenger air bag deactivation switch inspected by an Authorized Mazda Dealer if any of these conditions occur:

- The indicator light does not illuminate for a specified period of time when the ignition switch is turned to the ON position.
- The indicator light does not remain on when the ignition switch is in the ON position and the passenger air bag deactivation switch is in the OFF position.
- The indicator remains on when the ignition switch is in the ON position and the passenger air bag deactivation switch is in the ON position.

Essential Safety Equipment

SRS Air Bags

▼ To Deactivate the Passenger Air Bag

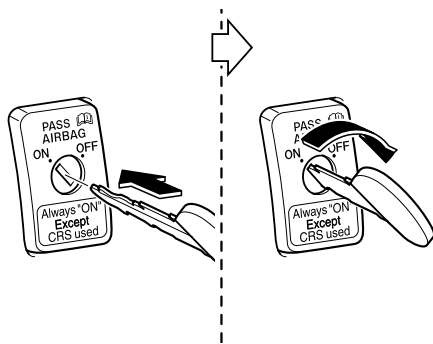
Before driving, always confirm that the passenger air bag deactivation switch is in the appropriate position according to your requirements (page 2-32).

⚠ WARNING

Do not leave the key in the passenger air bag deactivation switch:

Unintentional deactivation of the passenger air bag is dangerous. In an accident, the passenger will not be properly protected. Serious injuries or even death could occur. To avoid unintentional deactivation, always use the same key to operate the passenger air bag deactivation switch and the ignition switch, that way you will not leave the key in the passenger air bag deactivation switch.

1. Insert the key into the passenger air bag deactivation switch and turn the key clockwise until the key points to OFF.



2. Remove the key.
3. Make sure the air bag deactivation indicator light remains illuminated when the ignition is in the ON position.

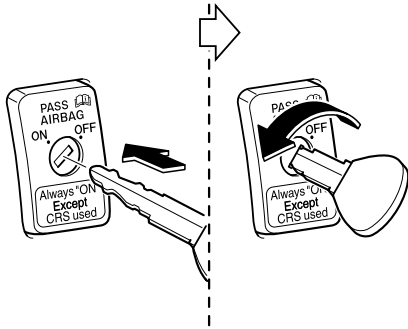
The passenger front and side air bags and also the seat belt pretensioner system will remain deactivated until the passenger air bag deactivation switch is turned to the ON position.

Essential Safety Equipment
SRS Air Bags

▼ **To Ready the Passenger Air Bag**

Before driving, always confirm that the passenger air bag deactivation switch is in the appropriate position according to your requirements (page 2-32).

1. Insert the key into the passenger air bag deactivation switch and turn the key counterclockwise until the key points to ON.



2. Remove the key.
3. Make sure the air bag deactivation indicator light turns off after the ignition switch is turned to the ON position.

Essential Safety Equipment

SRS Air Bags

Supplemental Restraint System Components

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

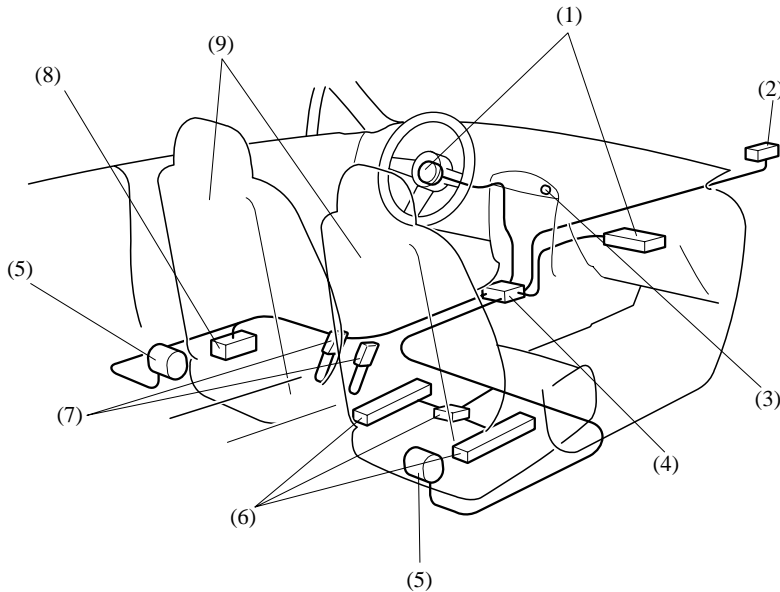
- The air bag system with inflators and air bags.
- The electrical system with crash sensors and diagnostic module.

The air bags are mounted in the following locations:

- The steering wheel hub
- The passenger dashboard
- The outboard sides of the seatbacks *

The air bags are out of sight until activated.

▼ Front Air Bag System Components

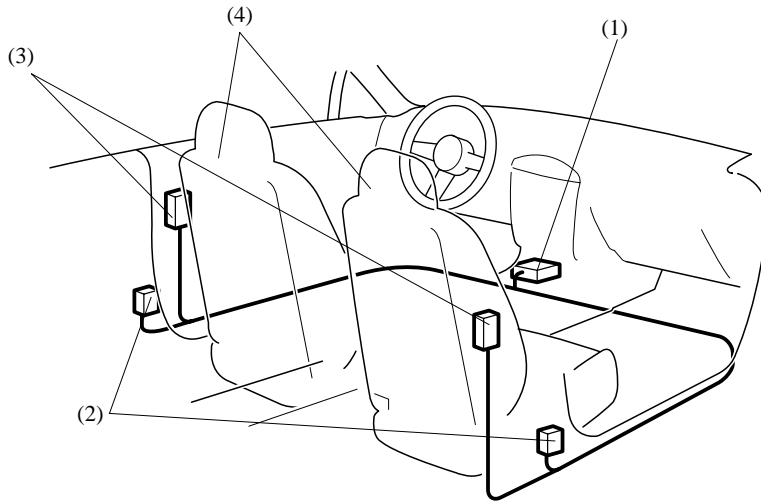


- (1) Front dual stage inflators and air bags
- (2) Front crash sensor
- (3) Passenger air bag deactivation indicator light (page 2-38)
- (4) Crash sensor and diagnostic module (SAS unit)
- (5) Seat belt pretensioner and load limiting systems (page 2-11)
- (6) Passenger seat weight sensors (page 2-38)
- (7) Driver and passenger seat belt buckle switches (page 2-38)
- (8) Driver seat slide position sensor (page 2-38)
- (9) Seats

2-36 *Some models.

Essential Safety Equipment
SRS Air Bags

▼ **Side Air Bag System Components ***



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

*Some models. **2-37**

Essential Safety Equipment

SRS Air Bags

How the Air Bags Work

▼ How the Front Air Bags Work

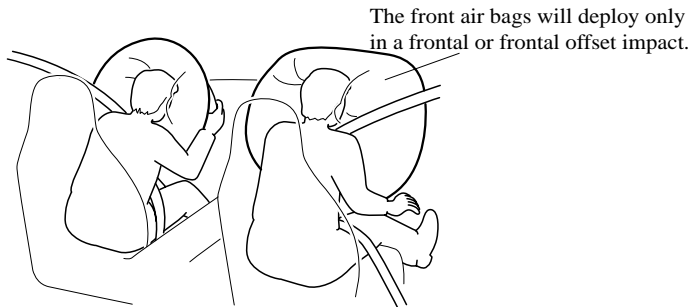
When air bag crash sensors detect a frontal impact of greater than moderate force, an electrical current is sent to the inflators.

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 sensor 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/seat belt pretensioner system warning light flashes if the sensor has a possible malfunction (page 2-45).

Essential Safety Equipment
SRS Air Bags

Passenger seat weight sensors

Your vehicle is also equipped with the passenger air bag deactivation indicator light. The deactivation indicator light illuminates when the key is used to turn the passenger air bag off or the automatic function operates based on the passenger seat weight sensors. These sensors are located under both of the passenger seat rails. These sensors determine the total seated weight on the passenger seat. The SAS unit is designed to prevent the 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 passenger air bag, the system deactivates the passenger front and side air bags and also the seat belt pretensioner system when:

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

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

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

Passenger air bag deactivation indicator light

This indicator light illuminates to remind you that the passenger front and side air bags and seat belt pretensioner will not deploy during a collision.



Essential Safety Equipment
SRS Air Bags

If the 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.

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

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

If the passenger air bag has been deactivated using the key, the passenger air bag deactivation indicator light will remain illuminated as long you leave the passenger air bag turned off, and the chart above no longer applies. Refer to Passenger air bag deactivation switch on page 2-32.

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

If the 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 passenger seat and consult an Authorized Mazda Dealer as soon as possible. The system may not work properly in an accident. You must deactivate the passenger air bag using the key (page 2-32) and consult an Authorized Mazda Dealer.

⚠ WARNING

Do not decrease the total seated weight on the front passenger seat:

When an adult or large child sits on the passenger seat, decreasing the total seated weight on the passenger seat from the total seated weight of approximately 42 kg (93 lb) required for air bag deployment is dangerous. The passenger seat weight sensors will detect the reduced total seated weight condition and the passenger front and side air bags and seat belt pretensioner system will not deploy during an accident. The passenger will not have the supplementary protection of the air bag, which could result in serious injury. Decreasing the total seated weight on the 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:

- *Luggage or other items placed under the passenger seat or between the passenger seat and center console that push up the passenger seat bottom.*
- *The passenger seat occupant sits in a manner such that the occupant's entire weight is not placed on the seat sitting too close to the door.*
- *Any accessories which might decrease the total seated weight on the passenger seat are attached to the passenger seat.*

The passenger front and side air bags and seat belt pretensioner systems will deactivate if the total seated weight on the passenger seat is close to 30 kg (66 lb) and they will reactivate before the weight exceeds 42 kg (93 lb).

Essential Safety Equipment
SRS Air Bags

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

When an infant or small child sits on the passenger seat, increasing the total seated weight on the passenger seat from the total seated weight of approximately 30 kg (66 lb) is dangerous. The passenger seat weight sensors will detect the increased total seated weight, which could result in the unexpected deployment of the 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 passenger seat beyond the total seated weight of approximately 30 kg (66 lb) could result in the passenger front and side air bags and seat belt pretensioner system deployment in an accident under the following conditions, for example:

- *The total seated weight of the child with the child-restraint system on the passenger seat is approximately 30 kg (66 lb) or more.*
- *Luggage or other items are placed on the seat with the child in the child-restraint system.*
- *The seat is washed.*
- *Liquids are spilled on the seat.*
- *The passenger seat is moved backward, and it is pushed into luggage or other items placed behind it.*
- *Luggage or other items are placed between the passenger seat and center console.*
- *Any accessories which might increase the total seated weight on the passenger seat are attached to the passenger seat.*

The passenger front and side air bags and seat belt pretensioner systems will deactivate if the total seated weight on the 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 seat bottoms:*
 - *Do not place sharp objects on the seat bottoms or leave heavy luggage on them.*
 - *Do not spill any liquids on the seats or under the seats.*
- *To allow the sensors to function properly, always perform the following:*
 - *Adjust the 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 passenger seat, secure the child-restraint system properly and slide the passenger seat as far back as possible.*

Essential Safety Equipment

SRS Air Bags

NOTE

- The system requires about 10 seconds to alternate between turning the passenger front and side air bags and seat belt pretensioner system on or off.
- The passenger air bag deactivation indicator light may illuminate repeatedly if luggage or other items are put on the passenger seat, or if the temperature of the vehicle's interior changes suddenly.
- The passenger air bag deactivation indicator light may illuminate for 10 seconds if the total seated weight on the passenger seat changes.
- You must deactivate the passenger air bag using the key (page 2-32) and consult an Authorized Mazda Dealer.

Driver and passenger buckle switches

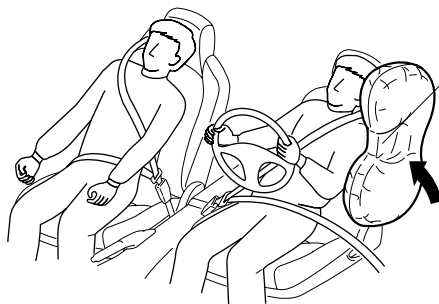
The buckle switches on the seat belts detect whether or not the seat belts are securely fastened and further control the deployment of the air bags.

▼ How the Side 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 air bags and after the inflation, the side air bags quickly deflate. However, the side air bag system for the passenger is designed to only deploy in accordance with the total seated weight on the passenger seat.

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



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

▼ Air Bag Activation/Deactivation

NOTE

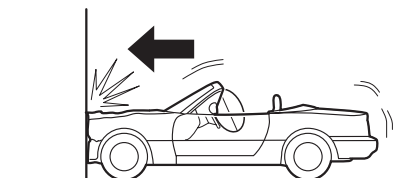
If the passenger seat weight sensors detect a total seated weight on the passenger seat is less than approximately 42 kg (93 lb), the passenger front and side air bags and seat belt pretensioner may not deploy (page 2-38).

Essential Safety Equipment
SRS Air Bags

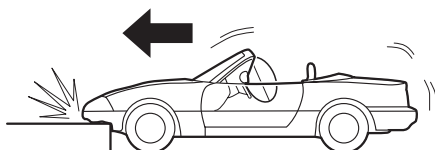
Front air bag activation

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

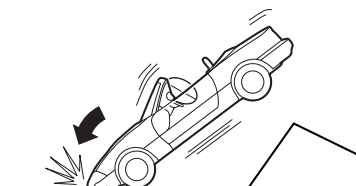
- Hitting a solid wall straight on at greater than about 22 km/h (14 mph).



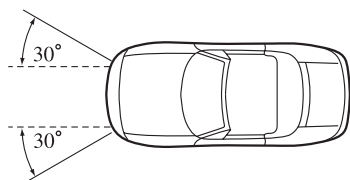
- Hitting a curb, pavement edge or hard object.



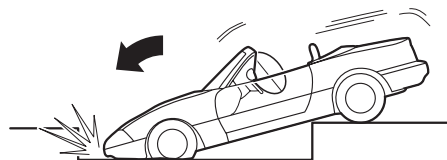
- Landing hard or the vehicle falling.



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



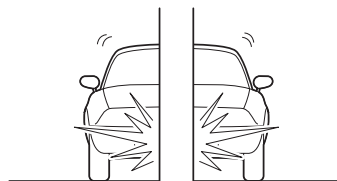
- Driving into a big hole or hitting the far side of a hole.



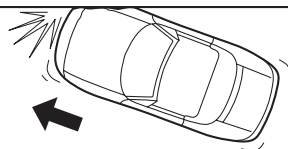
Limitations to front air bag activation

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.



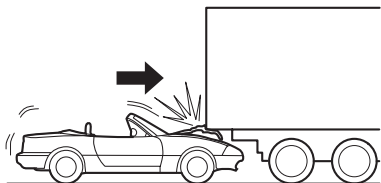
- Frontal offset impact to the vehicle may not provide the stopping force necessary for air bag deployment.



Essential Safety Equipment

SRS Air Bags

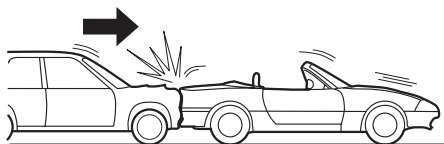
- Rear-ending or running under a truck's tail gate may not provide the stopping force necessary for air bag deployment.



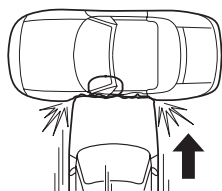
Non-activation of front air bags

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 air bags.

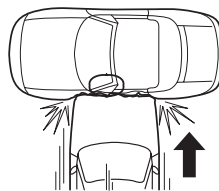


- Vehicle roll-over, may deploy the side air bags but not the front air bags.



Side air bag activation *

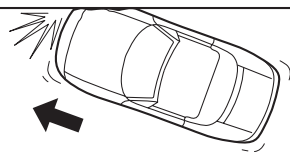
The severity of impact above the designed threshold level to one side of the vehicle (driver or passenger side areas) will cause a side air bag on that side to inflate, but it will not normally deploy the front air bags.



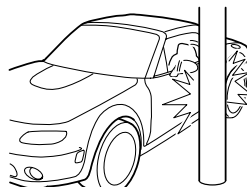
Limitations to side air bag activation *

Depending on the severity of impact, a side air bag may not inflate in the following cases:

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



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



Essential Safety Equipment SRS Air Bags

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



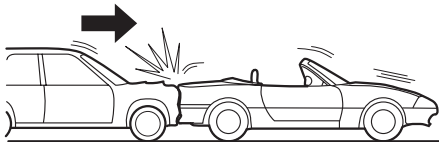
- Side impacts with two-wheeled vehicles may not provide enough force to deploy the side air bags.



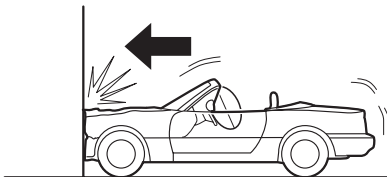
Non-activation of side air bag *

A side air bag 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
- Crash sensor
- Air bag modules
- Side crash sensors *
- Air bag/Seat belt pretensioner system warning light
- Seat belt pretensioners
- Related wiring
- Front passenger air bag deactivation switch
- Driver seat slide position sensor
- Front passenger seat weight sensors
- Driver and front passenger seat belt buckle switches

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/Seat Belt Pretensioner System Warning Light**



If the air bag/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.

*Some models. **2-45**

Essential Safety Equipment

SRS Air Bags

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.

- 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 or when you manually deactivate the passenger air bag with the key.

For more details about passenger air bag deactivation, refer to:

- Passenger seat weight sensors (page 2-38)
- Passenger air bag deactivation switch (page 2-32)

Essential Safety Equipment
SRS Air Bags

⚠ 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:

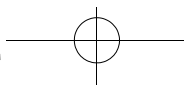
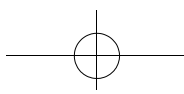
Removing any components such as the seats, dashboard, the steering wheel or parts containing air bag parts or sensors is dangerous. These parts contain essential air bag components. The air bag could accidentally activate and cause serious injuries. Always have an Authorized Mazda Dealer remove these 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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*Some models. **3-1**

Knowing Your Mazda

Advanced Keyless Entry and Start System

Advanced Keys *

The advanced keyless functions (advanced keyless entry and start system) enables the following operations while the advanced key is being carried (page 3-7).

- Locking/unlocking the doors, and opening the trunk lid, without operating the key.
- Starting the engine without operating the key.

The advanced key enables additional functions other than those with the advanced keyless functions (page 3-14).

- The following operations are possible using the transmitter of the keyless entry system from a distance (Lock/Unlock/Trunk/Panic button):
 - Locking/unlocking the doors.
 - Opening the trunk lid.
 - Opening the power windows.
 - Turning on the alarm.
- Locking/unlocking the doors, opening the trunk lid, or starting the engine using the auxiliary key.

⚠ 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.

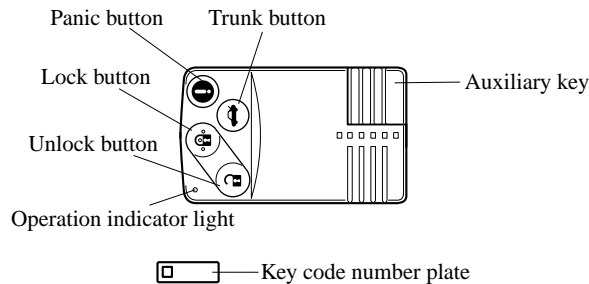
Radio waves from the advanced key may affect medical equipment such as pacemakers:

Before using the advanced key near people who use medical equipment, ask the medical equipment manufacturer or your physician if radio waves from the advanced key will affect the equipment.

NOTE

- *The driver must carry the advanced key to ensure the system functions properly.*
- *Refer to Immobilizer System (page 3-67) for information regarding keys and engine starting.*
- **(With theft-deterrent system)**
Refer to Theft-Deterrent System (page 3-72) for information regarding keys and the prevention of vehicle and vehicle contents theft.

Advanced Keyless Entry and Start System



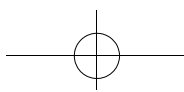
A code number is stamped on the plate attached to the key set; detach this plate and store it in a safe place (not in the vehicle) for use if you need to make a replacement key.

Also write down the code number and keep it in another safe and handy place, but not in the vehicle.

If your key is lost, consult your Authorized Mazda Dealer with the code number ready.

CAUTION

- *Because the advanced key uses low-intensity radio waves, it may not function correctly under the following conditions:*
 - *The advanced key is carried with communication devices such as cellular phones.*
 - *The advanced key contacts or is covered by a metal object.*
 - *The advanced key is near electronic devices such as personal computers.*
 - *Non-Mazda genuine electronic equipment is installed in the vehicle.*
 - *There is equipment which discharges radio waves near the vehicle.*
 - *If the vehicle is near equipment such as wireless pay devices installed at certain gas stations.*
- *The advanced key may consume battery power excessively if it receives high-intensity radio waves. Do not place the advanced key near electronic devices such as televisions or personal computers.*
- *To avoid damage to the advanced key, DO NOT:*
 - *Drop the advanced key.*
 - *Get the advanced key wet.*
 - *Disassemble the advanced key.*
 - *Expose the advanced key to high temperatures on places such as the dashboard or hood, under direct sunlight.*
 - *Place heavy objects on the advanced key.*
 - *Put the advanced key in an ultrasonic cleaner.*
 - *Put any magnetized objects close to the advanced key.*

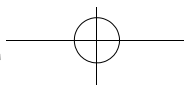


Knowing Your Mazda

Advanced Keyless Entry and Start System

NOTE

- *Battery life is about one year. Replace the battery when the KEY indicator light (green) flashes in the instrument cluster.
Refer to Advanced Key Battery Dead Warning on page 3-18.*
- *Additional advanced keys can be obtained at an Authorized Mazda Dealer. Up to 6 advanced keys can be used with the advanced keyless functions per vehicle.*



Advanced Keyless Entry and Start System

▼ Advanced Key Maintenance

⚠ CAUTION

- *Make sure the battery is installed with the correct pole facing upward. 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 (CR2025 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 or water.*
 - *Never deform or crush.*

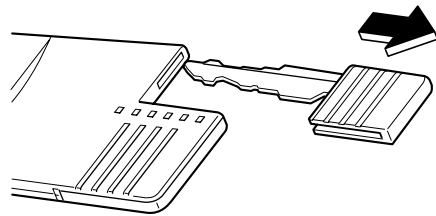
The following conditions indicate that the battery power is low:

- The KEY indicator light (green) flashes in the instrument cluster when the engine is turned off.
- The system does not operate and the operation indicator light on the transmitter does not flash when the buttons are pressed.
- The system's operational range is reduced.

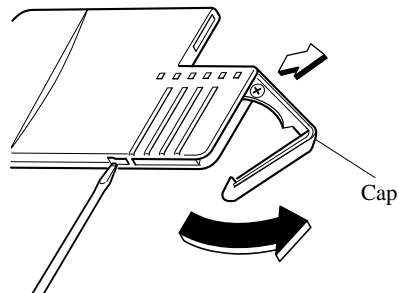
Replacing the battery at an Authorized Mazda Dealer is recommended to prevent damage to the advanced key. If replacing the battery by yourself, follow the instruction below.

Replacing the advanced key battery

1. Pull out the auxiliary key.



2. Release the cap using a flathead screwdriver, then rotate and remove the cap.



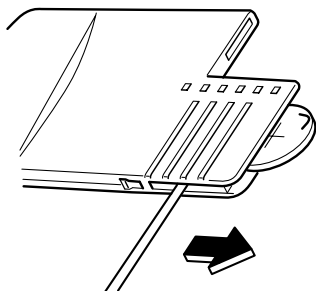
⚠ CAUTION

Do not turn the cap excessively. The cap may be damaged.

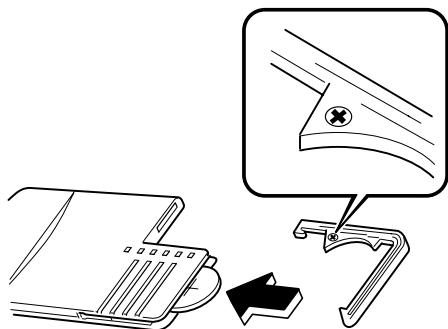
Knowing Your Mazda

Advanced Keyless Entry and Start System

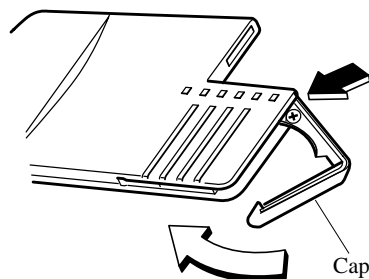
3. Insert a flathead screwdriver into the crack and press the battery out.



4. Insert the new battery (CR2025 or equivalent) with the positive pole (+) facing the (+) mark on the cap.



5. Rotate and close the cap.



6. Reinsert the auxiliary key.

3-6

▼ Service

If you have a problem with the advanced keyless functions, consult an Authorized Mazda Dealer.

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

Advanced Keyless Entry and Start System

Operation Using Advanced Keyless Functions

▼ Operational Range

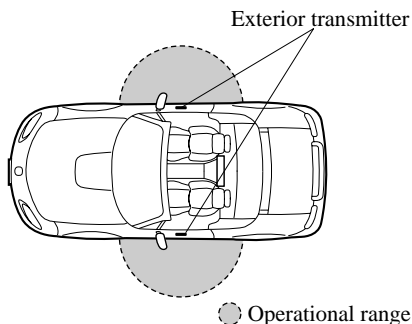
The system operates only when the driver is in the vehicle or within operational range while the advanced key is being carried.

NOTE

When the battery power is low, or in places where there are high-intensity radio waves or noise, the operational range may become narrower or the system may not operate.

Locking, unlocking the doors

The operational range for locking/unlocking the doors is an area of up to 80 cm (2.6 ft) from the center of the door handles.

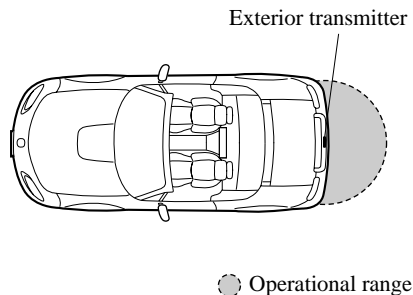


NOTE

The system may not operate if you are too close to the windows, door handles.

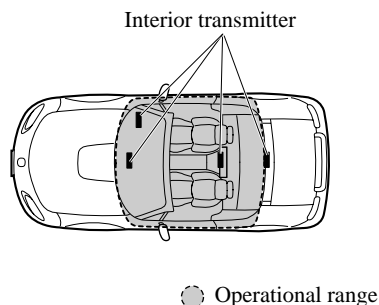
Opening the trunk lid

The operational range for opening the trunk lid is an area of up to 80 cm (2.6 ft) from the center of the trunk lid.



Starting the engine

The operational range for starting the engine includes nearly the entire cabin area.



Knowing Your Mazda

Advanced Keyless Entry and Start System

NOTE

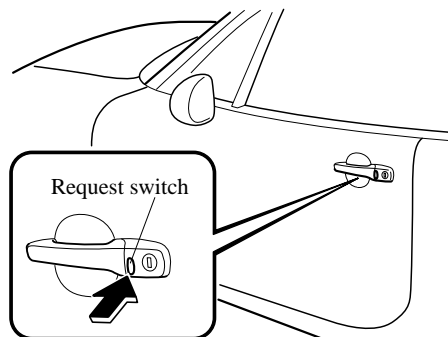
- The trunk is out of the operational range, however, starting the engine may be possible.
- The engine may not start if the advanced key is placed in the following areas:
 - Around the dashboard
 - In the storage compartments such as the glove box
 - On the rear parcel shelf
- Starting the engine may be possible even if the advanced key is outside of the vehicle and extremely close to a door and window, however, always start the engine from the driver's seat.

If the vehicle is started and the advanced key is not in the vehicle, the vehicle will not restart after it is shut off and the ignition switch is turned to the lock position.

- If the advanced key is detected within operational range, the operation indicator light located in the instrument cluster flashes momentarily.

▼ Locking, Unlocking the Doors with Request Switch

Both doors can be locked/unlocked by pressing the request switch on a door while the advanced key is being carried.



3-8

To lock

To lock the doors, press the request switch. A beep sound will be heard once and the hazard warning lights will flash once.

To unlock

Driver's door request switch

To unlock the driver's door, press the request switch. A beep sound will be heard twice and the hazard warning lights will flash twice.

To unlock both doors, press the request switch again within 3 seconds and two more beep sounds will be heard.

NOTE

(Without theft-deterrent system)

The hazard warning lights will flash twice to indicate that the doors 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 3-72).

Passenger door request switch

To unlock the doors, press the request switch. A beep sound will be heard twice and the hazard warning lights will flash twice.

Advanced Keyless Entry and Start System

NOTE

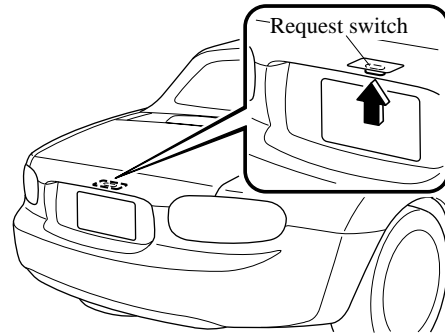
- Confirm that both doors are securely locked.
- Both doors cannot be locked when any door is open.
- A beep sound is heard for confirmation when the doors are locked/unlocked using the request switch. If you prefer, the beep sound can be turned off (page 3-19).
- The setting can be changed so that the doors are locked automatically without pressing the request switch (page 3-19).
(Auto-lock function)

A beep sound is heard when both doors are closed while the advanced key is being carried. Both doors are locked automatically after about 3 seconds when the advanced key is out of the operational range. Also, the hazard warning lights flash once. (Even if the driver is in the operational range, both doors are locked automatically after about 30 seconds.) If you are out of the operational range before the doors are completely closed or another advanced key is left in the vehicle, the auto-lock function will not work. Always make sure that both doors are closed and locked before leaving the vehicle.

- **(Auto re-lock function)**
After unlocking doors by pressing the request switch, both doors will automatically lock and the hazard warning light will flash if any of the following operations are not performed within about 30 seconds.
 - A door is opened.
 - The auxiliary key is inserted into the ignition switch.
 - The start knob is pushed.

▼ Opening the Trunk Lid with Request Switch

The trunk lid can be opened by pressing the request switch on the under side of the trunk lid above the license plate while the advanced key is being carried.



NOTE

- If the advanced key is left in the trunk, the trunk lid will close, however, the trunk lid can be opened using the request switch and the vehicle could be stolen.
- **(With power retractable hardtop)**
The trunk lid can only be opened when the power retractable hardtop is fully opened/closed. Open/close the power retractable hardtop completely before opening the trunk lid.

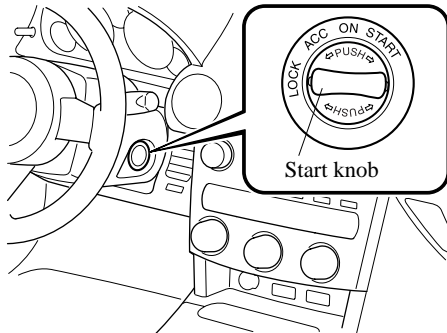
Knowing Your Mazda

Advanced Keyless Entry and Start System

▼ Starting the Engine

Ignition switch positions

Without a traditional key, some of the ignition switch functions are different.



LOCK (Released)

The steering wheel locks to help protect against theft.

LOCK (Depressed)

The ignition switch can be turned to the ACC position when the KEY indicator light (green) illuminates in the instrument cluster.

⚠ 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 transmission or in 1 or R with a manual transmission:

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 transmission or in 1 or R with a manual transmission is dangerous. Unexpected vehicle movement could occur. This could cause an accident.

NOTE

- *If turning the ignition switch is difficult, jiggle the steering wheel from side to side.*
- **(Automatic transmission)**
The ignition switch cannot be turned from the ACC position to the LOCK position when the shift lever is not in P.

ACC (Accessory)

The steering wheel unlocks and some electrical accessories will operate.

NOTE

The Advanced Keyless Entry System does not function in the ACC position, and the doors will not lock/unlock using the transmitter or request switches even if the advanced key is carried away from the vehicle.

Advanced Keyless Entry and Start System

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 5-39).

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.

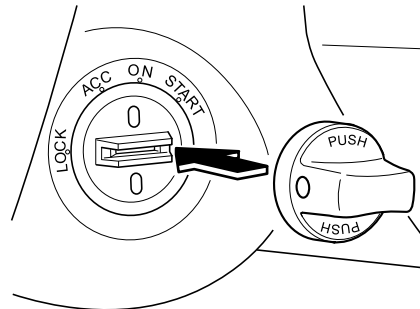
START

The engine is started in this position. It will crank until you release the start knob; then it returns to the ON position. The brake warning light can be checked after the engine is started (page 5-39).

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.
- The advanced key must be carried because the advanced key carries an immobilizer chip that must communicate with the engine controls at short range.
- When starting the engine, be sure the start knob is securely attached before trying to operate it. If the knob becomes detached from the ignition switch, re-attach it by pushing it on to the ignition switch.



1. Make sure the advanced key is being carried.
2. Occupants should fasten their seat belts.
3. Make sure the parking brake is on.
4. Depress the brake pedal.

Knowing Your Mazda

Advanced Keyless Entry and Start System

5. (Manual transmission)

Depress the clutch pedal all the way and shift into neutral.

Keep the clutch pedal depressed while cranking the engine.

(Automatic transmission)

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

NOTE

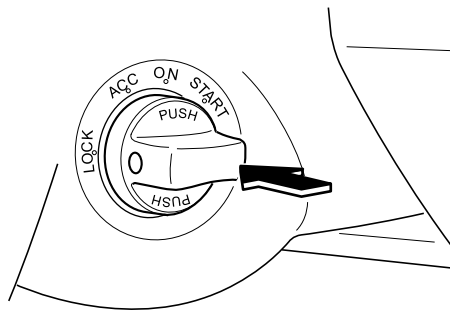
(Manual transmission)

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

(Automatic transmission)

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

6. Push the start knob slowly all the way in.



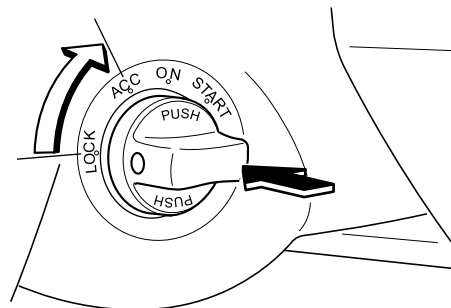
7. Verify that the KEY indicator light (green) illuminates in the instrument cluster. The KEY warning light (red) means you cannot continue to start the engine using the Advanced Keyless System. You may have to use the auxiliary key instead (page 3-20).

KEY

NOTE

In the following cases, the KEY warning light (red) illuminates and the engine will not start.

- The advanced key battery is dead.
 - The advanced key is out of operational range.
 - The advanced key is placed in areas where it is difficult for the system to detect the signal (page 3-7).
 - A key from another manufacturer similar to the advanced key is in the operational range.
8. Turn the ignition switch to the ACC position while pushing the start knob in.



Advanced Keyless Entry and Start System

- Turn the ignition switch from the ACC position 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.

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

NOTE

- In extremely cold weather, below -18°C (0°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.*

Turning off the engine

- Move the shift lever to the P position (Automatic transmission).
- Turn the ignition switch from the ON position to the ACC position.

NOTE

When the engine is turned off and the ignition switch is turned from the ACC position to the LOCK position, the KEY indicator light (green) flashes in the instrument cluster for about 30 seconds if the battery power of the advanced key is low. Replace the battery with a new one.

Refer to Battery Replacement (page 3-6).

- Push in the start knob from the ACC position and turn it to the LOCK position.

CAUTION

When leaving the vehicle, make sure the ignition switch is turned to the LOCK position.

NOTE

- When turning the ignition switch to the LOCK position, the ignition switch has to be pushed in from the ACC position and turned. Without being pushed in, the ignition switch stops at the ACC position and the vehicle battery may be discharged if the ignition switch is left in the ACC position. When leaving the vehicle, make sure the ignition switch is turned to the LOCK position.*
- If the vehicle is left with the ignition switch not in the LOCK position, a beep sound is heard and the indicator light flashes to notify the driver. Refer to Warning Beep (page 3-17).*

Knowing Your Mazda

Advanced Keyless Entry and Start System

Operation Using Advanced Key Functions

▼ Keyless Entry System

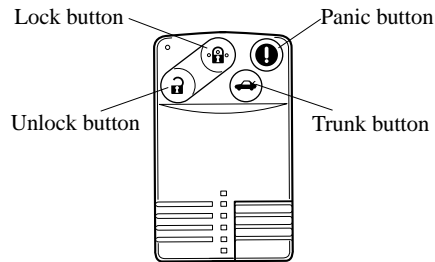
This system uses the more traditional key buttons to remotely lock and unlock the doors and opens the trunk lid, and opens the power windows.

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

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 does not operate when the ignition switch is not in the LOCK position or the start knob is pushed in.
- With the start knob installed in the LOCK position, the system is fully operational. If the ignition switch is not in the LOCK position or the start knob is pushed in, the system does not operate.
- Both doors cannot be locked by pressing the lock button while either door is open. The hazard warning lights will also not flash.
- (With power retractable hardtop)
The trunk lid cannot be operated remotely if the power retractable hardtop is not fully opened or fully closed.
- If the transmitter does not operate when pressing a button or the operational range becomes too small, the battery may be dead. To install a new battery, refer to Maintenance (page 3-5).

Transmitter



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. Refer to Opening the Power Windows from Outside (page 3-34).

The operation indicator light flashes when the buttons are pressed.

Lock button

To lock the doors, press the lock button. A beep sound will be heard once and the hazard warning lights will flash once.

Advanced Keyless Entry and Start System

To confirm that both doors 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 both doors 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 3-72).

NOTE

- Both doors cannot be locked when either door is open.
- Confirm that both doors are locked visually or audibly by use of the double click.

Unlock button

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

To unlock both doors, press the unlock button again within 3 seconds and two more beep sounds will be heard.

NOTE

(Without theft-deterrent system)

The hazard warning lights will flash twice to indicate that both doors 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 3-72).

NOTE

Auto re-lock function

After unlocking with the transmitter, both doors will automatically lock if one of the doors is not opened within about 30 seconds.

Trunk button

To open the trunk, press the trunk button for more than 1 second.

NOTE

(With power retractable hardtop)

The trunk lid can only be opened when the power retractable hardtop is fully opened/closed. Open/close the power retractable hardtop completely before opening the trunk lid.

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 either door 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.

NOTE

However, if the driver is too close to the vehicle the panic button may not function.

(Turning off the alarm)

The alarm stops by pressing any button on the transmitter.

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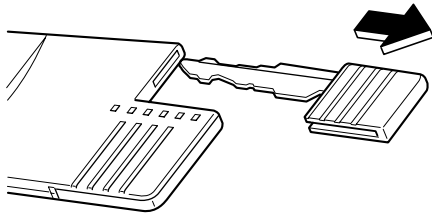
Advanced Keyless Entry and Start System

▼ Auxiliary Key Function

Use the auxiliary key stored in the advanced key in the event of a dead transmitter battery or malfunction.

Removing the auxiliary key

Pull out the auxiliary key from the advanced key.



Locking, unlocking the doors

The doors can be locked/unlocked using the auxiliary key, refer to Locking, Unlocking with Key (page 3-27).

Opening the trunk lid

The trunk lid can be opened using the auxiliary key, refer to Opening and Closing the Trunk Lid (page 3-30).

⚠ CAUTION

Do not open the trunk while the power retractable hardtop is opening/closing. The power retractable hardtop and trunk lid mechanisms could be damaged.

Starting the engine

The engine can be started with the auxiliary key, refer to Ignition Switch (page 5-2).

Advanced Key Suspend Function

If one key is left in the vehicle or trunk and the second key is used to lock the vehicle, the functions of the advanced key left in the vehicle or the trunk are temporarily suspended to prevent theft of the vehicle.

The following are inoperable:

- Starting the engine using the start knob.
- Operating the request switches.

To restore these functions, perform any one of the following:

- Press the lock or unlock button on the advanced key which has had its functions suspended.
- While carrying another advanced key, push in the start knob until the KEY indicator light (green) in the instrument cluster illuminates.
- Insert the auxiliary key and turn the ignition switch to the ON position.

Advanced Keyless Entry and Start System

Warning and Beep Sounds

▼ System Malfunction Warning Beep

If any malfunction occurs in the advanced keyless function, the KEY warning light (red) in the instrument cluster illuminates continuously and beep sounds will be heard.

CAUTION

If the KEY warning light (red) remains illuminated, do not continue to drive the vehicle with the advanced keyless function. Park the vehicle in a safe place and use the auxiliary key to continue driving the vehicle. Have the vehicle inspected at an Authorized Mazda Dealer as soon as possible. Refer to Ignition Switch (page 5-2).

▼ Start Knob Not in LOCK Warning Beep

If the start knob is in the ACC position and the driver's door is opened, a continuous beep sound will be heard to notify the driver that the start knob has not been returned to the LOCK position. In this case, the keyless entry system does not operate, the car cannot be locked, and the battery will run down.

▼ Advanced Key Removed from Vehicle Warning Beep

Under the following conditions, a beep sound will be heard and the KEY warning light (red) will flash continuously when the start knob has not been returned to the LOCK position to notify the driver that the advanced key has been removed. The KEY warning light (red) will stop flashing when the advanced key is back inside the vehicle:

- The start knob has not been returned to the LOCK position, the driver's door is open, and the advanced key is removed from the vehicle. (A beep sound will be heard 3 times.)

However the beep sound will be heard continuously when the start knob is in the ACC position and the door is open due to the activation of the warning beep sound indicating that the start knob is not in the LOCK position.

- The start knob has not been returned to the LOCK position and all the doors are closed after removing the advanced key from the vehicle. (A beep sound will be heard 6 times.)

NOTE

Because the advanced key utilizes low-intensity radio waves, the Advanced Key Removed From Vehicle Warning may activate if the advanced key is carried together with a metal object or it is placed in a poor signal reception area.

▼ Request Switch Inoperable Warning Beep

Under the following conditions, if the request switch for a front door is pressed while the advanced key is being carried, a beep will be heard 6 times to indicate that the front doors cannot be locked.

- A door is open (door ajar included).

Knowing Your Mazda

Advanced Keyless Entry and Start System

- The start knob has not been returned to the LOCK position.
- The auxiliary key is inserted into the ignition switch.

▼ Advanced Key Battery Dead Warning

When the start knob is returned to the ACC or LOCK position from the ON position, the KEY indicator light (green) flashes for approximately 30 seconds indicating that the remaining battery power is low. Replace with a new battery before the advanced key becomes unusable.

Refer to Advanced Key Maintenance (page 3-5).

NOTE

The advanced key can be set so that the KEY indicator light (green) does not flash even if the battery power is low.

Refer to Setting Change (page 3-19).

▼ Engine Start Not Permitted Warning

Under the following conditions, the KEY warning light (red) flashes to inform the driver that the start knob will not rotate to the ACC position even if it is pushed in from the LOCK position.

- The advanced key battery is dead.
- The advanced key is not within operational range.
- The advanced key is placed in areas where it is difficult for the system to detect the signal (page 3-7).
- A key from another manufacturer similar to the advanced key is in the operational range.

▼ Advanced Key Left-in-trunk Warning Beep

If the advanced key is left in the trunk compartment with both doors locked and the trunk lid closed, a beep sound is heard for about 10 seconds to remind the driver the advanced key has been left in the trunk compartment. If this happens, open the trunk lid by pressing the request switch and remove the advanced key. An advanced key removed from the trunk may not function because its functions may have been temporarily suspended. To restore the advanced key function, perform the applicable procedure (page 3-16).

▼ Advanced Key Left-in-vehicle Warning Beep

If an advanced key is left in the vehicle cabin and both doors are locked using a separate advanced key, a beep sound is heard for about 10 seconds to remind the driver that the advanced key has been left in the vehicle cabin. If this happens, the doors lock but the functions of the advanced key left in the vehicle cabin may be temporarily suspended. Perform the following procedure to restore the functions of the advanced key (page 3-16).

Advanced Keyless Entry and Start System

Setting Change (Function Customization)

The following function settings are possible. These settings can only be changed by an Authorized Mazda Dealer.

Setting	Function	At Initial Setting	After Setting Change
Advanced key battery dead indicator	KEY indicator light (green) flashes to indicate that the advanced key battery power is low.	Activated	Deactivated
Lock/unlock operation confirmation beep sound*1	A beep sound is heard to confirm that both doors or the trunk lid have been locked/unlocked.	Activated	Deactivated
Autolock function*2	When both doors are closed and the advanced key is being carried and out of operational range, both the doors automatically lock after 3 seconds. (Even if the driver is in the operational range, both doors are locked automatically after about 30 seconds.)	Deactivated	Activated

*1: When the autolock function is operating, the warning sound will be heard regardless of the setting.

*2: When Autolock function is enabled, windows will not automatically close. You must close before leaving vehicle.

Knowing Your Mazda

Advanced Keyless Entry and Start System

When Warning Indicator/Beep is Activated

Under the following conditions, warning beeps are heard and a warning/indicator light in the instrument cluster illuminates to notify the driver of improper operation of the advanced key to prevent theft of the vehicle (page 3-17).

Warning	What to check
When a door is open, a continuous beep sound will be heard.	Check whether the start knob has been returned to the LOCK position.
When a door is open, 3 beep sounds are heard, and the KEY warning light (red) in the instrument cluster flashes.	Check whether the advanced key has been removed from the vehicle.
When a door is closed, a beep sound is heard 6 times, and the KEY warning light (red) in the instrument cluster flashes.	Check whether the advanced key has been removed from the vehicle.
When locking the doors or closing the trunk, the chime sounds for about 10 seconds.	Check whether the advanced key has not been left in the vehicle or the trunk.
When attempting to lock the doors, a beep sound is heard.	Check whether the advanced key has been left in the vehicle.
	Check whether a door is open.
When the KEY indicator light (green) flashes in the instrument cluster.	The advanced key battery power is low. Replace the battery with a new one. Refer to Advanced Key Maintenance on page 3-5.
When the KEY warning light (red) remains illuminated in the instrument cluster.	The advanced key is malfunctioning. Park the vehicle in a safe place, and use the auxiliary key to continue driving the vehicle. Have the vehicle inspected at an Authorized Mazda Dealer as soon as possible.

Knowing Your Mazda Doors and Locks

Keys (without Advanced Key)

! WARNING

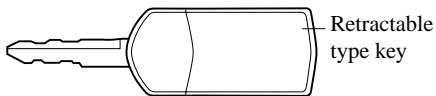
Do not leave the keys in your vehicle with children and keep them in a place where your children will not find or play with them:


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

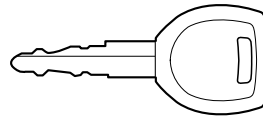
- Refer to *Immobilizer System* (page 3-69) for information regarding keys and engine starting.
- **(With theft-deterrent system)**
Refer to *Theft-Deterrent System* (page 3-72) for information regarding keys and the prevention of vehicle and vehicle contents theft.


The keys operate all locks.
With keyless entry system



 Key code number plate

Without keyless entry system



 Key code number plate

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

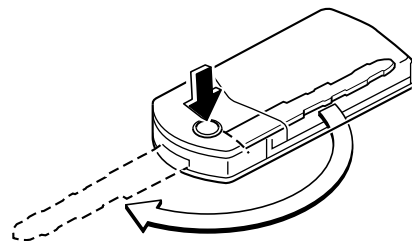
NOTE

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)

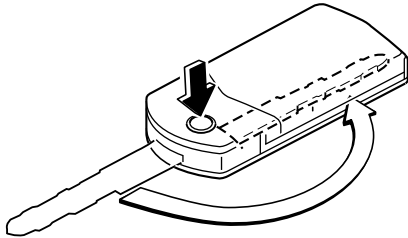
To extend the key, press the release button.



Knowing Your Mazda

Doors and Locks

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



Keyless Entry System (with Retractable Type Key)*

This system remotely locks and unlocks the doors, 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:

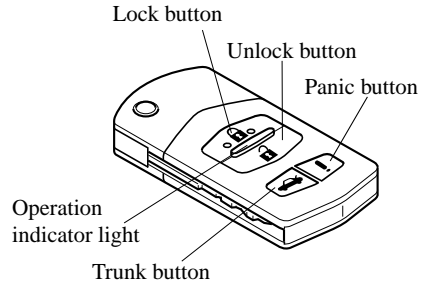
- *Drop the transmitter.*
- *Get the transmitter wet.*
- *Disassemble the transmitter.*
- *Expose the transmitter to any kind of magnetic field.*
- *Expose the transmitter to high temperatures on places such as the dashboard or hood, under direct sunlight.*

Knowing Your Mazda
Doors and Locks

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 can be locked by pressing the lock button while any other door is open. However, the hazard warning lights will not flash and the horn will not sound.
- 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 3-25).
- 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**



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. Refer to Opening the Power Windows from Outside (page 3-34).

The operation indicator light flashes when the buttons are pressed.

Lock button

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

Knowing Your Mazda

Doors and Locks

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

NOTE

- Pressing the transmitter lock button to lock the doors while any door is open does not sound the horn.
- **(Without theft-deterrent system)**
The hazard warning lights will flash once to indicate that both doors 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 3-72).

NOTE

- Both doors cannot be locked when the key is in the ignition switch.
- Confirm that both doors 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 both doors, press the unlock button again within 3 seconds.

NOTE

- **(Without theft-deterrent system)**
The hazard warning lights will flash twice to indicate that both doors 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 3-72).

NOTE

Auto re-lock function

After unlocking with the transmitter, both doors will automatically lock if one of the doors is not opened within about 30 seconds.

Trunk button

To open the trunk, press the trunk button for more than 1 second.

NOTE

- **(With power retractable hardtop)**
The trunk lid can only be opened when the power retractable hardtop is fully opened/closed. Open/close the power retractable hardtop completely before opening the trunk lid.
- The trunk button is disabled when the trunk lid release lock-out button inside the trunk is in the OFF position. Refer to Remote Trunk Lid Release Lock-Out on page 3-31.

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.

Knowing Your Mazda Doors and Locks

▼ 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.

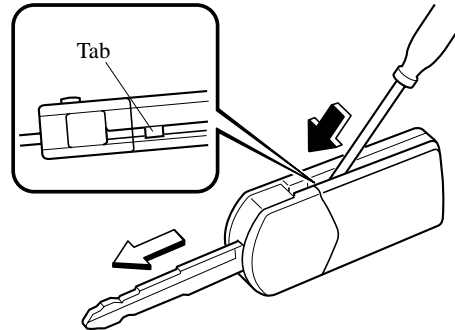
CAUTION

- 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.

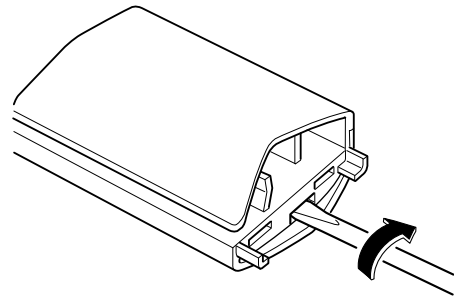
Replacing the transmitter battery

1. Unfold the key (page 3-21).

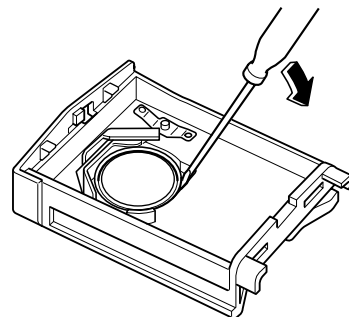
2. Insert a screwdriver into the slot and push the tab to remove the key from the transmitter.



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



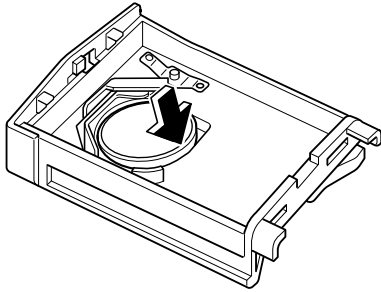
4. Remove the battery.



Knowing Your Mazda

Doors and Locks

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



- Align the front and back covers and snap the transmitter shut.
- 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 both doors locked when driving:

Unlocked doors in a moving vehicle are dangerous. Passengers can fall out if a door is accidentally opened and can more easily be thrown out in an accident.

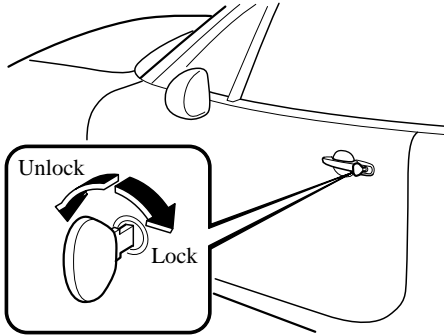
Always close all the windows, lock the doors and take the key with you when leaving your vehicle unattended:

Leaving your vehicle unlocked is dangerous as children could lock themselves in a hot vehicle, which could result in death. Also, a vehicle left unlocked becomes an easy target for thieves and intruders.

Knowing Your Mazda Doors and Locks

▼ Locking, Unlocking with Key

Either door can be locked/unlocked with the key.
Turn the key toward the front to unlock, toward the back to lock.



▼ Locking, Unlocking with Request Switch (with Advanced Key)

The doors can be locked/unlocked by operating the request switch while carrying the advanced key outside the vehicle, refer to Operations Using Advanced Keyless Functions (page 3-7).

▼ Locking, Unlocking with Transmitter (with Advanced Key)

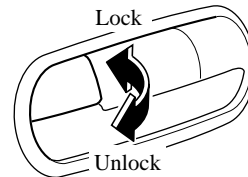
The doors can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-14).

▼ Locking, Unlocking with Transmitter (with Retractable Type Key)

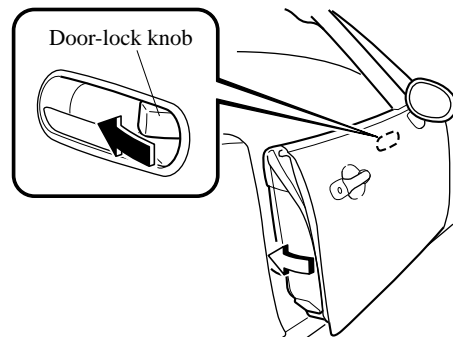
The doors can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-22).

▼ 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.



Knowing Your Mazda

Doors and Locks

NOTE

- **(With advanced key)**
The driver's door cannot be locked using the door-lock knob from the outside.
- **(With retractable type key)**
The driver's door cannot be locked using the door-lock knob from the outside if the key is in the ignition switch.
- *When locking the doors this way, be careful not to leave the key inside the vehicle.*

▼ Power Door Locks*

Vehicle lock-out prevention

(With advanced key)

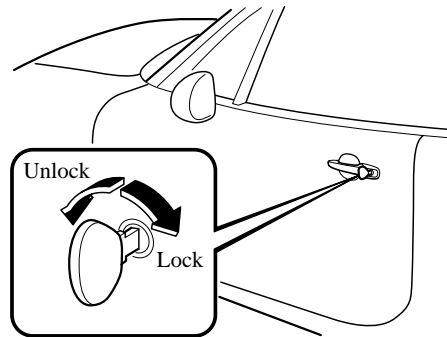
The vehicle lock-out prevention feature prevents you from locking yourself out of the vehicle. Both doors will automatically unlock if they are locked using the power door locks with any door open.

(With retractable type key)

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

Locking, unlocking with key

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



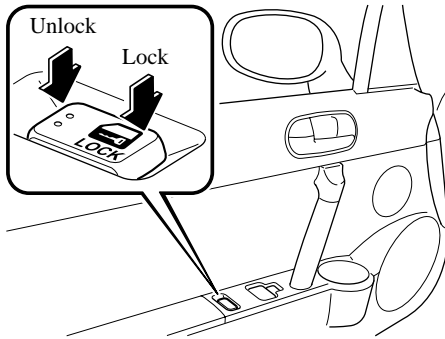
NOTE

Holding the key in the unlocked position in the driver's door lock for about a second unlocks both doors. 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.

Knowing Your Mazda
Doors and Locks

Locking, unlocking with door-lock switch

Both doors lock automatically when LOCK is pushed. They all unlock when the unmarked part of the door-lock switch is pushed.



Locking, unlocking with request switch (with advanced key)

Both doors can be locked/unlocked by operating the request switch on the front doors while carrying the advanced key outside the vehicle, refer to Operations Using Advanced Keyless Functions (page 3-7).

Locking, unlocking with transmitter (with advanced key)

Both doors can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-14).

Locking, unlocking with transmitter (with retractable type key)

Both doors can be locked/unlocked by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-22).

Trunk Lid

⚠ 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.

Knowing Your Mazda

Doors and Locks

▼ Opening and Closing the Trunk Lid

⚠ WARNING

Close the trunk lid and do not allow children to play inside the vehicle:

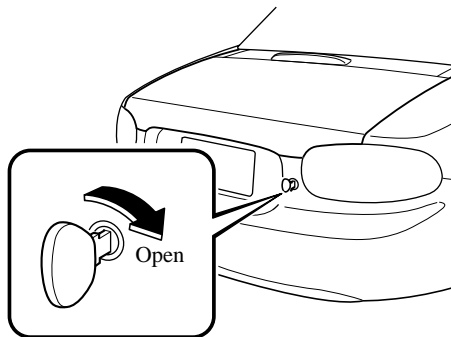
Leaving the trunk lid open or leaving children in the vehicle with the keys is dangerous. Children could open the trunk lid and climb inside resulting in possible injury or death from heat exposure.

Always keep the car from being a tempting place to play by locking 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 or the trunk unlocked.

Opening the trunk lid with the key

Insert the key into the slot and turn it clockwise.



⚠ CAUTION

Do not open the trunk while the power retractable hardtop is opening/closing. The power retractable hardtop and trunk lid mechanisms could be damaged.

Opening the trunk lid with the request switch (with advanced key)

The trunk lid can be opened by operating the request switch on the trunk lid while carrying the advanced key outside the vehicle, refer to Operations Using Advanced Keyless Functions (page 3-7).

Opening the trunk lid with the transmitter (with advanced key)

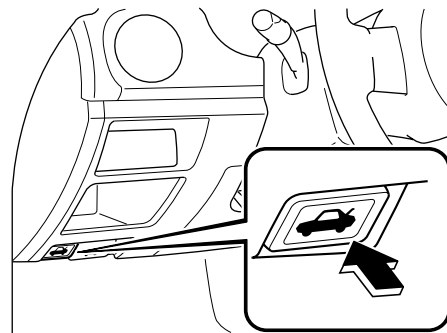
The trunk lid can be opened by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-14).

Opening the trunk lid with the transmitter (with retractable type key)

The trunk lid can be opened by operating the keyless entry system transmitter, refer to Keyless Entry System (page 3-22).

Opening the trunk lid with the remote release button

Push the release button.



Knowing Your Mazda
Doors and Locks

NOTE

(With power retractable hardtop)

The trunk lid can only be opened when the power retractable hardtop is fully opened/closed. Open/close the power retractable hardtop completely before opening the trunk lid.

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.

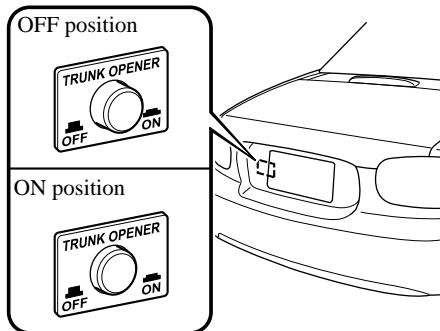
▼ Remote Trunk Lid Release Lock-Out

The remote release may be canceled using the trunk lid release lock-out button to prevent anyone in the vehicle from opening the trunk.

NOTE

You cannot prevent another person from getting access to your trunk if you give the person your key.

The switch is mounted inside the trunk.



With advanced key

With the switch in the ON position, the remote trunk lid release button can be operated.

With the switch in the OFF position, the remote release button cannot be operated.

To open the trunk lid when the switch is in the OFF position, do one of the following:

- Press the request switch on the trunk lid.
- Press the trunk button on the transmitter.
- Open the trunk with the auxiliary key.

Without advanced key

With the switch in the ON position, the remote trunk lid release button and the trunk button on the transmitter can be operated.

With the switch in the OFF position, the remote release button or the trunk button on the transmitter cannot be operated.

To open the trunk lid when the switch is in the OFF position, open the trunk with the key.

Knowing Your Mazda

Doors and Locks

Inside Trunk Release Lever

Your vehicle is equipped with an inside trunk release lever 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 trunk release lever so that all children can be told about it in an appropriate way, keeping in mind that most vehicles don't have such levers.

⚠ WARNING

Close the trunk lid 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.

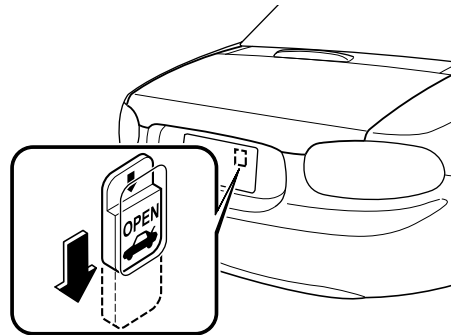
Always keep the car from being a tempting place to play by locking doors and the trunk, and keeping the keys where children can not play with them:

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 or the trunk unlocked.

▼ 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 end trim.



Doors and Locks

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.

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:

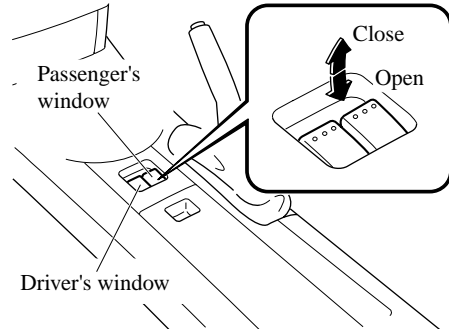
Leaving children in a vehicle with the key is dangerous. This could result in someone being badly injured or even killed. They could play with power windows or other controls, or even make the vehicle move.

▼ Operating the Power Windows (Type A)

Manual opening/closing

To open the window to the desired position, lightly hold down the switch.

To close the window to the desired position, lightly pull up the switch.



Auto-opening

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

To stop the window partway, lightly pull up the switch and then release it.

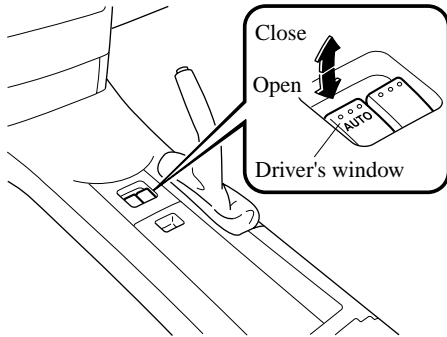
Knowing Your Mazda

Doors and Locks

▼ Operating the Driver's Side Power Window (Type B)

Manual opening/closing

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



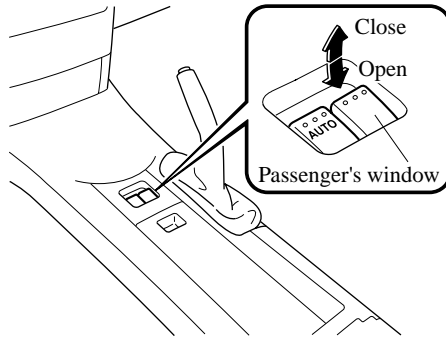
Auto-opening

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

To stop the window partway, lightly pull up the switch and then release it.

▼ Operating the Passenger Power Window (Type B)

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



▼ Opening the Power Windows from Outside*

Both power windows can be opened from outside the vehicle after the doors are closed.

NOTE

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

- A door or the trunk lid is opened.
- The key is inserted into the ignition switch.
- **(With advanced key)**
The start knob is in any position except Lock.

Knowing Your Mazda Doors and Locks

Opening

Because nobody likes getting into a very hot car, we have introduced a way to get a head start on cooling it, even before you put your seat belts on and insert your key in the ignition. If you see the vehicle is in a secure area, you can open the both windows as you approach the vehicle to get the air moving before you even step into the hot vehicle.

! 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.

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

After the doors are unlocked, both windows open while the unlock button is pressed.

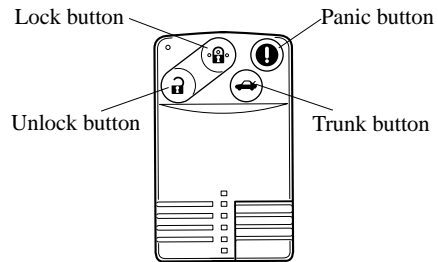
To stop the windows while opening, release the button.

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

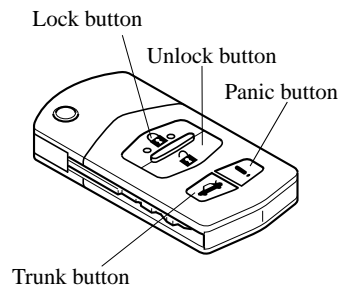
NOTE

The unlock button does not operate unless it is pressed twice sequentially.

Advanced key



Retractable type key



Knowing Your Mazda

Doors and Locks

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.

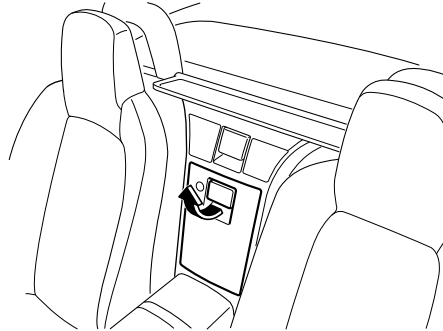
⚠ CAUTION

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.

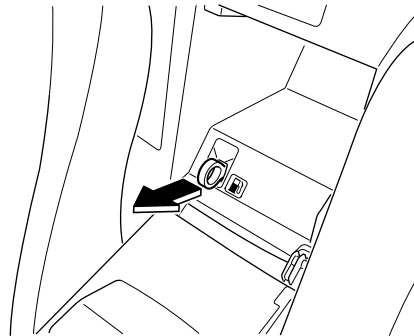
▼ Fuel-Filler Lid

The remote fuel-filler lid release is mounted in the seat side box.

To open the seat side box, unlock it and pull the release catch.



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

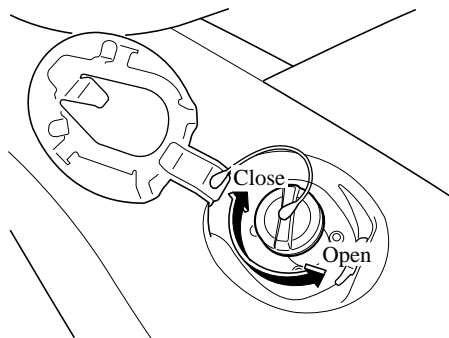


Knowing Your Mazda Doors and Locks

▼ 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.



▲ 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

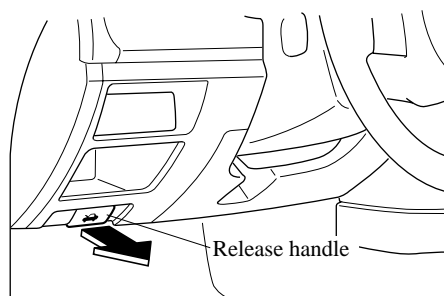
▲ WARNING

Always check that the hood is closed and securely locked:

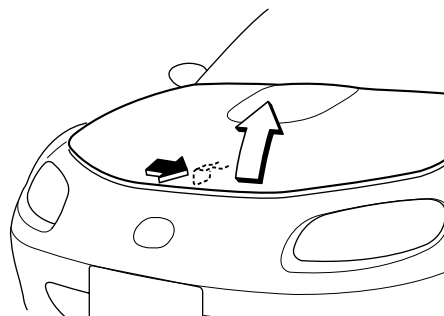
A hood that is not closed and securely locked is dangerous as it could fly open while the vehicle is moving and block the driver's vision which could result in a serious accident.

▼ Opening the Hood

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



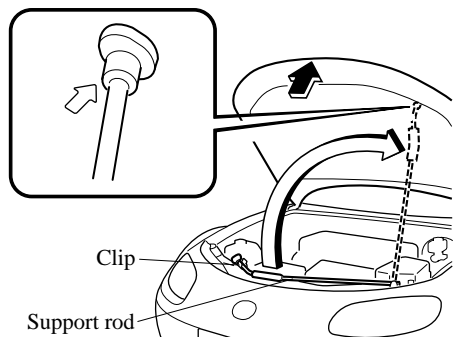
2. Insert your hand into the hood opening and Slide the hood latch to the right and lift the hood.



Knowing Your Mazda

Doors and Locks

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

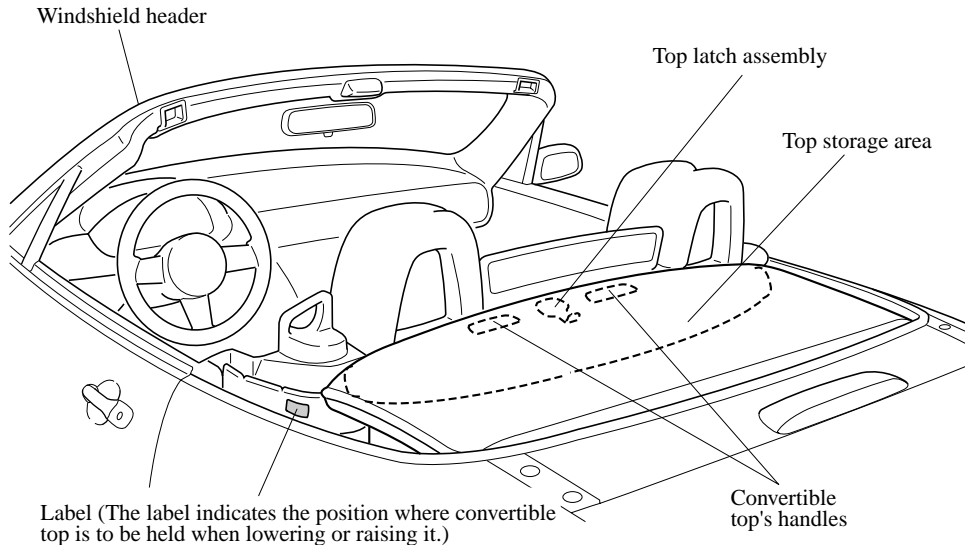


▼ Closing the Hood

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.

Knowing Your Mazda
Doors and Locks

Convertible Top (Soft Top) *



▼ **Convertible Top Precautions**

⚠ WARNING

Sit in the seat with the seat belt correctly fastened when the vehicle is moving:

Standing in the vehicle, or sitting on the convertible top storage area or center console when the vehicle is moving is a dangerous way to ride. During a sudden maneuver or collision you could be seriously injured or even killed.

Always keep your hands and fingers away from the fastening mechanisms when moving the convertible top:

It is dangerous to place your hands or fingers near the fastening mechanisms. Your hands or fingers could be caught and injured by the mechanism.

⚠ CAUTION

Remove leaves or other matter that may accumulate on and around the soft top. Otherwise, the water drainage outlets could become blocked, resulting in water leakage. For detailed maintenance of the water draining outlets, consult an Authorized Mazda Dealer.

*Some models. **3-39**

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Doors and Locks

- Before lowering or raising the convertible top, stop in a safe place off the right-of-way and park on a level surface.
- Make sure nothing is on the convertible top or near the back window when raising or lowering the convertible top. Even small objects may interfere and cause damage.
- When lowering the convertible top, make sure objects inside the vehicle aren't blown away by the wind.
- Secure all loose objects inside before driving with the convertible top down.
- To help prevent burglary or vandalism and to ensure that the passenger compartment stays dry, close the convertible top securely and lock both doors when leaving the vehicle.
- Do not drive through an automatic car wash; it may damage the convertible top.
- Do not raise or lower the convertible top when the temperature is below 5 °C (41 °F) ; this will damage the convertible top material.
- Do not lower the convertible top when it's wet. If the convertible top dries while folded, it will deteriorate and shrink.
- Lowering the convertible top while it's wet can also cause water to drip into the passenger compartment.
- Do not raise or lower the convertible top in a strong wind as it could damage the convertible top or cause an unexpected accident.

▼ Lowering the Convertible Top

1. Make sure the parking brake is applied.
2. Fully open the left and right windows.
3. Turn off the engine.
4. Make sure there are no objects which have been placed in the area where the convertible top is to be retracted.

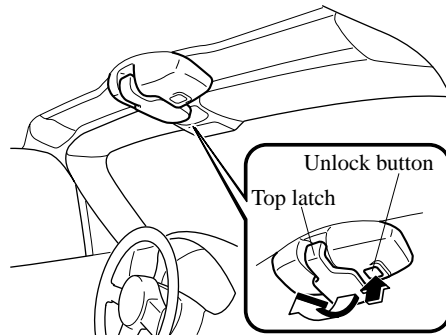
⚠ WARNING

Do not place heavy or sharp objects in the convertible top storage area:

Putting heavy or sharp objects in the convertible top storage area is dangerous.

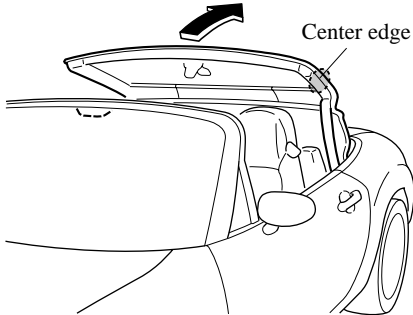
During a sudden stop or collision, they can become projectiles that might hit and injure passengers.

5. Pull the top latch outward by pressing the unlock button to detach the lock. Make sure the lock is detached.

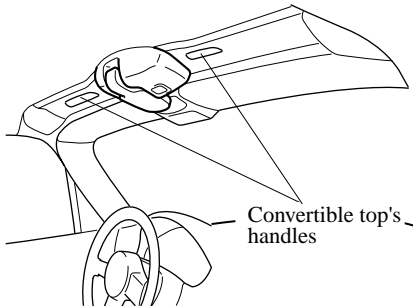


Knowing Your Mazda
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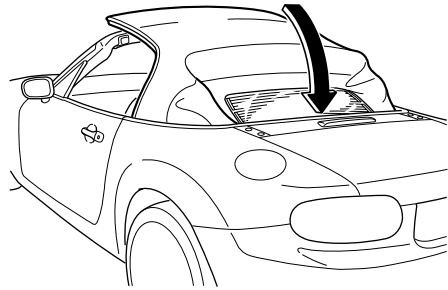
6. Standing outside of the vehicle, hold the convertible top along the center edge and pull it toward the vehicle rear.



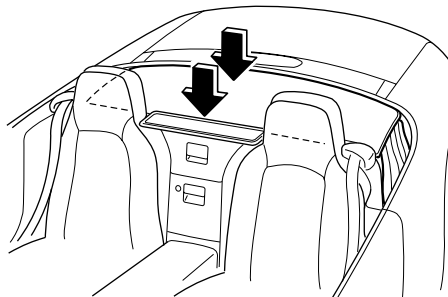
NOTE
To lower the convertible top from inside the vehicle, use the convertible top's handles.



7. Continue to move the convertible top rearward while pressing the rear glass lightly with your hand.



8. After the convertible top has been folded down, press the back end of the folded convertible top until a click sound is heard, then the front end. Lightly rock the retracted convertible top to make sure it is securely locked.



9. Raise the windblocker if it is needed.

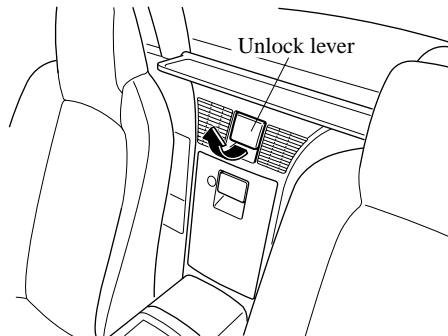
NOTE
The windblocker reduces the amount of wind coming into the cabin from behind when driving with the convertible top opened. Refer to Windblocker on page 6-45.

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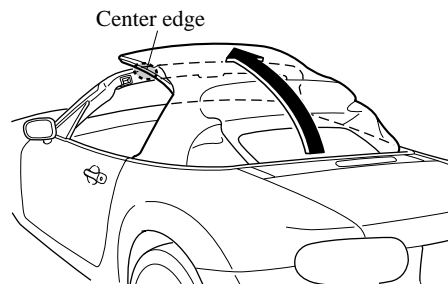
Doors and Locks

▼ Raising the Convertible Top

1. Make sure the parking brake is applied.
2. Fully open the left and right windows.
3. Turn off the engine.
4. Pull the unlock lever outward to disengage the lock.

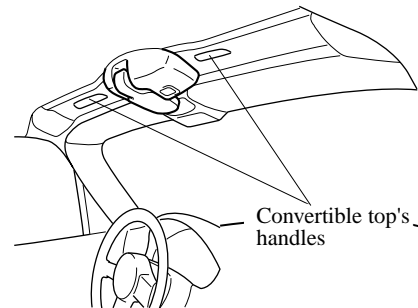


5. Standing outside of the vehicle, hold the convertible top along the center edge and pull it towards the vehicle front.

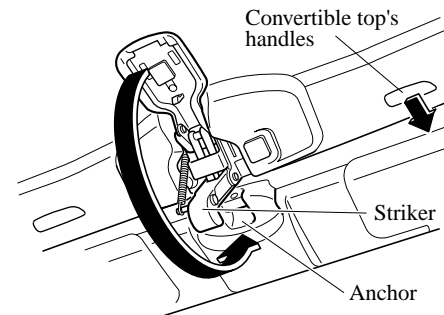


NOTE

To raise the convertible top from inside the vehicle, use the convertible top's handles.



6. Sitting in a seat, grasp the convertible top's handles, and press the convertible top against the windshield. Move the top latch slowly to make sure the anchor engages with the striker, then rotate the top latch to the lock position until a click sound is heard.

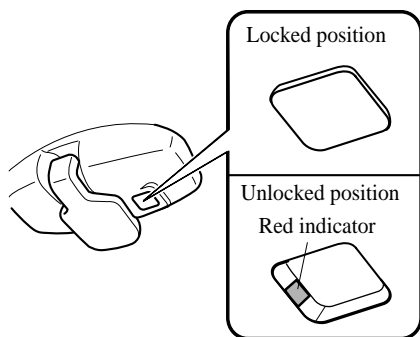


Knowing Your Mazda Doors and Locks

CAUTION

Driving with the convertible top not fully locked could damage the convertible top.

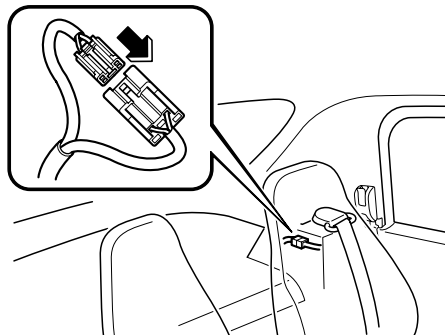
If the red indicator is visible on the unlock button, the convertible top is not locked. After locking the convertible top, verify that the red indicator is not visible.



NOTE

- *The convertible top may be constricted if it is left retracted for a long period. Therefore, if the top has become constricted, it may be difficult to hook the top latch striker to the anchor.*
- *Make sure the convertible top is securely locked by pushing up on it. If it still sounds loose (rattles) after being locked by the top latch, have it inspected at an Authorized Mazda Dealer.*

7. Connect the rear window defroster coupler if it has been disconnected.



NOTE

If the coupler was not plugged in the rear window defroster would not work.

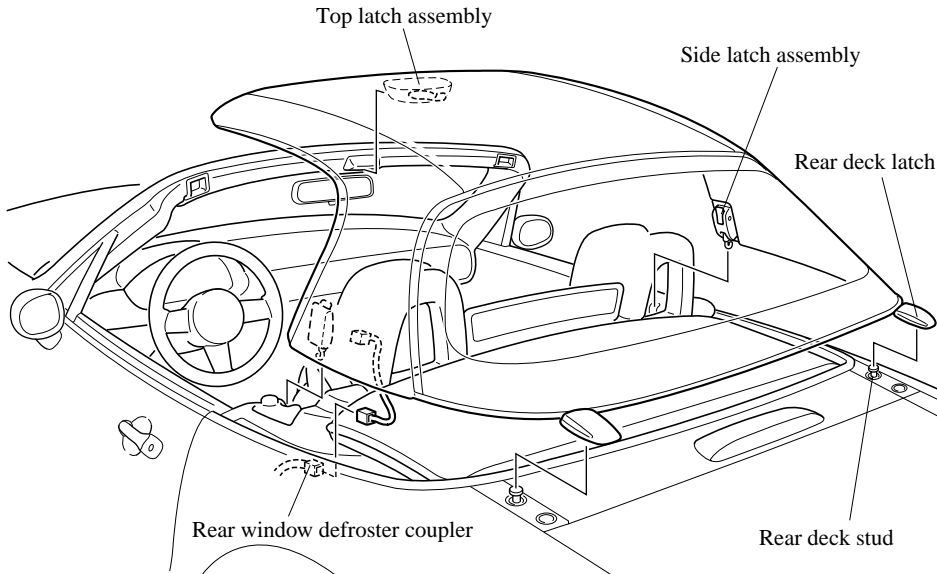
▼ Taking Care of the Top

Refer to Convertible Top Maintenance (page 8-54) for information on taking care of the convertible top.

Knowing Your Mazda

Doors and Locks

Detachable Hardtop*



3-44 *Some models.

Knowing Your Mazda Doors and Locks

▼ Detachable Hardtop Precautions

! WARNING

Sit in the seat with the seat belt correctly fastened when the vehicle is moving:

Standing in the vehicle, or sitting on the deck or center console when the vehicle is moving is a dangerous way to ride. During a sudden maneuver or collision you could be seriously injured or even killed.

Always drive safely and observe the speed limit:

Rollover accidents on a hardtop vehicle are dangerous. The hardtop is not as strong as a regular steel roof. Rollover accidents could dislodge or crush the hardtop and cause serious injuries or even death, just as with no top or the convertible top.

Always keep your hands and fingers away from the fastening mechanisms when moving the hardtop:

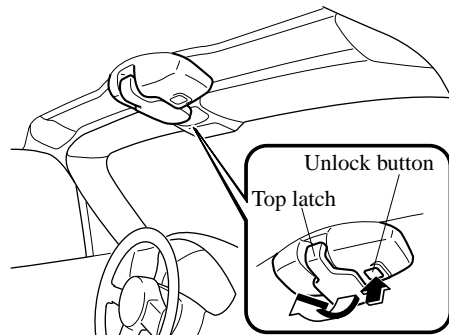
It is dangerous to place your hands or fingers near the fastening mechanisms. Your hands or fingers could be caught and injured by the mechanism.

- When removing or installing the hardtop, make sure the operation is performed by 2 adults.
- Before removing or installing the hardtop, be sure you are parked out of traffic in a flat area near the location your hardtop is to be stored.
- When removing the hardtop, make sure objects inside the vehicle are not blown away by wind.
- Secure all loose objects inside before driving with the hardtop removed.

- Do not drive through an automatic car wash as it could damage the hardtop.
- Do not remove or install the hardtop in a strong wind as it could damage the hardtop or cause an unexpected accident.
- Before removing the hardtop, remove the antenna.
- Removing the hardtop while it's wet can cause water to drip into the passenger compartment.

▼ Removing the Detachable Hardtop

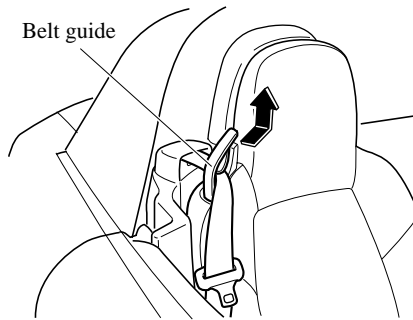
1. Park the vehicle on a level surface and firmly set the parking brake.
2. Lower the side windows, then turn off the ignition.
3. Remove the antenna if it is installed. Refer to Antenna on page 6-9.
4. Push the unlock button and fully release the top latch.



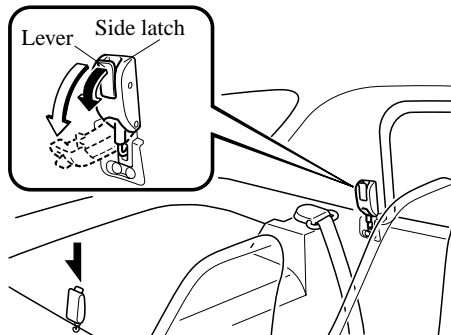
Knowing Your Mazda

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5. Remove the seat belts from the belt guides.

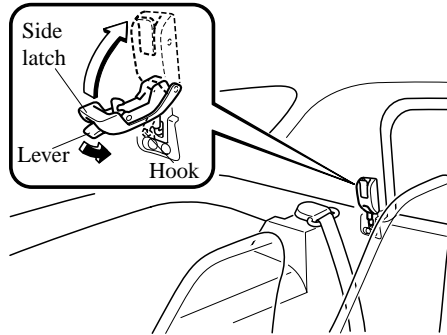


6. Slide the seats forward.
Refer to Seat Slide on page 2-2.
7. Fold the seatbacks forward.
Refer to Seat Recline on page 2-2.
8. Pull the levers and fully release the side latches.

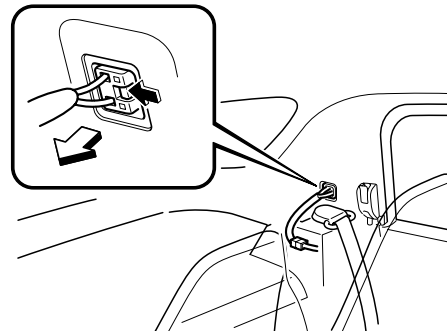


9. After the side latches are fully released, release the lever.

10. Lift the side latches while pulling the lever. Make sure the hooks are fully released.

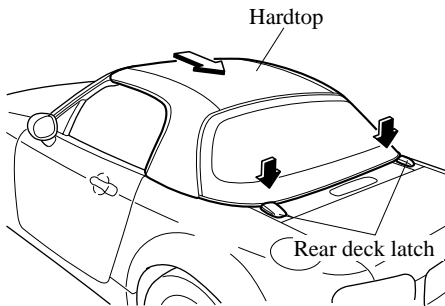


11. Disconnect the rear window defroster cord connector from the plug on the inside of the hardtop.

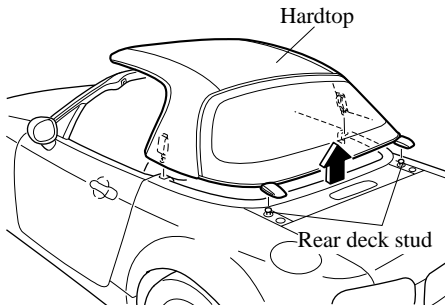


Knowing Your Mazda Doors and Locks

12. Slide the hardtop rearward while pressing down on the rear deck latches to unlock the latches.



13. Lift the hardtop straight off the body to prevent damage to the rear deck latches and studs.



! WARNING

Be careful of the windshield's edges when getting into or out of the vehicle: Not being careful of the windshield's edges when getting into or out of the vehicle is dangerous. The windshield's edges could scratch and cause injuries.

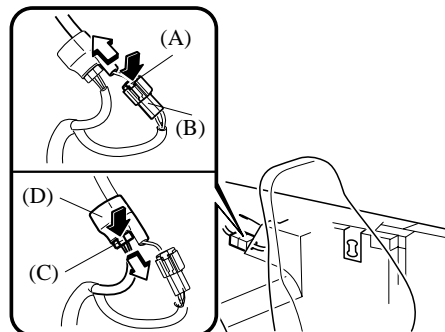
! CAUTION

- *Be careful not to strike the body with any of the protruding hardtop latches.*
- *Use extreme care when carrying the hardtop to prevent scratching or other damage to it.*

NOTE

Points to remember when storing the detachable hardtop.

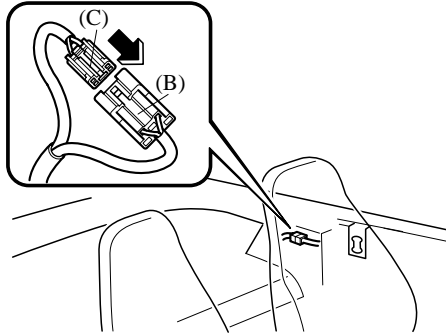
- *Do not place the hardtop on a hard surface, such as concrete or asphalt. Place it on a cushioning material, such as an old blanket.*
 - *Be sure the top and side latches are locked.*
 - *Do not lean the hardtop against a wall or stand it in an unstable way.*
 - *Store the hardtop in a dry clean area, and cover it with a soft material, such as an old blanket.*
14. Return the belt guides and the seatbacks to their original positions.
15. Disconnect the hardtop rear window defroster coupler (A) from the coupler (B), and remove the convertible top rear window defroster coupler (C) from its holder (D).



Knowing Your Mazda

Doors and Locks

16. Connect the convertible top's rear window defroster coupler (C) to the coupler (B).



▼ Installing the Detachable Hardtop

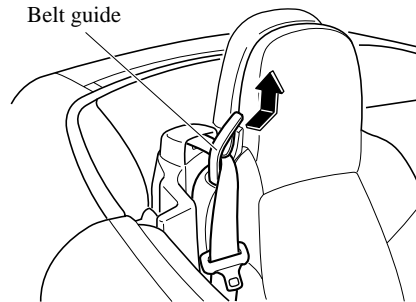
CAUTION

Do not attempt to install the hardtop with the convertible top also up. Lower the convertible top before installing the hardtop, otherwise damage will occur to the convertible top.

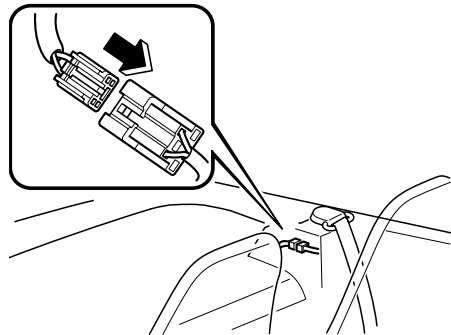
NOTE

- Be sure to place the convertible top latches in the locked position.
 - Confirm that the rear window defroster coupler is disconnected. Also make sure the convertible top is completely lowered before installing the hardtop.
1. Park the vehicle on a level surface and firmly set the parking brake.
 2. Lower the side windows, then turn off the ignition.
 3. Remove the antenna if it is installed. Refer to Antenna on page 6-9.

4. Remove the seat belts from the belt guides.



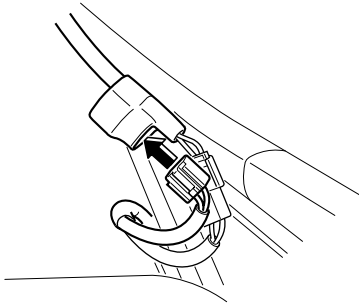
5. Slide the seats forward. Refer to Seat Slide on page 2-2.
6. Fold the seatbacks forward. Refer to Seat Recline on page 2-2.
7. Connect the rear window defroster coupler.



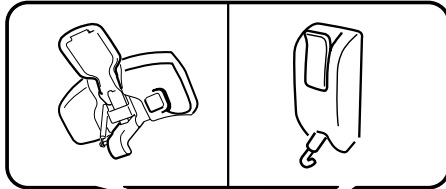
Knowing Your Mazda Doors and Locks

NOTE

Connect the convertible top's rear window defroster coupler into the holder so that it does not rattle.



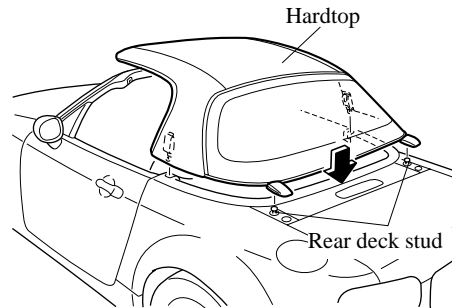
8. Make sure the top latch and the side latches on the hardtop are unlocked.



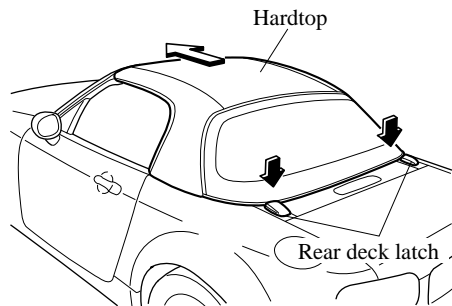
Top latch assembly

Side latch assembly

9. Align the rear deck latches with the rear deck studs and set the hardtop squarely onto the body.



10. Slide the hardtop forward while pressing down on the rear deck latches to lock the latches, and then verify that they are secure by attempting to lift the rear of the hardtop.



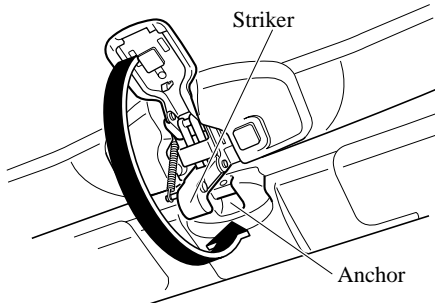
Knowing Your Mazda

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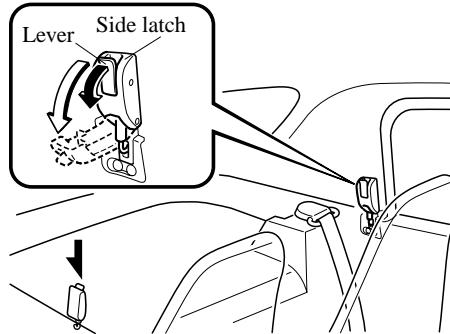
CAUTION

- *Be careful not to strike the body with any of the protruding hardtop latches.*
- *The rear defogger grid and the defogger cord could be damaged when removing or installing the hardtop. Make sure the rear defogger grid isn't folded and the defogger cord isn't caught between the vehicle's body and the hardtop.*

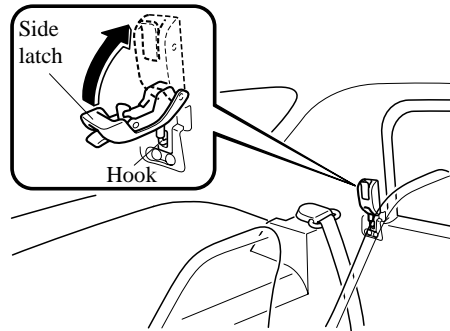
11. Make sure the striker for the top latch is securely engaged with the anchor before pushing the top latch lever. Rotate the lever of the top latch with the palm of your hand until the top latch is locked.



12. Pull the levers and fully release the side latches.



13. Make sure the hooks are engaged. Lift the side latches with the palm of your hand until the latches are locked.



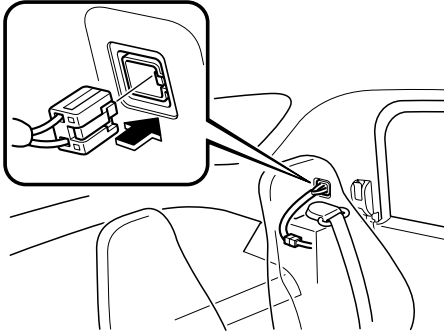
CAUTION

After installation, verify that all latches are secure. Operating the vehicle with unlocked latches may cause hardtop damage or loss.

14. Set the belt guides and the seats back to their original positions.

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15. Connect the rear window defroster cord connector to the plug on the inside of the hardtop.



NOTE

If the hardtop rattles even when all latches are secure, drive slowly and contact an Authorized Mazda Dealer for inspection.

▼ Detachable Hardtop Appearance Care

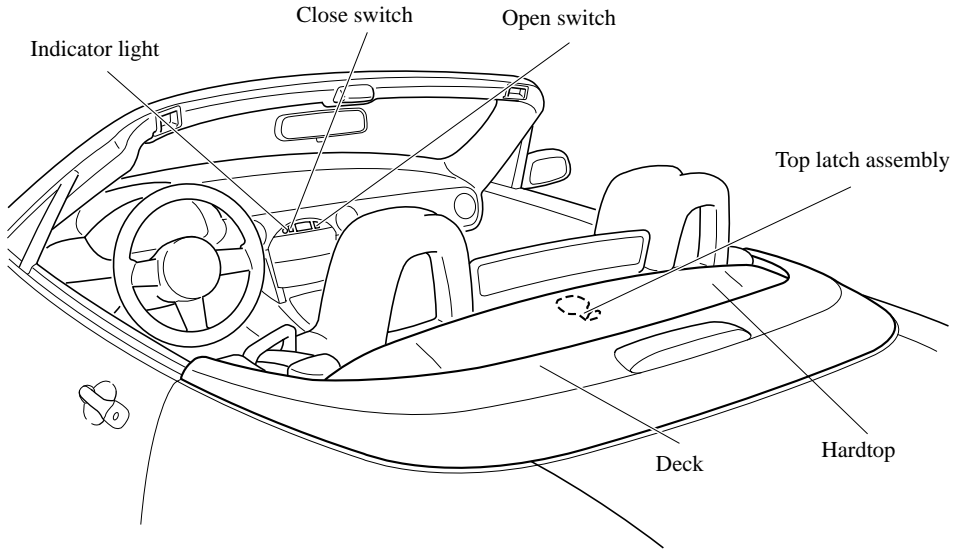
Refer to Hardtop Maintenance (page 8-55) for information on detachable hardtop appearance care.

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Doors and Locks

Convertible Top (Power Retractable Hardtop) *

The power retractable hardtop opens/closes electrically by operating switches in the vehicle. When opening/closing the hardtop, the hardtop, deck and window glass operate together. The hardtop is stored in the storage area under the deck.



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▼ **Power Retractable Hardtop Precautions**

! WARNING

Always confirm that there are no people around the vehicle before operating the hardtop:

If the hardtop were to operate unexpectedly, it could result in an accident and serious injury from someone getting caught in the mechanism.

Always drive safely and observe the speed limit:

Rollover accidents on a hardtop vehicle are dangerous. The hardtop is not as strong as a regular steel roof. Rollover accidents could dislodge or crush the hardtop and cause serious injuries or even death, just as with no top.

Sit in the seat with the seat belt correctly fastened when the vehicle is moving:

Standing in the vehicle, or sitting on the deck or center console when the vehicle is moving is a dangerous way to ride. During a sudden maneuver or collision you could be seriously injured or even killed.

Always keep your hands and fingers away from the fastening mechanisms when moving the hardtop:

It is dangerous to place your hands or fingers near the fastening mechanisms. Your hands or fingers could be caught and injured by the mechanism.

! CAUTION

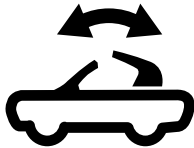
- *Do not drive with the hardtop partially opened; this could damage the hardtop or cause an unexpected accident.*
 - *Children should not be allowed to play with the open/close switch.*
 - *Do not place objects or cargo around the deck, rear glass, or the hardtop storage area.
Even small objects may interfere and cause damage.*
 - *Remove leaves that accumulate on and around the hardtop. If the leaves are not removed, they may block the water drainage outlets.*
 - *Before opening the hardtop, make sure the rear window defogger switch (Defroster) is turned off. Otherwise the heat generated from the defogger could damage the hardtop and the internal material.*
 - *When opening/closing the hardtop, verify that there is no obstruction above the hardtop (about 1.5 m from the ground) so as not to damage the hardtop or the obstruction.*
 - *When opening/closing the hardtop, do not apply any load to the hardtop or the deck. The opening/closing mechanism of the hardtop may be damaged.*
- *Open/close the hardtop with the vehicle parked on level ground in a safe place where the vehicle does not obstruct traffic. If the hardtop is opened/closed on a slope or bump, the opening/closing mechanism of the hardtop may be damaged.*

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- Before opening or closing the hardtop, stop in a safe place off the right-of-way and park on a level surface.
- When opening the hardtop, make sure objects inside the vehicle are not blown away by the wind.
- Secure all loose objects inside before driving with the hardtop down.
- To help prevent burglary or vandalism and to ensure that the passenger compartment stays dry, close the hardtop securely and lock both doors when leaving the vehicle.
- Do not drive through an automatic car wash as it may damage the hardtop.
- Do not open or close the hardtop when the temperature is below 5 °C (41 °F) as it this will damage the hardtop material.
- Opening the hardtop while it is wet can also cause water to drip into the passenger compartment.
- Do not open or close the hardtop in a strong wind as it could damage the hardtop.

▼ Operation Indicator Light



When illuminated

This notifies the driver that the hardtop is only partially open.

When flashing

This indicates that the hardtop is being open/closed. (During button operation)

When not illuminated

This indicates that the hardtop is open/closed fully.

NOTE

If the operation indicator light flashes quickly, there may be a system malfunction. Consult an Authorized Mazda Dealer.

▼ Operation Conditions

If the following conditions have been satisfied, the hardtop can be opened/closed.

- The vehicle is parked on a level surface off the right-of-way and the parking brake is firmly set.
- The ignition switch is in the ON position.
- Put a vehicle with an automatic transmission in Park (P) or Neutral (N), a manual transmission in Neutral.
- The trunk lid is closed.

NOTE

If the power retractable hardtop cannot be closed even after the operation conditions are all met, have it checked at an Authorized Mazda Dealer.

The hardtop can be closed manually as an emergency measure.

Refer to The Power Retractable Hardtop Does not Close on page 3-58.

Knowing Your Mazda Doors and Locks

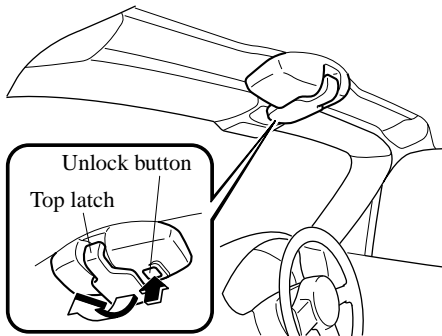
▼ Opening the Power Retractable Hardtop

1. Park on a level surface off the right-of-way and firmly set the parking brake.
2. Put a vehicle with an automatic transmission in Park (P), a manual transmission in Neutral.
3. Apply the parking brake with the brake pedal depressed.
4. Start the Engine.

NOTE

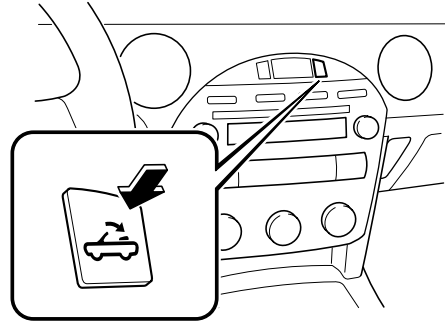
Do not open/close the hardtop with the engine stopped. Otherwise the vehicle's battery power could be depleted.

5. With the lock release button depressed, pull the top latch outward to unlock.



6. Verify that the operation indicator light is illuminated and the lock is detached.

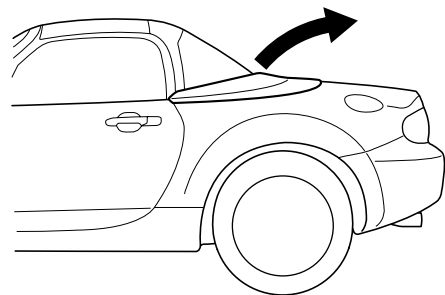
7. Press and hold the open button until the hardtop opens completely.



NOTE

- When the open switch is pressed, a beep sound is heard.
- The hardtop keeps opening and the operation indicator light flashes while the open switch is pressed.
- If the switch is released while the hardtop is opening, the hardtop stops opening. If the switch is pressed again, the hardtop resumes opening.

8. The deck opens.



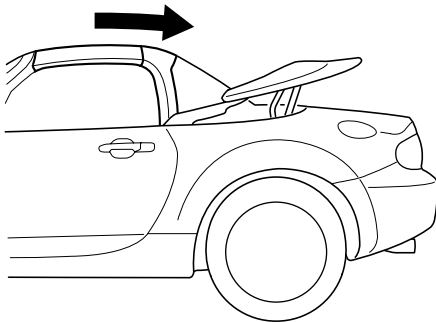
NOTE

If the windows are closed, the windows automatically open partially when the deck opens.

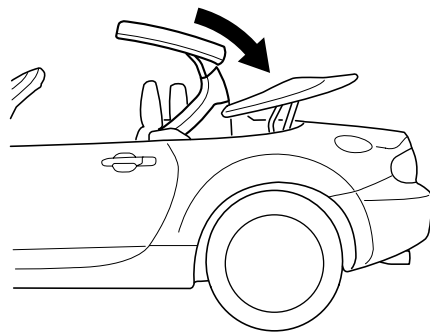
Knowing Your Mazda

Doors and Locks

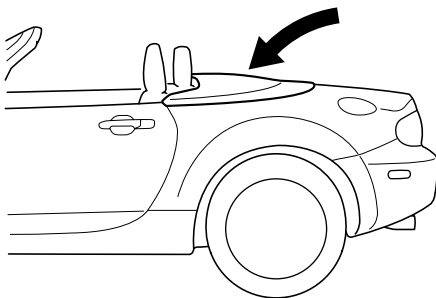
9. The hardtop opens.



10. The hardtop retracts under the deck.



11. The deck closes.



NOTE

When the operation is finished, a beep sound is heard and the operation indicator light turns off.

3-56

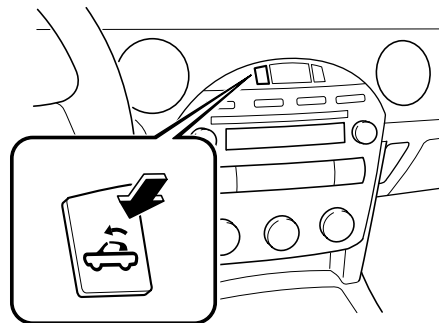
▼ Closing the Power Retractable Hardtop

1. Park on a level surface off the right-of-way and firmly set the parking brake.
2. Put a vehicle with an automatic transmission in Park (P), a manual transmission in Neutral.
3. Apply the parking brake with the brake pedal depressed.
4. Start the Engine.

NOTE

Do not open/close the hardtop with the engine stopped. Otherwise the vehicle's battery power could be depleted.

5. Press and hold the close button until the hardtop closes completely.

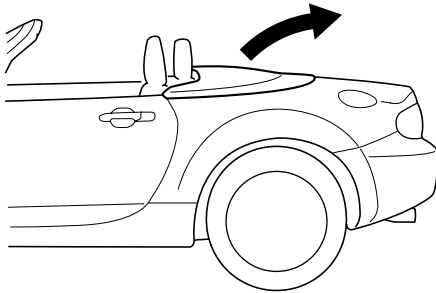


NOTE

- When the close switch is pressed, a beep sound is heard.
- The hardtop keeps closing and the operation indicator light flashes while the close switch is pressed.
- If the switch is released while the hardtop is closing, the hardtop stops closing. If the switch is pressed again, the hardtop resumes closing.

Knowing Your Mazda
Doors and Locks

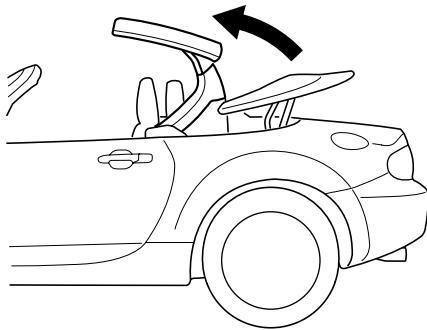
6. The deck opens.



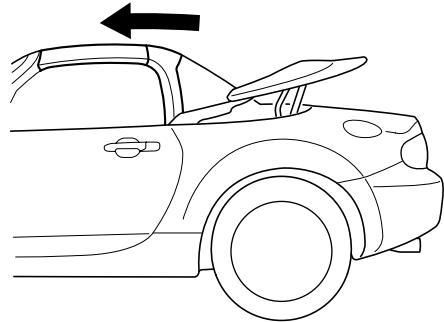
NOTE

If the windows are closed, the windows automatically open partially when the deck opens.

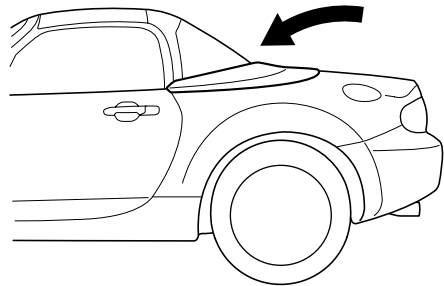
7. The hardtop comes out from under the deck.



8. The hardtop closes.



9. The deck closes.



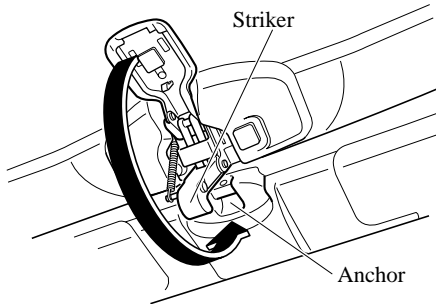
NOTE

- *When the operation is finished, a beep sound is heard and the operation indicator light illuminates.*
- *The power windows cannot be closed automatically.*

Knowing Your Mazda

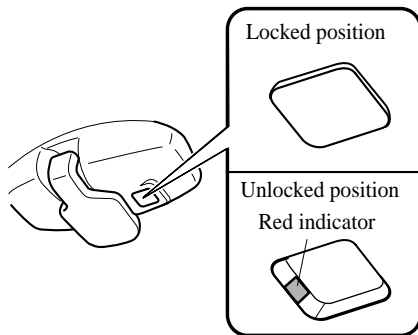
Doors and Locks

10. Move the top latch slowly to make sure the anchor engages with the striker, then rotate the top latch to the lock position until a click sound is heard.



CAUTION

Driving with the hardtop not fully locked could damage the hardtop. If the red indicator is visible on the unlock button, the hardtop is not locked. After locking the hardtop, verify that the red indicator is not visible.



NOTE

- The operation indicator light turns off when the top latch hook is locked.
- If the hardtop is not closed properly even with the top latch locked, contact Mazda to have it inspected.

▼ The Power Retractable Hardtop Does not Close

If the hardtop cannot be closed electrically by pressing the close switch, verify the power retractable hardtop operation conditions first.

Refer to Operation Conditions on page 3-54.

If the power retractable hardtop cannot be closed even after the operation conditions are all met, have it checked at an Authorized Mazda Dealer.

If you are unable to have the hardtop checked at an Authorized Mazda Dealer, the hardtop can be closed manually as an emergency measure.

The procedure for manually closing the hardtop is as follows:

1. Release the locks of the deck and open it. (Refer to Opening the deck)
2. Lift up the hardtop and close it. (Refer to Closing the hardtop)
3. Tie the ropes to the deck links and close the deck. (Refer to Closing the deck)

Doors and Locks

CAUTION

- Do not drive the vehicle with the hardtop open halfway.
- Do not perform the procedure in a strong wind as it could cause an unexpected accident.
- Two adults are required to perform the procedure, especially when lifting up the hardtop. Do not do it alone so as not to cause injury or vehicle damage.
- Some steps in the procedure require using multiple tools at the same time and a certain level of technical expertise. In addition, holding your body extended over the car can result in muscle strains so Mazda recommends having the hardtop checked at an Authorized Mazda Dealer.

NOTE

Use a suitable means of illumination, such as a flashlight, to improve visibility under the deck lid when performing this task.

Before closing manually

1. Park on a level surface off the right-of-way and firmly set the parking brake.
2. Put a vehicle with an automatic transmission in Park (P), a manual transmission in Reverse (R) or 1, and turn off the engine.
3. Turn the ignition switch to the LOCK position while depressing the brake pedal.
4. Turn on the hazard warning flasher if it is needed.

WARNING

Verify that the ignition switch is in the LOCK position before manually operating the hardtop:

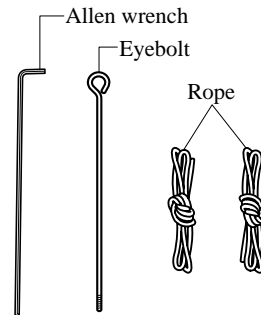
Manually retracting the hardtop with the ignition switch not in the LOCK position is dangerous as the retractor motors could turn on suddenly and cause injury resulting from hands or fingers being pinched in the mechanism.

Manual closing

Tool preparation

Locate the following tools in the glove box.

Refer to Tool Storage on page 7-5.



Opening the deck

1. Remove the antenna if it is installed.
Refer to Detachable Type on page 6-9.

CAUTION

Do the procedure with the antenna removed. The antenna may be damaged if it is left installed.

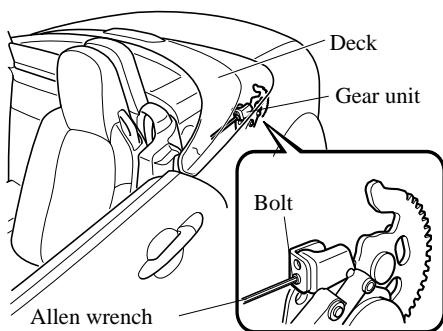
Knowing Your Mazda

Doors and Locks

NOTE

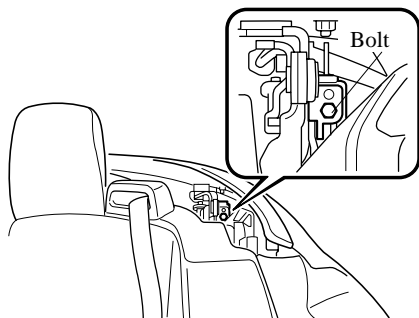
- The gear units on both sides have to be unlocked to release the deck before it is raised manually. Because the deck is heavy, two adults are required to raise it.
- The following describes the procedure for the gear unit on one side. Perform the procedure on both sides.

2. Insert the Allen wrench into the Allen socket in the bolt head that is pointed forward of the gear unit located under the deck lid as shown in the figure.

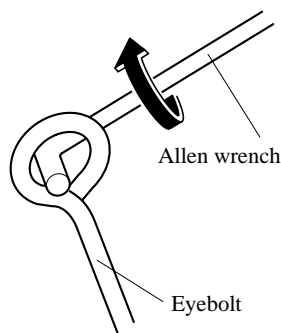


NOTE

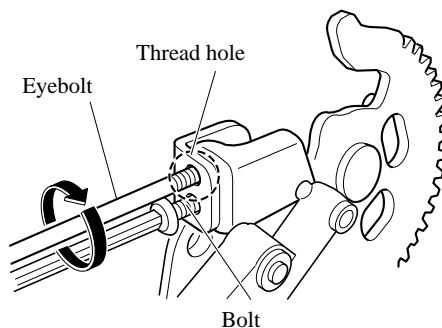
The gear units are located underneath the deck.



3. Use the eyebolt to get enough torque on the short leg of the Allen wrench and turn the Allen wrench 4 times counterclockwise.



4. Disconnect the eyebolt from the Allen wrench leaving the Allen wrench in place, and insert the threaded end of the eyebolt in the hole directly above the Allen socket and tighten it clockwise two full turns.



NOTE

Tighten the eyebolt with the Allen wrench inserted. The Allen wrench can serve as a reference for inserting the eyebolt more easily.

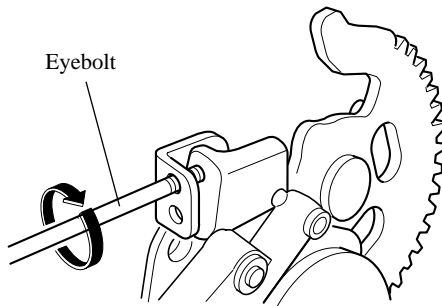
5. Remove the bolt, which is loosened using the Allen wrench, by turning it counterclockwise.

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Doors and Locks

NOTE

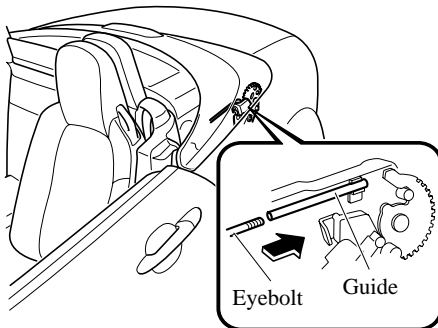
- After the bolt is clear of the hole, keep the Allen wrench level while pulling it out with the bolt attached so as to prevent the bolt from hitting the vehicle and dropping.
- Bring the removed bolt to an Authorized Mazda Dealer. If you drop the bolt in the vehicle by mistake, inform at an Authorized Mazda Dealer.

6. Tighten the eyebolt by turning it clockwise 5 more times.

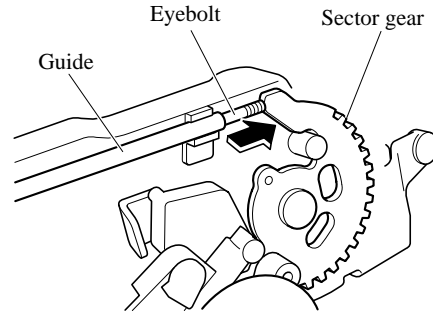


7. Unscrew the eyebolt now by turning it counterclockwise.

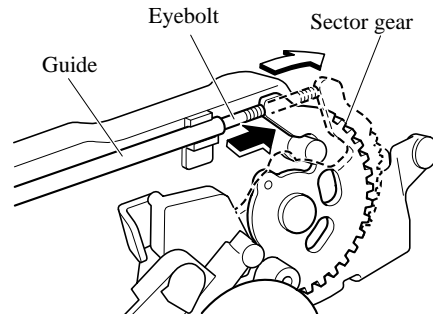
8. Insert the threaded end of the eyebolt through the guide.



9. Press the eyebolt against the sector gear.



10. Press and rotate the sector gear rearward to release the lock.



CAUTION

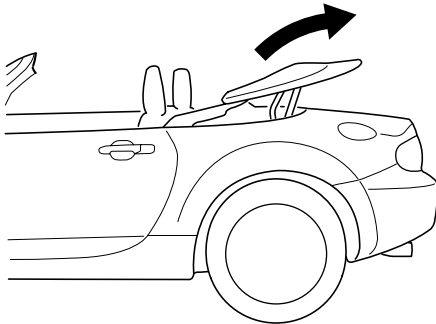
When releasing the sector gear lock using the eyebolt, make sure the eyebolt remains centered as you push it against the sector gear lock. If the eyebolt slips it could cause your hand to veer and hit the vehicle resulting in minor scrapes or bruises.

11. Pull out the eyebolt from the guide when the lock is released.
12. Do the same procedure on the other side.

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Doors and Locks

13. Lift up the deck using two adults, one on each side of the vehicle, and open the deck completely.



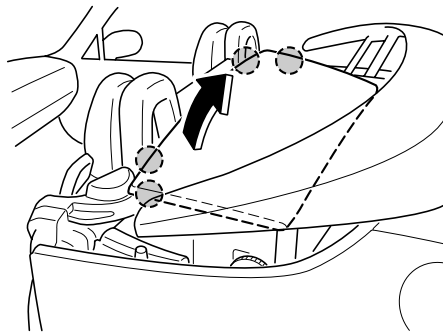
CAUTION

- Lift the deck using two adults. Doing it alone could result in injury or the deck lid mechanism being twisted which could damage it.
- Do not let go of the deck lid on both sides until it is fully open. The deck lid could fall if it is released too soon and cause injury.
- Do not attempt to forcefully lift the deck. If the lock has not detached and the deck is forcefully lifted, it could damage the deck.

Closing the hardtop

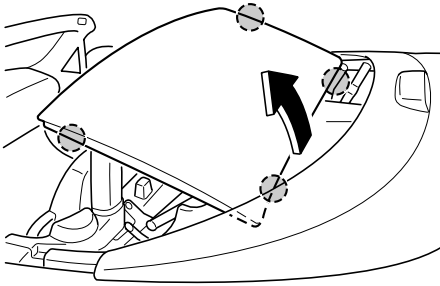
CAUTION

- The procedure should be done by at least two adults. Do not do it alone so as not to cause injury or vehicle damage.
 - Some steps in the procedure require holding your body in a strained position for extended periods and if over exerted it could result in injury.
 - Be very careful when closing the hardtop to prevent pinching and possible injury.
1. Grasp the hardtop along the side and front surfaces and lift it up enough to create a clearance at the rear of hardtop.

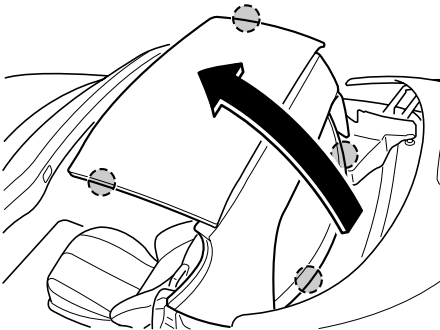


Knowing Your Mazda Doors and Locks

2. Grasp the hardtop along the side and rear surfaces and lift it up enough to create a clearance behind the rear glass.



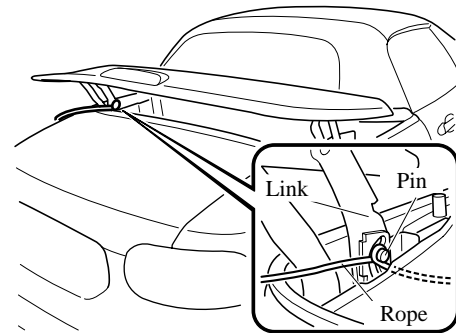
3. Grasp the hardtop along its side surface and the rear area of the rear glass, pull the hardtop towards the front of the vehicle, and completely close it.



4. Lock the top latch.
Refer to Closing the Power Retractable Hardtop on page 3-56.

Closing the deck

1. Loop the center of the rope through the pin on the link twice so that it does not loosen.

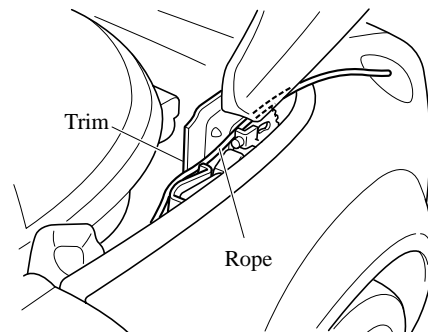


NOTE

Before closing the deck, two small ropes need to be installed and tied into the trunk so that the deck does not pop up while driving, and so that the deck can be raised for servicing by an Authorized Mazda Dealer.

2. Route one end of the rope to the inside of the vehicle passing it through the gap in the trim. Route the other end to the outside of the vehicle passing it through the links.

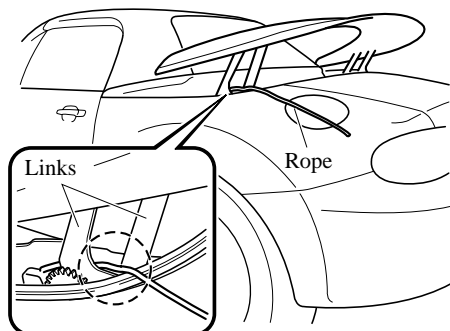
To the inside of the vehicle



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Doors and Locks

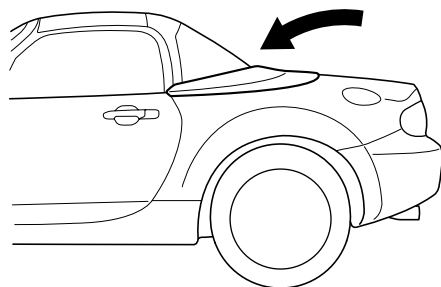
To the outside of the vehicle



NOTE

Always route the one end of the rope to inside of the vehicle. If it is not inside the vehicle, it will be difficult to service the hardtop at an Authorized Mazda Dealer.

3. Do the same procedure on the other side.
4. Close the deck uniformly on both sides using two adults, one on each side of the vehicle.



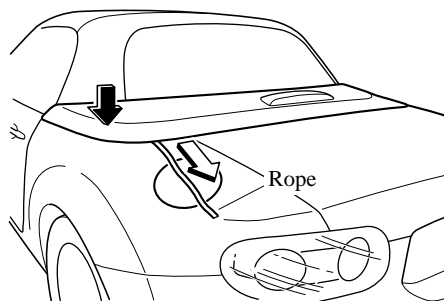
CAUTION

Close the deck using two adults. Doing it alone could result in injury or the deck lid mechanism being twisted which could damage it.

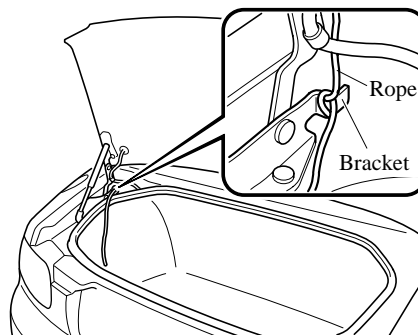
5. Lightly pushing the deck downward, pull the ropes to the rear along both sides of the trunk to hold the deck down.

NOTE

Pull the ropes horizontally to the vehicle rear.



6. Lightly move the deck and verify that it is secured completely.
7. Open the trunk using the key, and tie the rope to the bracket and knot it twice so that it does not loosen.



CAUTION

Tie the ropes securely so that the deck does not open while the vehicle is being driven.

Knowing Your Mazda
Doors and Locks

NOTE

Open the trunk using the key. The remote release button, advanced keyless entry function, and the keyless entry system do not operate when this emergency procedure is done.

8. Tie off the other side rope the same way.
9. Close the trunk lid.

After finishing the procedure

After finishing the procedure, have the hardtop checked at an Authorized Mazda Dealer as soon as possible.

! WARNING

Drive the vehicle at a speed of 40 km/h (25 mph) or lower before having the hardtop checked at an Authorized Mazda Dealer:

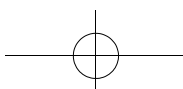
The hardtop may open while the vehicle is being driven and cause an accident.

NOTE

The trunk cannot be opened with the remote release button, advanced keyless entry function, and the keyless entry system as they are disabled when this emergency procedure is done.

▼ Power Retractable Hardtop Appearance Care

Refer to Hardtop Maintenance (page 8-55) for information on retractable hardtop appearance care.



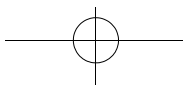
Knowing Your Mazda

Doors and Locks

▼ When Warning Indicator/Beep is Activated

If an improper operation is performed or a system malfunction has occurred, the indicator light or a warning beep is activated to notify the user of improper operation or a system malfunction.

Warning	What to check
A warning beep sound is heard when the open or close switch is pressed.	Make sure that all the conditions for operating the retractable hardtop have been met. If the chime sounds despite having met all the operation conditions, consult an Authorized Mazda Dealer to have the system inspected.
A warning beep sound is heard when the open or close switch is released.	The hardtop is not fully opened or closed. Press the switch until the open or close operation is completed.
A warning beep sound is heard continuously and the indicator light is illuminated while the vehicle is driven.	The hardtop has not completely opened or closed. Continue to press the button until the operation is completed. After the hardtop is completely closed, latch the top latch.
If the open or close button has not been operated and the operation indicator light is flashing:	The system may have a malfunction. Have the vehicle checked at an Authorized Mazda Dealer.



Knowing Your Mazda
Security System

Immobilizer System (with Advanced Key)

The immobilizer system allows the engine to start only with an advanced 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

Do not allow the following when starting the engine with the auxiliary key due to an advanced key dead battery or other malfunction. Otherwise the signal from the auxiliary key will not be received correctly and the engine may not start.

- *Metal parts of other keys or metal objects touch the key grip.*
- *Spare auxiliary keys or keys for other vehicles equipped with an immobilizer system touch or come near the auxiliary key.*
- *Equipment containing electronic components or cards with magnetic strips such as credit cards come near the auxiliary key.*

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.

Knowing Your Mazda

Security System

▼ Operation

Arming

The system is armed when the ignition switch is turned from the ON position to the ACC or LOCK position. The security indicator light in the instrument cluster 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 registered advanced 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

- *The engine may not start and the security indicator light may illuminate or flash if the advanced key is placed in an area where it is difficult for the system to detect the signal, such as on the dashboard, or in the glove box. Move the advanced key to another place, turn the ignition switch to the LOCK position, and then restart the engine.*
- *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 advanced key and the engine fails to start, check the security indicator light. If the indicator light is flashing, turn the ignition switch to the ACC or LOCK position and wait for a while, then restart the engine. 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 the engine is shut off while the indicator light is flashing, you won't be able to restart it.*
- *Since the electronic codes are reset when repairing the immobilizer system, the advanced key (including auxiliary key) are needed. Bring all the advanced keys (including auxiliary keys) to an Authorized Mazda Dealer.*

Knowing Your Mazda
Security System

▼ **Maintenance**

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

NOTE

- *The advanced keys (including auxiliary key) carry a unique electronic code. For this reason, and to assure your safety, obtaining a replacement advanced key (including auxiliary key) requires some waiting time. They are only available through an Authorized Mazda Dealer.*
- *Always keep a spare advanced key in case one is lost. If an advanced key is lost, consult an Authorized Mazda Dealer as soon as possible.*
- *If you lose an advanced key (including auxiliary key), an Authorized Mazda Dealer will reset the electronic codes of your remaining advanced keys (including auxiliary keys) and immobilizer system. Bring all the remaining advanced keys (including auxiliary 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.

**Immobilizer System
(without Advanced Key)**

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.*

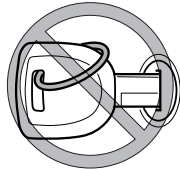
Knowing Your Mazda

Security System

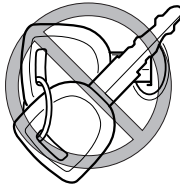
CAUTION

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.

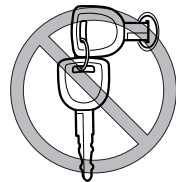
- A key ring rests on the key grip.



- 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.

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.

Knowing Your Mazda
Security System

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.

Knowing Your Mazda

Security System

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 3-72.

NOTE

- *The theft-deterrent system operates with the key or the keyless entry system transmitter.*
- **(With advanced key)**
The theft-deterrent system can also be operated using a request switch or the start knob.
The system operates only when the driver is in the vehicle or within operational range while the advanced key is being carried.
- *The system will not function unless it is properly armed. To properly secure the vehicle, always make sure both windows are completely closed and both doors and the trunk lid 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.
- 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.

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.

(With advanced key)

The lights and horn can also be deactivated by pressing a request switch.

▼ How to Arm the System

1. Remove the key from the ignition switch.

(With advanced key)

Turn the start knob to the LOCK position.

2. Make sure the hood and the trunk lid are closed. Close and lock both doors from the outside using the key. If you have the keyless entry system, press the lock button on the transmitter.

(With advanced key)

Press a request switch on the doors or the lock button on the transmitter.

The hazard warning lights will flash once to indicate that the system is armed.

(Without advanced key)

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

Close the hood and the trunk lid. Press the area on the door-lock switch marked "LOCK" once. Close both doors.

NOTE

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

Knowing Your Mazda Security System

▼ 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.
- **(With advanced key)**
 - Press a request switch on the doors or the unlock button on the transmitter.
 - Turn the start knob 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.
- **(With advanced key)**
 - Press a request switch on the doors.
 - Press the unlock button or press and hold the trunk button on the transmitter.

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.

Knowing Your Mazda

Steering Wheel and Mirrors

Steering Wheel

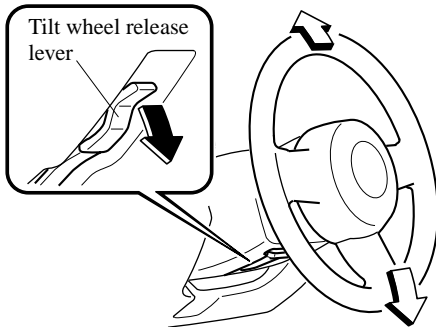
⚠ WARNING

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.

▼ Tilt Steering Wheel

To change the angle of the steering wheel, stop the vehicle, pull the tilt wheel release lever under the steering column down, adjust the wheel, then push the release lever up to lock the column.



After adjusting, push the wheel up and down to be certain it's locked before driving.

Mirrors

▼ Outside Mirrors

Check the mirror angles before driving.

Mirror type

Flat type (driver's side)

Flat surface mirror.

Convex type (passenger side)

The mirror has single curvature on its surface.

⚠ 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

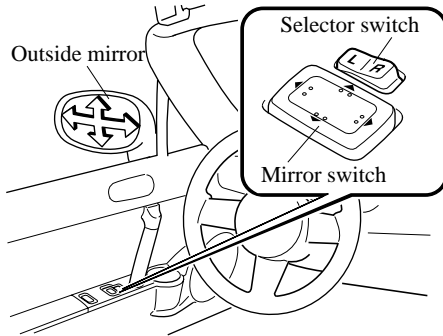
The ignition switch must be in the ACC or ON position.

To adjust:

1. Press the left or right side of the selector switch to choose the left or right side mirror.

Steering Wheel and Mirrors

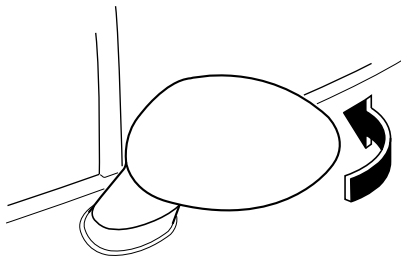
- Depress the mirror switch in the appropriate direction.



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

Folding the mirror

Fold the outside mirror rearward until it is flush with the vehicle.



⚠ WARNING

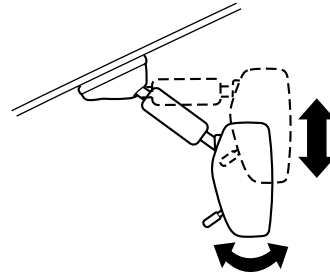
Always return the outside mirrors to the driving position before you start driving:

Driving with the outside mirrors folded in is dangerous. Your rear view will be restricted, and you could have an accident.

▼ Rearview Mirror

Rearview mirror adjustment

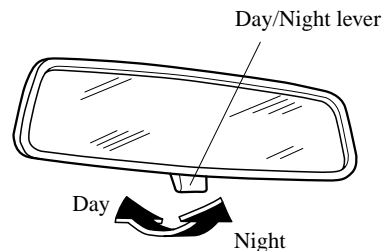
Before driving, adjust the rearview mirror to center on the scene through the rear window.



Reducing glare from headlights

Adjust the mirror with the day/night lever in the day position.

Push the lever forward for day driving. Pull it back to reduce glare from headlights.





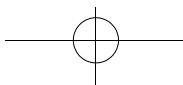
Knowing Your Mazda

Steering Wheel and Mirrors

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.



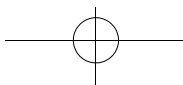


4

Before Driving Your Mazda

Important information about driving your Mazda.

Fuel and Engine Exhaust Precautions	4-2
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Before Driving Your Mazda

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)
Premium unleaded fuel	91 [(R+M)/2 method] or above (96 RON or above)

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

You may use a regular unleaded fuel with an Octane Rating from 87 to 90 (91 to 95 RON) but this will slightly reduce performance, such as reduced engine output, and engine knocking.

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

While the engine is off, the sound of a valve opening and closing can be heard below the trunk, however this does not indicate an abnormality. Your vehicle has a self-checking device and it operates while the engine is off.

Before Driving Your Mazda

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 Driving Your Mazda

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 each occupant'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.

Before Driving Your Mazda

Driving Tips

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.

Before Driving Your Mazda
Driving Tips

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 on ice or in water, snow, mud, sand, or similar hazard:

- Be cautious and allow extra distance for braking.
- Avoid sudden braking and quick steering.
- 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.
- If you get stuck, select a lower gear and accelerate slowly. Do not spin the rear wheels.
- For more traction in starting on slippery surfaces such as ice or packed snow, use sand, rock salt, chains, carpeting, or other nonslip material under the rear wheels.

NOTE

Use snow chains only on the rear wheels.

Before Driving Your Mazda

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, transmission 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, including tire chains, window scraper, flares, a small shovel, jumper cables, and a small bag of sand or salt.

Ask an Authorized Mazda Dealer to perform the following precautions:

- Have the proper ratio of antifreeze in the radiator.
Refer to Engine Coolant on page 8-23.
- 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 transmission and to 1 or R with a manual transmission. 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/cm², 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 summer tires designed for optimum traction on wet and dry roads. If your vehicle is to be used on snow and ice covered roads, Mazda recommends that you replace the tires originally equipped on your vehicle with snow tires during the winter months.

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 5-31).

▼ Tire Chains

Check local regulations before using tire chains.

CAUTION

- *Chains may affect handling.*
- *Do not go faster than 50 km/h (30 mph) or the chain manufacturer's recommended limit, whichever is lower.*
- *Drive carefully and avoid bumps, holes, and sharp turns.*
- *Avoid locked-wheel braking.*
- *Do not use chains on roads that are free of snow or ice. The tires and chains could be damaged.*
- *Chains may scratch or chip aluminum wheels.*

NOTE

If your vehicle is equipped with the tire pressure monitoring system, the system may not function correctly when using tire chains.

Install the chains on the rear tires.
Do not use chains on the front tires.
Please consult an Authorized Mazda Dealer.

Installing the chains

1. Secure the chains on the rear tires as tightly as possible. Always follow the chain manufacturer's instructions.
2. Retighten the chains after driving 1/2 — 1 km (1/4—1/2 mile).

Before Driving Your Mazda

Driving Tips

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

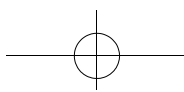
Do not drive the vehicle on flooded roads as it could cause short circuiting of electrical/electronic parts, or engine damage or stalling from water absorption. If the vehicle has been immersed in water, consult an Authorized Mazda Dealer.

Overloading

WARNING

Be careful not to overload your vehicle:

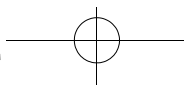
The gross axle weight rating (GAWR) and the gross vehicle weight rating (GVWR) of your vehicle are on the Motor Vehicle Safety Standard Label on the driver's door frame. Exceeding these ratings can cause an accident or vehicle damage. You can estimate the weight of your load by weighing the items (or people) before putting them in the vehicle.

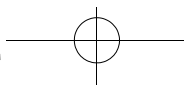
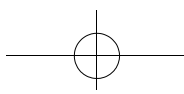


Before Driving Your Mazda
Towing

Trailer Towing

The Mazda MX-5 is not designed for towing. Never tow a trailer with your Mazda MX-5.





5 Driving Your Mazda

Explanation of instruments and controls.

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*Some models. **5-1**

Driving Your Mazda

Starting and Driving

Ignition Switch

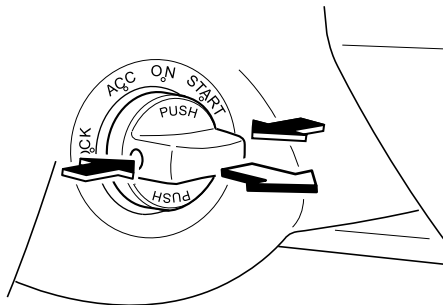
Auxiliary key (with advanced key)

NOTE

When starting the engine using the advanced key, refer to *Starting the Engine* (page 3-10).

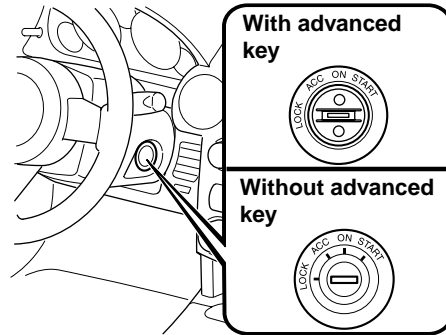
When starting the engine with the auxiliary key, perform the following procedure.

1. Remove the auxiliary key from the advanced key (page 3-16).
2. Make sure the start knob is in LOCK position.
3. Remove the start knob by pulling it outward while pressing the buttons on both the left and right sides.



4. Insert the auxiliary key in the ignition switch.

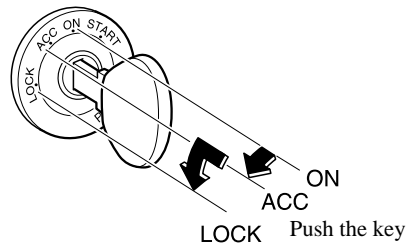
▼ Ignition Switch Positions



LOCK

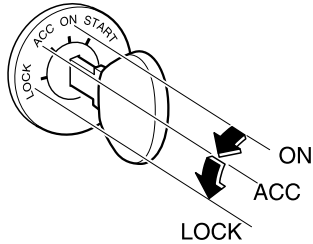
The steering wheel locks to protect against theft. Only in this position can the key be removed.

Manual Transmission Vehicle



Starting and Driving

Automatic Transmission Vehicle



⚠ 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. (For vehicles equipped with the advanced key, the steering wheel locks when the starter knob is turned to the LOCK position.)

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

Intentionally placing the key or start knob 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 transmission or in 1 or R with a manual transmission 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 or start knob in any position but LOCK position also disables some of the security features and may run the battery down.

Driving Your Mazda

Starting and Driving

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 should be inspected before the engine is started (page 5-39).

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.

▼ 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 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 transmission)**
Depress the clutch pedal all the way and shift into neutral.
Keep the clutch pedal depressed while cranking the engine.

(Automatic transmission)

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

NOTE

(Manual transmission)

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

(Automatic transmission)

*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.

Starting and Driving

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 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.

Driving Your Mazda

Starting and Driving

⚠ 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 or start knob to LOCK position, set the parking brake and make sure the shift lever is in P with an automatic transmission or in 1 or R with a manual transmission:

Intentionally placing the key or start knob 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 transmission or in 1 or R with a manual transmission is dangerous. Unexpected vehicle movement could occur. This could cause an accident.

⚠ CAUTION

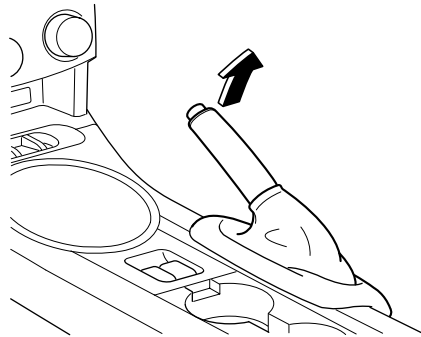
Driving with the parking brake on will cause excessive wear of the brake linings or pads.

NOTE

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

Setting the parking brake

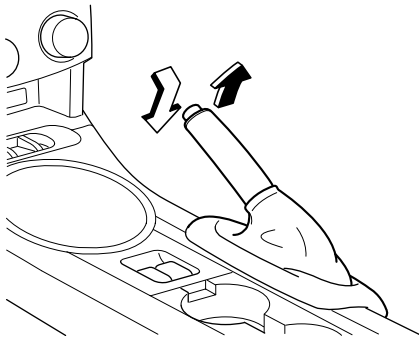
Depress the brake pedal and then firmly pull the parking brake lever fully upwards with a greater amount of force than is required so that the vehicle holds in the stationary position.



Driving Your Mazda
Starting and Driving

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 8-25).
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.

Driving Your Mazda

Starting and Driving

▼ 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.*

▼ ABS Warning Light *



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

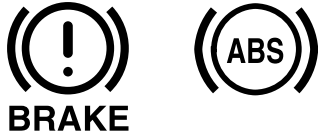
If the ABS warning light stays on while you're driving, the ABS control unit has detected a system malfunction. If this occurs, your brakes will function normally as if the vehicle had no ABS. Should this happen, consult an Authorized Mazda Dealer as soon as possible.

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.

Driving Your Mazda
Starting and Driving

▼ **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

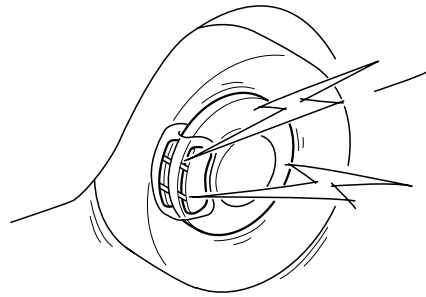
Do not drive with both the ABS warning light and brake warning light illuminated. Have the vehicle towed to an Authorized Mazda Dealer to have the brakes inspected as soon as possible:

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.

▼ **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.

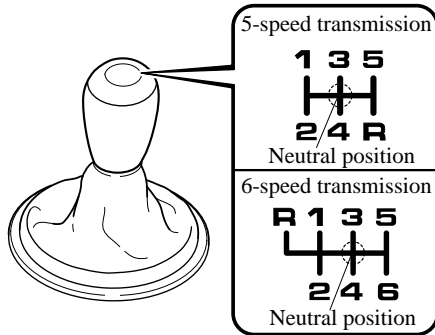
*Some models.

Driving Your Mazda

Starting and Driving

Manual Transmission Operation

▼ Manual Transmission Shift Pattern



The vehicle is equipped with either a 5-speed or 6-speed manual transmission. The shift pattern for each is shown above.

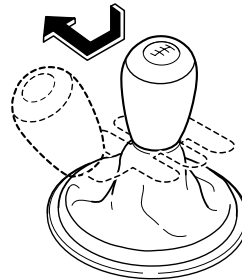
Depress the clutch pedal all the way down while shifting; then release it slowly.

(5-speed transmission)

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

(6-speed transmission)

Vehicles with 6-speed transmission are equipped with a device to prevent shifting to R (reverse) by mistake. Push the shift lever downward and shift to R.



! 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.

Driving Your Mazda
Starting and Driving

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 transmission.*

NOTE

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

▼ Recommendations for Shifting

Upshifting

For normal acceleration, we recommend these shift points.

Gear	5-speed transmission	6-speed transmission
1 to 2	24 km/h (15 mph)	23 km/h (14 mph)
2 to 3	42 km/h (26 mph)	37 km/h (23 mph)
3 to 4	55 km/h (34 mph)	50 km/h (31 mph)
4 to 5	66 km/h (41 mph)	56 km/h (35 mph)
5 to 6	—	66 km/h (41 mph)

For cruising

Gear	5-speed transmission	6-speed transmission
1 to 2	15 km/h (9 mph)	18 km/h (11 mph)
2 to 3	29 km/h (18 mph)	32 km/h (20 mph)
3 to 4	47 km/h (29 mph)	44 km/h (27 mph)
4 to 5	61 km/h (38 mph)	56 km/h (35 mph)
5 to 6	—	68 km/h (42 mph)

Downshifting

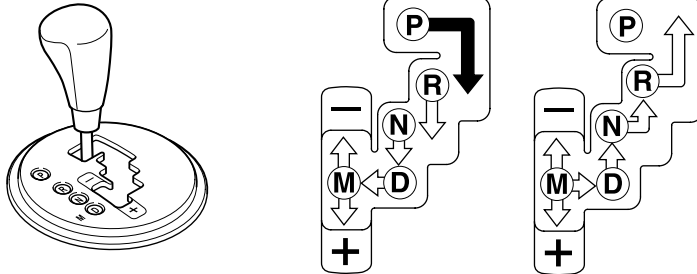
When you must slow down in heavy traffic or on a steep **upgrade**, downshift before the engine starts to overwork. This reduces the chance of stalling and gives better acceleration when you need more speed.

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

Driving Your Mazda

Starting and Driving

Automatic Transmission 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 transmission - giving the driver the option of selecting each gear instead of leaving it to the transmission to shift gears. Even if you intend to use the automatic transmission 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).

Starting and Driving

▼ Transmission Ranges

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

P (Park)

P locks the transmission and prevents the rear 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 transmission.*
- *Shifting into a driving gear or reverse when the engine is running faster than idle can damage the transmission.*

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 transmission 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 transmission 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 transmission will automatically shift through a 6-gear sequence.

M (Manual)

M is the manual shift mode position. Gears can be shifted up or down by operating the shift lever or steering shift switches. Refer to Manual Shift Mode (page 5-14).

Driving Your Mazda

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.

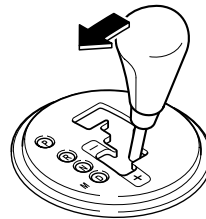
NOTE

- *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.*
- **(With Advanced Key)**
The ignition switch cannot be turned from the ACC position to the LOCK position when the shift lever is not in P.

▼ Manual Shift Mode

This mode gives you the feel of driving a manual transmission vehicle by operating the shift lever and allows you to control engine rpm and torque to the rear wheels much like a manual transmission 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.

Indicators

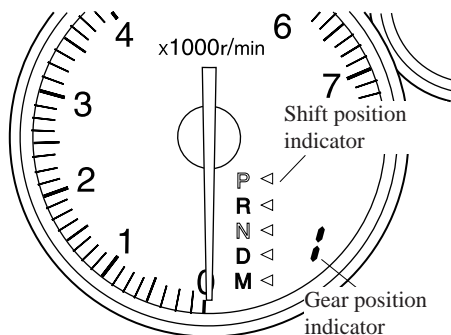
Shift position indicator

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

Driving Your Mazda Starting and Driving

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.
- If the automatic transmission fluid (ATF) temperature becomes too high, there is the possibility that the transmission 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

You can shift gears up and down by operating the shift lever or the steering shift switches.

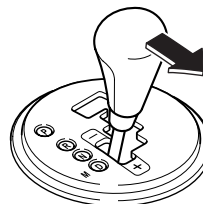
NOTE

- If the steering shift switches on both sides (left and right) are operated simultaneously, the gear will shift once.
- The gear will not shift if:
 - The steering shift switch and the shift lever are operated simultaneously.
 - The UP switch and DOWN switch are operated simultaneously.

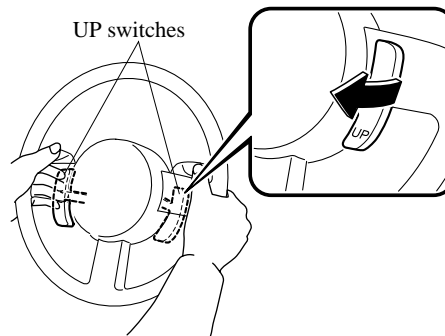
Manually Shifting up

(M1→M2→M3→M4→M5→M6)

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



To shift up to a higher gear with the steering shift switches, tap either of the UP switches toward you once with your fingers.



Driving Your Mazda

Starting and Driving

⚠ WARNING

Keep your hands on the steering wheel rim when using fingers or thumbs on the steering shift switches:

Putting your hands inside the rim of the steering wheel when using the steering shift switches is dangerous. If the driver air bag were to deploy in a collision, your hands could be impacted causing injury.

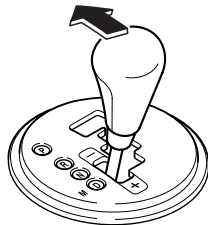
NOTE

- 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.
- When depressing the accelerator fully, the transmission will shift to a lower gear, depending on vehicle speed (Except M2→M1).

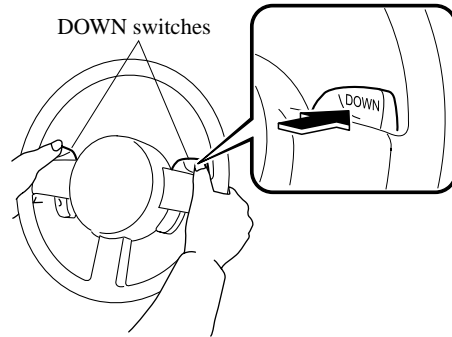
Manually Shifting down

(M6→M5→M4→M3→M2→M1)

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



To shift down to a lower gear with the steering shift switches, press either of the DOWN switches away from you once with your thumb.



⚠ WARNING

Do not use 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.

Keep your hands on the steering wheel rim when using fingers or thumbs on the steering shift switches:

Putting your hands inside the rim of the steering wheel when using the steering shift switches is dangerous. If the driver air bag were to deploy in a collision, your hands could be impacted causing injury.

Starting and Driving

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 transmission will shift to a lower gear, depending on vehicle speed (Except M2→M1).

Second gear fixed mode

When the shift lever is tapped back (+) while the vehicle is stopped, the transmission is set in the second gear fixed mode. The gear is fixed in second while in this mode for easier starting and driving on slippery roads. If the shift lever is tapped back (+) or forward (-) while in the second gear fixed mode, the mode will be canceled.

Shifting specification

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	Between 0 and 18 km/h (0 and 11 mph), depending on how much the accelerator pedal is depressed.
M2→M3 M3→M4	Between 22 and 32 km/h (13 and 19 mph), depending on how much the accelerator pedal is depressed.
M4→M5	Between 40 and 48 km/h (25 and 29 mph), depending on how much the accelerator pedal is depressed.
M5→M6	Between 50 and 68 km/h (31 and 42 mph), depending on how much the accelerator pedal is depressed.

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	164 km/h (102 mph)
M4→M3	117 km/h (72 mph)
M3→M2	80 km/h (49 mph)
M2→M1	35 km/h (21 mph)

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

Gear	Vehicle speed
M6→M5	47 km/h (29 mph)
M5→M4	38 km/h (23 mph)
M4→M3	20 km/h (12 mph)
M3→M2	15 km/h (9 mph)
M2→M1	12 km/h (7 mph)

NOTE

The gear does not shift down to M1 automatically while in the second gear fixed mode.

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

Gear	Vehicle speed
M6→M5	190 km/h (118 mph)
M6→M4	125 km/h (77 mph)
M5→M4	125 km/h (77 mph)
M5→M3	78 km/h (48 mph)
M4→M3	78 km/h (48 mph)
M4→M2	50 km/h (31 mph)
M3→M2	50 km/h (31 mph)

Driving Your Mazda

Starting and Driving

Recommendations for shifting

Upshifting

For normal acceleration, we recommend these shift points.

Gear	Vehicle speed
M1 to M2	24 km/h (15 mph)
M2 to M3	40 km/h (25 mph)
M3 to M4	53 km/h (33 mph)
M4 to M5	59 km/h (37 mph)
M5 to M6	78 km/h (49 mph)

For cruising

Gear	Vehicle speed
M1 to M2	22 km/h (14 mph)
M2 to M3	27 km/h (17 mph)
M3 to M4	41 km/h (26 mph)
M4 to M5	56 km/h (35 mph)
M5 to M6	64 km/h (40 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 transmission 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.

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.

Starting and Driving

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 (Amber)/Cruise Set Indicator Light (Green)**

CRUISE

The indicator light has two colors.

Cruise Main Indicator Light (Amber)

The indicator light illuminates amber when the ON/OFF switch is pressed and the cruise control system is activated.

Cruise Set Indicator Light (Green)

The indicator light illuminates green when a cruising speed has been set.

Driving Your Mazda

Starting and Driving

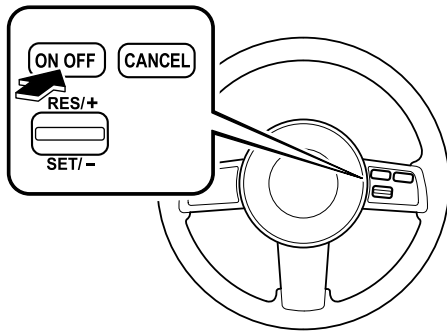
▼ Activation/Deactivation

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

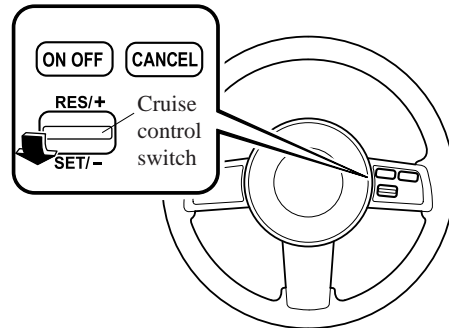
Keep the ON/OFF switch off when cruise control is not in use:

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).

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



Don't continue to hold the switch. 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.*

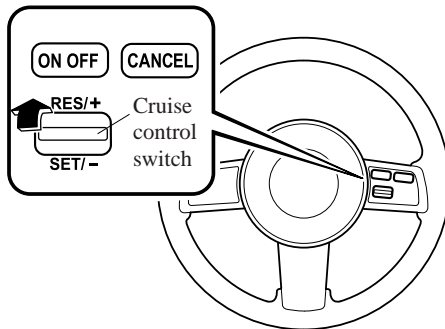
Driving Your Mazda Starting and Driving

▼ To Increase Cruising Speed

Follow either of these procedures.

To increase speed using cruise control switch

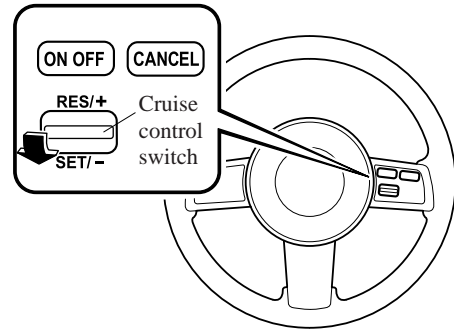
Pull up the cruise control switch and hold it. Your vehicle will accelerate. Release the switch at the speed you want.



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 cruise control switch. 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 down the cruise control switch and release it immediately.

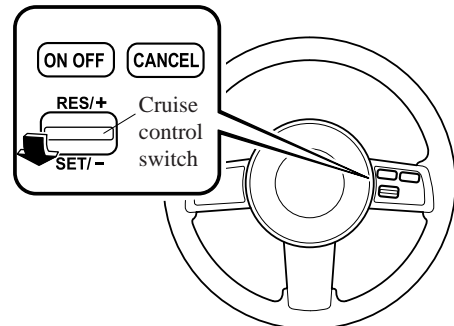


NOTE

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 down the cruise control switch and hold it. The vehicle will gradually slow. Release the switch at the speed you want.



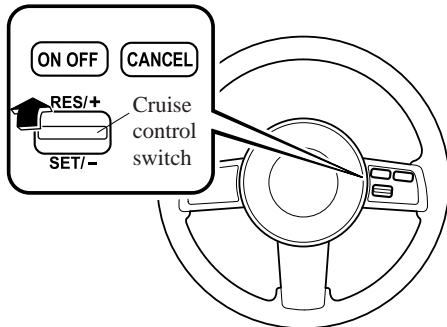
Driving Your Mazda

Starting and Driving

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 cruise control switch. 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 cruise control switch pulled up. If vehicle speed is below 30 km/h (19 mph), increase the vehicle speed up to 30 km/h (19 mph) and pull up the cruise control switch.

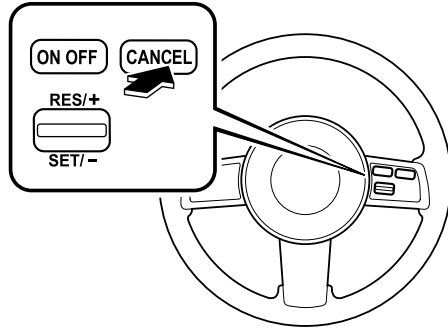


▼ To Cancel

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

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

- 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).

Driving Your Mazda
Starting and Driving

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 or tire chains on the rear wheels only and drive at reduced speeds when roads are covered with ice and/or snow:

Driving without proper traction devices on snow and/or ice-covered roads is dangerous. The traction control system (TCS) alone cannot provide adequate traction and you could still have an accident.

NOTE

To turn off the TCS, press the DSC OFF switch (page 5-25).

▼ TCS/DSC Indicator Light



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

If the light stays on, the TCS or DSC may have a malfunction and they 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.*

Driving Your Mazda

Starting and Driving

Dynamic Stability Control (DSC)*

The Dynamic Stability Control (DSC) automatically controls braking and engine torque in conjunction with systems such as ABS and TCS to help control side slip when driving on slippery surfaces, or during sudden or evasive maneuvering, enhancing vehicle safety.

Refer to ABS (page 5-8) and TCS (page 5-23).

⚠ WARNING

Do not rely on the dynamic stability control as a substitute for safe driving: *The dynamic stability control (DSC) cannot compensate for unsafe and reckless driving, excessive speed, tailgating (following another vehicle too closely), and hydroplaning (reduced tire friction and road contact because of water on the road surface). You can still have an accident.*

⚠ CAUTION

- *The DSC may not operate correctly unless the following are observed:*
 - *Use tires of the correct size specified for your Mazda on all four wheels.*
 - *Use tires of the same manufacturer, brand and tread pattern on all four wheels.*
 - *Do not mix worn tires.*
- *The DSC may not operate correctly when tire chains are used or a temporary spare tire is installed because the tire diameter changes.*
- *If repair or replacement of the steering or other surrounding equipment is necessary, have it done at an Authorized Mazda Dealer. If the center position of the steering deviates, the DSC may not operate correctly because there is a sensor in the steering which detects driving conditions.*

▼ TCS/DSC Indicator Light



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

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

Driving Your Mazda Starting and Driving

▼ DSC OFF Indicator Light

DSC 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 DSC OFF switch is pressed and TCS/DSC is switched off (page 5-25).

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

NOTE

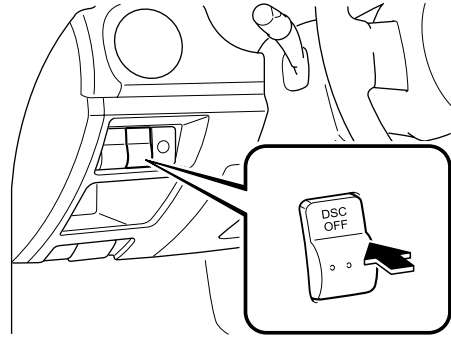
If the battery is disconnected or a fuse is replaced, the DSC will be inoperable. In this case, the DSC OFF indicator light flashes and the TCS/DSC indicator light illuminates. To make the DSC operable, do the following procedure with the battery connected.

1. Turn the ignition switch to the ON position.
2. Turn the steering clockwise fully, then turn it counterclockwise fully.
3. Make sure the DSC OFF indicator goes off.
4. Turn the ignition switch to the OFF position, then turn it to the ON position again.
5. Make sure the TCS/DSC indicator light goes off.

If the TCS/DSC indicator light and the DSC OFF indicator light remain illuminated even after turning the ignition switch to the ON position, consult an Authorized Mazda Dealer.

▼ DSC OFF Switch

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



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

Driving Your Mazda

Starting and Driving

NOTE

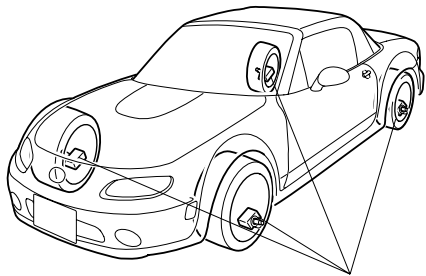
- *When DSC is on and you attempt to free the vehicle when it is stuck, or drive it out of freshly fallen snow, the TCS (part of the DSC system) will activate. Depressing the accelerator will not increase engine power and freeing the vehicle may be difficult. When this happens, turn off the TCS/DSC.*
- *If the TCS/DSC is off when the engine is turned off, it automatically activates when the ignition switch is turned on.*
- *Leaving the TCS/DSC on will provide the best stability. When the TCS/DSC is off, the TCS/DSC does not activate but the brake LSD (Limited Slip Differentials) function remains.*
- *If the DSC OFF switch is pressed and held for a second or more, the TCS/DSC system may become inoperative due to the system detecting switch trouble. If the TCS/DSC system becomes inoperative, the TCS/DSC and the DSC OFF indicator lights illuminate simultaneously. In this case, turn off the engine and restart it to restore the TCS/DSC.*

Driving Your Mazda
Starting and Driving

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.



Tire pressure sensors

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.

Driving Your Mazda

Starting and Driving

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.

Starting and Driving

▼ 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.

Driving Your Mazda

Starting and Driving

Adjust the tire pressure to the correct tire pressure. Refer to the specification charts (page 10-6).

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/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 lose 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.*

Starting and Driving

If the warning light illuminates again even after the tire pressures are adjusted, there may be a tire puncture. Refer to Vehicle with run-flat tires on page 7-3.

Warning light flashes

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

▼ Flat Tire Warning Light

FLAT TIRE

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

Warning light illuminates/Warning beep sounds

If the tire pressures decrease extremely after the TPMS warning light has illuminated, or if a tire is punctured, the flat tire warning light also illuminates, and a beep sound will be heard for approximately 30 seconds. Refer to Vehicle with run-flat tires on page 7-3.

▼ 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 a metallic device such as a non-genuine navigation system is equipped near the center of the dashboard, which may block radio signals from the tire pressure sensor to the receiver unit.
- 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.
- When using tire chains.

▼ 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.

Driving Your Mazda

Starting and Driving

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.
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.

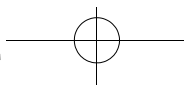
- The tire pressure sensor is removed from the old wheel and installed to the new one.
- The same tire pressure sensor is used with the same wheel. Only the tire is replaced.
- A new tire pressure sensor is installed to a new wheel.



Driving Your Mazda
Starting and Driving

NOTE

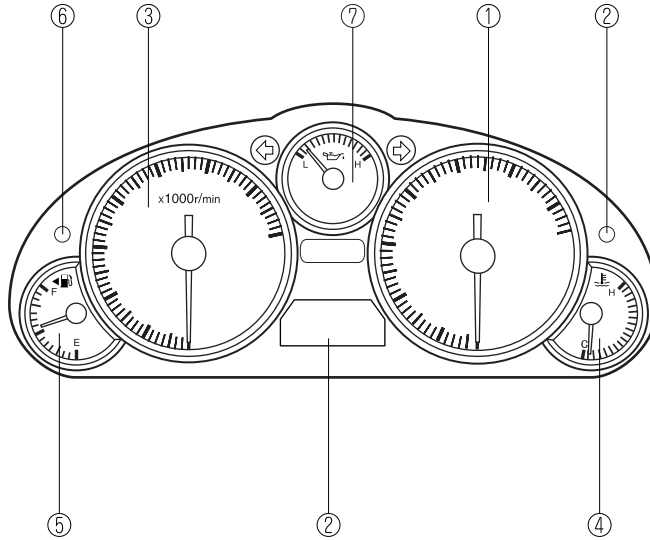
- *The tire pressure sensor ID signal code must be registered when a new tire pressure sensor is purchased. For purchase of a tire pressure sensor and registration of the tire pressure sensor ID signal code, consult an Authorized Mazda Dealer.*
- *When reinstalling a previously removed tire pressure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



Driving Your Mazda

Instrument Cluster and Indicators

Meters and Gauges



- ① Speedometer page 5-35
- ② Odometer, Trip Meter and Trip Meter Selector page 5-35
- ③ Tachometer page 5-36
- ④ Engine Coolant Temperature Gauge page 5-36
- ⑤ Fuel Gauge page 5-37
- ⑥ Dashboard Illumination page 5-38
- ⑦ Engine Oil Pressure Gauge page 5-37

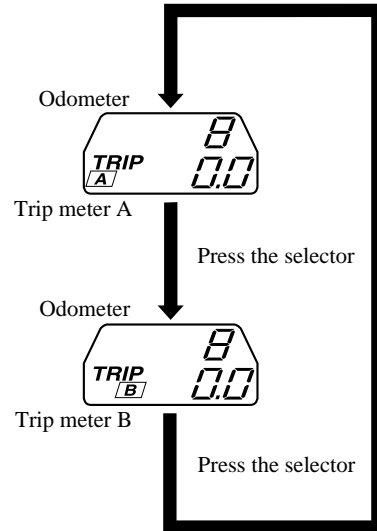
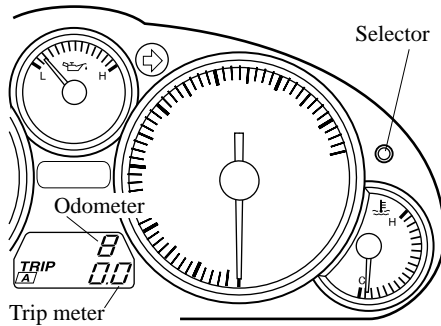
Driving Your Mazda Instrument Cluster and Indicators

▼ 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.



NOTE

The odometer and trip meter can be displayed as follows even when the ignition switch is in the ACC or LOCK position.

- 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 the driver's 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.

Driving Your Mazda

Instrument Cluster and Indicators

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.

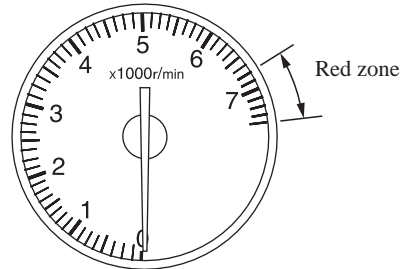
The trip meter records the total distance the vehicle is driven until the meter is again reset. Return it to "0.0" by holding the selector depressed for more than 1 second. Use this meter to measure trip distances and to compute fuel consumption.

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).

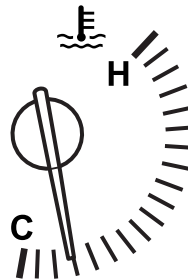


⚠ CAUTION

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.

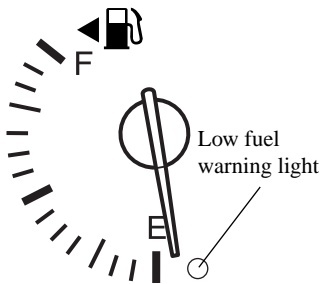
Driving Your Mazda Instrument Cluster and Indicators

CAUTION

Driving with an overheated engine can cause serious engine damage (page 7-18).

▼ Fuel Gauge

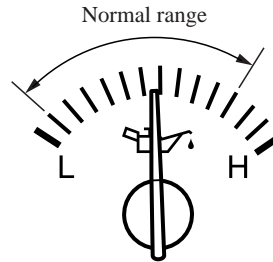
The fuel gauge shows approximately how much fuel is in the tank. We recommend keeping the tank over 1/4 full. When the low fuel warning light illuminates or when the needle is near E, refuel as soon as possible.



NOTE

The direction of the arrow (➔) shown that the fuel-filler lid is on the left side of the vehicle.

▼ Engine Oil Pressure Gauge



Engine oil pressure is normal when the engine oil pressure gauge needle points within the normal range.

If the needle on the gauge doesn't move after starting the engine, follow steps 1 through 3.

If the engine oil pressure gauge moves to L (low) while you are driving, drive to the side of the road and park off the right-of-way. Set the parking brake. Then follow steps 1 through 3.

1. Turn off the engine and inspect the engine oil level (page 8-22). If it's low, add oil.
2. Start the engine.
3. If the needle still doesn't move, have your vehicle checked at an Authorized Mazda Dealer.

CAUTION

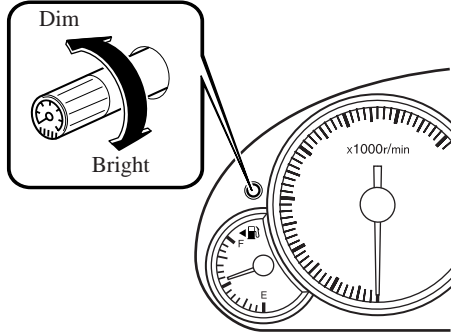
Don't run the engine if the oil pressure is low. It could result in extensive engine damage.

Driving Your Mazda

Instrument Cluster and Indicators

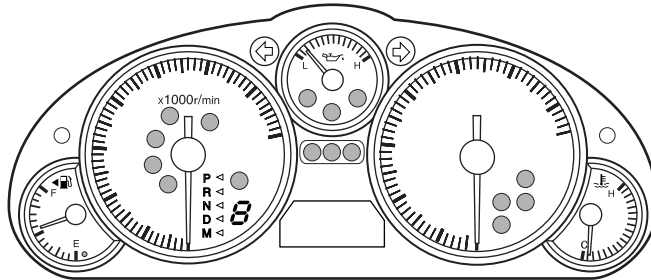
▼ Dashboard Illumination

When the exterior lights are on, rotate the knob to adjust the brightness of the dashboard lights.










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	5-41
	Charging System Warning Light	5-42
	Check Engine Light	5-42
	ABS Warning Light	5-41
	Air Bag/Seat Belt Pretensioner System Warning Light	5-43
	Low Fuel Warning Light	5-43
	Seat Belt Warning Light/Beep	5-44

Driving Your Mazda

Warning/Indicator Lights and Beep Sounds

Signal	Warning/Indicator Lights	Page
	Door-Ajar Warning Light	5-45
AT	Automatic Transmission Warning Light	5-45
	Tire Pressure Monitoring System Warning Light	5-46
FLAT TIRE	Flat Tire Warning Light	5-48
KEY	KEY Warning Light (Red)/KEY Indicator Light (Green)	5-48
	Security Indicator Light	5-49
	Headlight High-Beam Indicator Light	5-50
<i>P R N D M</i>	Shift Position Indicator Light	5-50
	TCS/DSC Indicator Light	5-51
DSC OFF	DSC OFF Indicator Light	5-51
CRUISE	Cruise Main Indicator Light (Amber)/Cruise Set Indicator Light (Green)	5-51
	Turn Signal/Hazard Warning Indicator Lights	5-52

5-40

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 8-25).
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.

Driving Your Mazda

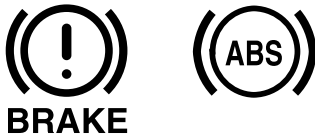
Warning/Indicator Lights and Beep Sounds

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.

▼ 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.

Warning/Indicator Lights and Beep Sounds

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/Seat Belt Pretensioner System Warning Light



If the air bag/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.

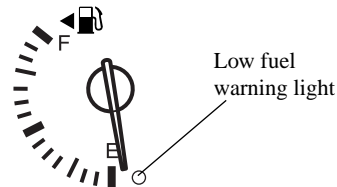
A system malfunction is indicated if the warning light constantly flashes, constantly illuminates or does not illuminate at all when the ignition switch is turned to the ON position. If any of these occur, consult an Authorized Mazda Dealer as soon as possible. The system may not work in an accident.

⚠ 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.

▼ Low Fuel Warning Light



This warning light signals that the fuel tank will soon be empty. Refuel as soon as possible.

Driving Your Mazda

Warning/Indicator Lights and Beep Sounds

▼ 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.

Driver seated/Passenger not seated*

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.

*: The belt minder operates according to the chart below even if the passenger is seated (Except European model).

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.

Warning/Indicator Lights and Beep Sounds

Driver seated/Passenger seated

The seat belt warning function reminds the passenger to fasten the seat belt 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 (Driver)	○	○	×	×	○	○	×	×
Seat belt (Passenger)	○	×	○	×	○	×	○	×
Indicator			⬢	⬢			⬢	⬢
Beep							♪	♪

- : Fastened
- × : Unfastened
- ⬢ : Illuminated
- ⬢ : Flashing
- ♪ : Beep

Placing heavy items on the passenger seat may cause the passenger seat belt warning function to operate depending on the weight of the item.

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.

NOTE

- To allow the passenger seat weight sensor to function properly, do not place and sit on an additional seat cushion on the passenger seat. The sensor may not function properly because the additional seat cushion could cause sensor interference.
- When a small child sits on the passenger seat, it is possible that neither the warning light nor the warning beep operate.

▼ Door-Ajar Warning Light



This warning light comes on when any door isn't securely closed.

▼ Automatic Transmission 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 transmission has a problem.

⚠ CAUTION

If the automatic transmission warning light illuminates, the transmission has an electrical problem. Continuing to drive your Mazda in this condition could cause damage to your transmission. Consult an Authorized Mazda Dealer as soon as possible.

Driving Your Mazda

Warning/Indicator Lights and Beep Sounds

▼ 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

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.

Warning/Indicator Lights and Beep Sounds

Adjust the tire pressure to the correct tire pressure. Refer to the specification charts (page 10-6).

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/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.*

Driving Your Mazda

Warning/Indicator Lights and Beep Sounds

If the warning light illuminates again even after the tire pressures are adjusted, there may be a tire puncture.

Warning light flashes

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

▼ Flat Tire Warning Light *

FLAT TIRE

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

Warning light illuminates/Warning beep sounds

If the tire pressures decrease extremely after the TPMS warning light has illuminated, or if a tire is punctured, the flat tire warning light also illuminates, and a beep sound will be heard for approximately 30 seconds. Refer to Vehicle with run-flat tires on page 7-3.

▼ KEY Warning Light (Red)/KEY Indicator Light (Green) (with Advanced Key)

KEY

This indicator has two colors.

KEY Warning Light (Red)

When illuminated

- When the ignition switch is turned to the ON position, it illuminates momentarily and then goes out.
- If any malfunction occurs in the advanced keyless system, it illuminates continuously.

WARNING

Do not drive the vehicle with the KEY warning light illuminated:

If the KEY warning light remains illuminated, do not continue to drive using the advanced key system. Park the vehicle in a safe place and use the auxiliary key to continue driving the vehicle. Have the vehicle inspected at an Authorized Mazda Dealer as soon as possible.

Warning/Indicator Lights and Beep Sounds

When flashing

- Under the following conditions, the KEY warning light (red) flashes to inform the driver that the start knob will not rotate to the ACC position even if it is pushed in from the LOCK position.
 - The advanced key battery is dead.
 - The advanced key is not within operational range.
 - The advanced key is placed in areas where it is difficult for the system to detect the signal (page 3-7).
 - A key from another manufacturer similar to the advanced key is in the operational range.
- Under the following conditions, the KEY warning light (red) will flash continuously when the start knob has not been returned to the LOCK position to notify the driver that the advanced key has been removed from the vehicle. It will stop flashing when the advanced key is back inside the vehicle.
 - The start knob has not been returned to the LOCK position, the driver's door is open, and the advanced key is removed from the vehicle.
 - The start knob has not been returned to the LOCK position and all the doors are closed after removing the advanced key from the vehicle.

NOTE

The flashing KEY warning light (red) and the beep sound operate simultaneously (page 3-20).

KEY Indicator Light (Green)

When illuminated

When the start knob is pushed in from the LOCK position, the system confirms that the correct advanced key is inside the vehicle, the KEY indicator light (green) illuminates, and the start knob can be turned to the ACC position (page 3-10).

When flashing

When the advanced key battery power is low, the KEY indicator light flashes for 30 seconds after the start knob is turned from the ON position to the ACC or LOCK position. Replace with a new battery before the advanced key becomes unusable (page 3-6).

NOTE

The advanced key can be set so that the KEY indicator light (green) does not flash even if the battery power is low.

Refer to *Setting Change (Function Customization)* (page 3-19).

▼ 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.

Driving Your Mazda

Warning/Indicator Lights and Beep Sounds

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.

▼ Headlight High-Beam Indicator Light

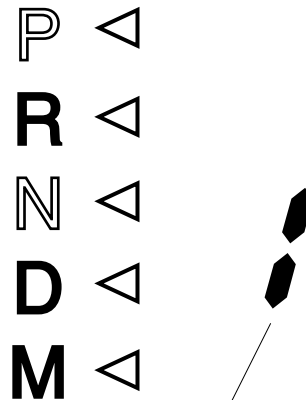


This light indicates one of two things:

- The high-beam headlights are on.
- The turn signal lever is in the flash-to-pass position.

▼ Shift Position Indicator Light (Automatic Transmission)

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.

Warning/Indicator Lights and Beep Sounds

▼ TCS/DSC Indicator Light *



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

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

▼ DSC OFF Indicator Light *

**DSC
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 DSC OFF switch is pressed and TCS/DSC is switched off (page 5-25).

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

NOTE

If the battery is disconnected or a fuse is replaced, the DSC will be inoperable. In this case, the DSC OFF indicator light flashes and the TCS/DSC indicator light illuminates.

To make the DSC operable, do the following procedure with the battery connected.

1. Turn the ignition switch to the ON position.
2. Turn the steering clockwise fully, then turn it counterclockwise fully.
3. Make sure the DSC OFF indicator goes off.
4. Turn the ignition switch to the OFF position, then turn it to the ON position again.
5. Make sure the TCS/DSC indicator light goes off.

If the TCS/DSC indicator light and the DSC OFF indicator light remain illuminated even after turning the ignition switch to the ON position, consult an Authorized Mazda Dealer.

▼ Cruise Main Indicator Light (Amber)/Cruise Set Indicator Light (Green) *

CRUISE

The indicator light has two colors.

Cruise Main Indicator Light (Amber)

The indicator light illuminates amber when the ON/OFF switch is pressed and the cruise control system is activated.

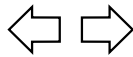
Driving Your Mazda

Warning/Indicator Lights and Beep Sounds

Cruise Set Indicator Light (Green)

The indicator light illuminates green when a cruising speed has been set.

▼ 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 5-56).

When operating the hazard warning lights, both turn signal indicator lights flash (page 5-59).

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 and the vehicle is driven at a speed faster than about 20 km/h (12 mph), a beep sound will be heard for a specified period of time.

Refer to Seat Belt Warning Light/Beep on page 5-44.

▼ 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.

▼ Lights-On Reminder

If lights are on and the key is removed from the ignition switch, a continuous beep sound will be heard when the driver's door is opened.

NOTE

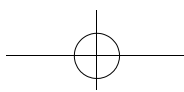
When the advanced keyless function is used and the start knob is in the ACC position, the "Start Knob Not in LOCK Warning Beep" (page 3-17) overrides the lights-on reminder.

▼ Tire Inflation Pressure Warning Beep*

The warning beep sound will be heard for about 3 seconds if the tire pressures decrease.

If the tire pressure decreases extremely, a beep sound will be heard for approximately 30 seconds.

Refer to Tire Pressure Monitoring System on page 5-27.

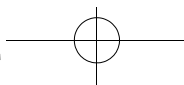


Warning/Indicator Lights and Beep Sounds

▼ Advanced Keyless Warning (with Advanced Key)

Warning indicators for the advanced key, such as “the advanced key removed from vehicle warning”, use a beep sound and warning/indicator lights in the instrument cluster.

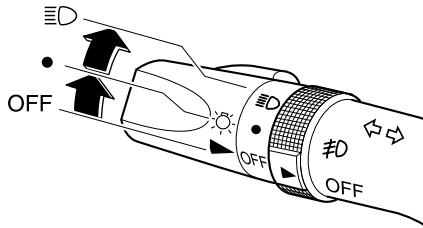
Refer to Warning and Beep Sounds on page 3-17.



Driving Your Mazda

Switches and Controls

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			
Side-marker lights	Off	On	On
Dashboard illumination			

NOTE

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.

▼ Lights-On Reminder

If lights are on and the key is removed from the ignition switch, a continuous beep sound will be heard when the driver's door is opened.

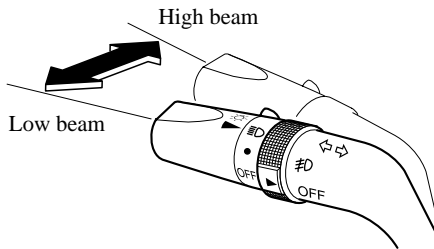
NOTE

When the advanced keyless function is used and the start knob is in the ACC position, the "Start Knob Not in LOCK Warning Beep" (page 3-17) overrides the lights-on reminder.

Driving Your Mazda Switches and Controls

▼ Headlight High-Low Beam

Push the lever forward for high beam.
Pull back to original position for low beam.



▼ Daytime Running Lights (Canada)

In Canada, vehicles must be driven with the headlights on during daytime operation.

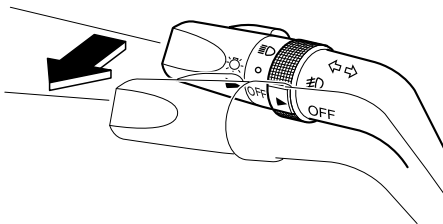
For that reason, the daytime running lights automatically turn on when the ignition switch is turned to the ON position.

NOTE

The Daytime Running Lights turn off when the parking brake is applied.

▼ 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.



Driving Your Mazda

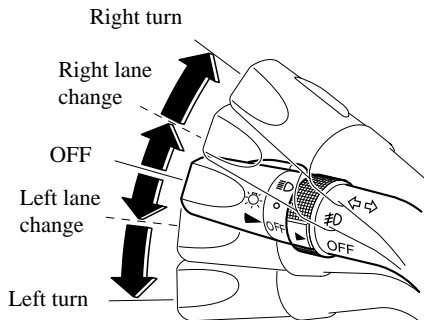
Switches and Controls

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.

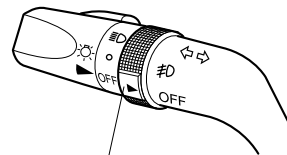
NOTE

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.



Fog light switch

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.

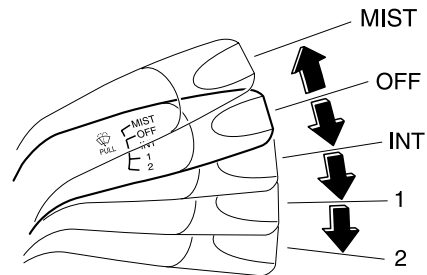
NOTE

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

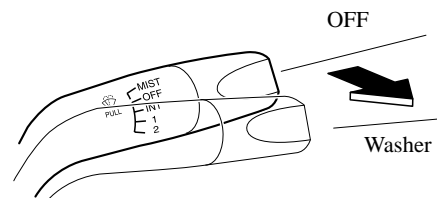
2 — High speed

For a single wiping cycle, push the lever up to **MIST**.

MIST — Mist

▼ 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.

Driving Your Mazda

Switches and Controls

If the washer doesn't work, inspect the fluid level (page 8-26). If it's OK, consult an Authorized Mazda Dealer.

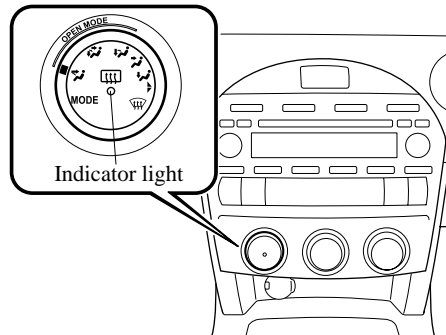
Rear Window Defroster

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 indicator light will illuminate.

Press the switch again to turn it off.



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.

Switches and Controls

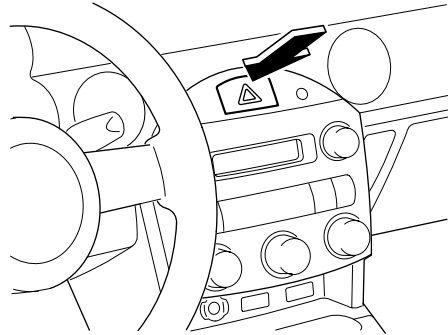
Horn

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.

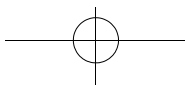
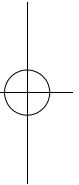
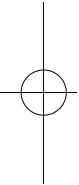
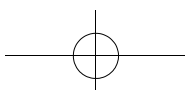
The hazard warning lights warn other drivers that your vehicle is a traffic hazard and that they must take extreme caution when near it.



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.*



6 Interior Comfort

Use of various features for drive comfort, including air-conditioning and audio system.

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*Some models. **6-1**

Interior Comfort

Climate Control System

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.

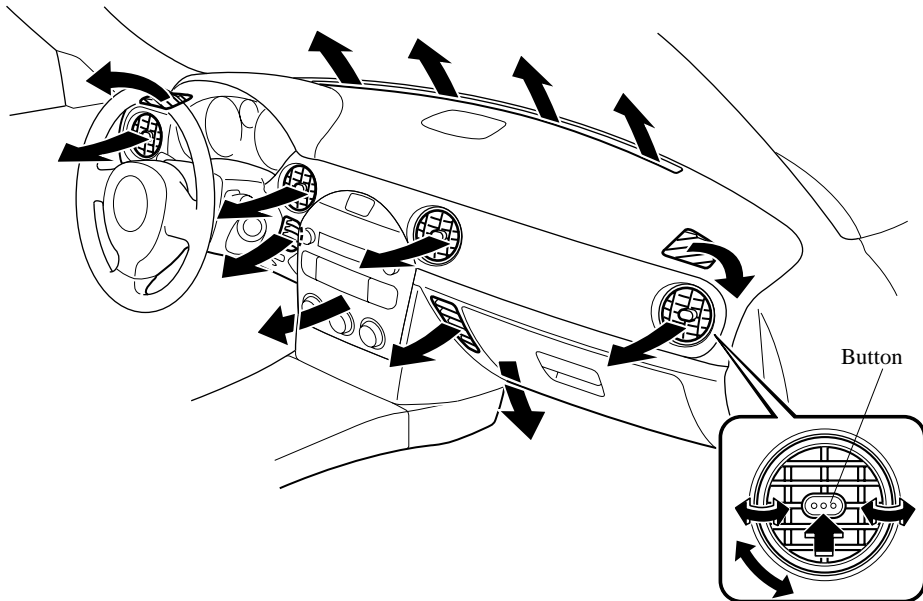
▼ Check the Refrigerant before the Weather Gets Hot

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.

Interior Comfort
Climate Control System

Vent Operation



▼ **Adjusting the Vents**

Directing airflow

You can direct air flow by rotating the vent.

Opening/closing vents

The two outside vents can be opened and closed with center button.

NOTE

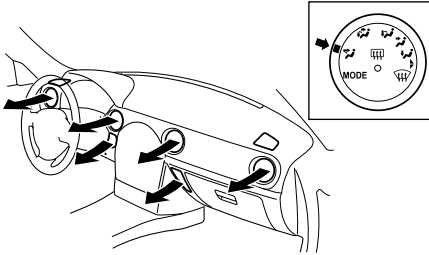
When using the air conditioner, mist may come out from the vents. This is not a sign of trouble but a result of humid air being suddenly cooled.

Interior Comfort

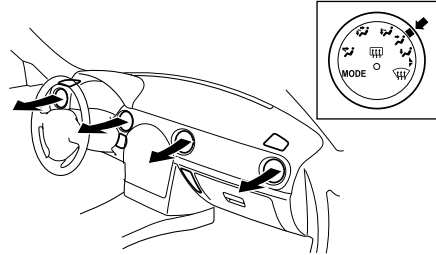
Climate Control System

▼ Selecting the Airflow Mode

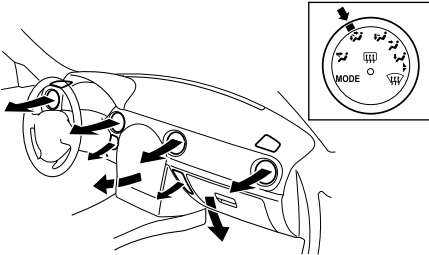
Dashboards Vents (OPEN MODE)



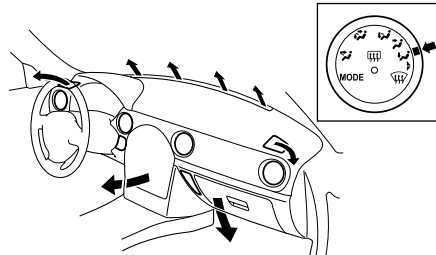
Dashboards Vents



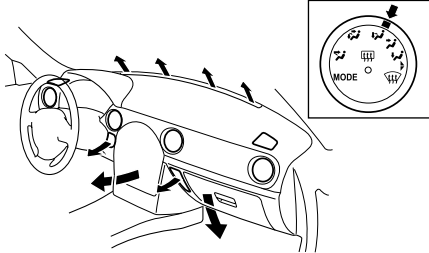
Dashboards and Floor Vents (OPEN MODE)



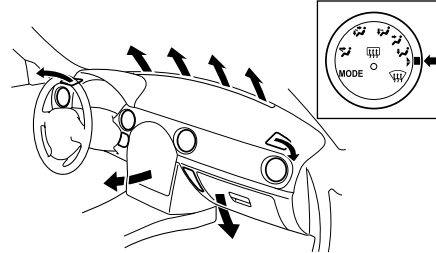
Floor Vents



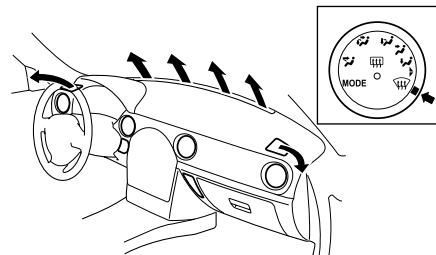
Floor Vents (OPEN MODE)



Defroster and Floor Vents



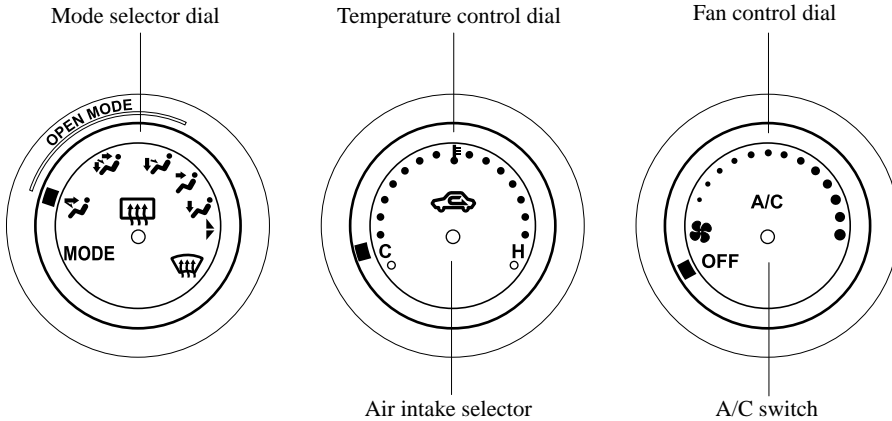
Defroster Vents



You will feel more comfortable by using the OPEN MODE when opening the roof.

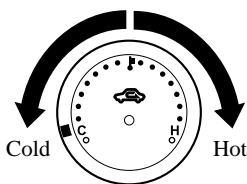
Interior Comfort
Climate Control System

Control Panel *



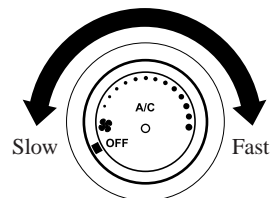
▼ **Control Switches**

Temperature control dial



This dial controls temperature. Turn it clockwise for hot and counterclockwise for cold.

Fan control dial



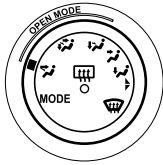
Turn the dial to adjust to the desired fan speed.
Turning the dial clockwise increases the fan speed.
Turning the dial counterclockwise decreases the fan speed.

*Some models.

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Climate Control System

Mode selector dial

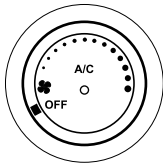


Turn the mode selector dial to select airflow mode (page 6-4).

NOTE

Turn the mode selector dial to an *OPEN MODE* position for maximum comfort while the roof is open.

A/C switch



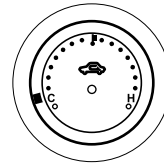
Push the A/C switch to turn the air conditioner on. The indicator light on the switch will illuminate when the fan control dial is on.

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 outside air and recirculated air modes.

It is recommended that under normal conditions the switch be kept in the outside air mode.

Outside air mode (indicator light turned off)

Outside air is taken into the vehicle. Use this mode for normal ventilation and heating.

Recirculated air mode (indicator light illuminated)

Outside air is shut off. Air within the vehicle is recirculated.

This mode can be used when driving on a dusty road or in similar conditions. It also helps to provide quicker cooling of the interior.



Climate Control System

WARNING








Do not use the recirculated air mode in cold or rainy weather:

Using the recirculated air mode 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  or  position.
2. Set the temperature control dial to the hot position.
3. Set the fan control dial to the desired speed.

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).
- In the , , or  position, the air conditioner is automatically turned on (however, the indicator light does not illuminate) and the outside air mode is automatically selected to defrost the windshield.
In the  or  position, the outside air mode cannot be changed to the recirculated air mode.



▼ Cooling (With Air Conditioner)*

1. Set the mode selector dial to the  or  position.
2. Set the temperature control dial to the cold position.
3. Set the fan control dial to the desired speed.
4. Turn on the air conditioner by pressing the A/C switch.
5. 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 5-36). The air conditioner may cause engine overheating. If the gauge indicates overheating, turn the air conditioner off (page 7-18).

NOTE



- When maximum cooling is desired, set the temperature control dial to the extreme cold position and set the air intake selector to the recirculated air mode, then turn the fan control dial fully clockwise.
- If warmer air is desired at floor level, set the mode selector dial at the  or  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).

*Some models.


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▼ Ventilation



1. Set the mode selector dial to the  or  position.
2. Set the air intake selector to the outside air mode.
3. Set the temperature control dial to the desired position.
4. Set the fan control dial to the desired speed.

▼ Windshield Defrosting and Defogging







1. Set the mode selector dial to the  position.
2. Set the temperature control dial to the desired position.
3. 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  position.

NOTE

- For maximum defrosting, set the temperature control dial to the extreme hot position and turn the fan control dial fully clockwise.
- 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 outside air mode is automatically selected to defrost the windshield.
In the  or  position, the outside air mode cannot be changed to the recirculated air mode.

▼ 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 outside air mode.
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

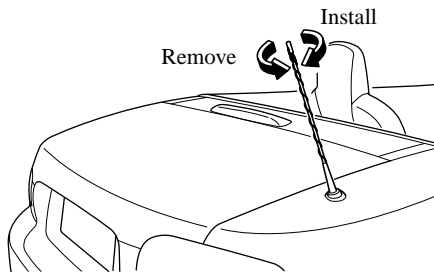
One of the functions of the air conditioner is dehumidifying the air and, to use this function, the temperature does not have to be set to cold. Therefore, set the temperature control dial to the desired position (hot or cold) and turn on the air conditioner when you want to dehumidify the cabin air.

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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.

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.

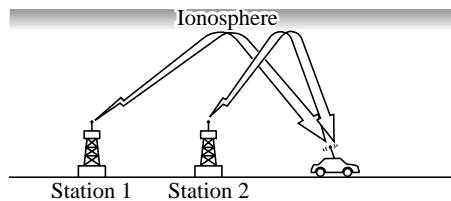
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Audio System

▼ Radio Reception

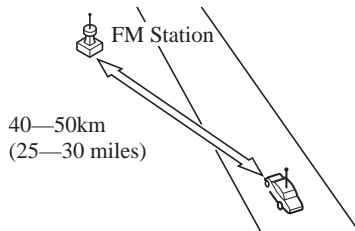
AM characteristics

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.

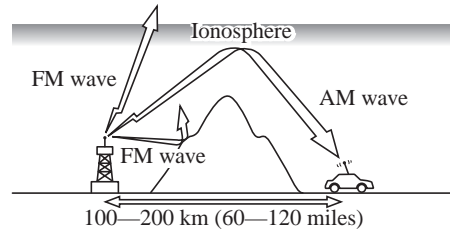


FM characteristics

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.



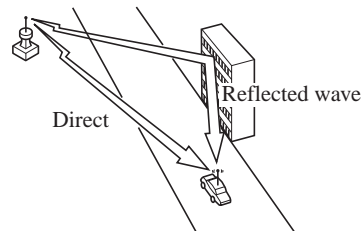
Signals from an FM transmitter are similar to beams of light because they do not bend around corners, but they do reflect. Unlike AM signals, FM signals cannot travel beyond the horizon. Therefore, FM stations cannot be received at the great distances possible with AM reception.



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

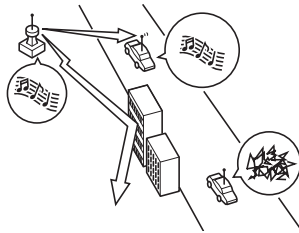
Since FM signals can be reflected by obstructions, it is possible to receive both the direct signal and the reflected signal at the same time. This causes a slight delay in reception and may be heard as a broken sound or a distortion. This problem may also be encountered when in close proximity to the transmitter.



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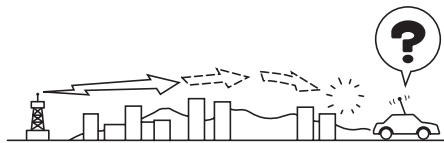
Flutter/Skip noise

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.



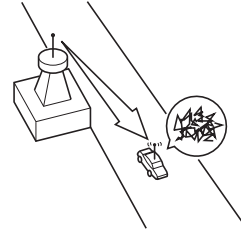
Weak signal noise

In suburban areas, broadcast signals become weak because of distance from the transmitter. Reception in such fringe areas is characterized by sound breakup.



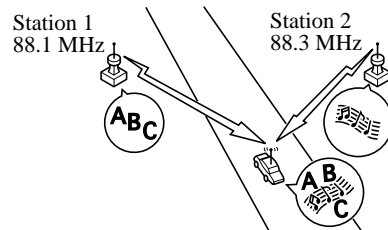
Strong signal noise

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.



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Audio System

▼ Operating Tips for CD Player/In-Dash CD Changer

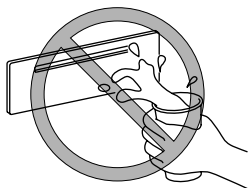
Condensation phenomenon

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.

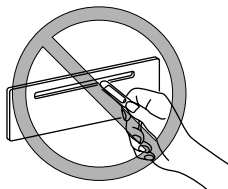
Handling the CD player/In-dash CD changer

The following precautions should be observed.

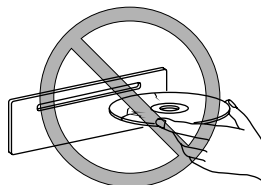
- Do not spill any liquid on the audio system.



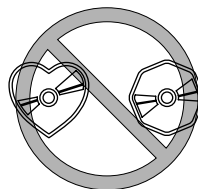
- Do not insert any objects, other than CDs, into the slot.



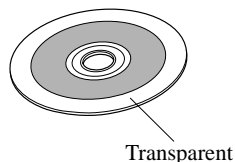
- The CD revolves at high speed within the unit. Defective (cracked or badly bent) CDs should never be used.



- Do not use non-conventional discs such as heart-shaped, octagonal discs, etc. The disc may not eject resulting in a malfunction.

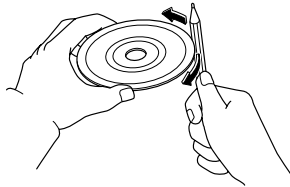


- If the memory portion of the CD is transparent or translucent, do not use the disc.

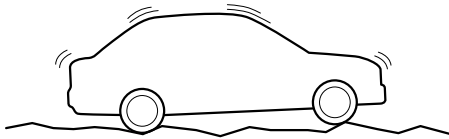


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- A new CD may have rough edges on its inner and outer perimeters. If a disc with rough edges is used, proper setting will not be possible and the CD player/In-dash CD changer will not play the CD. In addition, the disc may not eject resulting in a 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.

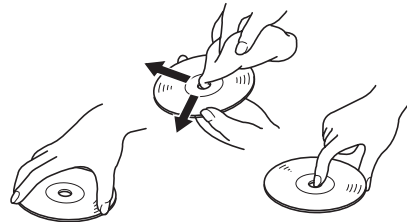
CD Player



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.

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Audio System

- 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 can be played in the CD player.

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 (MP3 compatible type only) 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 (MP3 compatible type only) may be damaged. Always use a CD adapter.
An 8 cm (3 in) CD cannot be played in the In-dash CD changer (MP3 non-compatible type only) even if an 8 cm (3 in) CD adapter is used.
- 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.

Interior Comfort
Audio System

▼ **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.

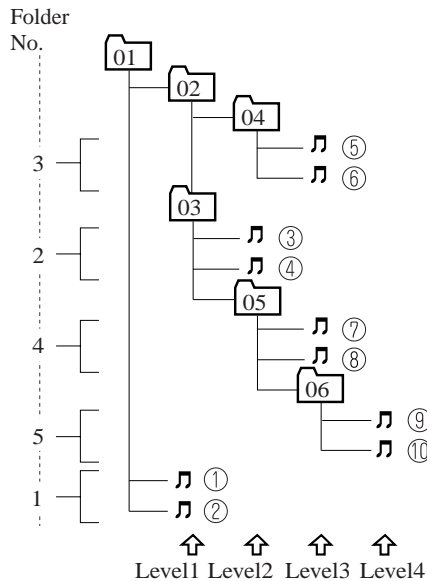
- If a disc has both music data (CD-DA) and MP3 files, playback of the two file types differs depending on how the disc was recorded.
- Packet written discs cannot be played on this unit.
- This unit does not play CDs recorded using MP3i (MP3 interactive), MP3 PRO and RIFF MP3 formats.

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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.

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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

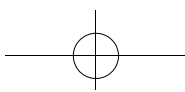
A general term for the method, similar to that used for floppy discs or hard drives, of recording the required file in a single increment on a CD-R and similar.

ID3 Tag

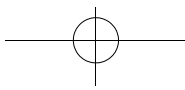
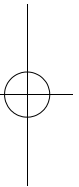
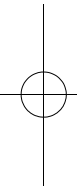
ID3 tag is a method for storing information related to the music in an MP3 file. Information such as track, artist and album name can be stored. This content can be freely edited using ID3 editing function software.

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



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Audio Set

There are two types of In-dash CD changers. Check which In-dash CD changer your vehicle is equipped with.

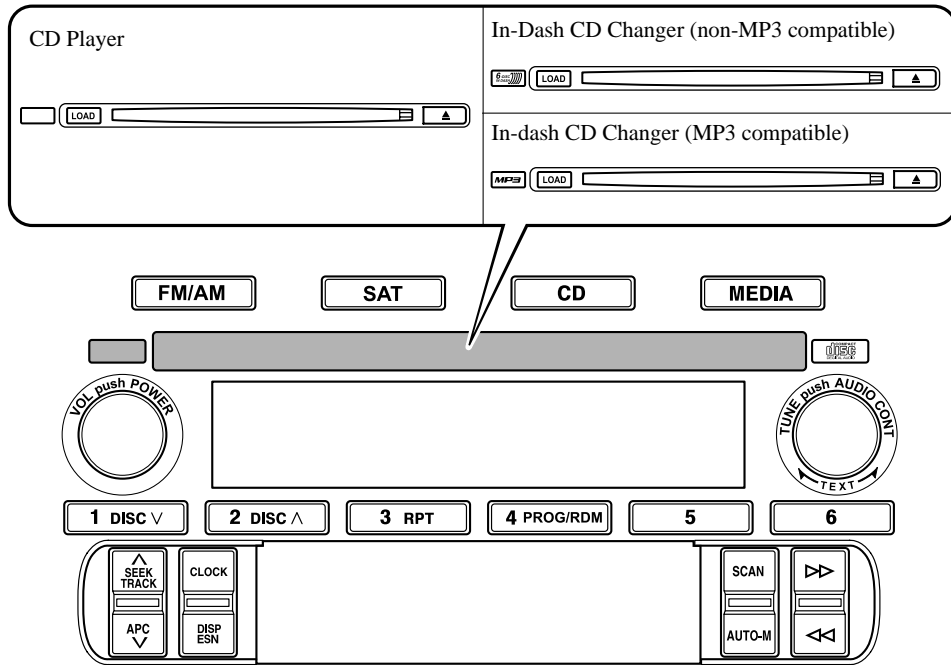
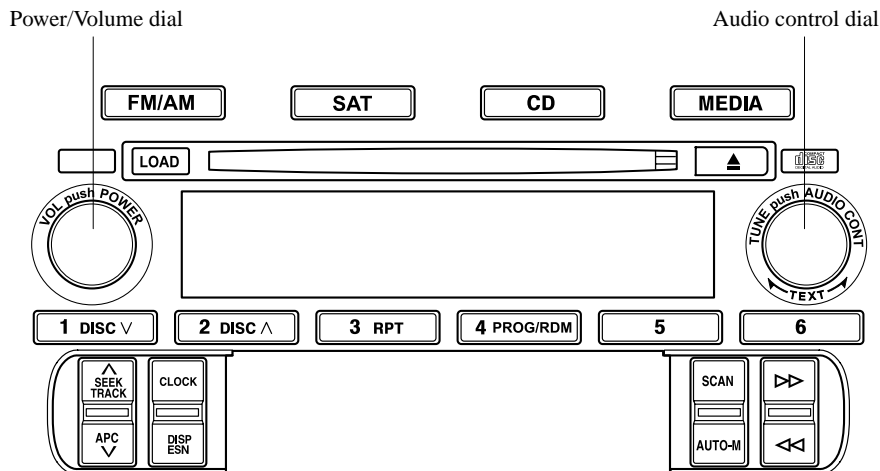


Illustration is of a representative audio unit.

Power/Volume/Sound Controls page 6-20
Clock page 6-24
Operating the Radio page 6-26
Operating the Compact Disc (CD) Player page 6-30
Operating the In-Dash CD Changer page 6-32
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▼ Power/Volume/Sound Controls



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

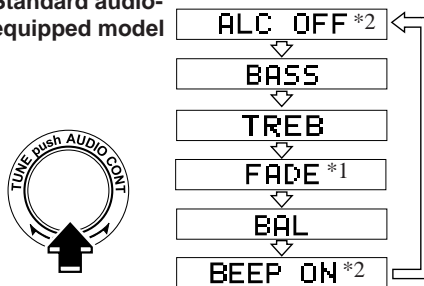
To adjust the volume, turn the power/volume dial.

Turn the power/volume dial to the right to increase volume, to the left to decrease it.

Audio sound adjustment

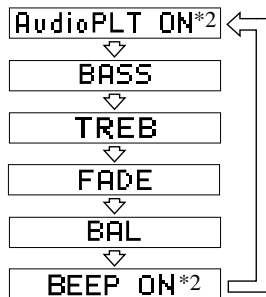
1. Press the audio control dial to select the function. The selected function will be indicated.

Standard audio-equipped model



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Bose® Sound System-equipped model



- *1 If your vehicle is not equipped with rear speakers, adjust the power/volume dial so the level is even.
 - *2 Depending on the mode selected, the indication changes.
2. Turn the audio control dial to adjust the selected functions as follows:

Standard audio-equipped model

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

Bose® Sound System-equipped model

Indication	Turn Left	Turn Right
AudioPLT	OFF	ON
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)

(Standard audio-equipped model)

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.

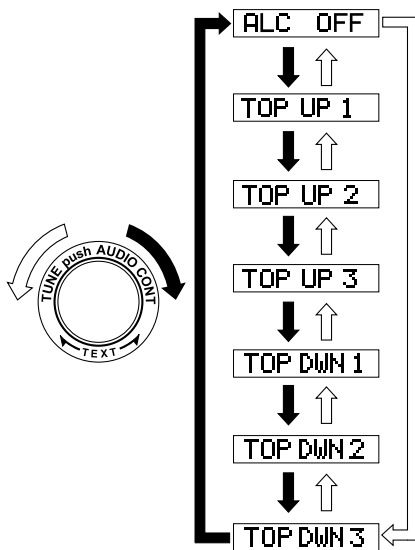
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The following seven modes are available. Select the desired mode according to use.

Mode	Use	Volume change
ALC OFF	ALC does not operate.	No change
TOP UP 1	Use when the roof is closed. Three levels are available.	Minimum
TOP UP 2		Medium
TOP UP 3		Maximum
TOP DWN 1	Use when the roof is open. Three levels are available.	Minimum
TOP DWN 2		Medium
TOP DWN 3		Maximum

Turn the audio control dial to select the desired mode. The selected mode will be indicated.



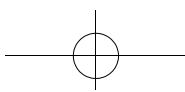
* AudioPilot® (Bose® Sound System-equipped model)

AudioPilot automatically adjusts audio volume and sound quality in accordance with the level of noise entering the vehicle interior while driving. When AudioPilot is turned ON, the system automatically calculates the conditions for optimum hearing of sound which may be difficult to hear depending on exterior noise. The system is also equipped to optimally adjust the acoustic characteristics automatically while the roof is open or closed. The acoustic adjustment occurs with the lock/unlock operation of the top latch on the roof, and while the adjustment is being done, the audio is muted for about 1.5 sec, and then fades in.

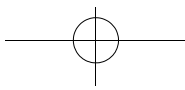
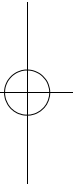
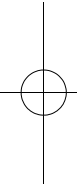
* AudioPilot® is a registered trademark of Bose Corporation.

BEEP setting

The beep-sound when operating the audio system can be set on or off.

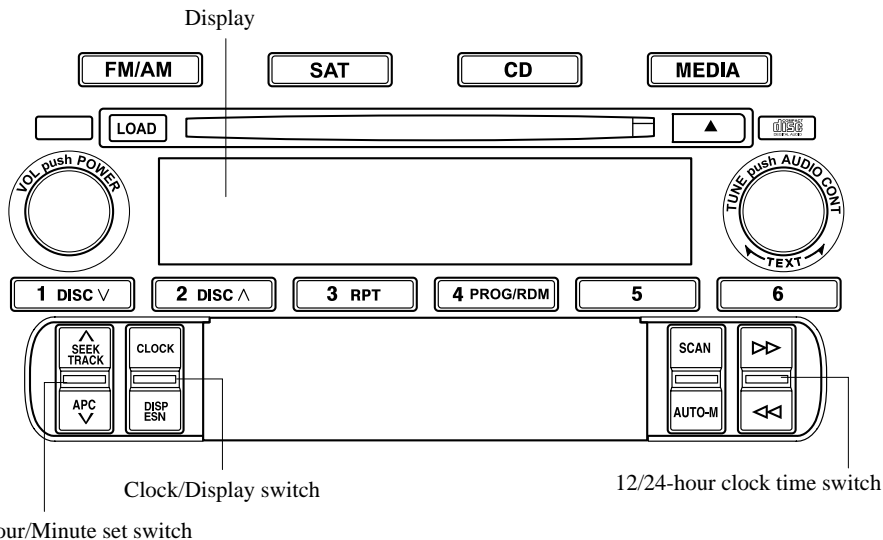


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▼ Clock



Setting the time

The clock can be set at any time when the ignition switch is in the ACC or ON position.

1. To adjust the time, pull up the clock/display switch for about 2 seconds until a beep is heard.
2. The currently set time and hour setting display flashes.
 - Time adjustment
To advance the hours, pull up the hour/minute set switch.
To advance the minutes, press down the hour/minute set switch.

- Switching between 12 and 24-hour clock time
To change the display to 12-hour clock time, pull up the 12/24-hour clock time switch.
To change the display to 24-hour clock time, press down the 12/24-hour clock time switch.

3. Pull up the clock/display switch again to start the clock.

Exact hour adjustment

1. To set the exact hour, pull up the clock/display switch for about 2 seconds until a beep is heard.
The clock's current time will flash.

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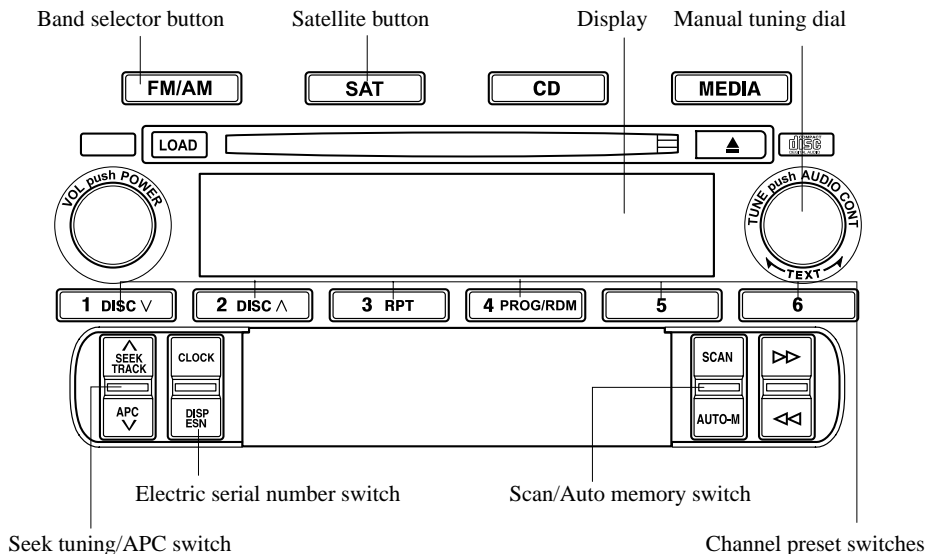
2. Pull up the clock/display switch again and the time will be adjusted as follows:
(Example)
12:01—12:29→12:00
12:30—12:59→1:00

NOTE

- *When the clock/display switch is released, the seconds are reset to “00”.*
- *If the power supply to the unit is interrupted (if the fuse blows or the vehicle's battery is disconnected), the clock will need to be reset.*

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▼ Operating the Radio



Radio ON

Press a band selector button (**FM/AM**) to turn the radio on.

Band selection

Successively pressing the band selector button (**FM/AM**) switches the bands as follows: FM1→FM2→AM.

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

Pulling up or pressing down the seek tuning/APC switch will cause the tuner to seek a higher or lower frequency automatically.

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NOTE

If you continue to, pull up or press down and hold the seek tuning/APC switch the frequency will continue changing without stopping.

Scan tuning

Pull up the scan/auto memory switch to automatically sample strong stations. Scanning stops at each station for about 5 seconds. To hold a station, pull up the scan/auto memory switch 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 down and hold the scan/auto memory switch 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 down and release the scan/auto memory switch 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
- Phone (24 hrs/day, 7 days/week): 888-539-SIRI (7474)
- E-mail: customercare@sirius-radio.com
- Mailing Address: Sirius Satellite Radio



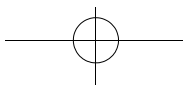
Interior Comfort

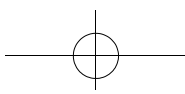
Audio System

1221 Avenue Of The Americas
New York, NY 10020
Attention: Customer Care

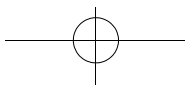
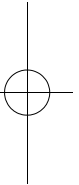
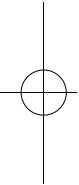
Include your Sirius Radio ESN
(Electronic Serial Number) when
subscribing or requesting technical
assistance. See the Satellite Radio Kit
manual accompanying the SIRIUS unit
for complete satellite radio activation
procedures and information on how to
display the ESN#.

6-28



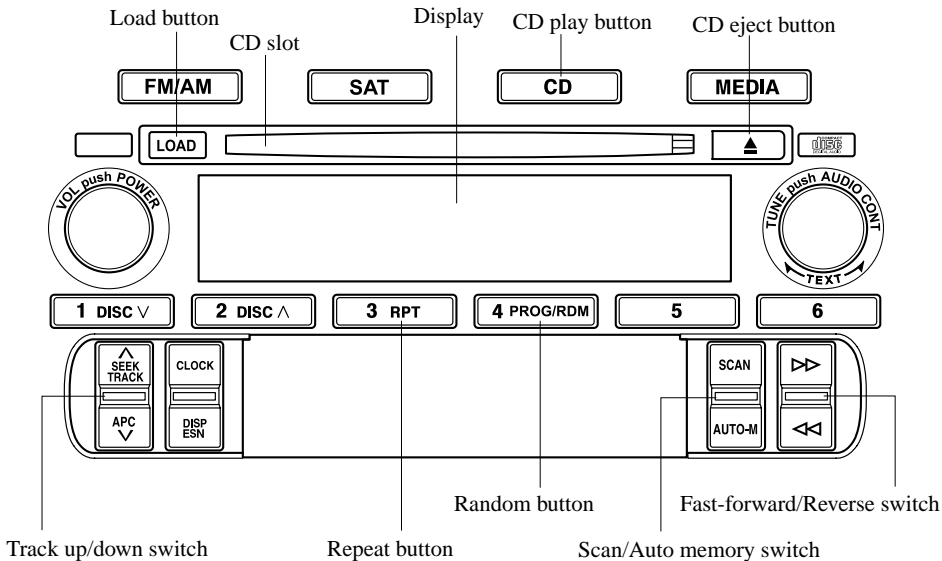


MEMO



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Audio System

▼ **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 (▲) 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 (▲) had been previously pressed.

Fast-forward/Reverse

Pull up and hold the fast-forward/reverse switch to advance through a track at high speed.

Press down and hold the fast-forward/reverse switch to reverse through a track at high speed.

Track search

Pull up the track up/down switch once to skip forward to the beginning of the next track.

Press down the track up/down switch once to skip back to the beginning of the current track.

6-30 *Some models.

Interior Comfort
Audio System

Music scan

This feature helps to find a program by playing about the first 10 seconds of each track.

Pull up the scan/auto memory switch during playback to start the scan play operation (the track number will flash). Pull up the scan/auto memory switch 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.

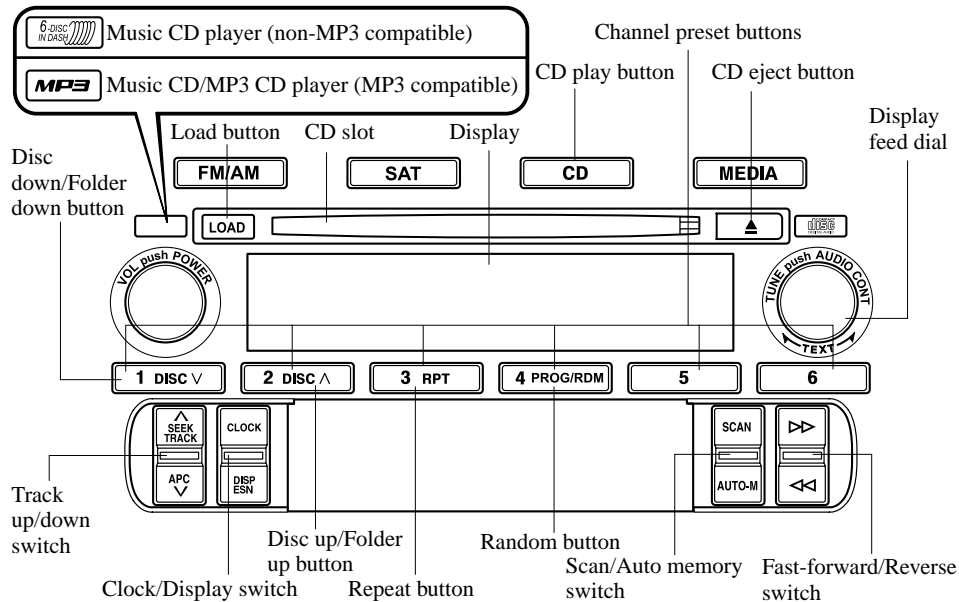
Press the random button (**RDM**) during playback. The next selection will be randomly selected (“RDM” will be displayed). Press the random button (**RDM**) once again to cancel random playback.

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.

Interior Comfort
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.*

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Audio System

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.

Displaying the CD-inserted tray number

When you want to know the number for a CD-inserted tray, press down the clock/display switch. The tray number will be displayed for 5 seconds.

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. 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.

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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

Pull up and hold the fast-forward/reverse switch to advance through a track at high speed.

Press down and hold the fast-forward/reverse switch to reverse through a track at high speed.

Track search

Pull up the track up/down switch once to skip forward to the beginning of the next track.

Press down the track up/down switch 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 (**DISCA** or **DISCV**) during playback.

During MP3 CD playback

To change the disc, press the DISC button (**DISCA** 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 (**DISCA**) 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.

Pull up the scan/auto memory switch during playback to start the scan play operation (the track number will flash).
Pull up the scan/auto memory switch 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.

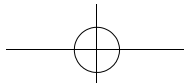
During MP3 CD playback

(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.



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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 clock/display switch is pressed down 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

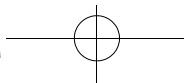
MP3 CD



Disc number/File number/Elapsed time display
↓
Disc tray number
↓
Folder number/Track number
↓
File 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.



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Audio System

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.

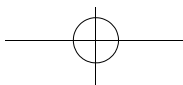


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▼ Error Indications

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



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Audio System

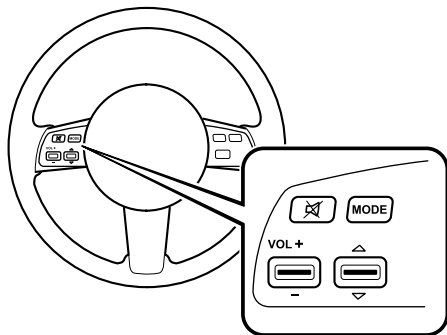
Audio Control Switch Operation (Steering Wheel)*

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.

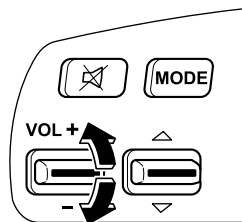
- When the ignition switch is turned to the LOCK position.
- When the power button on the audio unit is pressed and the audio unit is turned off.
- When all CDs are ejected.



▼ Adjusting the Volume

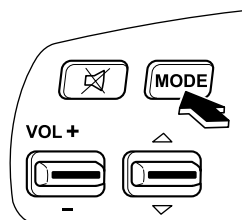
To increase the volume, pull up the volume switch.

To decrease the volume, press down the volume switch.



▼ Changing the Source

Press the mode switch (MODE) to change the audio source (FM1 radio> FM2 radio> AM radio> CD player or CD changer> SIRIUS1> SIRIUS2> SIRIUS3> cyclical).



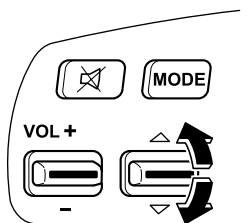
Interior Comfort
Audio System

NOTE

CD, CD changer, and SIRIUS digital satellite radio modes cannot be selected in the following cases:

- SIRIUS digital satellite radio unit is not equipped on the audio system.
- CD has not been inserted.

▼ **Seek Switch**



When listening to the radio

Pull up or press down the seek switch, the radio switches to the next/previous stored station in the order that it was stored (1—6).

Pull up or press down 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 CD

Pull up the seek switch to skip to the next track.

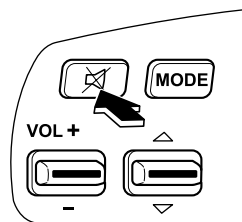
Press down the seek switch to repeat the current track.

▼ **Mute Switch**

Press the mute switch (⊘) once to mute audio, press it again to resume audio output.

NOTE

- The mute will be canceled in the following cases:
- The ignition switch is turned to the LOCK position.
- The power/volume dial is turned to ON.
- The mode switch is pressed to change to another source.
- The volume switch is operated.



Interior Comfort

Audio System

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.

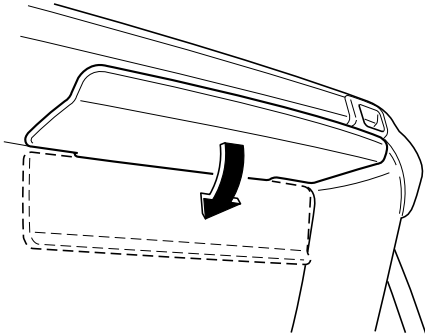
NOTE

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.

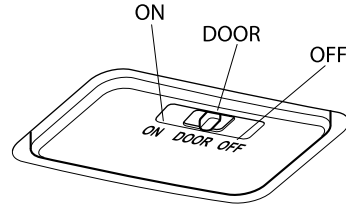


▼ Vanity Mirrors

To use the vanity mirror, lower the sunvisor.

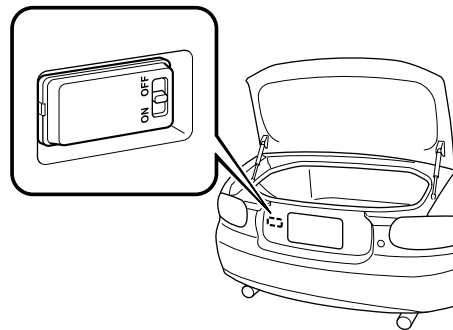
Interior Lights

▼ Overhead Light



Switch Position	Overhead Light
OFF	Light off
DOOR	Light is on when any door is open
ON	Light on

▼ Trunk Light



Switch Position	Trunk Light
OFF	Light off
ON	Light on when the trunk is open

Interior Comfort

Interior Equipment

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:

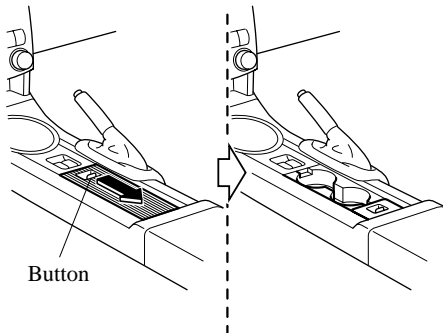
Putting objects other than cups or drink cans in a cup holder is dangerous.

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

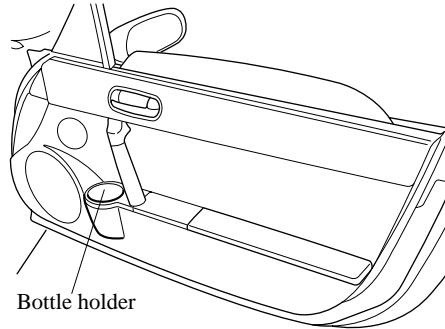
To reduce the possibility of injury in an accident or a sudden stop, keep cup holders closed when not in use.

To open the cup holder lid, push the button and slide it open.



Bottle Holder

Bottle holders are on the inside of the doors.



⚠ CAUTION

Do not use the bottle holders for containers without caps. The contents may spill when the door is opened or closed.

Interior Equipment

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

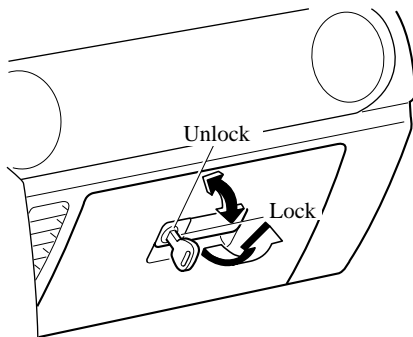
Do not leave lighters or eyeglasses in the storage boxes while parked under the sun. A lighter could explode or the plastic material in eyeglasses could deform and crack from high temperature.

▼ Glove Box

To open the glove box, pull the latch toward you.

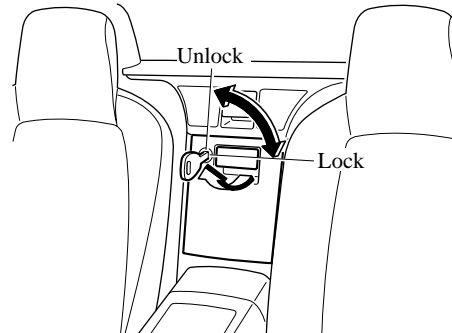
Insert the key (auxiliary key*) and turn it clockwise to lock, counterclockwise to unlock.

* Advanced key equipped vehicle



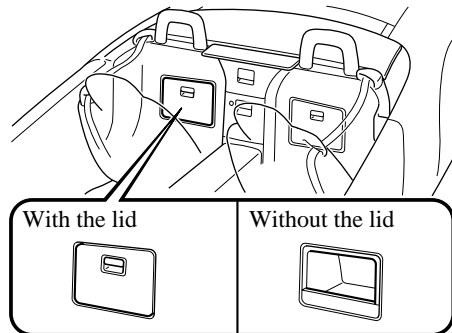
▼ Seat Side Box

To open, pull the release catch. Insert the key and turn it clockwise to lock, counterclockwise to unlock.



▼ Back Trim Storage Box*

Small items can be stored in the back trim storage box.



To use the back trim storage box

1. To use the desired storage box, slide the seat in front of it all the way forward.
Refer to Seat Slide on page 2-2.
2. Fold the seatback forward all the way down.
Refer to Seat Recline on page 2-2.

Interior Comfort

Interior Equipment

3. If your vehicle has a lid, pull the latch to open.

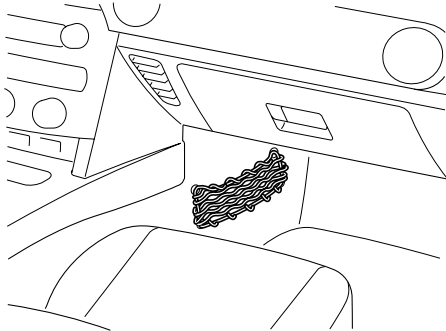
When finished, return the seat to its original position and secure it. After returning the seat to its original position, make sure the seat is secured by attempting to lightly move it forward and backward.

CAUTION

Do not store excessive weight in the back trim storage box as it could be damaged.

▼ Mesh Pocket (Passenger Side) *

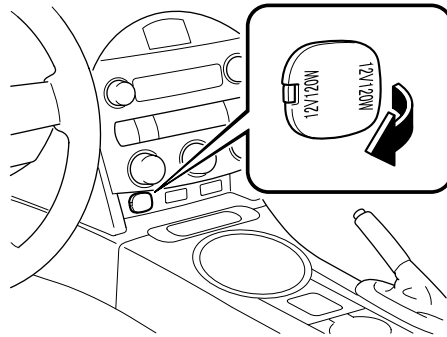
Maps or pamphlets can be placed in the mesh pocket.



Accessory Socket

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).



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

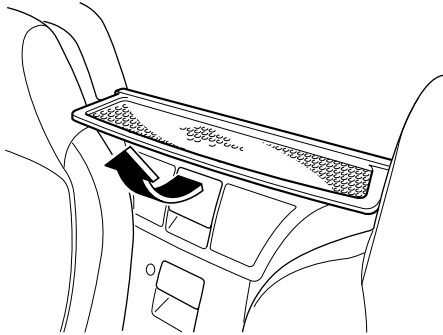
To prevent discharging of the battery, do not use the socket for long periods with the engine off or idling.

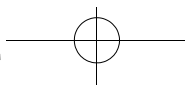
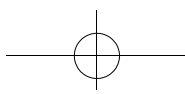
Interior Comfort
Interior Equipment

Windblocker

This windblocker reduces rear wind blast into the cabin when driving with the convertible top down.

To use the windblocker, lift it upright.





7

In Case of an Emergency

Helpful information on what to do in an emergency.

Parking in an Emergency	7-2
Parking in an Emergency	7-2
Flat Tire	7-3
Flat Tire*	7-3
Tool Storage	7-5
Instant Mobility System (IMS) Emergency Flat Tire Repair Kit*	7-7
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Overheating	7-18
Emergency Starting	7-20
Starting a Flooded Engine	7-20
Jump-Starting	7-21
Push-Starting	7-24
Emergency Towing	7-25
Towing Description	7-25
Tiedown Hooks	7-26
Recreational Towing	7-27

*Some models. **7-1**

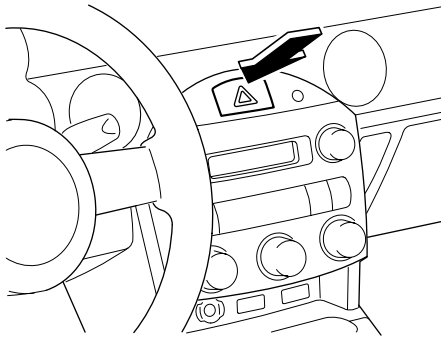
In Case of an Emergency

Parking in an Emergency

Parking in an Emergency

The hazard warning lights should always be used when you stop on or near a roadway in an emergency.

The hazard warning lights warn other drivers that your vehicle is a traffic hazard and that they must take extreme caution when near it.



Depress the hazard warning flasher and all the turn signals will flash.

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.*

Flat Tire

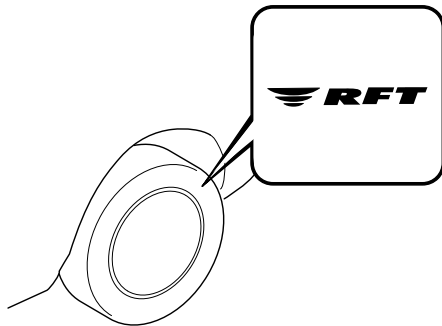
Flat Tire*

Either run-flat tires or conventional tires are equipped on your Mazda depending on the specification, therefore the procedure for repairing a flat tire differs depending on the type of tire. Before driving, make sure which type of tire is equipped on your Mazda. If you cannot identify your tire type, consult an Authorized Mazda Dealer.

▼ How to identify your tire type

Run-flat tire

A run-flat tire has a “RFT” mark on the side wall.



Conventional tire

A conventional tire does not have a “RFT” mark on the side wall.

▼ Vehicle with run-flat tires

⚠ WARNING

Have the tires checked or perform the appropriate repair as soon as possible by an Authorized Mazda Dealer:

When the flat tire warning light illuminates 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.

When the flat tire warning light illuminates or the tire pressure warning beep sound is heard, decrease vehicle speed immediately and avoid sudden maneuvering and braking.

If a run-flat tire is punctured, the FLAT TIRE warning light illuminates in the instrument cluster, and a beep sound is heard for about 30 seconds.

FLAT TIRE

NOTE

Until the flat tire is changed, the beep sound is heard for about 30 seconds every time the ignition switch is turned to the ON position.

Vehicles with run-flat tires can be driven even with a punctured tire under the following conditions.

*Some models.

In Case of an Emergency

Flat Tire

Maximum vehicle speed with a punctured run-flat tire: 90 km/h (55 mph)

Maximum driving distance with a punctured run-flat tire: 80 km (49 miles)

CAUTION

The maximum driving distance may be shorter depending on the driving conditions.

If a run-flat tire is punctured, carefully drive the vehicle to the nearest Mazda Dealer and have the tire changed.

NOTE

- *A spare tire or Instant Mobility System (IMS) emergency flat tire repair kit is not equipped on vehicles with run-flat tires as standard.*
- *Replacing a punctured run-flat tire with a new run-flat tire is recommended.*
- *Do not use run-flat tires and conventional tires on the same vehicle.*

▼ Vehicle with conventional tires

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 a conventional tire is punctured, refer to “Tool Storage” (page 7-5) and “Instant Mobility System (IMS) Emergency Flat Tire Repair Kit” (page 7-7).

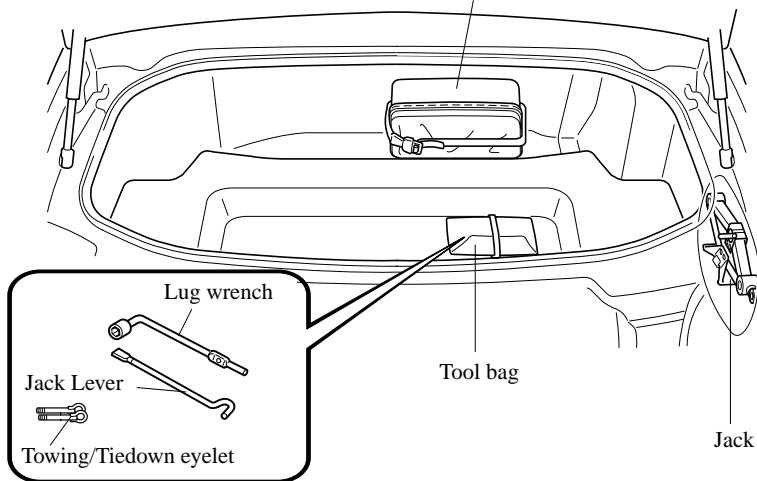
In Case of an Emergency
Flat Tire

Tool Storage

Tools are stored in the locations illustrated in the diagram.

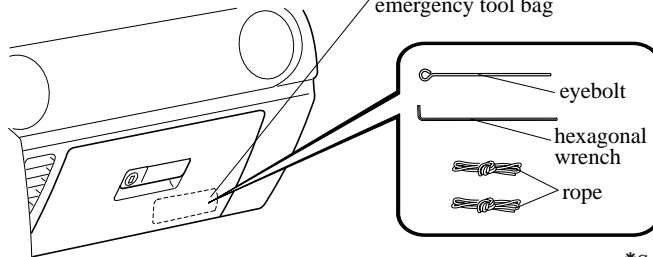
Trunk room

Instant Mobility System (IMS) Emergency Flat Tire Repair Kit



Glove box

* Power retractable hardtop
emergency tool bag



*Some models.

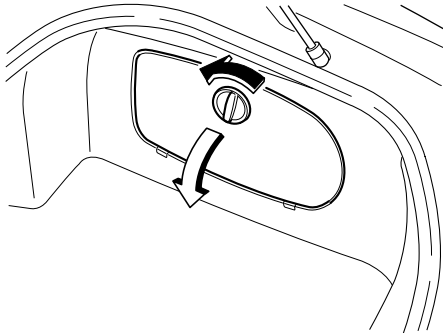
In Case of an Emergency

Flat Tire

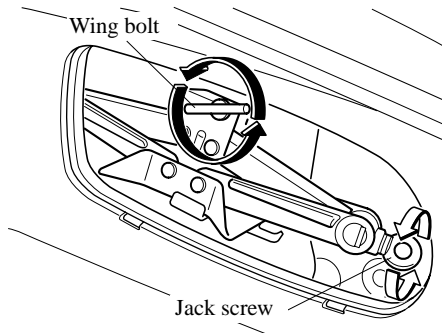
▼ Jack

To remove the jack

1. Turn the knob and remove the cover.

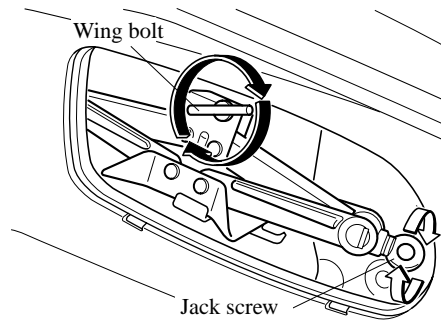


2. Turn the wing bolt and jack screw counterclockwise.



To secure the jack

1. Insert the wing bolt into the jack with the jack screw pointing back 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.

In Case of an Emergency
Flat Tire

**Instant Mobility System
(IMS) Emergency Flat
Tire Repair Kit***

The IMS emergency flat tire repair kit included with your Mazda is for a temporary repair of a slightly damaged flat tire resulting from running over nails or similar sharp objects on the road surface.

NOTE

Your vehicle is not equipped with a spare tire. In the event of a flat tire, use the emergency flat tire repair kit to repair the tire temporarily. When doing the repair, refer to the instructions included in the emergency flat tire repair kit. After temporarily repairing a tire with the emergency flat tire repair kit, take your vehicle to an Authorized Mazda Dealer to have the tire replaced.

▼ **About the IMS Emergency Flat
Tire Repair Kit**

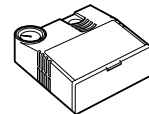
The IMS emergency flat tire repair kit includes the following items.



Tire sealant



Injection hose



Compressor



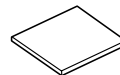
Spare valve
core



Valve core
tool



Repaired tire
sticker



Instruction



Speed restriction
sticker



Case

⚠ WARNING

Do not allow children to touch the tire sealant:

Ingestion of tire sealant is dangerous. In the event tire sealant is accidentally swallowed, drink large amounts of water immediately and seek medical assistance.

Do not allow children to touch the tire sealant:

Tire sealant that comes into contact with the eyes and skin is dangerous. If tire sealant enters the eyes or contacts the skin, flush immediately with large amounts of water and seek medical assistance.

*Some models.

7-7

In Case of an Emergency

Flat Tire

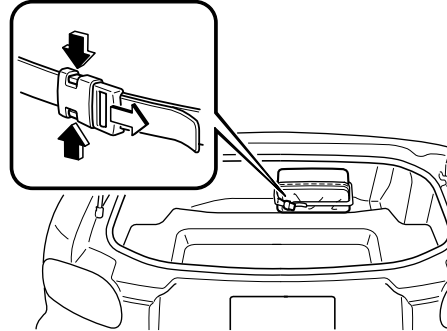
NOTE

- *The tire sealant cannot be reused. Purchase new tire sealant at an Authorized Mazda Dealer.*
- *The emergency flat tire repair kit cannot be used in the following cases. Consult an Authorized Mazda Dealer.*
 - *The period of effective use for the tire sealant has expired. (The period of effectiveness is indicated on the bottle label.)*
 - *The tear or puncture exceeds about 4 mm (0.16 in).*
 - *The damage has occurred to an area of the tire other than the tread.*
 - *The vehicle has been driven with nearly no air remaining in the tire.*
 - *The tire has come off the wheel rim.*
 - *Damage to the wheel rim has occurred.*
 - *The tire has two or more punctures.*

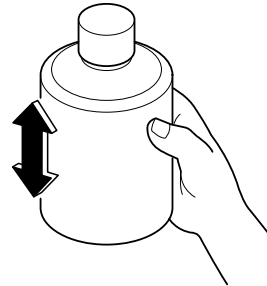
▼ Using the IMS Emergency Flat Tire Repair Kit

1. Park on a level surface off the right-of-way and set the parking brake.
2. Put a vehicle with an automatic transmission in Park (P), a manual transmission in Reverse (R) or 1, and turn off the engine.
3. Turn on the hazard warning flasher.

4. Unload passengers and luggage, and remove the emergency flat tire repair kit.



5. Shake the tire sealant well.



⚠ CAUTION

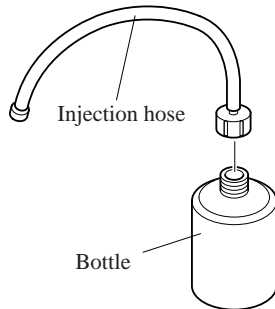
If the bottle is shaken after the injection hose is screwed on, tire sealant could spray out from the injection hose. Tire sealant contacting clothing or other objects may be impossible to remove. Shake the bottle before screwing on the injection hose.

In Case of an Emergency
Flat Tire

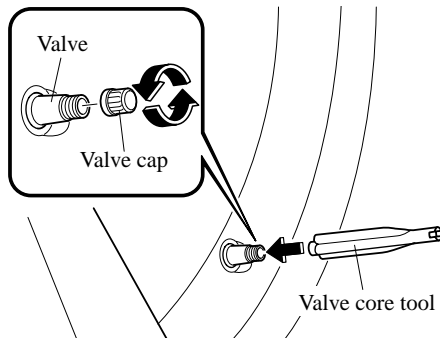
NOTE

The tire sealant can be used at outside temperatures down to -30°C . In extremely cold temperatures (0°C (32°F) or below), the tire sealant hardens easily and injection of the sealant will be difficult. Warm the sealant inside the vehicle before doing the injection work.

6. Remove the cap from the bottle. Screw on the injection hose with the bottle's inner cap left on to break the inner cap.



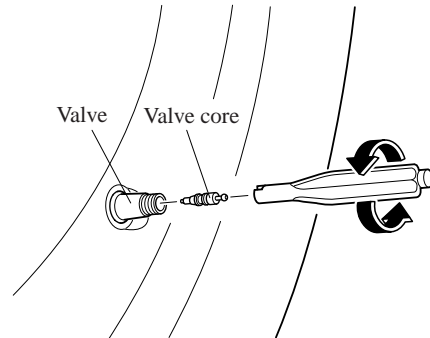
7. Remove the valve cap from the flat tire. Press the back of a valve core tool to the core of the tire valve and bleed all the remaining air.



CAUTION

If there is air remaining in the tire when the valve core is removed, the valve core could fly out. Remove the valve core carefully.

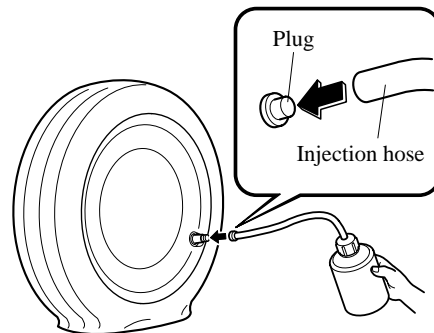
8. Turn the valve core counterclockwise with the valve core tool and remove the valve core.



NOTE

Store the valve core in a place where it won't get dirty.

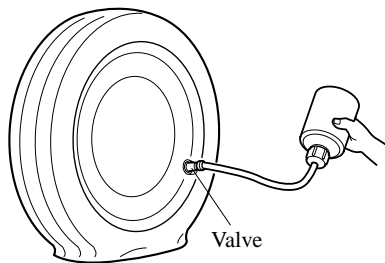
9. Remove the plug from the injection hose and insert the injection hose into the valve.



In Case of an Emergency

Flat Tire

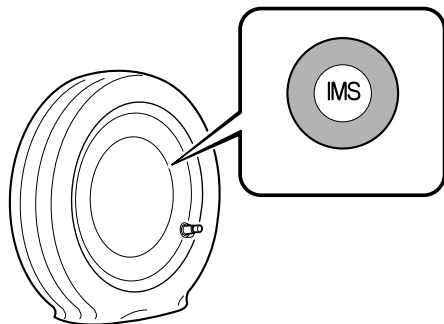
10. Hold the bottom of the bottle upright, squeeze the bottle with your hands, and inject the entire amount of tire sealant into the tire.



NOTE

The tire sealant cannot be reused. Purchase a new tire sealant kit at an Authorized Mazda Dealer.

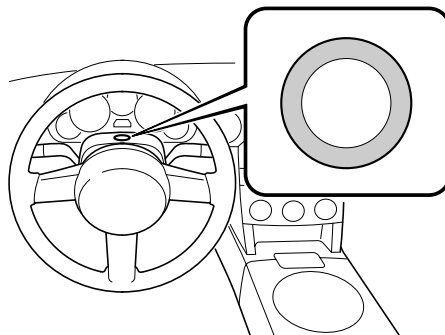
11. Pull out the injection hose from the valve. Reinsert the valve core into the valve and turn it clockwise to install it.
12. Attach the sticker that indicates completion of the tire repair on a flat outer surface of the repaired tire.



NOTE

Do not throw away the empty tire sealant bottle after use. Return the empty tire sealant bottle to an Authorized Mazda Dealer when replacing the tire. The empty tire sealant bottle will need to be used to extract and dispose of the used sealant from the tire.

13. Attach the vehicle speed restriction sticker in a place where the driver can easily see it.



⚠ WARNING

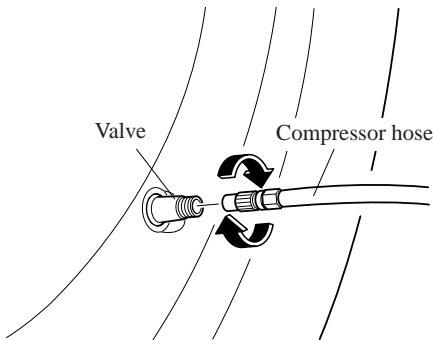
Do not attach the vehicle speed restriction sticker to the instrument panel, as it would obstruct vision of areas such as warning light indicators or the speedometer:

Attaching the vehicle speed restriction sticker to the steering wheel pad is dangerous. The sticker could interfere with air bag inflation and cause serious injury.

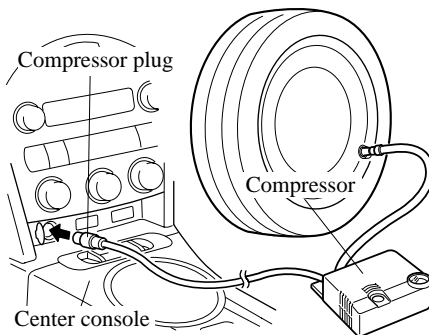
In Case of an Emergency

Flat Tire

14. Install the compressor hose to the tire valve.



15. Insert the compressor plug into the interior accessory socket and turn the ignition switch to the ACC position (page 6-44).



CAUTION

- Before pulling out the compressor plug from the electrical socket, make sure the compressor power switch is off.
- The compressor turns on and off with the push-button switch.

16. Turn the compressor switch on and inflate the tire carefully to the correct inflation pressure.

WARNING

Never operate the compressor above 300 kPa (3.1 kgf/cm², 3 bar, 43.5 psi): Operating the compressor above 300 kPa (3.1 kgf/cm², 3 bar, 43.5 psi) is dangerous. When the inflation pressure rises above 300 kPa (3.1 kgf/cm², 3 bar, 43.5 psi), heated air will be exhausted from the back of the compressor and you could be burned.

CAUTION

If the compressor operates slowly or becomes hot, it indicates overheating. Turn the compressor off immediately and leave it turned off for 30 minutes or longer.

NOTE

- Check the tire inflation pressure label (driver's door frame) for the correct tire inflation pressure.
- Do not use the compressor for longer than 10 minutes because using the compressor for long periods could damage it.
- If the tire does not inflate, repair of the tire may not be possible. If the tire does not reach the correct inflation pressure within a 10-minute period, it probably has received more extensive damage. When this happens, the emergency flat tire repair kit cannot be used to repair the tire. Contact an Authorized Mazda Dealer.
- If the tire has been over-inflated, loosen the screw cap on the compressor and bleed some of the air out.

17. When the tire has been inflated to the proper inflation pressure, turn the compressor switch off and remove the compressor hose from the tire valve.

In Case of an Emergency

Flat Tire

18. Install the tire valve cap.
19. Put the emergency flat tire repair kit in the trunk and continue driving.

CAUTION

- *Drive carefully to an Authorized Mazda Dealer and keep the vehicle speed below 80 km/h (50 mph).*
 - *If the vehicle is driven 80 km/h (50 mph) or higher, the vehicle might begin to vibrate.*
20. After driving the vehicle for 10 minutes or 5 km (3 miles), check the tire pressure with the tire pressure gauge equipped with the compressor. If the tire pressure has fallen below the correct tire pressure, inflate the tire to the correct pressure again following the steps from number 15.

CAUTION

- *If the tire inflation pressure falls below 130 kPa (1.3 kgf/cm² or bar, 18.9 psi), repair cannot be done with the repair kit. Park the vehicle on a level surface off the right-of-way and contact an Authorized Mazda Dealer.*
- *If the tire inflation pressure continues to remain low after repeating steps 14 to 21, park the vehicle on a level surface off the right-of-way and contact an Authorized Mazda Dealer.*

NOTE

When checking the tire inflation pressure with the tire pressure gauge on the compressor unit, make sure the compressor switch is turned off.

21. If the tire inflation pressure remains stable, the tire repair is complete. Drive the vehicle with care to an Authorized Mazda Dealer to have the tire replaced.

CAUTION

- *A tire that has been temporarily repaired with the tire sealant cannot be reused. Mazda recommends replacing the tire with a new one.*
- *The wheel can be reused after any sealant adhering to it is wiped off and carefully inspected. However, replace the tire valve with a new one.*

▼ Inspecting the IMS Emergency Flat Tire Repair Kit

Inspect the emergency tire repair kit at regular intervals.

- Check the tire sealant period of effective use.
- Check the operation of the tire compressor.

NOTE

The tire sealant has a period of effective use. Check the period of effective use indicated on the bottle label and do not use it if it has expired. Have the tire sealant replaced at an Authorized Mazda Dealer before the period of effective use has expired.

Flat Tire

Changing a Tire

! 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

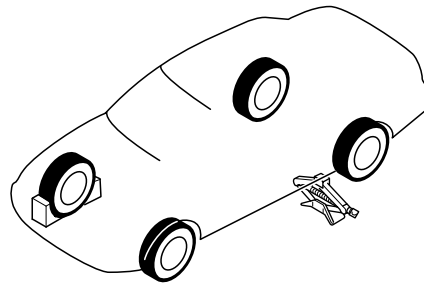
- *Make sure the jack is well lubricated before using it.*

(With Tire Pressure Monitoring System)

- *Be sure to register the tire pressure sensor ID signal code whenever tires or wheels are changed (page 5-31).*

1. Park on a level surface off the right-of-way and firmly set the parking brake.
2. Put a vehicle with an automatic transmission in Park (P), a manual transmission 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, and tool (page 7-5).
6. Block the wheel diagonally opposite the tire to be changed. When blocking a wheel, place a tire block both in front and behind the tire.



NOTE

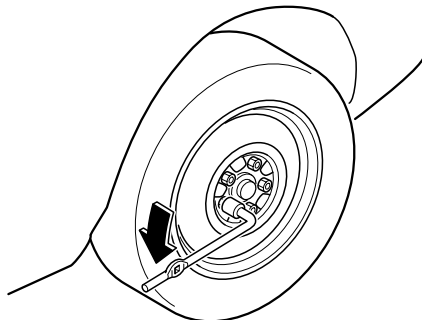
When blocking a tire, use rocks or wood blocks of sufficient size if possible to hold the tire in place.

In Case of an Emergency

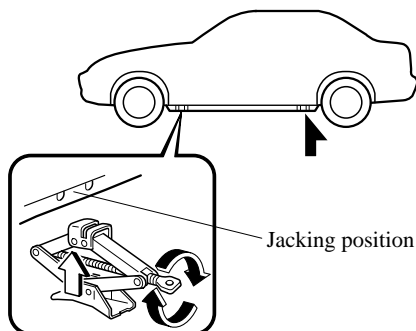
Flat Tire

▼ Removing a Tire

1. Loosen the lug nuts by turning them counterclockwise one turn each, but don't remove any until the tire has been raised off the ground.



2. 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:

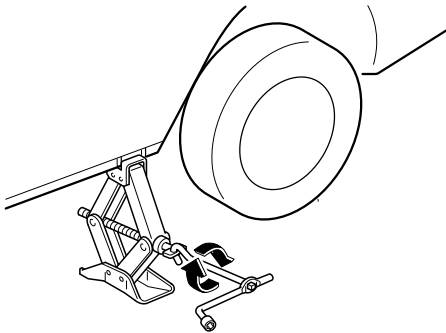
Jacking the vehicle with an object under the jack is dangerous. The jack could slip and someone could be seriously injured by the jack or the falling vehicle.

3. Insert the jack handle into the jack.

In Case of an Emergency

Flat Tire

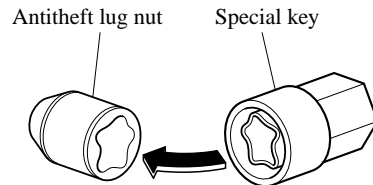
4. Turn the jack handle clockwise and raise the vehicle high enough so that the tire can be installed. Before removing the lug nuts, make sure your Mazda is firmly in position and that it cannot slip or move.



5. Remove the lug nuts by turning them counterclockwise, then remove the wheel.

▼ Locking Lug Nuts

If your vehicle has optional anti-theft 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. 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 anti-theft lug nut

1. Obtain the key for the anti-theft 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.

In Case of an Emergency

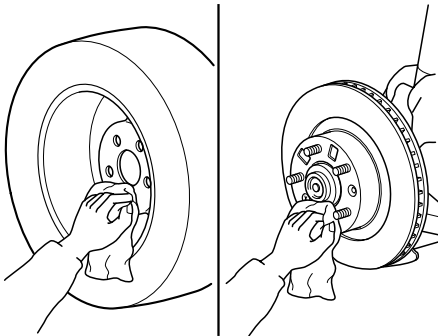
Flat Tire

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 Tire

1. Remove dirt and grime from the mounting surfaces of the wheel and hub, including the hub bolts, with a cloth.



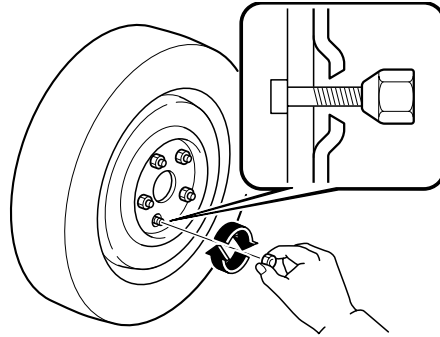
⚠ WARNING

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 tire.

3. Install the lug nuts with the beveled edge inward; tighten them by hand.

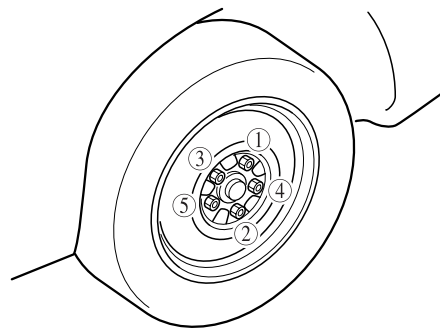


⚠ WARNING

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 jack handle counterclockwise and lower the vehicle. Use the lug wrench to tighten the nuts in the order shown.



In Case of an Emergency

Flat Tire

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. Check the inflation pressure. Refer to the specification charts on page 10-6.

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.

NOTE

To prevent the jack and tool from rattling, store them properly.

In Case of an Emergency

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 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.

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.

NOTE

Once the engine coolant exceeds a preset temperature, an electrical cooling fan turns on. It will continue running for about 10 minutes after the ignition switch is turned to off.

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 transmission in park (P), a manual transmission 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

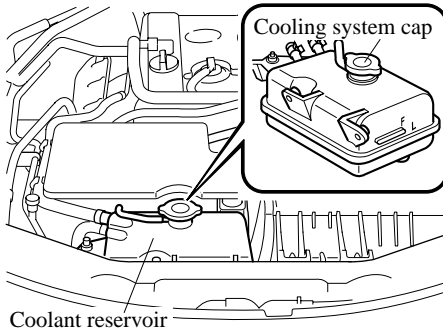
If the cooling fan does not operate while the engine is running, the engine temperature will increase. Stop the engine and call an Authorized Mazda Dealer.

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.

In Case of an Emergency
Overheating

If you find a leak or other damage, or if coolant is still leaking:

Stop the engine and call an Authorized Mazda Dealer.



If you find no problems, the engine is cool, and no leaks are obvious:

Carefully add coolant as required (page 8-23).

⚠ 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.

In Case of an Emergency

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.

In Case of an Emergency
Emergency Starting

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



Follow These Precautions Carefully:

To ensure safe and correct handling of the battery, read the following precautions carefully before using the battery or inspecting it.



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.

In Case of an Emergency

Emergency Starting



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.

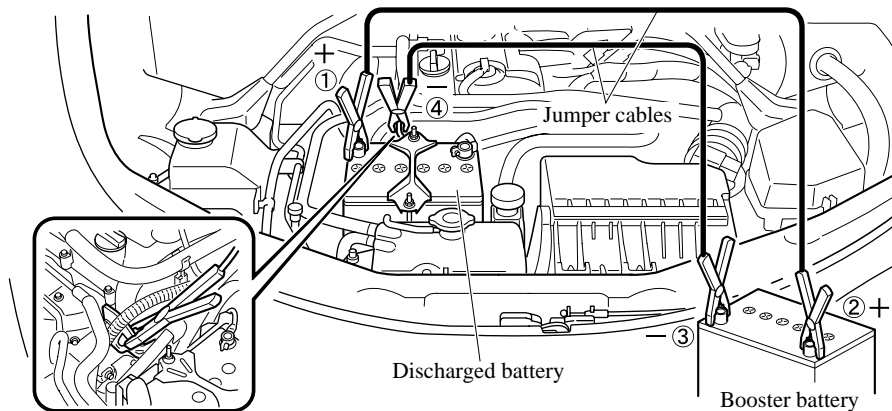
Route the jumper cables away from parts that will be moving:

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

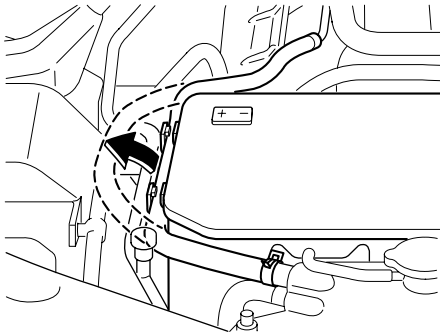
Use only a 12 V booster system. You can damage a 12 V starter, ignition system, and other electrical parts beyond repair with a 24 V power supply (two 12 V batteries in series or a 24 V motor generator set).

Connect cables in numerical order and disconnect in reverse order.

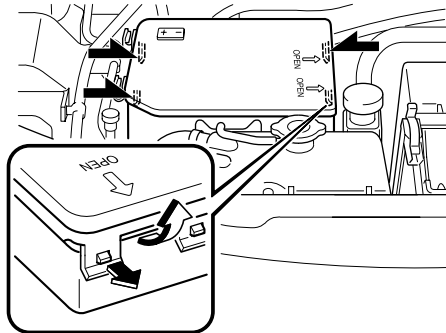


In Case of an Emergency
Emergency Starting

1. Remove the rubber hose from the battery cover.



2. Remove the battery cover from its right side.



3. Make sure the booster battery is 12 V and that its negative terminal is grounded.
4. If the booster battery is in another vehicle, don't allow both vehicles to touch. Turn off the engine of the vehicle with the booster battery and all unnecessary electrical loads in both vehicles.

5. 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 the ground point indicated in the illustration away from the discharged battery (4).

6. Start the engine of the booster vehicle and run it a few minutes. Then start the engine of the other vehicle.

7. When finished, carefully disconnect the cables in the reverse order described in the illustration.

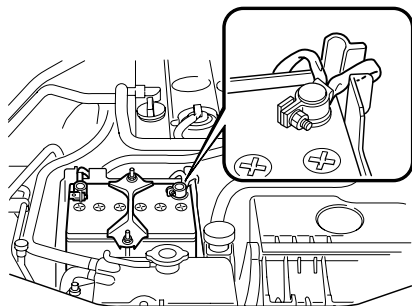
8. If the battery cover has been removed, install it in the reverse order of removal.

In Case of an Emergency

Emergency Starting

NOTE

- Before installing the battery cover, make sure both of the cables connecting the negative battery terminal (right side of battery) are connected with the cables routed toward the right and back of the battery as shown in the figure.



- Verify that the covers are securely installed.

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 transmission. It can damage the emission control system.

NOTE

You can't start a vehicle with an automatic transmission by pushing it.

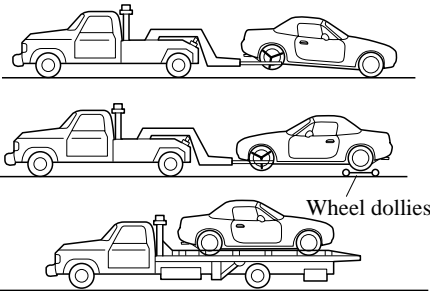
In Case of an Emergency
Emergency Towing

Towing Description

We recommend that towing be done only by an Authorized Mazda Dealer or a commercial tow-truck service.

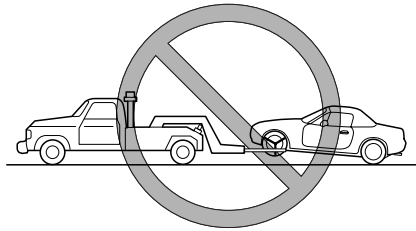
Proper lifting and towing are necessary to prevent damage to the vehicle. Government and local laws must be followed.

A towed vehicle usually should have its drive wheels (rear wheels) off the ground. If excessive damage or other conditions prevent this, use wheel dollies.



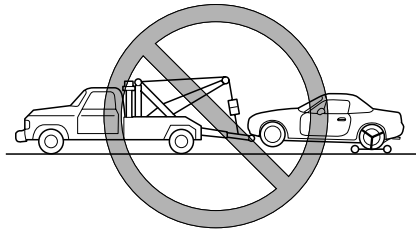
CAUTION

Don't tow the vehicle pointed forward with driving wheels on the ground. This may cause internal damage to the transmission.



CAUTION

Don't tow with sling-type equipment. This could damage your vehicle. Use wheel-lift or flatbed equipment.



In Case of an Emergency

Emergency Towing

Tiedown Hooks

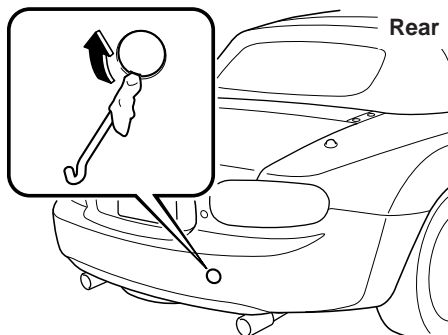
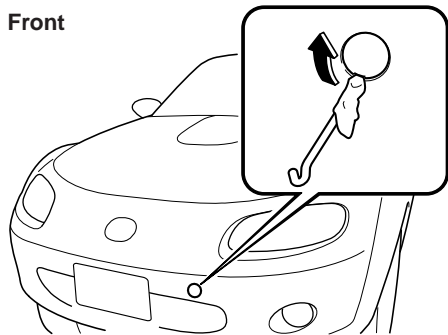
CAUTION

Don't use the tiedown hooks under the front and rear for towing. They are designed **ONLY** for tying down the vehicle when it's being transported. Using them for towing will damage the bumper.

▼ Tiedown Hooks

1. Remove the tiedown eyelet, lug wrench, and jack lever from the trunk (page 7-5).
2. Wrap the jack lever with a soft cloth to prevent damage to the bumper and open the cap located on the front and rear bumper.

Front

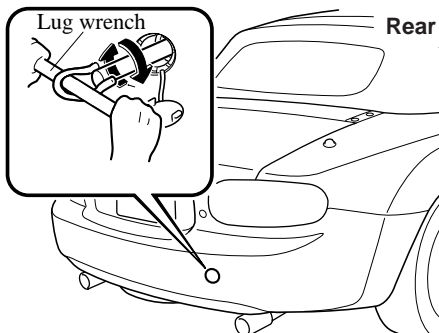
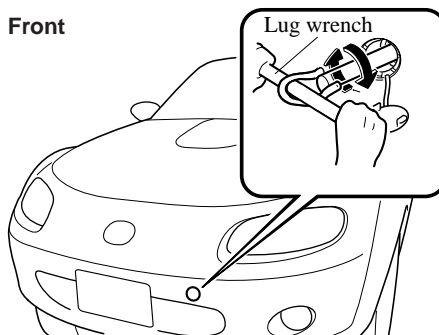


CAUTION

The cap cannot be completely removed. Do not use excessive force as it may damage the cap or scratch the painted bumper surface.

3. Securely install the tiedown eyelet using the lug wrench.

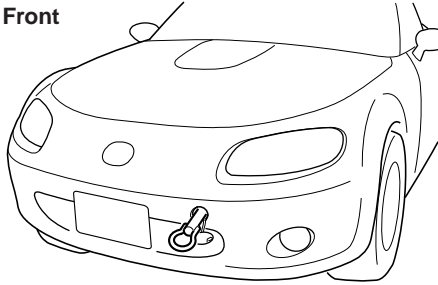
Front



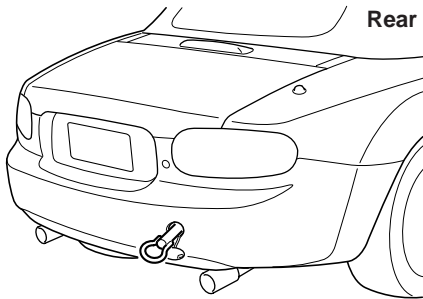
In Case of an Emergency
Emergency Towing

- Hook the tying rope to the tiedown eyelet.

Front



Rear

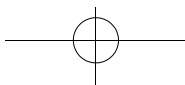
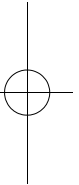
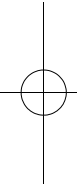
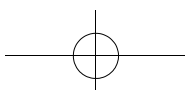


CAUTION

If the tiedown eyelet is not securely tightened, it may loosen or disengage from the bumper when tying down the vehicle. Make sure that the tiedown eyelet is securely tightened to the bumper.

Recreational Towing

An example of “recreational towing” is towing your vehicle behind a motorhome. The transmission is not designed for towing this vehicle on all 4 wheels. When doing recreational towing refer to “Towing Description” (page 7-25) and “Tiedown Hooks” (page 7-26) and carefully follow the instructions.



8 Maintenance and Care

How to keep your Mazda in top condition.

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Maintenance and Care

Introduction

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.**

Maintenance and Care
Scheduled Maintenance

Scheduled Maintenance (North America)

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.

Maintenance and Care

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
ENGINE									
Drive belts (tension)						I			
Engine valve clearance	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
COOLING SYSTEM									
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 96,000 km (60,000 miles) or 4 years; after that, every 2 years							
FUEL SYSTEM									
Air filter		C		C	R		C		
Fuel lines and hoses *2					I				I
Hoses and tubes for emission *2									I
IGNITION SYSTEM									
Spark plugs	Replace every 120,000 km (75,000 miles)								

Maintenance and Care
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
CHASSIS and BODY									
Brake lines, hoses and connections					I				I
Disc brakes		I			I		I		I
Tire (Rotation)	Rotate every 12,000 km (7,500 miles)								
Flat tire repair kit (if installed)* ³	Inspect annually								
Steering operation and linkages					I				I
Front and rear suspension, ball joints and wheel bearing axial play					I				I
Manual transmission oil									R
Rear differential oil									R
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

Chart symbols:

- I:** Inspect and clean, repair, adjust, or replace if necessary.
- R:** Replace
- L:** Lubricate
- C:** Clean
- 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 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with new one before the expiration date.

Maintenance and Care

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
ENGINE													
Drive belts (tension)								I					
Engine valve clearance	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
COOLING SYSTEM													
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 96,000 km (60,000 miles) or 4 years; after that, every 2 years											
Engine coolant level		I	I	I	I	I	I	I	I	I	I	I	I
FUEL SYSTEM													
Air filter	Puerto Rico			C			R			C			R
	Others			C			C	R			C		
Fuel lines and hoses*2							I						I
Hoses and tubes for emission*2													I
IGNITION SYSTEM													
Spark plugs	USA	Replace every 96,000 km (60,000 miles)											
	Others	Replace every 120,000 km (75,000 miles)											
ELECTRICAL SYSTEM													
Function of all lights		I	I	I	I	I	I	I	I	I	I	I	I

Maintenance and Care
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
CHASSIS and BODY													
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
Flat tire repair kit (if installed)* ³	Inspect annually												
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
Manual transmission oil							R						R
Rear differential oil							R						R
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

Chart symbols:

- I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.
- R:** Replace
- L:** Lubricate
- C:** Clean
- 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 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with new one before the expiration date.

Maintenance and Care

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.

Maintenance and Care
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
ENGINE													
Drive belts (tension)				I					I				I
Engine valve clearance	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
COOLING SYSTEM													
Cooling system				I					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				R
FUEL SYSTEM													
Air filter		R		R		R		R		R		R	R
Fuel lines and hoses				I *2					I *2				I
Hoses and tubes for emission				I *2					I *2				I
Fuel filter				R					R				R
IGNITION SYSTEM													
Spark plugs	Replace every 60,000 km												

Maintenance and Care

Scheduled Maintenance

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
CHASSIS and BODY													
Brake lines, hoses and connections		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
Flat tire repair kit (if installed) ^{*3}	Inspect annually												
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	
Manual transmission oil									R				
Rear differential oil					R				R				R
Driveshaft dust boots		I			I				I			I	
Exhaust system and heat shields		I			I				I			I	
Bolts and nuts on chassis and body		T			T				T			T	
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

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 kilometer period to ensure long-term reliability.

*3 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with new one before the expiration date.

Maintenance and Care
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
ENGINE													
Drive belts (tension)									I				
Engine valve clearance	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
COOLING SYSTEM													
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
FUEL SYSTEM													
Air filter		C		R		C		R		C		R	
Fuel lines and hoses								I ^{*2}					
Hoses and tubes for emission								I ^{*2}					
Fuel filter								R					
IGNITION SYSTEM													
Spark plugs	Replace every 60,000 km												
ELECTRICAL SYSTEM													
Function of all lights	I	I	I	I	I	I	I	I	I	I	I	I	I

Maintenance and Care

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
CHASSIS and BODY													
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
Flat tire repair kit (if installed) ^{*3}	Inspect annually												
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
Manual transmission oil										R			
Rear differential oil										R			
Driveshaft dust boots					I					I			I
Exhaust system and heat shields					I					I			I
Bolts and nuts on chassis and body					T					T			T
All locks and hinges		L			L		L			L		L	L
Washer fluid level		I			I		I			I		I	I

Chart symbols:

- I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.
- R:** Replace
- L:** Lubricate
- C:** Clean
- 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.
- *3 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with new one before the expiration date.

Maintenance and Care
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
ENGINE													
Drive belts (tension)				I									I
Engine valve clearance	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
COOLING SYSTEM													
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
FUEL SYSTEM													
Air filter		C		R		C		R		C			R
Fuel lines and hoses				I *2									I
Hoses and tubes for emission				I *2									I
Fuel filter				R									R
IGNITION SYSTEM													
Spark plugs	Replace every 60,000 km												
ELECTRICAL SYSTEM													
Function of all lights	I	I	I	I	I	I	I	I	I	I	I	I	I

Maintenance and Care

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
CHASSIS and BODY													
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
Tire (Rotation)	Rotate every 10,000 km												
Tire inflation pressure and tire wear		I			I		I		I		I		I
Flat tire repair kit (if installed) ^{*3}	Inspect annually												
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
Manual transmission oil					R								R
Rear differential oil					R								R
Driveshaft dust boots					I				I				I
Exhaust system and heat shields					I				I				I
Bolts and nuts on chassis and body					T				T				T
All locks and hinges		L			L		L		L		L		L
Washer fluid level		I			I		I		I		I		I

Chart symbols:

- I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.
- R:** Replace
- L:** Lubricate
- C:** Clean
- 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.
- *3 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with new one before the expiration date.



Maintenance and Care
Scheduled Maintenance

Scheduled Maintenance (Except North America and Mexico)

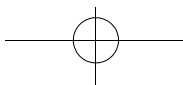
NOTE

- *After the prescribed period, continue to follow the described maintenance at the recommended intervals.*
- *As the result of visual examination or functional measurement of a system's operation (performance), correct, clean, or replace as required. (Inspect, and if necessary replace the air filter)*

Emission control and related systems

The ignition and fuel systems are highly important to the emission control system and to efficient engine operation. Don't tamper with them.

All inspections and adjustments must be made by an Authorized Mazda Dealer.



Maintenance and Care

Scheduled Maintenance

▼ Schedule

Maintenance Interval	Number of months or kilometers (miles), whichever comes first																
	Months	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
	×1000 km	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
	×1000 miles	6.25	12.5	18.75	25	31.25	37.5	43.75	50	56.25	62.5	68.75	75	81.25	87.5	93.75	100
Engine valve clearance	Audible inspect every 120,000 km (75,000 miles), if noisy, adjust																
Engine oil* ¹	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter* ¹	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Drive belts* ²	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Cooling system		I		I		I		I		I		I		I		I	
Engine coolant	FL22 type* ³										R						
	Others	Replace every 2 years															
Air filter* ⁴		C		C		R		C		C		R		C		C	
Fuel filter	Replace every 60,000 km (37,500 miles)																
Fuel lines and hoses		I		I		I		I		I		I		I		I	
Spark plugs	Replace every 100,000 km (62,500 miles)																
Evaporative system (if installed)		I		I		I		I		I		I		I		I	
Battery electrolyte level and specific gravity		I		I		I		I		I		I		I		I	
Brake lines, hoses and connections		I		I		I		I		I		I		I		I	
Brake fluid* ⁵	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R	I
Parking brake	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Power brake unit (Brake booster) and hoses		I		I		I		I		I		I		I		I	
Disc brakes	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Power steering fluid, lines, hoses and connections	I	I	I	I	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	
Manual transmission oil											R						
Rear differential oil									R								R
Front and rear suspension, ball joints and wheel bearing axial play		I		I		I		I		I		I		I		I	
Driveshaft dust boots				I				I					I				I
Exhaust system and heat shields	Inspect every 80,000 km (50,000 miles)																
Bolts and nuts on chassis and body		T		T		T		T		T		T		T		T	
Body condition (for rust, corrosion and perforation)	Inspect annually																
Tire rotation	Rotate every 10,000 km (6,250 miles)																

Scheduled Maintenance

Maintenance Interval	Number of months or kilometers (miles), whichever comes first																
	Months	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
	×1000 km	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
	×1000 miles	6.25	12.5	18.75	25	31.25	37.5	43.75	50	56.25	62.5	68.75	75	81.25	87.5	93.75	100
Tires (with inflation pressure adjustment)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Flat tire repair kit (if installed)*6	Inspect annually																

Chart symbols:

- I:** Inspect: Inspect and clean, repair, adjust, or replace if necessary.
- R:** Replace
- T:** Tighten
- C:** Clean

Remarks:

- *1 If the vehicle is operated primarily under any of the following conditions, replace the engine oil and oil filter more often than the recommended intervals.
 - a) Driving in dusty conditions.
 - b) Extended periods of idling or low speed operation
 - c) Driving for long period in cold temperatures or driving regularly at short distance only
- *2 Also inspect and adjust the power steering and air conditioner drive belts, if installed.
- *3 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.
- *4 If the vehicle is operated in very dusty or sandy areas, clean and if necessary, replace the air filter more often than the recommended intervals.
- *5 If the brakes are used extensively (for example, continuous hard driving or mountain driving) or if the vehicle is operated in extremely humid climates, replace the brake fluid annually.
- *6 Check the tire repair fluid expiration date every year when performing the periodic maintenance. Replace the tire repair fluid bottle with new one before the expiration date.

Maintenance and Care

Owner Maintenance

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 8-25)
- Engine coolant level (page 8-23)
- Engine oil level (page 8-22)
- 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)

- Power steering fluid level (page 8-26)

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 8-23)
- Engine oil (page 8-21)



Maintenance and Care
Owner Maintenance

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.

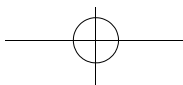
If you must run the engine while working under the hood, make certain that you remove all jewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose clothing before getting near the engine or cooling fan which may turn on unexpectedly:

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:

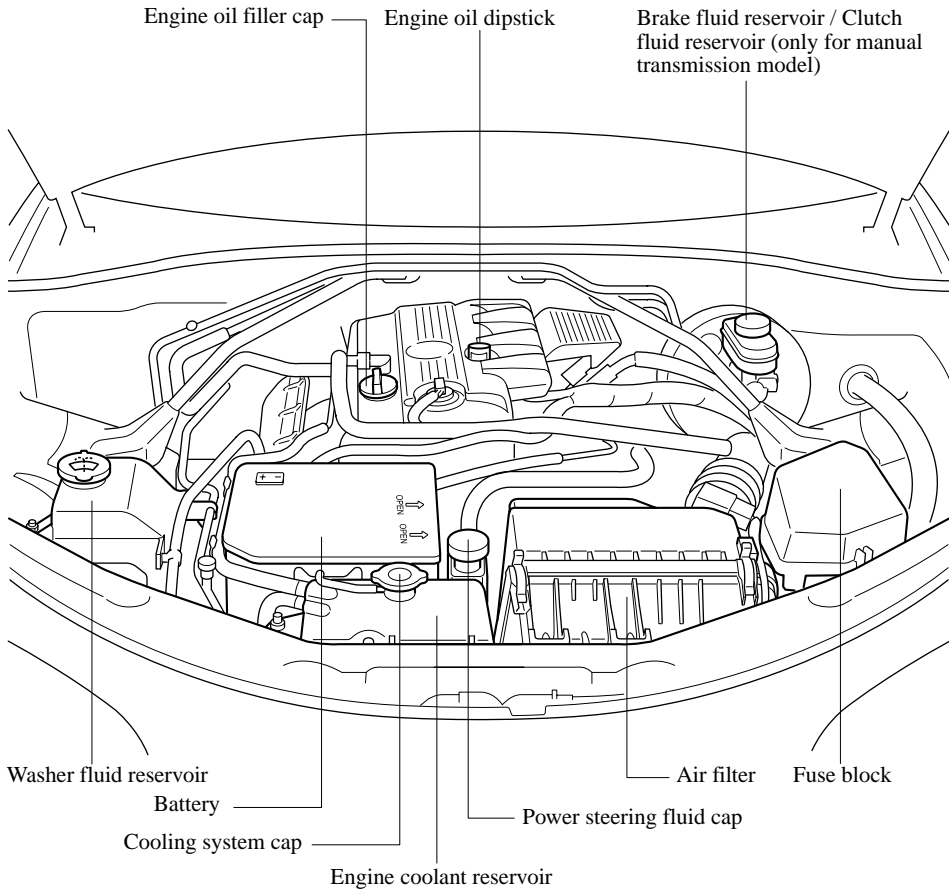
Working near the cooling fan when it is running is dangerous. The fan could continue running indefinitely even if the engine has stopped and the engine compartment temperature is high. You could be hit by the fan and seriously injured.



Maintenance and Care

Owner Maintenance

Engine Compartment Overview



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.

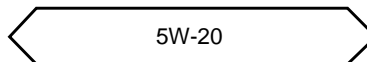
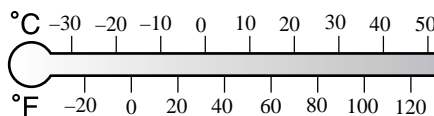
A chief contribution this type of oil makes to fuel economy is reducing the amount of fuel necessary to overcome engine friction.

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)

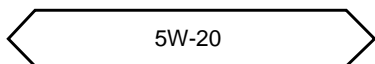
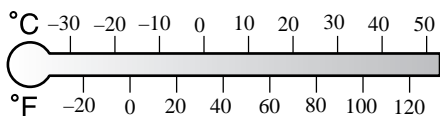
Mexico

Use SAE 5W-20 engine oil. If SAE 5W-20 engine oil is not available in your market. Use SAE 5W-30 engine oil.

Maintenance and Care

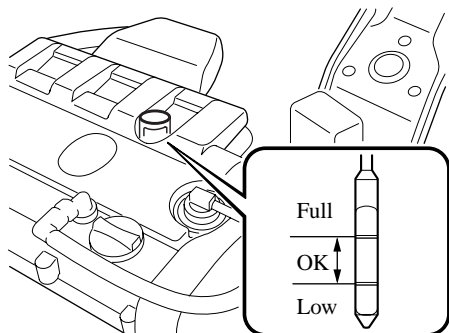
Owner Maintenance

The quality designation SM, or ILSAC must be on the label.



▼ 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.



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.

The distance between Low and Full on the dipstick represents the following:

Oil capacity	
L (US qt, Imp qt)	0.75 (0.79, 0.66)

Maintenance and Care
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.

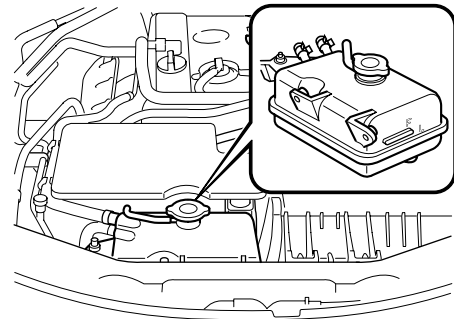
NOTE

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 F and L marks on the coolant reservoir when the engine is cool.



If it's at or near L, add enough coolant to the coolant reservoir to provide freezing and corrosion protection and to bring the level to F.

Maintenance and Care

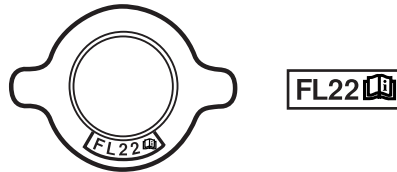
Owner Maintenance

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.

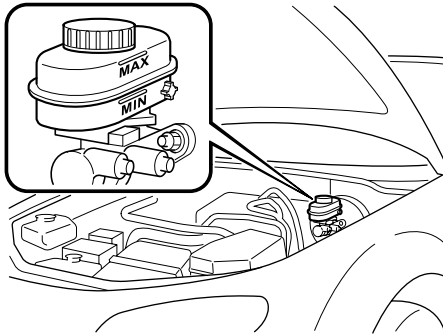
Maintenance and Care
Owner Maintenance

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.

Maintenance and Care

Owner Maintenance

Power Steering Fluid

▼ Inspecting Power Steering Fluid Level

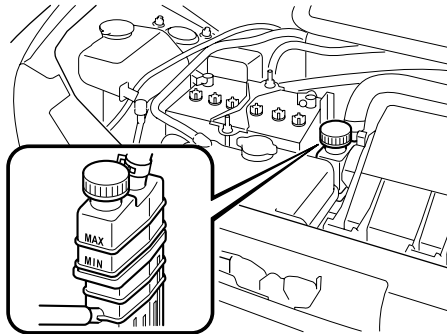
⚠ CAUTION

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).

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.

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:

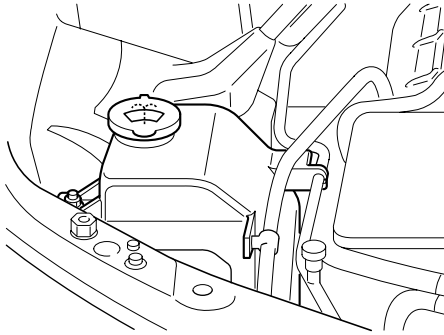
Operating your vehicle in temperatures below 4 degrees C (40 degrees F) using washer fluid without anti-freeze protection is dangerous as it could cause impaired windshield vision and result in an accident. In cold weather, always use washer fluid with anti-freeze protection.

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.

Maintenance and Care
Owner Maintenance

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.

Maintenance and Care

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.

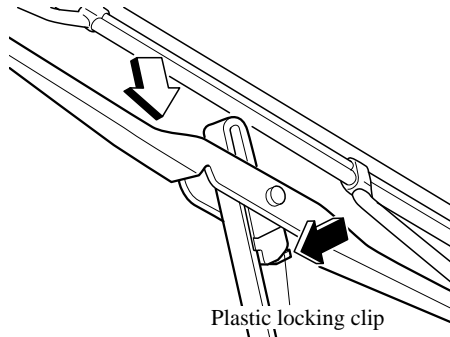
▼ Replacing Windshield Wiper Blades

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.

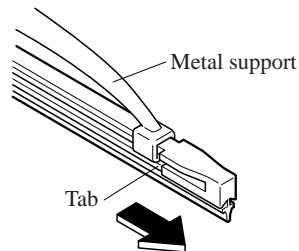
1. Raise the wiper arm and turn the blade assembly to expose the plastic locking clip. Compress the clip and slide the assembly downward; then lift it off the arm.



CAUTION

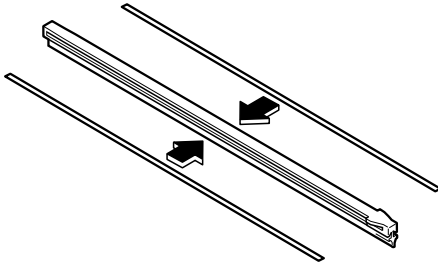
To prevent damage to the windshield let the wiper arm down easily, don't let it slap down on the windshield.

2. Hold the end of the rubber and pull until the tabs are free of the metal support.



Maintenance and Care
Owner Maintenance

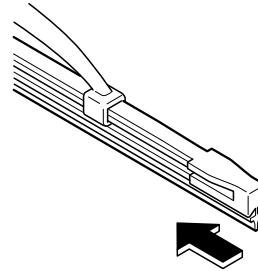
3. Remove the metal stiffeners from each blade rubber and install them in the new blade.



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.

Maintenance and Care

Owner Maintenance

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.



Read the following precautions carefully before using the battery or inspecting to ensure safe and correct handling:



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.

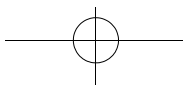
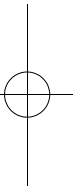
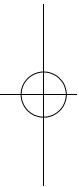


Maintenance and Care

Owner Maintenance



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.

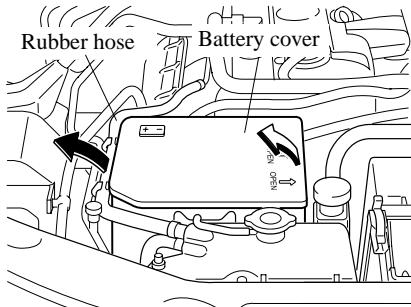


Maintenance and Care

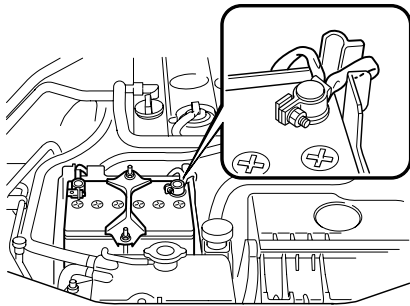
Owner Maintenance

NOTE

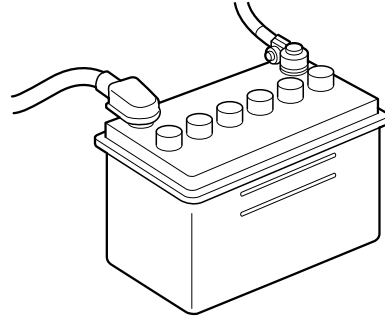
- Remove the rubber hose first, and then battery cover before performing battery maintenance.



- Before installing the battery cover, make sure both of the cables connecting the negative battery terminal (right side of battery) are connected with the cables routed toward the right and back of the battery as shown in the figure.



▼ 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.

Owner Maintenance

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.

Using Wrong-Sized Tires:

Using any other tire size than what is specified for your Mazda (page 10-6) 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

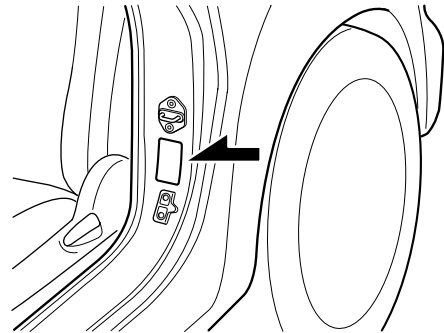
Always inflate the tires to the correct pressure:

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 10-6.

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 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 10-6).

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.

Maintenance and Care

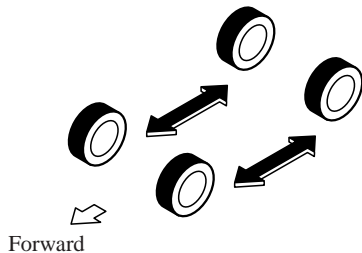
Owner Maintenance

▼ 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.

NOTE

Because your vehicle is not equipped with a spare tire, you cannot do a tire rotation safely with the jack that comes with your vehicle. Have an Authorized Mazda Dealer perform tire rotation.



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 10-6) 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.

⚠ CAUTION

Limited-Slip Differential system; 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.

⚠ 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.

Owner Maintenance

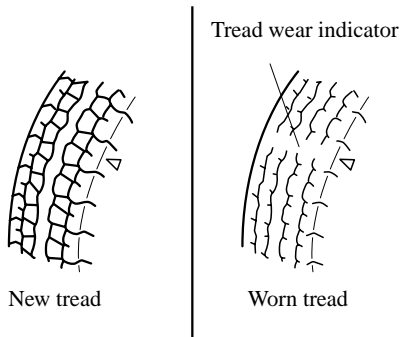
NOTE

(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 5-31.
- Be sure to install the tire pressure sensors whenever tires or wheels are replaced.
Refer to Tires and Wheels on page 5-31.

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. Regarding the manufacturing week and year is indicated with 4 digit.

Refer to The tire labeling on page 9-23.

▼ 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
 - Snow-chain clearance
 - Speedometer calibration
 - Headlight aim
 - Bumper height
 - Tire Pressure Monitoring System
 - Limited-Slip Differential 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 5-31.

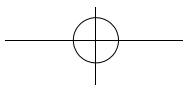


Maintenance and Care

Owner Maintenance

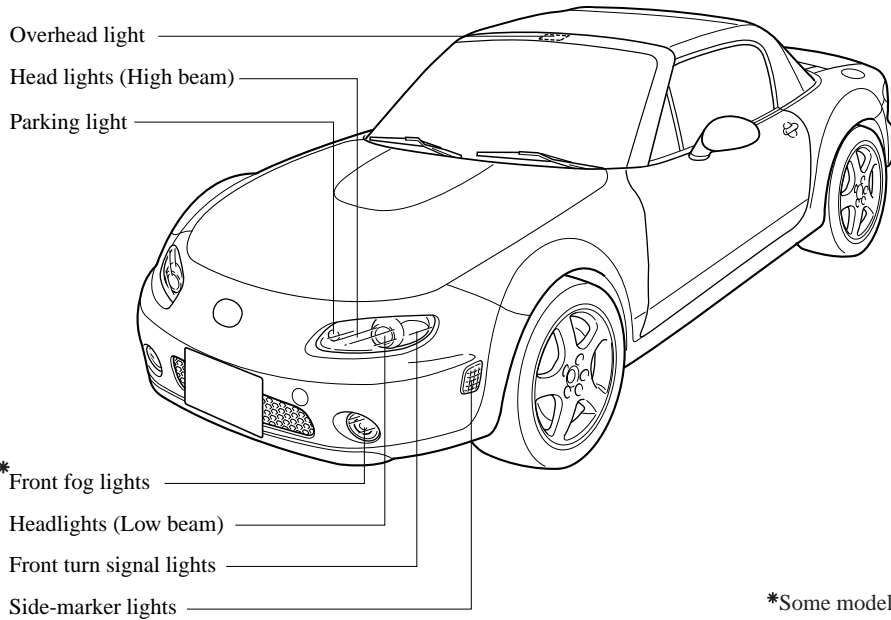
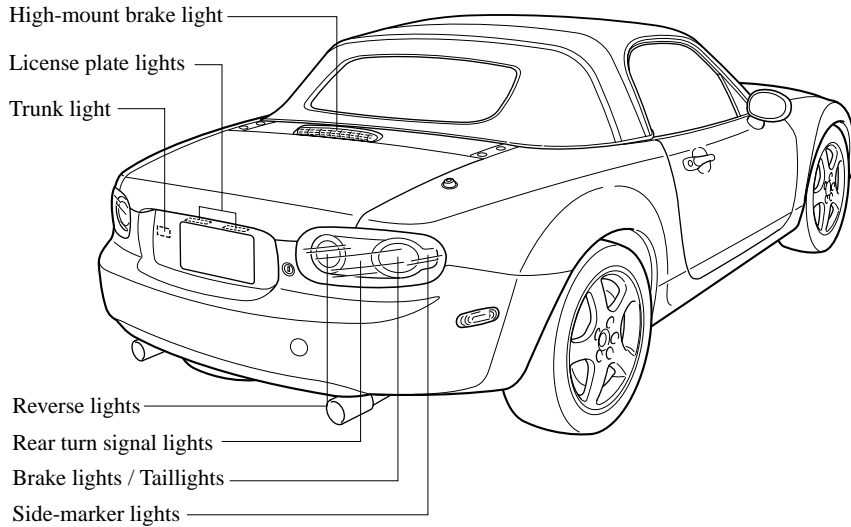
When replacing a wheel, make sure the new one is the same as the original factory wheel in diameter, rim width, and offset.

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.



Maintenance and Care
Owner Maintenance

Light Bulbs



*Some models.

Maintenance and Care

Owner Maintenance

⚠ 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.

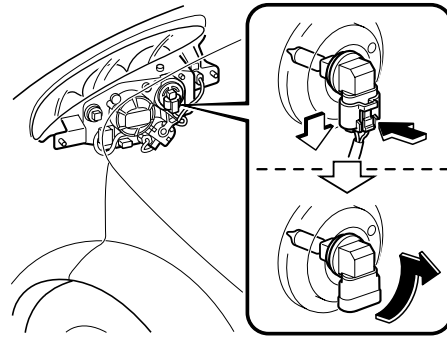
▼ Replacing Exterior Light Bulbs

Replacing the headlight bulbs

1. Make sure the headlight switch is off.
2. Lift the hood and find the high and low beam bulbs in the rear of the headlight body.
The outboard bulb is the LOW beam, and the inboard one is the HIGH beam.

High-beam bulb

1. Disconnect the electrical connector from the bulb by pressing the tab on the connector with your finger and pulling the connector downward.
2. Turn the socket and bulb assembly to remove it. Carefully remove the bulb from its socket in the reflector by gently pulling it straight backward out of the socket.



3. Install the new socket and bulb assembly in the reverse order of removal.

NOTE

- *If the halogen bulb is accidentally touched, it should be cleaned with rubbing alcohol before being used.*
- *Use the protective cover and carton of the replacement bulb to dispose of the old bulb promptly out of the reach of children.*

Low-beam bulb

(Xenon fusion bulb)

You cannot replace the low beam bulbs by yourself.

The bulbs must be replaced at an Authorized Mazda Dealer.

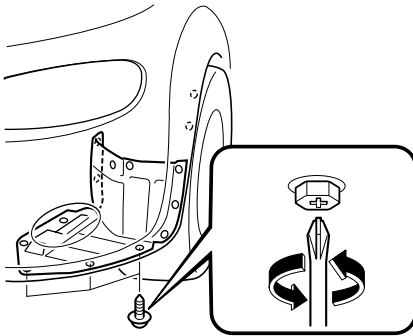
Maintenance and Care
Owner Maintenance

(Halogen bulb)

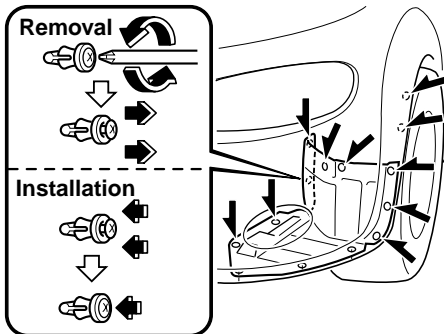
NOTE

Replacing low-beam halogen bulbs is difficult therefore contacting an Authorized Mazda Dealer is recommended.

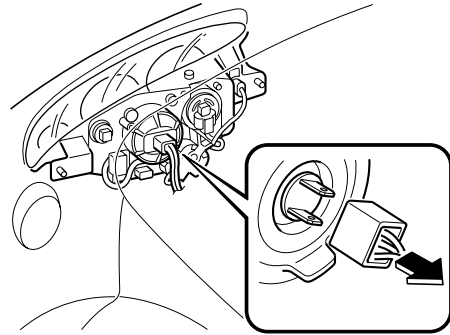
1. If you are changing the right headlight bulb, start the engine, turn the steering wheel all the way to the left, and turn off the engine. If you are changing the left headlight bulb, turn the steering wheel to the right.
2. Turn the screws counterclockwise and remove them.



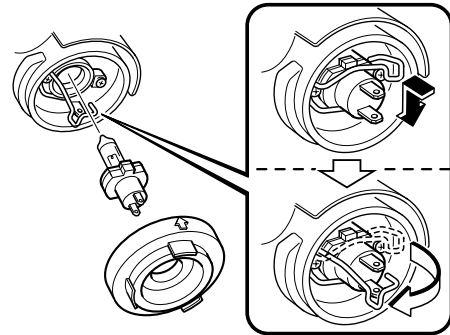
3. Turn the center section of the plastic retainers counterclockwise and remove them, then remove the mudguard.



4. Disconnect the electrical connector from the bulb by pulling it to the rear.



5. Pull off the sealing cover.
6. Unhook the bulb retaining spring.

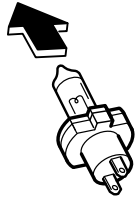


7. Swing the retaining spring out and away to free the headlight bulb.
8. Carefully remove the socket and bulb assembly by pulling it straight back.

Maintenance and Care

Owner Maintenance

9. Remove the headlight bulb from the socket.



10. Install the new socket and bulb assembly in the reverse order of removal.

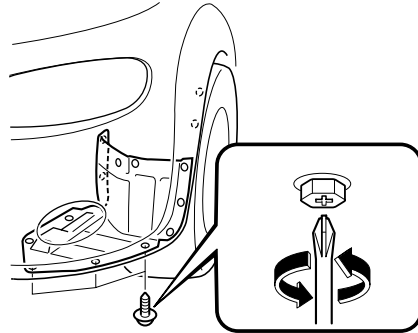
NOTE

- If the halogen bulb is accidentally touched, it should be cleaned with rubbing alcohol before being used.
- Use the protective cover and carton for the replacement bulb to dispose of the old bulb promptly and out of the reach of children.
- When reinstalling the sealing cover, make sure ↑ faces up.

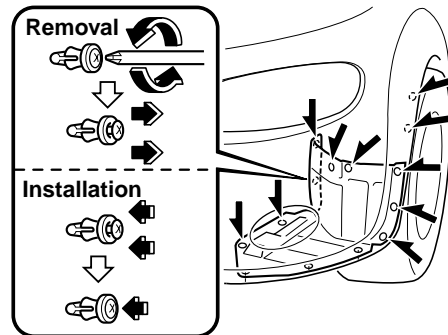
Front fog light bulbs*

1. If you are changing the right Front fog light bulb, start the engine, turn the steering wheel all the way to the left, and turn off the engine. If you are changing the left Front fog light bulb, turn the steering wheel to the right.

2. Turn the screws counterclockwise and remove them.



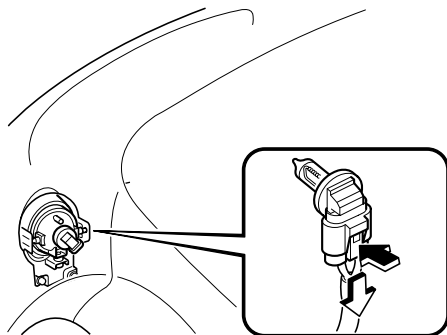
3. Turn the center section of the plastic retainers counterclockwise and remove them, then remove the mudguard.



4. Turn the socket and bulb assembly counterclockwise, and carefully pull it backward.

Maintenance and Care
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.



6. Install the new socket and bulb assembly in the reverse order of removal.

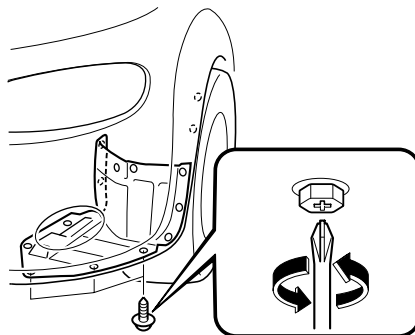
NOTE

- If the halogen bulb is accidentally touched, it should be cleaned with rubbing alcohol before being used.
- Use the protective cover and carton of the replacement bulb to dispose of the old bulb promptly out of the reach of children.

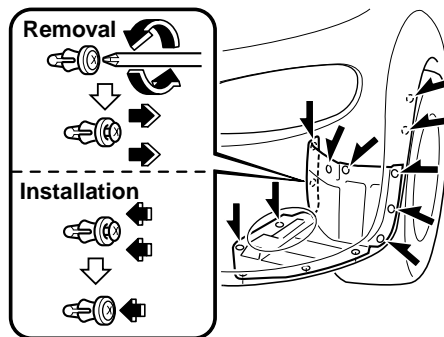
Front turn signal lights

1. If you are changing the right front turn signal light bulb, start the engine, turn the steering wheel all the way to the left, and turn off the engine. If you are changing the left front turn signal light bulb, turn the steering wheel to the right.

2. Turn the screws counterclockwise and remove them.



3. Turn the center section of the plastic retainers counterclockwise and remove them, then remove the mudguard.

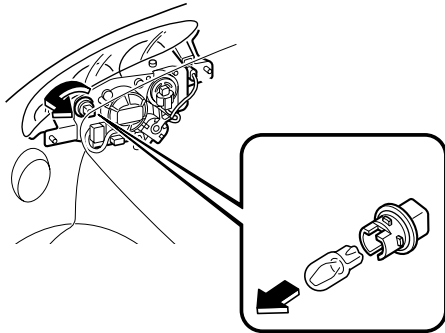


4. Turn the socket and bulb assembly counterclockwise and remove it.

Maintenance and Care

Owner Maintenance

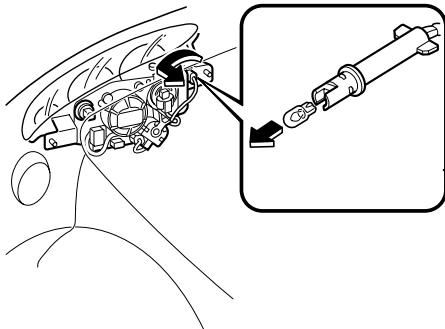
5. Disconnect the bulb from the socket.



6. Install the new bulb in the reverse order of removal.

Parking lights

1. Turn the socket and bulb assembly counterclockwise and remove it.
2. Disconnect the bulb from the socket.



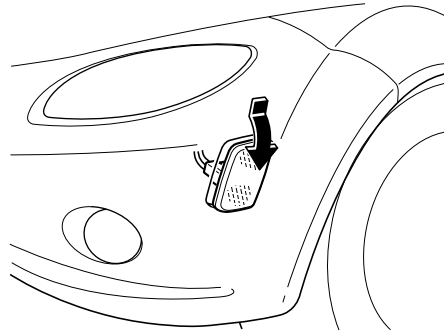
3. Install the new bulb in the reverse order of removal.

Front side-marker lights

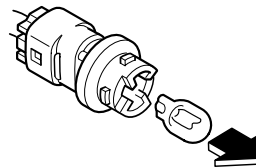
NOTE

To replace the bulb, contact an Authorized Mazda Dealer.

1. Slide the unit as shown in the figure to remove it.



2. Turn the socket and bulb assembly counterclockwise and remove it.
3. Disconnect the bulb from the socket.

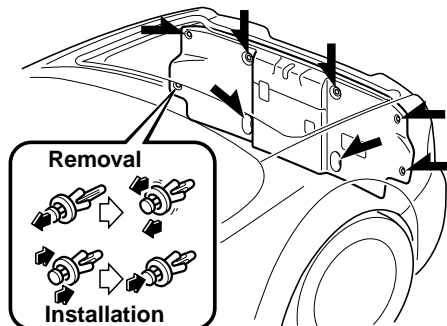


4. Install the new bulb in the reverse order of removal.

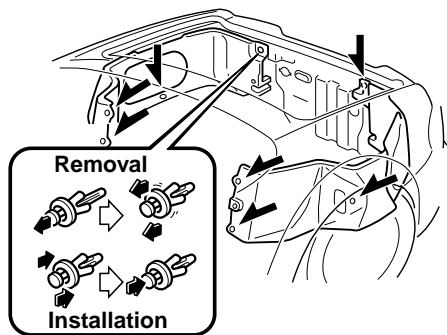
Maintenance and Care
Owner Maintenance

Brake lights/Taillights, Rear turn signal lights, Reverse lights

1. Pull the center section of the plastic retainers and remove them, then remove the trunk end trim.

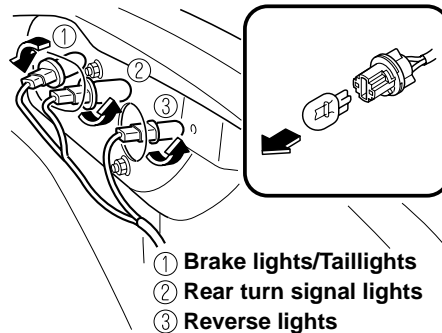


2. On the side the bulb is to be replaced, pull the center section of the plastic retainers and remove them, then remove the trunk side trim.



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.

High-mount brake light

Due to the complexity and difficulty of the procedure, the LED bulbs should be replaced by an Authorized Mazda Dealer.

License plate lights

Due to the complexity and difficulty of the procedure, the bulbs should be replaced by an Authorized Mazda Dealer.

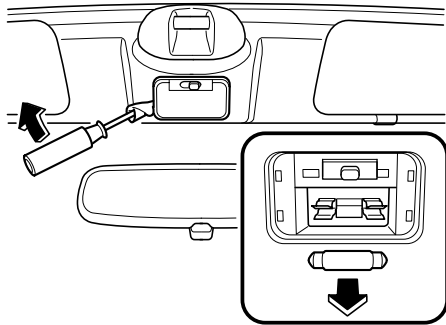
Maintenance and Care

Owner Maintenance

▼ Replacing Interior Light Bulbs

Overhead light

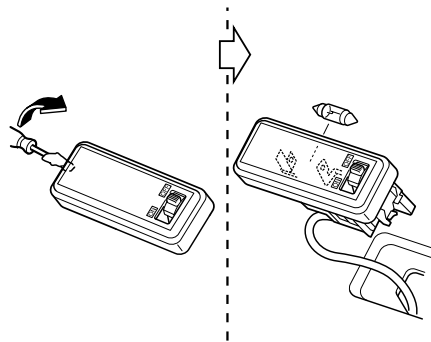
1. Wrap a flathead screwdriver with a soft cloth to prevent damage to the trim and gently insert it in the overhead light as shown in the figure, and then remove the cover.
2. Disconnect the bulb by pulling it out.



3. Install the new bulb in the reverse order of removal.

Trunk light

1. Wrap a flathead screwdriver with a soft cloth to prevent damage to the trim and gently insert it in the luggage compartment light as shown in the figure, and then remove the luggage compartment light unit.
2. Disconnect the bulb by pulling it out.



3. Install the new bulb in the reverse order of removal.

Maintenance and Care
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.

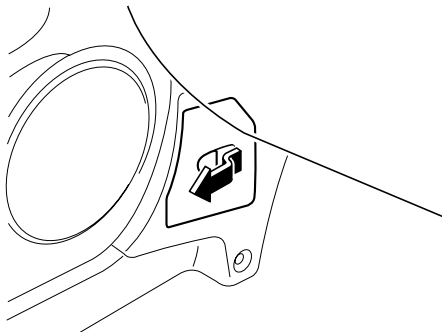
If the same fuse blows again, avoid using that system and consult an Authorized Mazda Dealer as soon as possible.

▼ Fuse Replacement

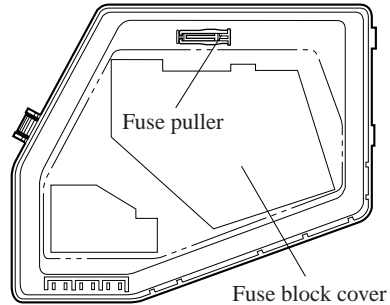
Replacing the fuses on the vehicle's left side

If the electrical system does not work, first inspect the fuses on the vehicle's left side.

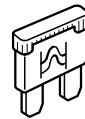
1. Turn off the ignition switch and other switches.
2. Remove the cover.



3. Pull the fuse straight out with the fuse puller provided on the inside of the engine compartment fuse block cover.



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 MIRROR or CIGAR circuit.

CAUTION

Always replace a fuse with one of the same rating. Otherwise you may damage the electric system.

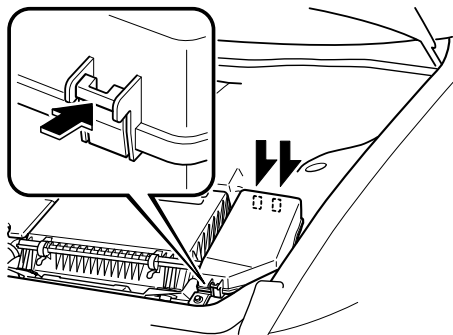
Maintenance and Care

Owner Maintenance

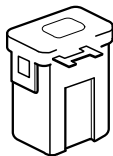
Replacing the fuses under the hood

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:

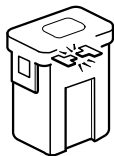
1. Turn off the ignition switch and all other switches.
2. Remove the fuse block cover.



3. If any fuse but the MAIN fuse is blown, replace it with a new one **of the same amperage rating**.



Normal



Blown

⚠ WARNING

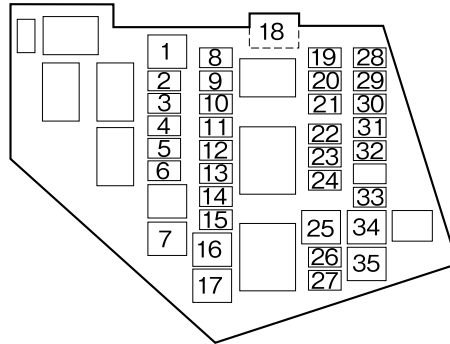
Do not replace the main fuse by yourself. Have an Authorized Mazda Dealer perform the replacement:

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.

Maintenance and Care
Owner Maintenance

▼ **Fuse Panel Description**

Fuse block (Engine compartment)



DESCRIPTION		FUSE RATING	PROTECTED COMPONENT
1	FAN	30 A	Cooling fan
2	FAN	7.5 A	Cooling fan
3	DEFOG	20 A	Rear window defroster
4	H/CLEAN	—	—
5	ROOM	15 A	Overhead lights, Luggage compartment light, For protection of various circuits
6	IG KEY2	15 A	For protection of various circuits
7	HEATER	40 A	Air conditioner*
8	ABS	30 A	ABS
9	FOG	15 A	Front fog lights*
10	R.FOG	—	—
11	RHT L	30 A	Power retractable hardtop (LH)*
12	RHT R	30 A	Power retractable hardtop (RH)*
13	MAG	7.5 A	Air conditioner*
14	ST	20 A	Starter
15	TAIL	15 A	Taillights, Parking lights, License plate lights, illuminations
16	ABS	40 A	ABS

*Some models. **8-47**

Maintenance and Care

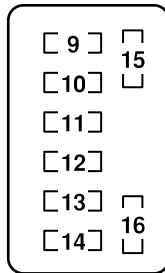
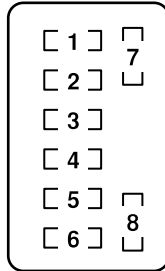
Owner Maintenance

DESCRIPTION		FUSE RATING	PROTECTED COMPONENT
17	BTN	30 A	For protection of various circuits
18	MAIN	120 A	For protection of all circuits
19	EGI INJ	10 A	Injector
20	EGI COMP1	10 A	Engine control system
21	EGI COMP2	10 A	Engine control system
22	HEAD LOW L	15 A	Headlight low beam (LH)
23	HEAD LOW R	15 A	Headlight low beam (RH)
24	HEAD	15 A	Headlight high beams
25	P.WIND	20 A	Power windows
26	ENGINE	15 A	Engine control system
27	WIPER	20 A	Windshield wipers and washer
28	DRL	15 A	DRL*
29	HORN	15 A	Horn
30	STOP	10 A	Brake lights
31	ETV	10 A	Electric throttle valve
32	FUEL PUMP	15 A	Fuel Pump
33	HAZARD	10 A	Turn signals, Hazard warning flashers
34	P.WIND2	20 A	Power windows*
35	IG KEY1	40 A	For protection of various circuits

8-48 *Some models.

Maintenance and Care
Owner Maintenance

Fuse block (Driver's side)



DESCRIPTION		FUSE RATING	PROTECTED COMPONENT
1	ACC	7.5 A	Audio system, Power control mirror
2	AUX PWR	15 A	Accessory Socket
3	METER	15 A	Instrument cluster
4	SEAT WARM	20 A	Seat warmer *
5	ILLUMI	7.5 A	Illumination
6	A/C	7.5 A	Air conditioner *
7	ENGINE	7.5 A	Engine control system, For protection of various circuits
8	—	—	—
9	M.DEF	—	—
10	AUDIO	20 A	Audio system *
11	D.LOCK	20 A	Power door lock, Trunk opener
12	SILEN	—	—
13	—	—	—
14	—	—	—
15	—	—	—
16	—	—	—

*Some models. **8-49**

Maintenance and Care

Appearance Care

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.

Maintenance and Care
Appearance Care

▼ 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.*

Maintenance and Care

Appearance Care

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.

Maintenance and Care

Appearance Care

▼ 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.*

▼ Convertible Top Maintenance*

The convertible top is made of a special high-grade material, but if it's not taken good care of, hardening, staining, and loss of luster will result. Maintain it under these guidelines.

Washing

Don't wait until the convertible top gets really dirty before cleaning it. Dirt that's there too long will cause deterioration.

1. Before washing, remove dust and coarse particulate with a soft brush.
2. Gently clean the convertible top with a synthetic neutral detergent, lots of water, and a soft brush.
3. Rinse it thoroughly with clean water to remove all the soap.

Appearance Care

4. Wipe it as dry as you can before the water dries on it.
5. Then allow it to dry completely before lowering it.

CAUTION

- *Automatic and high-pressure car washes are harmful to a convertible top. Avoid them.*
- *Don't spray water directly on the area where the window glass and the convertible top meet. This would probably cause water to enter the cabin.*

Appearance (Polyvinyl only)

Dress the convertible top once a month after washing and drying it well. For best results, use a water-based leather treatment or vinyl top dressing. This will help maintain good appearance and material condition of the convertible top.

CAUTION

- *Some leather treatment products can ruin the convertible top's gloss. Be careful of the one you choose.*
- *Test on an inconspicuous, small corner of the convertible top if you are not sure.*
- *Don't get any car wax on the convertible top. If you do, remove it with a good leather cleaner.*
- *Too much treatment on the convertible top can be as damaging as too little. Follow the manufacturer's directions. Don't overdo it!*
- *Let the convertible top dry completely before lowering after applying treatment or dressing.*

▼ Hardtop Maintenance*

Washing

To help protect the hardtop's finish, use a soft cloth or sponge to wash it. Insects, tar, tree sap, bird droppings, industrial fallout, and similar deposits can damage the finish if they are not removed immediately. When prompt washing with plain water is ineffective use a mild soap made for use on vehicles.

CAUTION

- *Don't use an automatic car wash.*
- *Don't use strong soap, chemical detergents, or hot water, and don't wash the hardtop in direct sunlight or when the surface is warm.*

Thoroughly rinse with lukewarm or cold water. Don't allow soap to dry on the finish.

Waxing

Wax the hardtop when water no longer beads on the paint. Always wash and dry it before waxing.

CAUTION

- *Wiping off dust or dirt with a dry cloth will scratch the finish.*
- *Don't use abrasive wax. This may damage the protective coating and discolor or deteriorate the paint.*

NOTE

A spot remover to remove oil, tar, and similar materials will usually also take off the wax. Rewax these areas.

Maintenance and Care

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. If the leather gets wet from rain, remove the moisture as soon as possible and dry in a shaded area. If the seats get wet, promptly remove moisture with a dry cloth and allow it to further dry in a shaded area. If moisture is not removed, it will cause hardening and shrinkage of the leather. Do not leave vinyl products on the seats for long periods as they may affect the leather quality and coloring.

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.

Piano black panel*

The following parts are fitted with panels that have been treated with a special coating that resists scratching.

Center panel

When the panel needs to be cleaned, use a soft cloth to wipe off dirt from the surface.

NOTE

Scratches or nicks on the panels resulting from the use of a hard brush or cloth may not be repairable.

▼ 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.

Maintenance and Care
Appearance Care

⚠ WARNING

***Have an Authorized Mazda Dealer
replace damaged seat belts
immediately:***

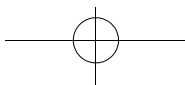
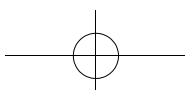
*Using damaged seat belts is
dangerous. In a collision, damaged
belts cannot provide adequate
protection.*

▼ 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

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Customer Information and Reporting Safety Defects

Customer Assistance

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:

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.

▼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

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

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



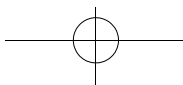
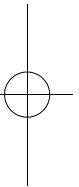
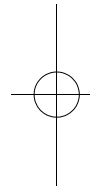
Customer Information and Reporting Safety Defects

Customer Assistance

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 Information and Reporting Safety Defects

Customer Assistance

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.

9-4



Customer Assistance

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.

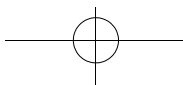
Mazda Canada Inc. participates in an arbitration program administered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP). CAMVAP will advise you about how your concern may be reviewed and resolved by an independent third party through binding arbitration.

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 Information and Reporting Safety Defects

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:

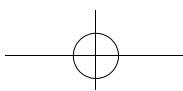
Canadian Motor Vehicle Arbitration Plan
 235 Yorkland Boulevard, suite 300
 North York, Ontario
 M2J 4Y8
<http://camvap.ca>

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

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

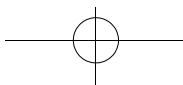
Discuss the matter with an Authorized Mazda Dealer. This is the quickest and best way to address the issue. If your concern has not been resolved by the CUSTOMER RELATIONS, SALES, SERVICE, or PARTS MANAGER, then please contact the GENERAL MANAGER of the dealership or the OWNER.

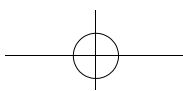
▼STEP 2

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 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)





Customer Information and Reporting Safety Defects

Customer Assistance

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

Answers to many questions, including how to locate or contact a local Mazda dealership in Mexico, can be found here.

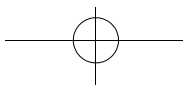
E-mail: click on “Contactanos” at the top of the page at www.MazdaMexico.com.mx

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

9-8



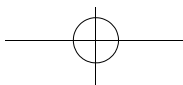


Customer Information and Reporting Safety Defects

Customer Assistance

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)



Customer Information and Reporting Safety Defects

Mazda Importer/Distributors

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

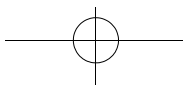


Customer Information and Reporting Safety Defects
Mazda Importer/Distributors

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





Customer Information and Reporting Safety Defects

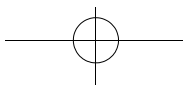
Warranty

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.





Customer Information and Reporting Safety Defects

Warranty

Outside the United States and Canada

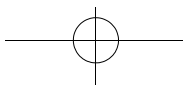
Government regulations in the United States and Canada require that automobiles meet specific emission regulations and safety standards. Therefore, vehicles built for use in the United States, its territories, and Canada may differ from those sold in other countries.

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 these areas.

You may have these problems if you do:

- 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.

The Mazda warranty applies only to Mazda vehicles registered and normally operated in the United States, its territories, and Canada.



Customer Information and Reporting Safety Defects

Warranty

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).

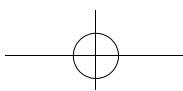
NOTE

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.



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).

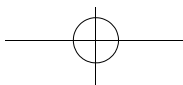
NOTE

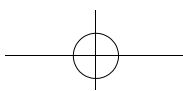
The above is applicable for a permanent import/export situation and not related to travelers on vacation.

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.





Customer Information and Reporting Safety Defects

Warranty

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.

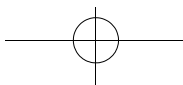
Vehicles built for your country may differ from those built for other countries. In addition to registration problems, satisfactory service may be difficult or even impossible in another country.

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

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.



Customer Information and Reporting Safety Defects

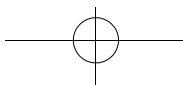
Cell Phones

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.





Customer Information and Reporting Safety Defects
Type Approval of Equipment

Type Approval of Equipment (Mexico)

Immobilizer system

Este equipo opera a titulo secundario, consecuentemente, debe aceptar interferencias perjudiciales incluyendo equipos de la misma clase y puede no causar interferencias a sistemas operando a titulo primario

Sistema inmovilizador
Modelo : IMB111-02

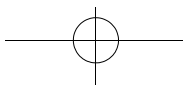
Sistema inmovilizador con marcado de confirmación por radio

COFETEL RCPMAIM05-614

Sistema inmovilizador
Modelo : IMB111-03

Sistema inmovilizador con marcado de confirmación por radio

COFETEL RCPMAIM05-935





Customer Information and Reporting Safety Defects

Type Approval of Equipment

Keyless entry system

Este equipo opera a título secundario, consecuentemente, debe aceptar interferencias perjudiciales incluyendo equipos de la misma clase y puede no causar interferencias a sistemas operando a título primario

Sistema de acceso normal sin llave
Modelo : SKE125-01

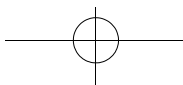
Sistema de acceso normal sin llave con marcado de confirmación por radio

COFETEL RCPMASK05-615

Sistema de arranque y de acceso avanzado sin llave
Modelo : SKE11A-01

Sistema de arranque y de acceso avanzado sin llave con marcado de confirmación por radio

COFETEL RCPMASK05-617





Uniform Tire Quality Grading System (UTQGS)

Uniform Tire Quality Grading System (UTQGS)

This information relates to the tire grading system developed by the U.S. National Highway Traffic Safety Administration for grading tires by tread wear, traction, and temperature performance.

▼ Tread Wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one-and-a-half times as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm because of variations in driving habits, service practices and differences in road characteristics and climate.

▼ Traction-AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B, and C. These grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

⚠ WARNING

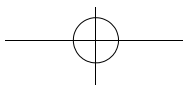
The traction grade assigned to this tire is based on braking (straight ahead) traction tests and does not include acceleration cornering (turning), hydroplaning, or peak traction characteristics.

▼ 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.



Customer Information and Reporting Safety Defects

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.

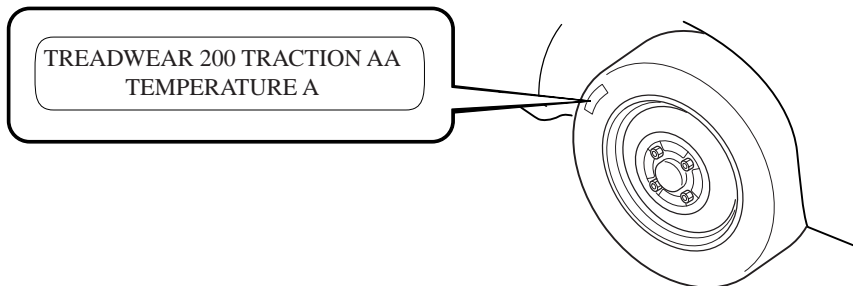
▼ Uniform Tire Quality Grading

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)



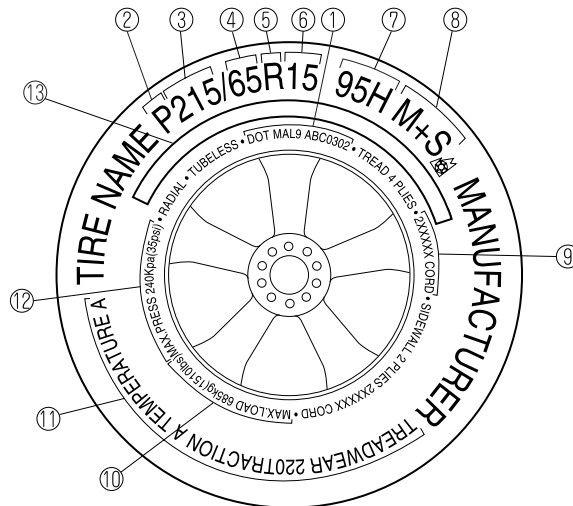
Customer Information and Reporting Safety Defects
Tire Information (U.S.A.)

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



Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

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

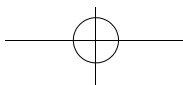
“R” is the tire construction symbol. R indicates “Radial ply construction”.

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.



Customer Information and Reporting Safety Defects
Tire Information (U.S.A.)

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 45st week of 1997. After 2000 the numbers go to four digits. For example, the number 2102 means the 21th week of 2002. The other numbers are marketing codes used at the manufacturer's discretion. This information is used to contact consumers if a tire defect requires a recall.

Tire Ply Composition and Materials Used

The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the tire materials, which include steel, nylon, polyester, and other.

Maximum Load Rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

Maximum Permissible Inflation Pressure

This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

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.

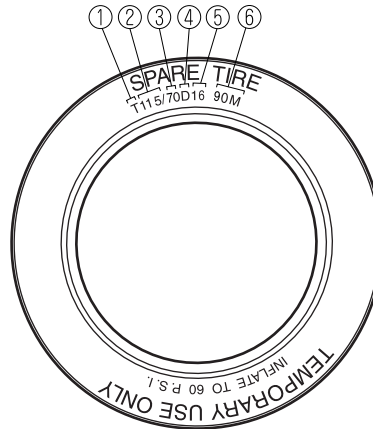
SERIOUS INJURY MAY RESULT FROM:

- 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.

Customer Information and Reporting Safety Defects
Tire Information (U.S.A.)

▼ **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.



Customer Information and Reporting Safety Defects

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.

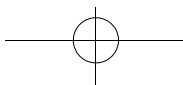
90

“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




Customer Information and Reporting Safety Defects
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 2 : FRONT 2 : REAR 0

The combined weight of occupants and cargo should never exceed 154 kg or 340 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S
FRONT	205/50R 16	200KPA, 29PSI	MANUAL FOR
REAR	205/50R 16	200KPA, 29PSI	ADDITIONAL
SPARE	NONE	NONE	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 10-6.

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.

Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

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.

9-30

Tire Information (U.S.A.)

▼ 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.

Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

Tire Maintenance

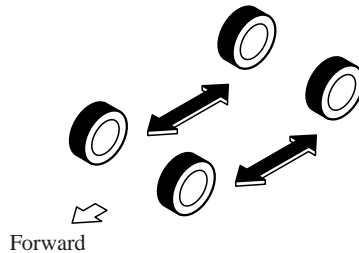
Improper or inadequate vehicle maintenance can cause tires to wear abnormally. Here are some important maintenance points:

▼ 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 10-6) and inspect the lug nuts for tightness.

Customer Information and Reporting Safety Defects
Tire Information (U.S.A.)

⚠ 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.

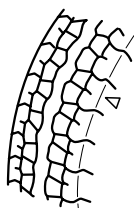
▼ Replacing a Tire

⚠ WARNING

Always use tires that are in good condition:

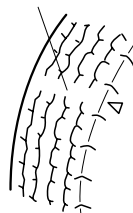
Driving with worn tires is dangerous. Reduced braking, steering, and traction could result in an accident.

If a tire wears evenly, a wear indicator will appear as a solid band across the tread. Replace the tire when this happens.



New tread

Tread wear indicator



Worn tread

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. Regarding the manufacturing week and year is indicated with 4 digit. Refer to The tire labeling on page 9-23.

Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

▼ 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.)

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.

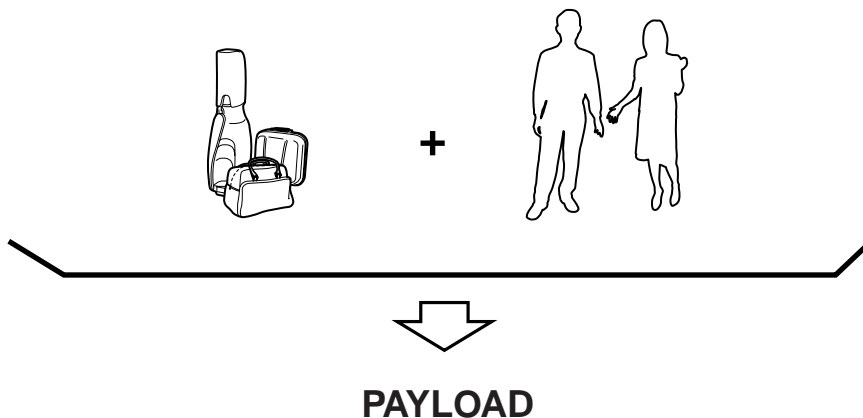
Never overload the vehicle and always observe the vehicle's weight ratings from the vehicle's Safety Certification and Tire and Load Information labels.

Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

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.

Customer Information and Reporting Safety Defects
Tire Information (U.S.A.)

SAMPLE



TIRE AND LOADING INFORMATION

SEATING CAPACITY : TOTAL 2 : FRONT 2 : REAR 0

The combined weight of occupants and cargo should never exceed 154 kg or 340 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S
FRONT	205/50R 16	200KPA, 29PSI	MANUAL FOR
REAR	205/50R 16	200KPA, 29PSI	ADDITIONAL
SPARE	NONE	NONE	INFORMATION

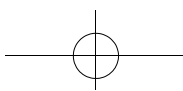
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CARGO

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.



Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

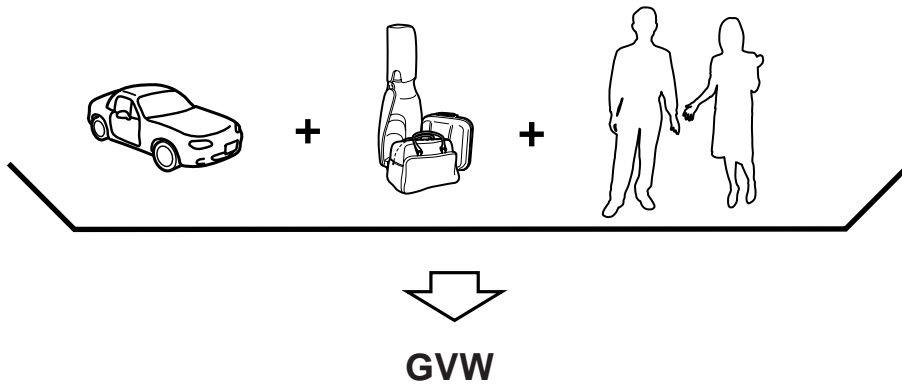
Examples: Based on a single occupant weight of 68 kg (150 lbs), and a value of 385 kg (849 lbs) for the “combination weight of occupants and cargo should never exceed”:
The cargo weight limit with one occupant is 385 kg (849 lbs) – 68 kg (150 lbs) = 317 kg (699 lbs)

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.

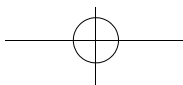
GAW (Gross Axle Weight) is the total weight placed on each axle (front and rear) - including vehicle curb weight and all payload.

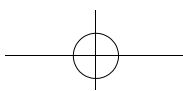
GAWR (Gross Axle Weight Rating) is the maximum allowable weight that can be carried by a single axle (front or rear). **These numbers are shown on the Safety Compliance Certification Label located on the driver's door frame or door pillar. The total load on each axle must never exceed its GAWR.**



GVW (Gross Vehicle Weight) is the Vehicle Curb Weight + cargo + passengers.

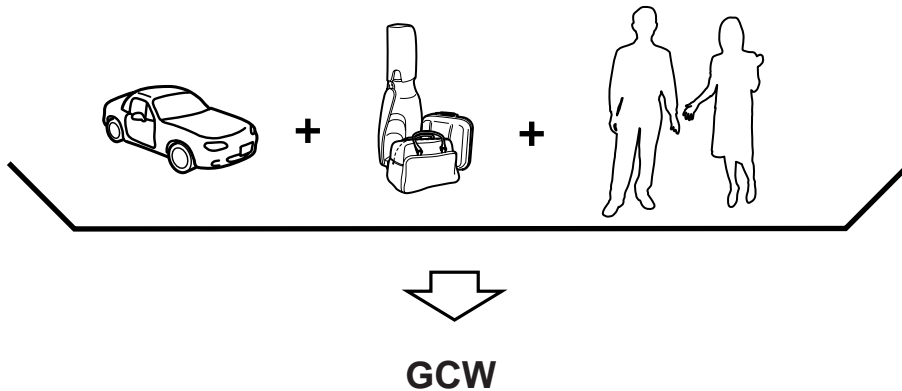
GVWR (Gross Vehicle Weight Rating) is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). **The GVWR is shown on the Safety Compliance Certification Label located on the driver's door frame or door pillar. The GVW must never exceed the GVWR.**





Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

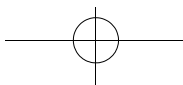


GCW (Gross Combination Weight) is the weight of the loaded vehicle (GVW) plus the weight of the fully loaded trailer.

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.





Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

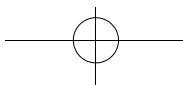
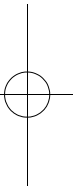
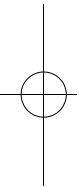
WARNING

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.



Customer Information and Reporting Safety Defects

Tire Information (U.S.A.)

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.

Customer Information and Reporting Safety Defects
Reporting Safety Defects

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.



Customer Information and Reporting Safety Defects

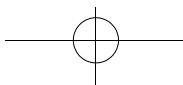
Reporting Safety Defects

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>

9-44



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
9999-95-042B-08	2008 WORKSHOP MANUAL (English)
9999-MX-042B-08	2008 WORKSHOP MANUAL (Spanish)
9999-95-026G-08	2008 WIRING DIAGRAM (English)
9999-MX-026G-08	2008 WIRING DIAGRAM (Spanish)
9999-95-031C-08 (U.S.A. only)	2008 OWNER'S MANUAL
9999-EC-031C-08 (Canada only)	2008 OWNER'S MANUAL
9999-PR-031C-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:

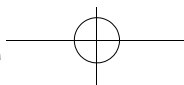
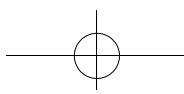
Provides electrical schematics as well as component location for the entire electrical system.

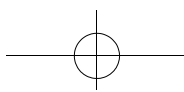
▼ OWNER'S MANUAL:

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.

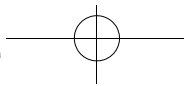




10 Specifications

Technical information about your Mazda.

Identification Numbers	10-2
Vehicle Information Labels	10-2
Specifications	10-4
Specifications	10-4

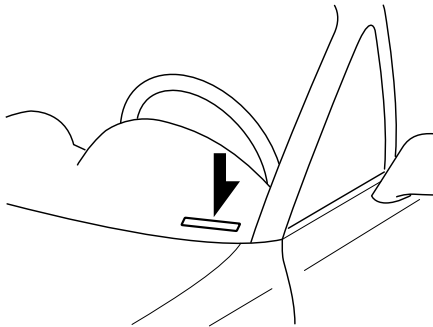


Identification Numbers

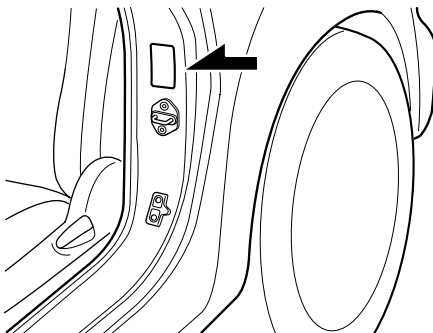
Vehicle Information Labels

▼ Vehicle Identification Number

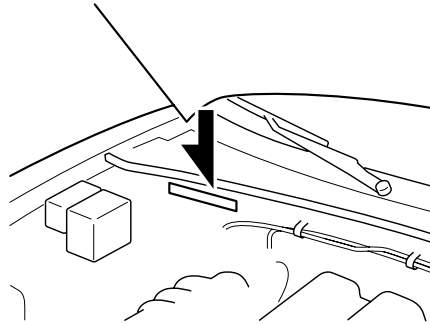
The vehicle identification number legally identifies your vehicle. The number is on a plate attached to the cowl panel located on the left corner of the dashboard. This plate can easily be seen through the windshield.



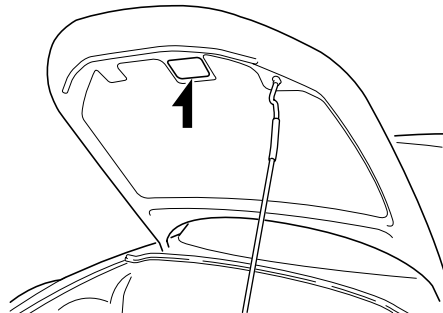
▼ Motor Vehicle Safety Standard Label



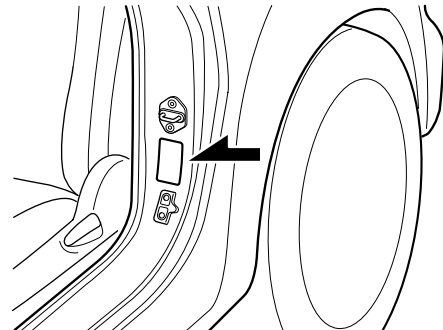
▼ Chassis Number



▼ Vehicle Emission Control Information Label

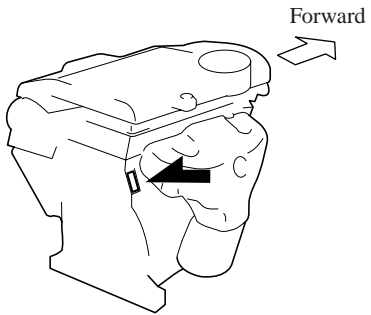


▼ Tire Pressure Label



Identification Numbers

▼ Engine Number



Specifications

Specifications

▼ Engine

Item	Specification
Type	DOHC-16V in-line, 4-cylinder
Bore×Stroke	87.5 × 83.1 mm (3.44 × 3.27 in)
Displacement	1,999 ml (1,999 cc, 122.0 cu in)
Compression ratio	10.8

▼ Electrical System

Item	Classification
Battery	12V-36AH/5HR
Spark-plug number	L3G2 18 110 ^{*1} , L3Y1 18 110
Spark-plug gap	1.25—1.35 mm (0.050—0.053 in)

*1 ex factory

⚠ 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 8-21.	
Manual transmission oil	5-speed transmission	Any temperature	API Service	GL-4 or GL-5
			SAE	75W-90
		Above 10°C (50°F)	API Service	GL-4 or GL-5
			SAE	80W-90
	6-speed transmission		API Service	GL-4 or GL-5
			SAE	75W-90
Automatic transmission fluid			JWS3309	
Power steering fluid			ATF M-III or equivalent (e.g. Dexron® II)	
Brake/Clutch fluid			SAE J1703 or FMVSS116 DOT-3	
Rear differential oil			API Service	GL-5
			SAE	90
				80W-90
				75W-90 ^{*1}

*1 Not available from Mazda

Specifications

▼ Capacities

(Approximate Quantities)

Item		Capacity	
Engine oil	With oil filter replacement	6-speed manual transmission	4.55 L (4.81 US qt, 4.00 Imp qt)
		Except 6-speed manual transmission	4.45 L (4.70 US qt, 3.92 Imp qt)
	Without oil filter replacement		4.05 L (4.28 US qt, 3.56 Imp qt)
Coolant		7.5 L (7.9 US qt, 6.6 Imp qt)	
Manual transmission oil	5-speed transmission	2.0 L (2.1 US qt, 1.8 Imp qt)	
	6-speed transmission	2.1 L (2.2 US qt, 1.8 Imp qt)	
Automatic transmission fluid		7.4 L (7.8 US qt, 6.5 Imp qt)	
Rear differential oil		0.7 L (0.7 US qt, 0.6 Imp qt)	
Fuel tank		48 L (12.7 US gal, 10.6 Imp gal)	

Check oil and fluid levels with dipsticks or reservoir gauges.

▼ Dimensions

Item		Vehicle specification
Overall length	With license plate holder	3,995 mm (157.3 in)
	Without license plate holder	3,990 mm (157.1 in)
Overall width		1,720 mm (67.7 in)
Overall height	Soft top	1,245 mm (49.0 in)
	Hardtop	1,255 mm (49.4 in)
Track, front		1,490 mm (58.7 in)
Track, rear		1,495 mm (58.9 in)
Wheelbase		2,330 mm (91.7 in)

▼ Weights

Item	Weight	
	Without power retractable hardtop	With power retractable hardtop
GVWR (Gross Vehicle Weight Rating)	1,396 kg (3,078 lbs)	1,416 kg (3,122 lbs)
GAWR (Gross Axle Weight Rating)	Front	714 kg (1,574 lbs)
	Rear	682 kg (1,504 lbs)

Specifications

▼ Air Conditioner

Item	Classification
Refrigerant Type	HFC134a (R-134a)

▼ Light Bulbs

Exterior light

Light bulb			Category	
			Wattage	ECE R (SAE)
Headlights	High beam		65	H9 (—)
	Low beam	Halogen	55	H7 (—)
		Xenon fusion	35	D2S (—)
Front turn signal lights			21	WY21W (—)
Parking lights			5	W5W (—)
Fog lights *			55	H11 (—)
Side-marker lights			5	— (—)
High-mount brake light* ¹			1	— (—)
Rear turn signal lights			21	WY21W (—)
Brake lights/Taillights (Rear side-marker lights)			21/5	W21/5W (#7443)
Reverse lights			18.4	W16W (#921)
License plate lights			5	W5W (—)

*1 Bulb replacement is not possible because it is built into the unit. Replace the unit.

Interior light

Light bulb	Wattage
Overhead light	10
Trunk light	8

▼ 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
205/50R16 87V	200 kPa (29 psi)
205/45R17 84W	200 kPa (29 psi)

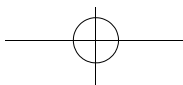
10-6 *Some models.

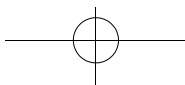
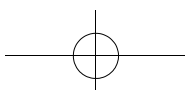


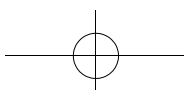
Specifications

▼ Fuses

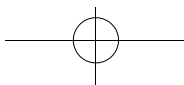
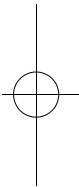
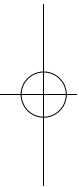
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NAVIGATION SYSTEM

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	Routing
Advanced use See page 5 for specific information.	Address Book
	Volume Adjustment
If necessary See page 5 for specific information.	If necessary

Accessories

Please contact an Authorized Mazda Dealer if you are missing the following accessory.



| 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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Preparation

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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

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.



- 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

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.



- 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

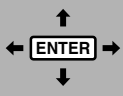


Before Use

Names and Functions

Mazda 3

Before Use




Joystick

- | Selects items by tilting it up, down, right, and left.
- | Scrolls map.



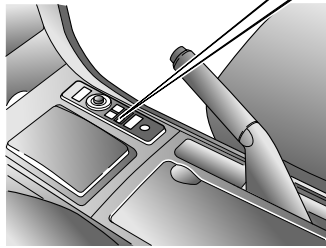
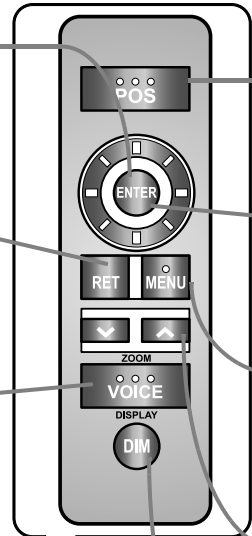
RET key

Returns to the previous screen.



VOICE key

- | Initiates vocal guidance for route maneuvers.
- | Adjusts screen quality. (👉 page 28)



POS

POS (Position) key


Displays your current position.

ENTER


ENTER key

- | Executes a selected item.
- | Displays pop up menu.


MENU


MENU keyDisplays menu.
( page 16)

ZOOM

ZOOM keyChanges the map scale.
( page 29)

DIM

DIM keySwitches the display to day mode or night mode. ( page 28)**Switching the Display Mode**

When the headlight switch is in the ● or  position, the display switches to night mode.


Press the DIM key to switch to day mode.

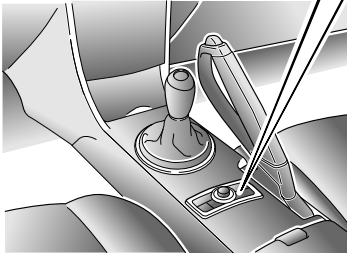
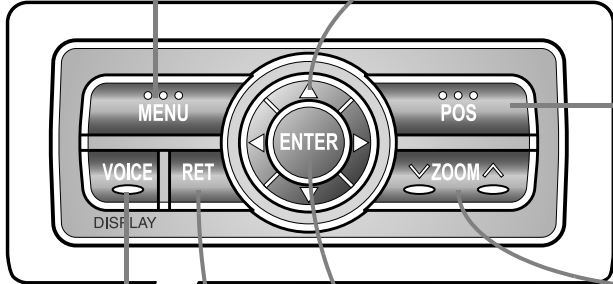
To return to night mode, press the DIM key again.


Names and Functions


Mazda RX-8

Before Use

MENU key
Displays menu.
( page 16)




VOICE key
| Initiates vocal guidance for route maneuvers.
| Adjusts screen quality.
( page 28)




Joystick

- | Selects items by tilting it up, down, right, and left.
- | Scrolls map.





POS (Position) key

Displays your current position.




ZOOM key

Changes the map scale.
( page 29)



ENTER key

- | Executes a selected item.
- | Displays pop up menu.



RET key

Returns to the previous screen.

Activation

Insert the map disc into the unit to start the Mobile Navigation System.



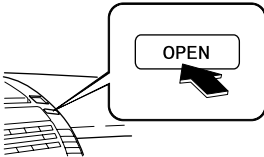
n Map Disc

- Refer to "Handling and Care of Map Discs" to know how to handle a map disc (page 58).

Note

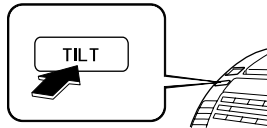
- The map disc cannot be inserted or ejected while the ignition switch is in the OFF position.
- Remember that the battery can run down if the ignition switch is kept in the ON or ACC position for a long time while the engine not running.

- Turn the ignition switch to the ON position and press **OPEN** 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** to close the display.

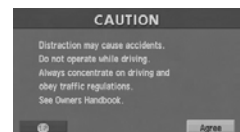
- Insert the map disc with the printed side facing up.



Note

- The main unit is located in the glove box compartment. (Mazda 3)
- The main unit is located in the Center Console (Rear). (Mazda RX-8)
- 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.



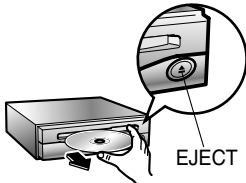
The Current Position screen appears.

Note

- You can select the language by select  and press **ENTER**. You can also change the selected language using Language Selection. ( page 22)
- The CAUTION screen remains on the display unless you select  and press **ENTER**.

Removing the Map Disc

When the ignition switch is in the ACC position and press  (EJECT).



Caution

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 30)

Address Book ( page 46)

Cancel Guidance ( page 41)

Route Options ( page 42)

Volume ( page 50)

Set Clock ( page 17)



Navigation Set Up ( page 18)

Set Clock

The current time is set using this function. Since time notification is provided by a GPS satellite.



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.



Stop your vehicle before the following operations.

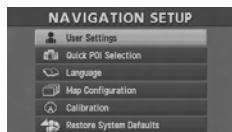
Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident.

Always stop the vehicle in a safe location and put the parking brake on before operating the system.



Open

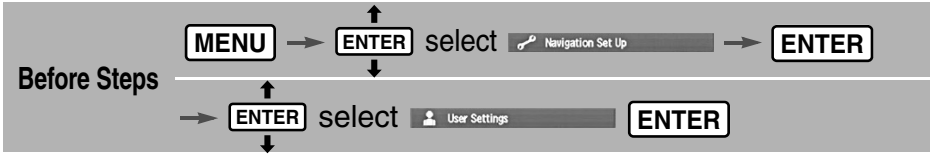
[NAVIGATION SETUP]



- User Settings (page 19)
- Quick POI Selection (page 21)
- Language (page 22)
- Map Configuration (page 23)
- Calibration (page 24)
- Restore System Defaults (page 26)

Navigation Set Up

User Setting

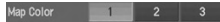


Getting started

Open the [USER SETTINGS] 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.)



◀ ▶ Average speed setting
 Default :Changes back to default

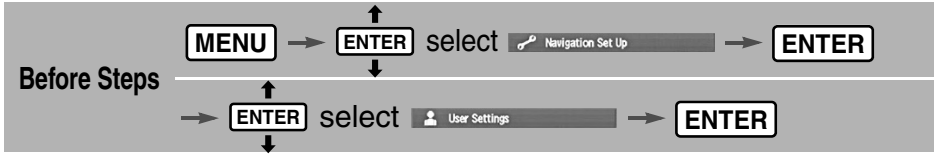
Road Restriction Warnings



The display of warnings during route guidance when passing through areas with traffic restrictions can be turned on or off.

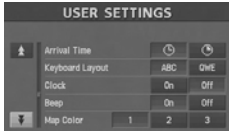
Navigation Set Up

User Setting



Getting started

Open the [USER SETTINGS] 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 ABC or QWERTY .

Clock



Allows selection of whether clock is to be displayed.

Beep

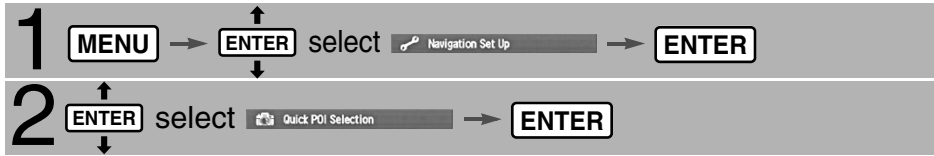


Allows selection of whether beep will sound.

Navigation Set Up

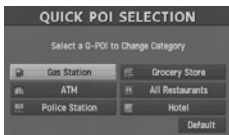
Quick POI Selection

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.



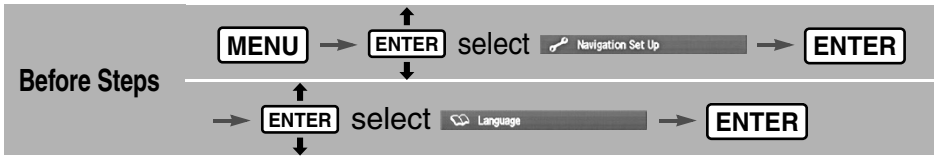
Select the subcategories to be displayed on the map.

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.

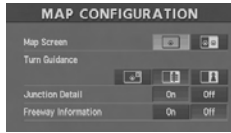
Navigation Set Up

Map Configuration

Getting started



Open the [MAP CONFIGURATION] screen



Map Screen

Select single or dual map display.

Single map



Dual map



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.

Turn List



While using route guidance, the directions for the next junction where you have to turn are shown as Turn List.

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.

Junction Detail



Select whether the Enlarged Junction diagram screen is displayed automatically.

Freeway Information



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 .

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.

Getting started

ENTER

ENTER

select

Calibration

ENTER

Map Version

The map and software version numbers can be confirmed using this function.

ENTER

select

Map Version

ENTER

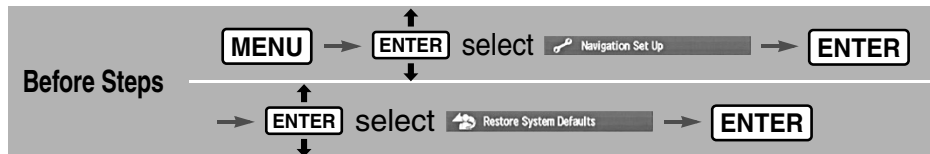
Map and software versions are now displayed.



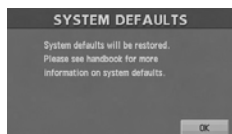
Navigation Set Up

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**.

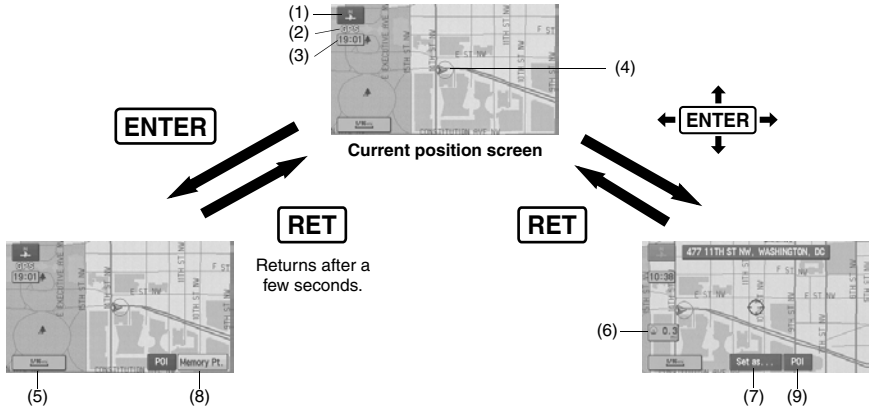
If you execute Restore System Defaults, all of your stored setting data will be deleted.

[Default List]

Item	Initial condition
Menu names	
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
Map Configuration	
Freeway Information	Off
Junction Detail	ON
Map screen	Single
Turn Guidance Screen	Turn List

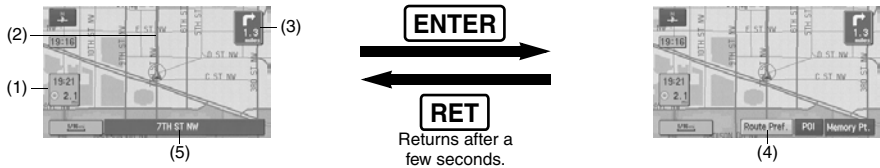
Screen Names and Functions

Screens Before Setting Route



- (1) **Map Orientation control**
(👉 page 29)
- (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 38)

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 42)
- (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

When the headlights are on, daytime mode can also be selected (if extra screen certain nighttime conditions). This selection can only be done when the headlights are on. Press



ENTER to switch between day and night modes.

- | The screen can be returned to the daytime screen while the headlights or running lights are on using **DIM**. (Mazda 3 only)


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.





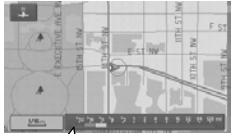
Head Up: The direction you are heading is up.




Map scale

- 1 **ZOOM**


The map can be displayed in 13 steps with scales from  to .



ZOOM OUT:



ZOOM IN: (more detail.)



	1/32 mi (mile)	1/4 mi (mile)	2 mi (mile)	16 mi (mile)	128 mi (mile)
Imperial display	1/32 mi (mile)	1/4 mi (mile)	2 mi (mile)	16 mi (mile)	128 mi (mile)
Metric display	50 m	500 m	4 km	32 km	256 km

Destination Entry and Route Search

| You can set the destination using various methods provided by the system.

Before Steps

MENU



ENTER

select

Destination Entry

Change
(Change
Search Area)

Open the [DESTINATION ENTRY] Menu



Select

Change

Routing

Address

Open the [DESTINATION ENTRY] Menu



Select

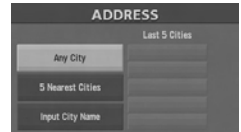
Address



When narrowing down to city name

Select

City



When narrowing down to street name

Select

Street

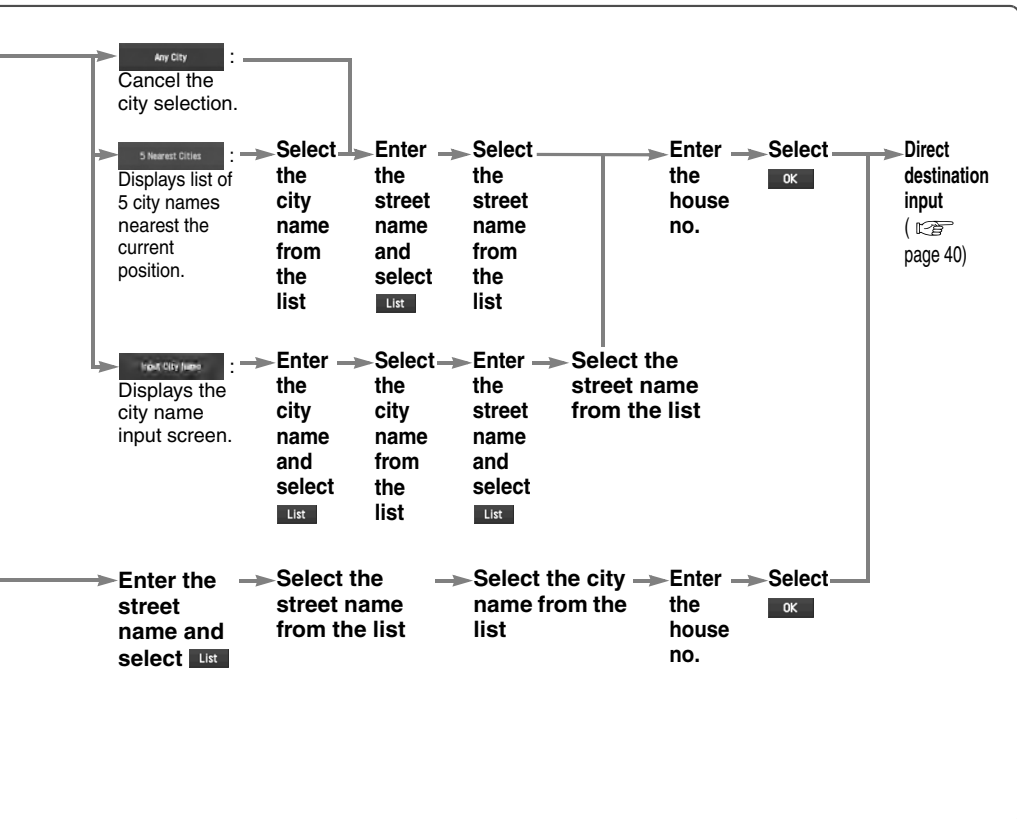




- Do not keep your eyes fixed on the monitor screen or operate the system while driving. Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver 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 | ENTER | OK |
| 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 | | | |



| For Character Entry, please refer to page 39.

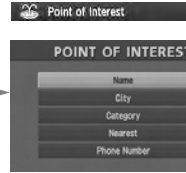
Destination Entry and Route Search

Point of interest

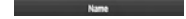
Open the [DESTINATION ENTRY] Menu



Select



When entering the destination point directly
Select



When narrowing down to city name
Select



When narrowing down to category name
Select

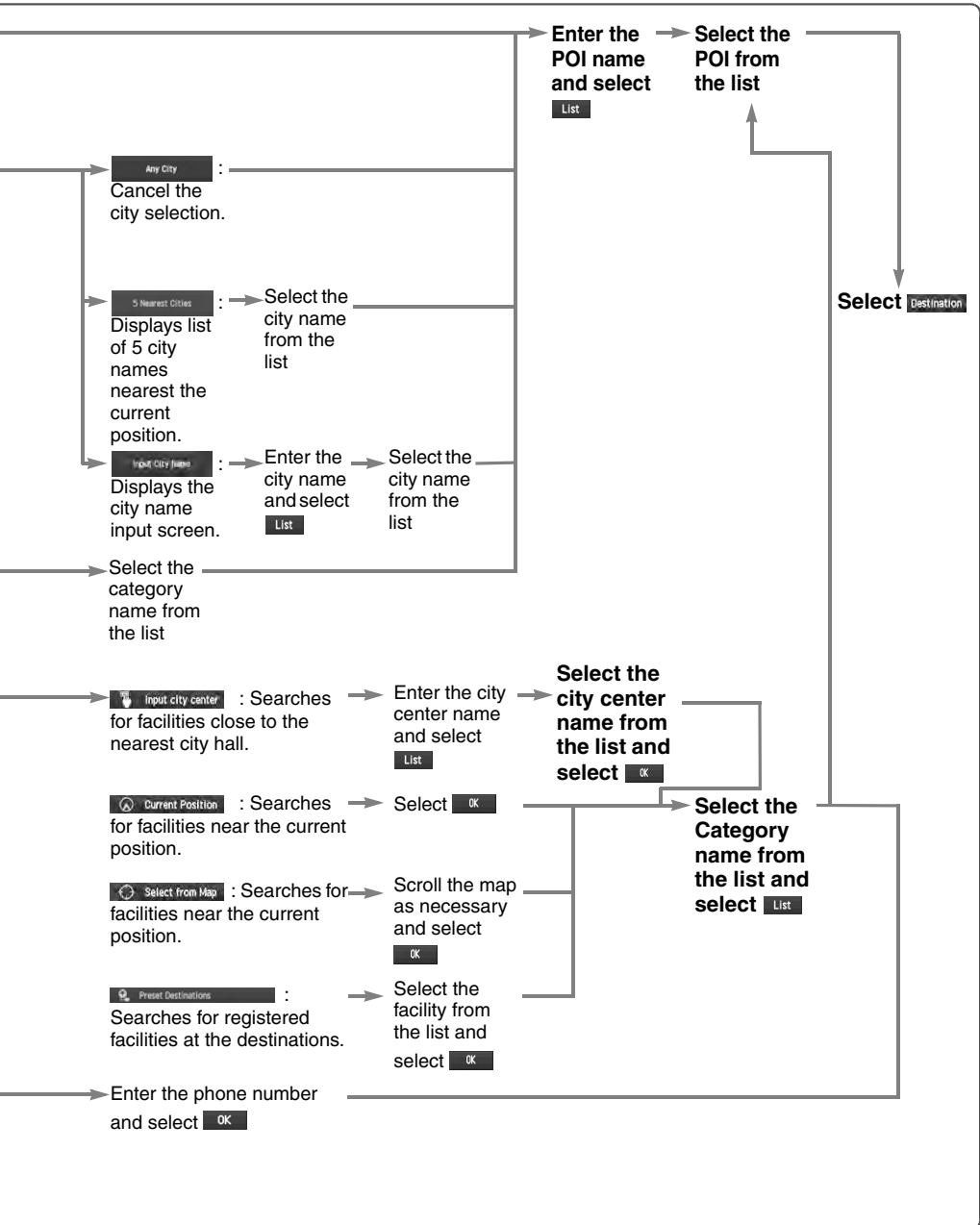


When narrowing down to the nearest facility
Select



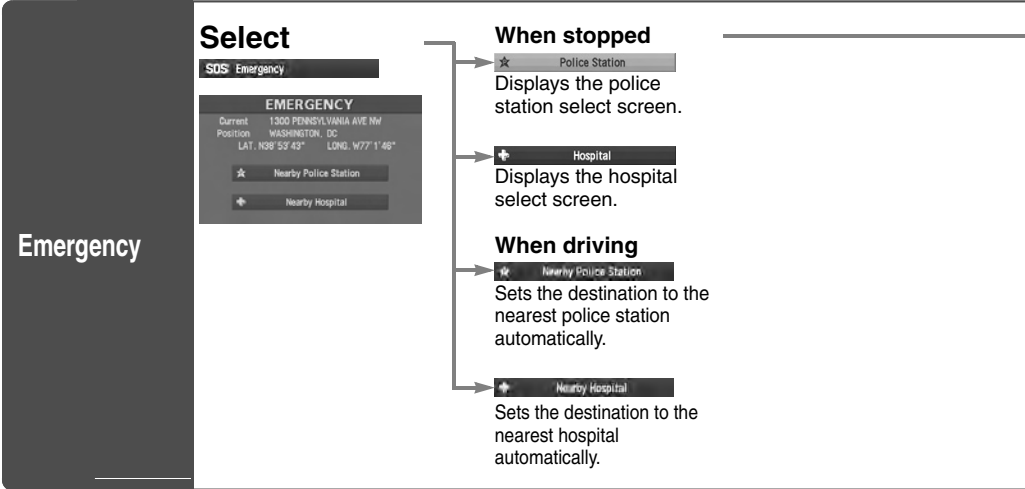
When narrowing down to a phone number
Select





| For Character Entry, please refer to page 39.

Destination Entry and Route Search



→ **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

Before Steps

MENU

ENTER

select

 Destination Entry

Memory Point

Open the
[DESTINATION
ENTRY] Menu



Home

Select  Memory Point



Select  Home

Preset Destination

Select  Preset Destinations

Previous Destination

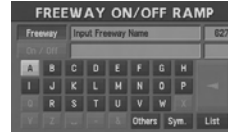
Select  Previous Destinations

Intersection

Select  Intersection

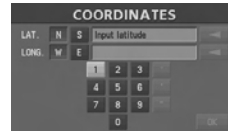
Freeway On/
Off Ramp

Select  Freeway On Ramp / Off Ramp



Coordinates

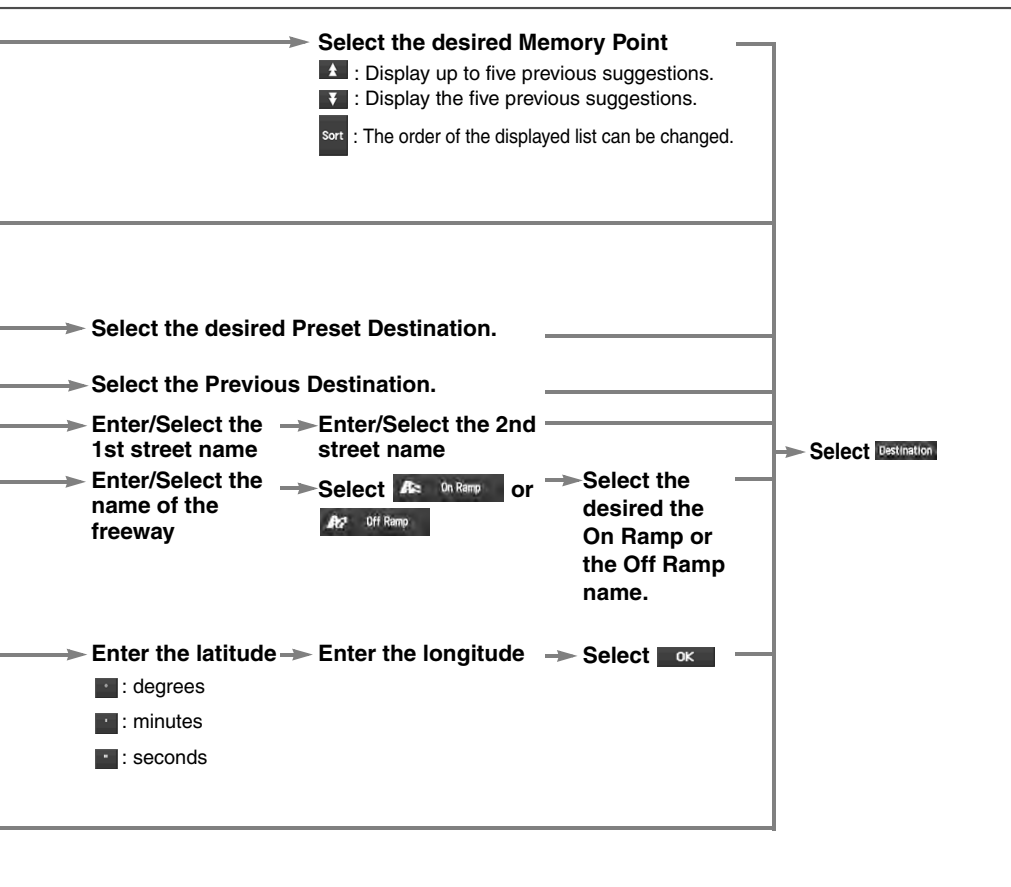
Select  Coordinates



Select from
map

Select  Select from Map

Routing



| For Character Entry, please refer to page 39.

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

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 41)
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 find 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.

Local Search

Deleting POI Markers

POI Off

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)

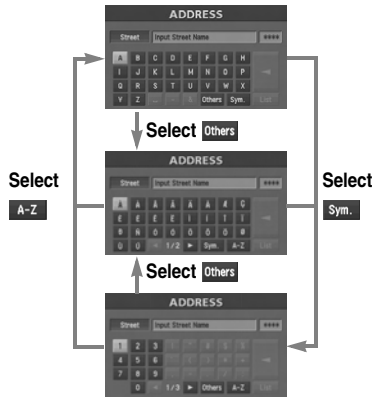
The POI(s) data is displayed.

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.



Select

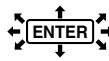


- : Move the cursor to the previous position and delete a character.

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 46). 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 42)
- | Selecting **Guide** for five seconds or more will launch the Demo mode.

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 **Guides** when you have decided on the route to be used.

	Quick	Altern.	Short
	0h, 27m	0h, 35m	0h, 33m
	29 miles	29 miles	20 miles
	0.0 miles	0.0 miles	0.0 miles
	8.3 miles	19 miles	0.0 miles
	0.0 miles	0.0 miles	0.0 miles
	0.0 miles	0.0 miles	0.0 miles

Selecting Route

POI Icons on Maps / Delete Destination

n POI (Point of Interest) Icons

The following are POI icons shown on maps.

<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Restaurant</div> <ul style="list-style-type: none"> All restaurants American Chinese Continental Fast Food French Italian Japanese Mexican Seafood Thai Other Restaurants 	<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Travel</div> <ul style="list-style-type: none"> Bus Station Ferry Terminal Hotel Rental Car Agency Rest Area Train Station Airport (All Search Areas) 	<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Community</div> <ul style="list-style-type: none"> Convention Center Court House Government Offices Higher Education Hospital Library Park & Recreation (All Search Areas) Police Station School City Center
<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Shopping</div> <ul style="list-style-type: none"> Grocery Store Shopping Mall 	<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Recreation</div> <ul style="list-style-type: none"> Casino Golf Course Historical Monument Marina Museum Ski Resort Sports Complex Performing Arts Tourist Attraction (All Search Areas) Tourist Information Winery Amusement Park (All Search Areas) 	<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Banking</div> <ul style="list-style-type: none"> Bank ATM
<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Automotive</div> <ul style="list-style-type: none"> Automobile Club Gas Station Parking Auto Service & Maintenance 	<div style="background-color: #333; color: white; padding: 2px; margin-bottom: 5px;">Other</div> <ul style="list-style-type: none"> Business Facility 	



Routing

Delete destination

MENU

→

ENTER

↕

Select

↔

Cancel Guidance

→

ENTER

↔

Select

→

Yes

→

ENTER

41

Route Options

During route guidance you can change the route options, stop or check the route.

Before Steps

MENU



select

Route Options

Routing

Route Preferences

Open the [ROUTE OPTIONS] Menu



Select



Select



Select the button for the location to be modified.

Select the way points to change the order. Change the destination and the passing order of the destination and way points.

Select the button corresponding to the destination or way point to be deleted.

Modification of Destination or Way Point Positions

Deletion of Destination or Way Points

Detour

Select



Turn List

Select



The Enter Route screen appears.



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 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 **(Change Location)**. press **ENTER**.

Shows the map for the destination/way points.

Press **▲** **▼** to change the order.

Select **Delete** → **Yes** :

No :Cancel the deletion

1mile **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

Route Options

Display
Preview

Open the
[ROUTE
OPTIONS] Menu



Select **Display Route**



ENTER








Select **Route Preview**






Route
Preview


Routing

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 21.

RET

Address Book

| You can, edit, or delete any marked point.

Before Steps

MENU



ENTER

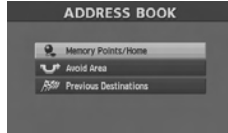


select

Address Book

Memory Point Storage

Open the [ADDRESS BOOK]



Select

Memory Points/Home

Memory Point Confirmation and Modification

Preset Destinations or Home storage

Memory Point Deletion

All Memory Point Deletion

Displays Icons at Memory Points

Add

List

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.

→ **ENTER**

Tel. : Allows the telephone number to be modified. When editing has been completed, select **OK** .

Select a memory point to be stored in Preset Destinations or Home.

Category : Allows the storage category to be changed. Select the button corresponding to the new category.

WHAT DESTINATION : Changes the category to Preset Destinations

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

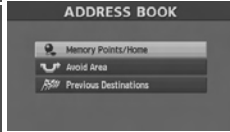
select

Address Book

Avoid Area Storage

Open the [ADDRESS BOOK]

Avoid Area Confirmation and Modification



Select

Avoid Area

Avoid Area Deletion

All Avoid Area Deletion

Category Name Modification

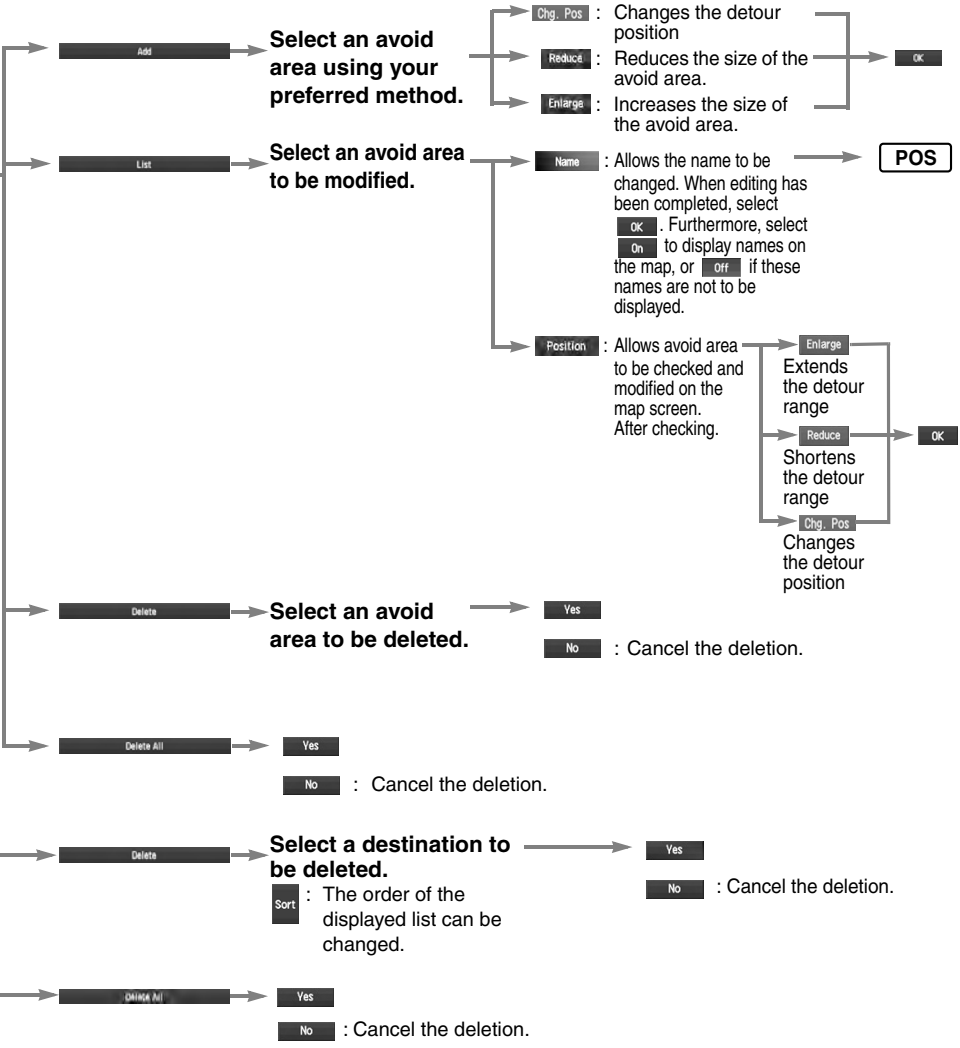
Previous Destination Deletion

All Preset Destination Deletion

Select

Previous Destinations

Address Book



Volume Adjustment

You can adjust the volume control for the voice guidance.



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

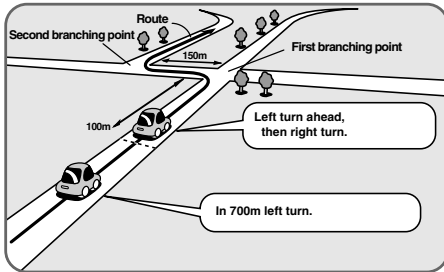


- | The navigation system is just a support system for the driver. The driver should always pay attention to the traffic situation to safely make decisions. You may be unable at times to arrive at your destination due to out-of-date information on a map disc. You should be especially careful when selecting 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.

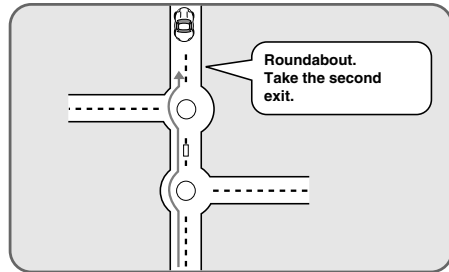
Voice guidance has the following functions:

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.

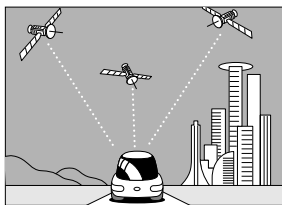


When two intersections are close together, the voice guidance may be late.



When two roundabouts are close together, the voice guidance for the second may be late.

GPS

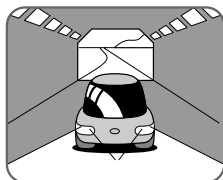


GPS is a position detecting system utilizing the signals from GPS satellites deployed by the U.S. Department of Defense. The Mobile Navigation System uses input from three or more satellites and calculates the vehicle position based on the principle of triangulation.

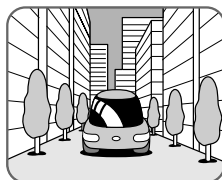
The positioning accuracy of the system corresponds to the error display of the GPS which is from about 30 to 200 meters.

- | 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.

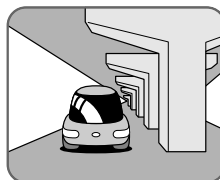
n GPS signal reception is poor in the following places



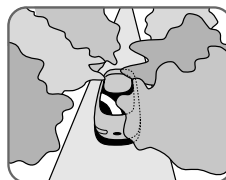
In tunnels



Among high-rise buildings



Under elevated roads



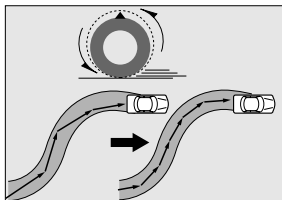
In wooded areas

- | 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

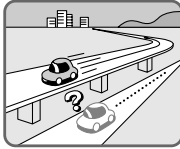
A gyro detects turns with an accuracy of 0.05° per second. Combined with a speed sensor, it enables the system to display the current vehicle position even where GPS signals may be blocked.

- | 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.

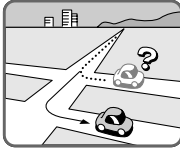
Precautions/System Performance

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.



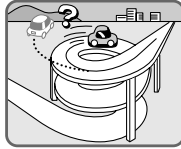
Running on an elevated road



Making a turn after driving on a long straight road



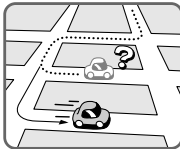
Running on a steep mountain road



Running on a spiral road



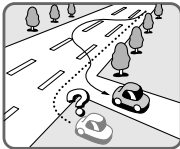
Entering an intersection where a road branches off at a small angle



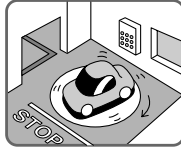
Running on gridiron layout of roads



Running on a slippery road with tire chains



Snaking on a wide road



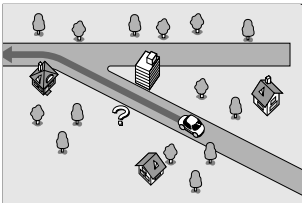
When your vehicle is on a turntable with the ignition turned off



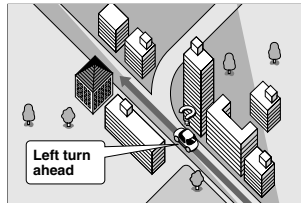
After getting off a ferryboat or vehicle train

Route Guide

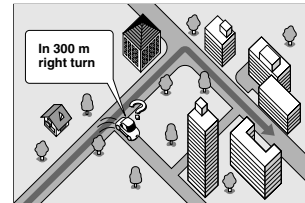
Although you may encounter the following problems in route guide, there is nothing wrong with the system.



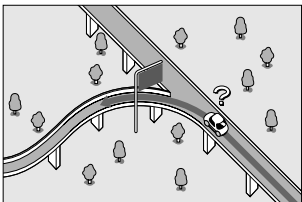
For certain intersection shapes, the upcoming turn or the name of the intersection may not be announced.



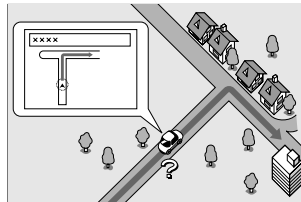
For certain intersection shapes, you may be prompted to turn right or left when you should actually stay on the same road.



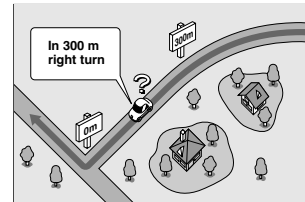
Voice guidance for the planned route may continue even after you have deviated from that route such as having turned too early.



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.

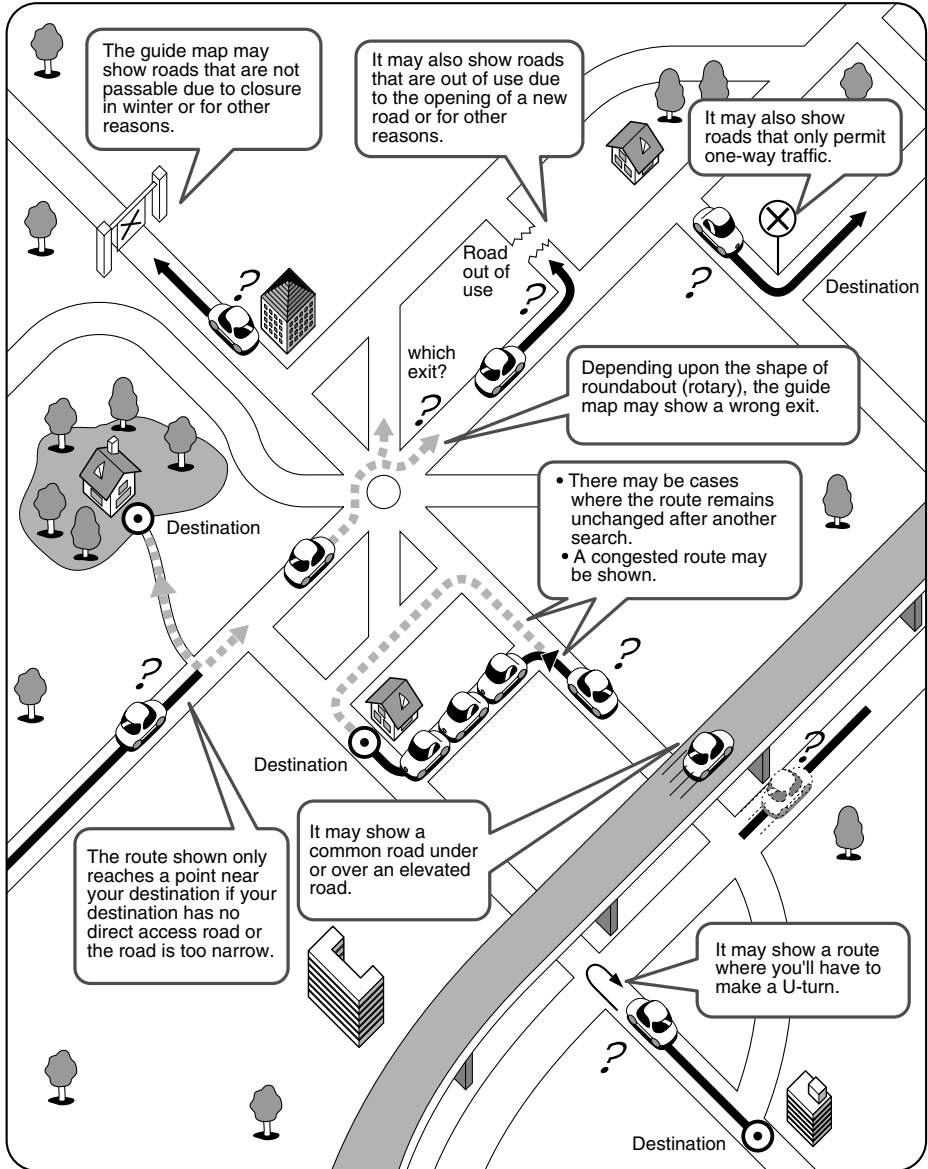
If necessary



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"> Check if a fuse has blown.<ul style="list-style-type: none">➔ Consult an Expert Dealer, we recommend an Authorized Mazda Dealer. Check if the voltage level of the vehicle battery is low.<ul style="list-style-type: none">➔ Recharge the battery or change batteries.
Display does not open or close	
The vehicle position is not correct	<ul style="list-style-type: none"> Check if the vehicle position changed when ACC was set to OFF. When, for example,<ul style="list-style-type: none">• The vehicle was transported by a ferry boat.• The vehicle was rotated on a turn table in a parking lot.• The vehicle was transported by a tow track or other such vehicle.<ul style="list-style-type: none">➔ Drive the vehicle for a while where you are receiving GPS signals.



If necessary

Symptom	Check point
<p>No GPS symbols are displayed</p>	<p> GPS signals may not be received because of obstructions. After moving the vehicle away from obstructions, the GPS signals can be received.</p>
<p>The vehicle position is not displayed</p>	<p> Check if the mode is set to the current position screen. ⇒ Press POS</p>
<p>No voice guidance</p>	<p> Check if the volume control for the voice guidance has been turned off. Check if the vehicle is off the route. ⇒ Repeat the route search while checking the route guide screen. Check if you are driving the vehicle in the wrong direction on the route. ⇒ Repeat the route search checking the direction of the destination.</p>
<p>Buttons on the remote control do not beep</p>	<p> Check if [Beep] is set to [Off] ( page 20).</p>

Troubleshooting

Error Messages

Error message	Solution
Please insert a MAP DVD.	<ul style="list-style-type: none"> The disc is not installed.<ul style="list-style-type: none">➔ Check if the disk is installed. If installed, check if the installed disk is correct.
MAP DVD-Read Error	<ul style="list-style-type: none"> 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">➔ Eject the disc and check it.
The disc installed is not a MAP DVD.	

If necessary

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

If necessary