Thank you for choosing a Mazda. To help ensure the enjoyable and trouble-free operation of your new Mazda, we urge you to read this manual carefully and follow its recommendations.

When service is necessary, remember that your Authorised Mazda Dealer knows your vehicle best and is ready to help you with all maintenance and service needs.

We assure you of our continuing interest in your motoring pleasure and complete satisfaction.

Mazda Motor Corporation
HIROSHIMA, JAPAN
How to Use This Manual

- Keep this manual in the glove box as a permanent and convenient reference.

- Throughout this manual, you will find WARNINGS, CAUTIONS, and NOTES. The WARNINGS remind you to be especially careful to avoid possible personal injury. The CAUTIONs are given to prevent you from making an error that could damage the vehicle or cause personal injury. The NOTEs are suggestions that will help you make full use of your vehicle.

- The specifications and descriptions in this manual 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 incurring any obligation. Please note that this manual applies to all models in this series and explains all equipment, including options. You may therefore find explanations for equipment not installed on your vehicle.

- When you resale your Mazda, leave this manual in the vehicle. The next owner will also need this information.

- Right-hand and left-hand references in this manual are made as if facing in the same direction as the vehicle.

- This manual mainly explains the right-hand drive models, though it is applicable to both right-hand and left-hand drive models.
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Appearance Care

This section shows how to maintain the interior and exterior of the vehicle for pleasant use and longer life.

Maintenance

This section explains easily executed user maintenance and scheduled maintenance that is best performed only by an Authorised Mazda Dealer.

Customer Information

This section contains information to help ensure the complete satisfaction of all owners of Mazda vehicles.

Specifications

This section contains essential data concerning your new Mazda.

Index
YOUR VEHICLE AT A GLANCE

Interior Overview

Right-hand drive model

Vanity mirror  Sunvisor  Rearview mirror  Steering wheel
Rear window defroster switch
Air-conditioner switch*
Side vent
Vent
Glove box
Front ashtray
Lap louver  Rear ashtray

Static electricity ground
Power window switches*
Shoulder belt adjuster
Courtesy light*

* Some models.
YOUR VEHICLE AT A GLANCE

Instrument Panel Overview

Right-hand drive model

- Wiper and washer
- Hazard warning flasher switch
- Instrument cluster
- Light control/Turn signals
- Headlight retractor switch
- Outside rearview mirror switch*
- Rear fog light switch*
- Instrument panel illumination control
- Storage compartment
- Fuse panel
- Parking brake
- Climate control
- Selector lever/Shift lever
- Cigarette lighter
- Footrest
- Horn
- Ignition switch
- Bonnet release

*Some models.
**Left-hand drive model**

- Light control/Turn signals
- Rear fog light switch
- Headlight retractor switch
- Instrument panel illumination control
- Headlight leveling switch*
- Storage compartment
- Fuse panel
- Outside rearview mirror switch*
- Bonnet release
- Horn
- Cigarette lighter
- Wiper and Washer
- Hazard warning flasher switch
- Climate control
- Selector lever/Shift lever
- Parking brake
- Seat warmer switches*

*Some models.
YOUR VEHICLE AT A GLANCE

Luggage Compartment

- Manual fuel-filler lid release
- Tool bag
- Jack
- Spare tyre
- Rear window washer fluid reservoir
- Jack handle
### Graphic Symbols

Some of the following symbols are used to identify controls and displays on your vehicle.

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# Knowing Your Mazda

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KEYS, DOORS

Keys

The plate attached to the keys has key code numbers. If you should lose your keys, these numbers will enable an Authorised Mazda Dealer to replace them more easily. Detach the plate and store it in a safe place, not in the vehicle. You should also file a copy of the key code numbers with your important papers.

Door Locks

FROM OUTSIDE
With Key
• Either front door can be locked or unlocked with the key.
• Once a door is unlocked, it may be opened by lifting the door handle.

Rear door
To lock a door without the key, depress the door lock and close the door.

CAUTION
Always remove the ignition key, close all windows, and lock all doors when leaving your vehicle unattended.
FROM INSIDE
- To lock either door, depress the door lock.
- To unlock, pull the door lock up.
- To open, pull the door handle rearward.

WARNING!
*Never leave children or animals unattended in the vehicle.*

NOTE
Squirt deicer or glycerine into the locks to keep them from freezing. To open a frozen lock, try heating the key before inserting it.

All doors can be simultaneously locked or unlocked by depressing or lifting the driver's door lock.

*Some models.*
All doors lock or unlock automatically when the driver's door is locked or unlocked from the outside with the key.

This lock is intended to help prevent children from accidentally opening the rear doors and should be used whenever they are in the vehicle.
- To lock the rear door so that it cannot be opened from the inside, push down on the child safety lock before closing the door.
- To open, lift the door lock and lift the outside door handle.

This button prevents an unpleasant shock from static electricity.

**NOTE**
- Only a light touch on the button is necessary.
- The amount of static shock depends mainly on humidity and clothes.
1. Open the door.

2. Exit from the vehicle, being careful that you don't touch any metallic part of the vehicle body.

3. Touch the antistatic panel lightly to discharge any buildup of static electricity.

**NOTE**
The antistatic panel will have no effect if you first touch another metallic part of the vehicle body.
**Power Windows**

All windows may be opened or closed by the power window master control on the driver's door. Each door's switch opens and closes its corresponding window.

**WARNING!**
- Keep the power window lock switch in the OFF position except when a power window is being operated at a passenger’s door. Injury may result from an unintentional window operation.
- Use caution when closing windows. Make sure all arms, hands, and other obstructions are safely out of the way.

**NOTE**
With the power window lock switch set in the OFF position, the windows can be operated only by the master control.

**CAUTION**
To prevent the fuse from burning out and the power window system from being damaged, do not open or close more than two windows at the same time.

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

**Front door**
Press the switch to open a window. Raise the switch to close a window.

**One-Touch Power Window (driver's window)**
The driver's window will move till its fully opened or closed position when pushing or pulling the switch strongly.
Rear Door
Press the lower part of the switch to open a window. Press the upper part to close a window.

WARNING!
Do not allow children to play with the power windows. They may injure themselves, perhaps seriously.

REMOTE REAR HATCH RELEASE
To release the rear hatch from inside the vehicle, pull the lever up.

- To open the rear hatch, insert the key into the key slot and turn it clockwise.
- To close, use both hands to push the rear hatch down until the lock snaps shut. Do not slam it. Pull up on the rear hatch to make sure it is secure.

WARNING!
To avoid drawing dangerous exhaust gases into the vehicle, do not drive with the rear hatch open.
Bonnet Release

1. Pull the release handle to unlatch the bonnet.

2. Pull the safety catch up and lift the bonnet.

3. Hold the bonnet open with the support rod.

Before closing the bonnet, secure the support rod in its clip to prevent it from rattling.

To close the bonnet:
- Check the underbonnet area to make certain all filler caps are in place and that all loose items have been removed.
- Close the bonnet firmly so that it latches securely. Do not slam it shut.
Fuel-Filler Cap Release

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

- To remove the cap, first turn it counterclockwise.
- To install the cap, turn it clockwise until it clicks. This signals that the cap is securely tightened.

**WARNING!**
- Fuel may be under pressure. Always remove the fuel cap carefully and slowly. If the cap is venting fuel or if a hissing sound is heard, wait until the condition stops before removing the cap. If these precautions are not followed, fuel may spray out and cause personal injury.
- Fuel vapor can be extremely hazardous. When refuelling, always stop the engine and never allow sparks or open flames near the filler neck.

**NOTE**
- If the fuel tank cap requires replacement, use only a Genuine Mazda cap or the equivalent specified for your vehicle. An incorrect fuel cap can result in a serious malfunction of the fuel system or emission control system. Correct replacement caps are available at Authorised Mazda Dealers.
- If the fuel-filler lid will not open in cold weather because the area around it is frozen, push or lightly tap the lid.
CAUTION
Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel on painted surfaces may dull or soften the paint.

Front Seat

WARNING!
- Do not adjust the driver's seat while the vehicle is in motion. Doing so could cause loss of control, accident, and personal injury.
- Rear-seat passengers should not lean on the back of the front seat while the vehicle is in motion. A seat back that is folded forward even slightly may not lock properly during a sudden stop or a collision.
- Do not allow packages or other objects to interfere with the normal position of a seat back. This may prevent it from locking in the event of a sudden stop or collision.

Manual override
If the fuel-filler lid does not open with the remote fuel-filler release, use the override release.

The override release is behind the panel inside the luggage compartment on the left side. Remove the side trim and pull the filler lid latch toward the back of the vehicle.

WARNING!
To avoid possible injury by sharp objects, it is advisable to wear protective gloves when attempting to open the fuel-filler lid manually.
Front Seat Adjustment

**SEAT SLIDE**
To move the seat forward or backward, move the lever upward, slide the seat to the desired position, and release the lever.

**CAUTION**
Place nothing under a front seat. Loose objects might interfere with the seat slide mechanism.

**SEAT RECLINER**
To change the seat-back angle, lean forward slightly and raise the lever. Then lean back to the desired angle and release the lever. After adjustment, make sure the lever is returned to its original position; otherwise, the seat back could unlatch while the vehicle is in motion, causing the driver to lose control of the vehicle.

**WARNING!**
To reduce the risk of sliding under the lap belt and thereby suffering personal injury in the event of a collision, do not recline the seat back more than necessary for comfort. The seat belts are designed to provide optimum protection when the front passenger and driver are sitting well back and upright in their seats. During a collision, especially a front-end collision, the risk of personal injury may increase with the increasing recline angle of the seat back because the front passenger and driver may slide under the lap belt and have restraint forces applied directly to their abdominal areas. Therefore, try to keep the seat back in a fairly upright position whenever possible.
HEADREST
With stop-catch release
- To raise the headrest, pull it up.
- To lower the headrest, press the stop-catch release and press the headrest down.

Without stop-catch release
- To raise the headrest, pull it up.
- To lower the headrest, press it down.

WARNING!
- To reduce the risk of head and neck injuries, do not operate the vehicle with the headrest removed.
- Adjust the top of the headrest so that it is closest to the top of your ears (and never behind your neck) to reduce the chance of injury in the event of a collision.

SEAT HEIGHT* (Driver's Seat)
- To raise the front of the seat cushion, pull the lever and exert slight body pressure against the seat back.
- To lower the front of the seat cushion, pull the lever and exert slight body pressure against the seat cushion.

*Some models.
Rear Seat

**WARNING!**
- If the seat back is not securely latched, passengers and objects could be thrown forward and injury could occur in the event of a sudden stop or collision.
- To avoid the possibility of burns, do not remove the carpet in the cargo area. Emission controls beneath this floor generate high exhaust temperatures.
- Luggage and other cargo should not be piled higher than the seat backs because they may become projectiles during a sudden stop or collision.
- To help prevent injury in the event of sudden acceleration, a quick stop, or a collision, passengers should not ride in the cargo area or sit or recline on folded seat backs while the vehicle is in motion.
- Do not allow children around folded seat backs to avoid their being trapped inside the cargo area.

**CAUTION**
When resetting the seat back to the upright position, make sure it is securely latched by pushing it forward and rearward.

*SEAT WARMER*
The front seats are electrically heated by turning on the respective switch with the ignition switch ON(I). The thermostat regulates the seat temperature by turning the current on and off.

*Some models.* 2-13
SEATS, SEAT BELTS

Rear-Seat Adjustment

The rear-seat backs fold forward to increase the size of the luggage compartment.

- Push the knob to unlock the seat back, then fold it forward and down.
- To raise the seat back, lift it and push it firmly into place.

Seat-Belt Restraint System

To help decrease the possibility or severity of injury during accidents and sudden stops, we recommend that the driver and passengers be properly restrained at all times by using the seat belts provided. The lap-shoulder belts have retractors with inertia locks.

The retractors keep the belts out of the way while passengers enter or exit the vehicle. Inertia locks allow the belts to remain slack on the passengers for comfort until a deceleration force occurs (such as a sudden stop or collision). At that time the belts will automatically lock in position, and you and your passengers will be restrained.

WARNING!

- Lap/shoulder-belt assemblies may be damaged when subjected to stress.
- Replace all belts, retractors, and hardware in use during any collision except a minor one.
- Replace all restraint systems and properly repair all anchorages in areas damaged by a collision.
- Passengers should not be allowed to ride in the cargo area of a vehicle. Persons not riding in a seat with a fastened seat belt are much more likely to suffer serious bodily injury during a collision.
Front Seat Belts

WARNING!
- Never wear the shoulder belt under the arm.
- Never swing it around your neck and over the inside shoulder.
- Never use a single belt for more than one person at a time.
- Be sure the lap portion of the belt is fitted snugly around the hips, not the waist.
- Use the shoulder belt on the outside shoulder only.

Failure to follow these precautions could increase the chance and severity of injury.

NOTE
If the belt locks when being pulled out, rewind it completely into the retractor then pull it out to the desired length.

To fasten seat belt
1. Grasp the buckle and tongue plate.
2. Slowly pull out the lap/shoulder belt.
3. Insert the tongue plate into the open end of the buckle until an audible click is heard, indicating the belt is locked.

Position the lap belt across your lap as LOW ON THE HIPS as possible to reduce the risk of sliding under it during an accident. Adjust the belt to a SNUG FIT by pulling it. The belt retractor is designed to take up excess webbing automatically and to maintain tension on the belt.
To unfasten seat belt
Depress the button on the buckle.

Shoulder belt adjuster
There are five adjustments that can adjust the shoulder belt angle to your body. To adjust, pull the knob and move to the desired position, and then release the knob.

Rear Seat Belts

Two kinds of belts are equipped.
- Lap/shoulder belts, for people who sit next to the side windows.
- Lap belt, for people who sit in the centre of the rear seat.

WARNING!
- *Never* wear the shoulder belt under the arm.
- Never swing it around your neck and over the inside shoulder.
- Never use a single belt for more than one person at a time.
- Be sure the lap portion of the belt is fitted snugly around the hips, not the waist.
- Use the shoulder belt on the outside shoulder only.

Failure to follow these precautions could increase the chance and severity of injury.

NOTE
If the belt locks when being pulled out, rewind it completely into the retractor then pull it out to the desired length.
**Lap/shoulder belt**

**To fasten:**
1. Grasp the buckle and tongue plate.
2. Slowly pull out the lap/shoulder belt.
3. Insert the tongue plate into the open end of the buckle until an audible click is heard, indicating the belt is locked.

**To unfasten:**
Depress the button on the buckle.

**Lap Belt**

**To fasten:**
1. Grasp the buckle end.
2. Insert the tongue plate into the open end of the buckle until an audible click is heard, indicating the belt is locked. Make sure the belt is not twisted.

Position the lap/shoulder belt across your lap as LOW ON THE HIPS as possible to reduce the risk of sliding under it during an accident. Adjust the belt to a SNUG FIT by pulling it. The belt retractor is designed to take up excess webbing automatically and to maintain tension on the belt.
Proper Use and Care of the Seat-Belt System

To gain maximum effectiveness from the seat-belt system, follow these suggestions:
- Use the belts at all times—even on short trips.
- Never use the same belt for more than one person at a time.
- Avoid wearing twisted belts.
- Keep sharp edges and damaging objects away from the belts and other parts of the restraint system.
- Periodically inspect belt webbing, anchors, buckles, and all other parts for signs of wear, damage, and weakness. Replace questionable parts immediately.
- To clean the belt webbing, use any mild soap solution recommended for cleaning upholstery or carpets; follow the instructions provided with the soap. Do not bleach or re-dye the webbing because this may weaken it.
- No modifications or additions should be made by the user.
- After wearing a seat belt, make sure it is not caught on the adjusting levers or elsewhere.

Position the lap belt across your lap as LOW ON THE HIPS as possible.

**WARNING!**  
*Be sure the lap belt is fitted snugly around the hips, not on the waist. Failure to do so may increase the chance of injury in the event of a collision.*

To unfasten: Depress the button on the buckle.

3. If necessary, lengthen or shorten the belt. To adjust, hold the tongue at right angles to the webbing and pull to lengthen, or pull the loose end of the belt webbing to shorten.
WARNING!
All seat-belt assemblies, including retractors and attaching harness, should be inspected after any collision. We recommend that all seat-belt assemblies in use during a collision be replaced unless the collision was minor and the seat belts show no damage and continue to operate properly. Seat-belt assemblies not in use during a collision should also be inspected and replaced if damage or improper operation is noted.

Tilt Steering

To charge the steering wheel angle, pull down the lock release, adjust the steering wheel to the desired angle then push up the lock-release lever to lock the steering column.

WARNING!
Never adjust the tilt position of the steering wheel while the vehicle is in motion. After adjusting, push up and down against the steering wheel to be certain it is locked in position.

Horn Control

Push the pad marked with the horn symbol to sound the horn. Check the horn regularly for proper operation.
MIRRORS

Outside Rearview Mirror

Be sure to adjust mirror angles before driving.

WARNING!
If the outside rearview mirrors are convex, objects seen in the mirror are closer than they appear. The mirror should be used carefully to estimate distances of following vehicles when changing lanes. Use your inside rearview mirror to determine the size and distance of objects seen in the convex mirror.

CAUTION
Do not scrape ice off the mirror face; this may damage the surface of the glass. If ice should restrict movement of the mirror, do not force the mirror to adjust it. To remove ice, use a deicer (spray or blower, for example), sponge, or soft cloth.

MANUAL CONTROL *
To adjust an outside mirror, move the control lever.

ELECTRIC CONTROL *
This switch controls the adjustments for both right and left outside mirrors. To adjust the position of either mirror:
1. Move the selector switch to the right or left to activate the adjusting mechanism for the corresponding mirror.
2. Adjust the mirror angle by depressing the appropriate perimeter switch.

NOTE
Return the selector switch to the OFF (centre) position when not in use.

* Some models.
Day/Night Rearview Mirror

Adjust the rearview mirror to center on the view through the rear window. Make this adjustment while the day/night lever is in the day position.
Pull the day/night lever toward you to reduce glare from the headlights of vehicle behind you during night driving.

NOTE
Remember that you lose some rearview clarity in the night position.

WARNING!
Do not put large objects on the flat area behind the rear seat or pile luggage or other cargo higher than the seat backs because they may obscure vision and could become dangerous projectiles during a sudden stop or collision.
The sunroof may be either tilted up or opened or closed electrically. Power operation works only with the ignition switch in the ON (II) position.

To tilt up, press the rear switch and the panel will tilt up. The sunroof can then also be slide fully open when the button is released and pressed again. The sunroof can be partially opened to any position by releasing the switch when the desired opening is reached. To close, press the appropriate switch, as illustrated.

**WARNING!**
- Do not extend anything, especially head and hands, through the open sunroof while the vehicle is in motion.
- When closing the sunroof, keep everything, especially head and hands, clear of the opening.

**CAUTION**
Release the switch as soon as the sunroof is fully opened or closed. If the switch is kept on, the sunroof system may be damaged.

**NOTE**
- Make sure the sunroof is fully closed when leaving the vehicle unattended.
- Periodically remove any dirt that may have accumulated on the guide rail.

**MANUAL OVERRIDE**
If the sunroof will not operate by the switch, it can be opened or closed manually with the emergency handle (Allen wrench) furnished in the glove box. Have the system checked by an Authorised Mazda Dealer as soon as possible.

*Some models."
Interior Light

Type A
OFF
DOOR
ON

Type B
OFF
DOOR
ON

OFF — Lights off.
DOOR — Lights on when a door is open.
ON — Lights on.

Map Light*

With sunroof

The map lights are switched on or off individually by pushing the outside of each light frame.

Without sunroof

The map lights are switched on or off by pressing the switches.

* Some models
When a door is opened, the courtesy lights come on automatically. Closing the door turns them off automatically.

When the hatch is opened, the luggage compartment cover may be lifted up by the strap for easy access to the luggage area. For additional luggage space, the cover can be removed.

To turn on the luggage compartment light, open the rear hatch and push the switch. Closing the rear hatch will automatically turn the light off. The ignition switch may be in any position.

To remove the cover:
1. Unfasten the straps from the rear hatch.
2. Lift up and pull to remove the cover.
## Protecting Your Mazda

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FUEL REQUIREMENTS

Fuel Requirements

**GASOLINE ENGINE**

With Catalytic Converter

Use **only** unleaded gasoline with an octane rating of at least 91 (Research Octane Number) conforming to DIN 51 607.

If your Mazda is powered by a 1.8-liter DOHC engine, the octane rating should be at least 95.

A label on the inside of the fuel-filler lid has this warning: **UNLEADED FUEL ONLY.**

**WARNING!**

Never use leaded gasoline in your Mazda if it has a catalytic converter. The lead will accumulate on the oxygen sensor and the catalyst within the converter. This will result in a malfunction of the emission control system, causing poor performance.

If you believe the engine is not functioning properly, consult an Authorised Mazda Dealer as soon as possible.

---

**Fuel Caution Label**

As an EEC directive (89/491/EEC), some models not equipped with catalytic converters have a fuel caution label on the back of the fuel-filler lid. This label simply means that although leaded or unleaded gasoline may be used in the vehicle, the use of unleaded is recommended in areas where it is available.

---

*Some models.*
Engine Exhaust Gas Precautions (Carbon Monoxide)

Engine exhaust gases contain carbon monoxide. Though colourless and odourless, it is dangerous, even lethal, if inhaled.

- Carbon monoxide can be present with other exhaust fumes. Therefore, if you smell exhaust fumes of any kind inside your vehicle, have it inspected and repaired immediately by an Authorised Mazda Dealer. Do not drive with exhaust fumes present but if you must, do so only with all windows fully open.
- Do not operate the engine in confined or closed areas (such as garages) any more than what is necessary to move the vehicle to and from the area.
- When the vehicle is stopped in an unconfined area for more than a short time with the engine running, adjust the heating or cooling system to draw outside air into the vehicle.
- Never sit in a parked or stopped vehicle for any extended time with the engine running.

Operating Precautions for Catalytic Converters (with catalytic converter)

Your vehicle is equipped with a catalytic converter emission control device. Therefore, the following precautions must be observed:

- Use only UNLEADED FUEL.
- Do not park the vehicle over or near flammable objects, such as dry grass. Under certain conditions, they could be ignited by a hot exhaust system.
- Do not operate the vehicle when there are signs of engine malfunction, such as misfire or other noticeable loss of performance.
- Do not misuse or abuse the engine. Examples of misuse are coasting with the ignition off and descending steep grades in gear with the ignition off.
- Do not operate the engine at high idle speed for extended periods (5 minutes or more).
- Do not modify or tamper with any part of the engine or emission control system. All inspections and adjustments must be made by a qualified technician.

Failure to observe the above precautions could result in damage to the catalytic converter and to your vehicle.
BEFORE DRIVING, BREAK-IN

Before Driving

BEFORE ENTERING VEHICLE
• Be sure that all windows, outside mirrors, and outside lights are clean.
• Check the condition of the tires.
• Check under the vehicle for any sign of leaks.
• Be sure there are no obstacles behind you if intend to back up.

Necessary Inspections
Fluid levels, such as engine oil, engine coolant, brake/clutch fluid, and washer fluid, should be checked daily, weekly, or whenever you refuel, depending on the fluid. Further details are provided in Maintenance, Section 7.

BEFORE STARTING
• Close all doors.
• Position the seat so that all controls are easily reached.
• Adjust the inside and outside rearview mirrors.
• Fasten seat belts of occupied seats.
• Be sure that all lights work.
• Check all gauges.
• Check the operation of warning lights when the ignition switch is turned to the ON(II) position.
• Release the parking brake and make sure the brake warning light goes out.

For safe operation, be sure you are familiar with your vehicle and its equipment.

Break-in

No special break-in period is needed. But by following a few simple precautions for the first 1,000 km (600 miles), you may add to the performance, economy, and life of your vehicle.

• Do not race the engine.
• Do not maintain a single speed for long periods of time, either fast or slow.
• Avoid hard stops, except in emergencies, to allow the brakes to seat properly.
• Avoid full-throttle starts.
Suggestions for Economical Operation

Your vehicle's fuel economy is mainly dependent on your style of driving: how you drive, where you drive, and when you drive. These have an effect on how many kilometers (miles) you can get from a litre (gallon) of fuel. To operate your vehicle as economically as possible, use the following driving suggestions to help save money in both fuel and repairs:

- Avoid lengthy warm-up idling. Once the engine is running smoothly, begin driving—but gently. Remember, though, that on cold days, warm-up may take a little longer.
- Save fuel by avoiding fast starts.
- Keep the engine in tune and follow the recommended periodic maintenance schedule. This will increase the life of all parts and lower operating costs.
- Use the air conditioner only when necessary.
- Slow down when driving on rough roads.
- For longer tire life and better fuel economy, always keep the tires inflated to the recommended pressures.
- Maintain a safe distance from other vehicles to avoid sudden stops. This will reduce wear on brake linings and pads and save fuel because extra fuel is required to accelerate back to driving speed.
- Do not carry unnecessary weight in the vehicle.
- Do not rest your foot on the brake pedal while driving. This can cause needless wear, possible damage to the brakes, and poor fuel economy.
- Improper wheel alignment causes the tires to roll at excessive angles, which results in faster tire wear. It takes more power to overcome this improper alignment, which wastes fuel.
- Open windows at high speeds can lessen fuel economy.
- Fuel economy is less in crosswinds and headwinds. To help offset some of this loss, slow down when driving in these conditions.

Keeping a vehicle in good operating condition is important both for economy and safety. Therefore, have an Authorized Mazda Dealer perform scheduled inspections and maintenance.

CAUTION
Never turn off the engine to coast down hills. The power steering and power brakes will not function without the engine running. Instead, downshift to an appropriate gear for engine braking effect.
SPECIAL DRIVING CONDITIONS

Hazardous Driving

When hazardous driving is encountered because of water, snow, ice, mud, sand, or similar hazard, follow these suggestions.

- Drive cautiously and allow extra distance for braking.
- Avoid sudden movements in braking or steering.
- When braking, depress the brake pedal with a light up-and-down motion until the vehicle is stopped.
- If stalled in snow, mud, or sand, use second gear and accelerate slowly. Low gear may be used, if necessary. Accelerate slowly to avoid spinning the front wheels.
- Use sand, rock salt, tyre chains, or other nonslip material under the front wheels to provide traction when stalled in ice, snow, or mud.

WARNING!
On slippery surfaces, do not downshift into 1 (First) with a manual transaxle or L (Low) with an automatic transaxle. This may cause skidding.

NOTE
Use snow chains only on front wheels.

Rocking the Vehicle

If it is necessary to rock the vehicle to free it from snow, sand, or mud, move the selector lever of an automatic transaxle from D (Drive) to R (Reverse) in a repeat pattern while depressing the accelerator gently. With a manual transaxle, move the shift lever back and forth from 1 (First) to R (Reverse). Do not race the engine. If you are still stuck after a couple minutes of rocking, have the vehicle pulled out to avoid engine overheating and possible damage to the transaxle.

CAUTION
Prolonged rocking may cause engine overheating, transaxle damage or failure, and tyre damage.

WARNING!
Do not spin the wheels too much, because increased wear and damage to the drive components may result.
Winter Driving

- We recommend that you carry emergency equipment. Some things you might include are tyre chains, a window scraper, a bag of sand or salt, flares, a small shovel, and jumper cables.
- Make sure you have sufficient ethylene-glycol coolant in the radiator.
- Check the battery condition and cables. Cold temperatures reduce the capacity of any battery, so it must be in top shape to provide enough winter starting power.
- Make sure the engine oil viscosity is suitable for cold weather.
- Check the ignition system for loose connections and damage.
- Use antifreeze-formulated washer fluid. (Do not use engine coolant antifreeze.)
- Do not use the parking brake when it might freeze. When parking, shift to P (Park) with an automatic transaxle, and to 1 (First) or R (Reverse) on a manual transaxle and block the rear wheels.

SNOW TYRES

When snow tyres are used, select the size and construction specified on the tyre pressure label. It is strongly recommended that snow tyres be used on all four wheels, or poor handling may result. Please also note the inflation pressure recommended on the pressure label.

WARNING!
Snow tyres should be equivalent in size and type to the vehicle's standard tyres. Otherwise, the safety and handling of your vehicle may be adversely affected.

NOTE
Do not install studded tyres without first checking local regulations for possible restrictions.

TYRE CHAINS

Tyre Chain Selection
Regulations regarding the use of tyre chains vary according to location or type of road, so always check them before installing chains.

Chain Installation
When installing chains on your tyres, carefully follow the instructions of the chain manufacturer. (See ‘Describing Chain Installation’.)

The chain bands will scratch the wheel covers. Remove the covers before installing the chains.

Install the chains on the front tyres as tightly as possible. The use of chains on the rear tyres is not recommended. Retighten the chains after driving 0.5—1.0 km (1/4—1/2 mile).

CAUTION
- The use of chains may adversely affect vehicle handling.
SPECIAL DRIVING CONDITIONS, LABEL INFORMATION

Driving in Flooded Areas

- Do not exceed 50 km/h (30 mph) or the chain manufacturer's recommended speed limit, whichever is lower.
- Drive carefully and avoid bumps, holes, and sharp turns, which may cause the vehicle to bounce.
- Avoid sharp turns or locked-wheel braking.
- Do not attempt to use a tyre chain on the temporary spare tyre because it may result in damage to the vehicle and to the tyre.

Avoid driving through flooded areas unless you are sure the water is no higher than the bottom of the wheel rims. Drive through any water slowly. Allow adequate stopping distance because wet brakes do not grip well. After driving through water, dry the brakes by gently applying them several times while the vehicle is moving slowly.

Label Information

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IGNITION SWITCH

Ignition Switch and Antitheft
Steering Column Lock

Do not leave the ignition switch ON(II) if the
engine is not running. The battery will dis-
charge.

START(III)
Used to start the engine. The engine will
crank until you release the key; then it returns
to ON(II).

NOTE
If difficulty is experienced in turning the ig-
nition switch, turn the steering wheel right
and left while turning the switch to ON(II).

SWITCH POSITION

LOCK(0)
The steering wheel is locked to prevent
against theft. Only in this position can the key
be removed.

ACC(I)
The steering wheel is unlocked and some
electrical accessories are operative.

ON(II)
The warning lights can be checked before
the engine is started. This is the normal run-
ning position after the engine is started.

WARNING!
• Never turn the ignition switch to
LOCK(0) or ACC(I) while the ve-
hicle is moving.
• The antitheft steering column
lock is not a substitute for the
parking brake. Before leaving the
driver’s seat, always make sure
the selector lever is engaged in P
(Park) with an automatic transax-
le or 1 (First) with a manual trans-
axle; set the parking brake fully
AND shut off the engine. Unex-
pected and possibly sudden ve-
hicle movement may occur if
these precautions are not taken.

• Never reach for the ignition
switch through the steering
wheel; it could suddenly turn,
causing serious injury.
Starting the Engine

CARBURETOR MODEL
1. Make sure the parking brake is applied.
2. Manual Transaxle—Depress the clutch pedal fully and shift the transaxle into NEUTRAL. Keep the clutch pedal depressed while cranking the engine.
   Automatic Transaxle—Place the transaxle select lever in P (Park) or N (Neutral).

CAUTION
Do not keep the starter engaged for more than 10 seconds. If the engine stalls or falters in starting, wait 5 to 10 seconds before re-engaging the starter; otherwise, you may damage it.

When Engine Cold
1. Depress the accelerator ONCE TO THE FLOOR AND RELEASE.
2. Turn the ignition switch to the START(III) position and hold it until the engine starts (a maximum of 10 seconds). Then release the ignition key.
3. When the engine starts, depress the accelerator ABOUT HALF WAY, and then release it to reduce the engine speed.
4. Let the engine warm up for about 10—30 seconds.

Extremely cold weather below -18°C (0°F) or after vehicle has been standing idle several days:
1. Fully depress and release the accelerator TWO OR THREE TIMES before cranking the engine.
2. Turn the ignition switch to the START(III) position and hold it until the engine starts, then release the ignition key.
   If the engine does not start, release the ignition key. Fully depress and release the accelerator FIVE TO TEN TIMES before cranking the engine.
   Turn the ignition switch to the START(III) position and hold it until the engine starts.
3. After starting the engine, let it warm up without operating the accelerator.
4. When the engine is running smoothly (approximately 30 seconds after starting the engine), the engine speed should be reduced by slightly depressing the accelerator and slowly releasing it.
STARTING

CAUTION
Extended high speed idling (5 minutes or more) could produce an excessive exhaust system temperature that can damage your vehicle.

When Engine Warm
1. Depress the accelerator ABOUT HALF WAY AND HOLD IT. Do not pump.
2. Turn the ignition switch to the START(III) position until the engine starts.
3. When the engine starts, release the ignition key and accelerator.

NOTE
Engine noise (valve tappets) may occur if the engine is not operated for an extended period of time. The noise should disappear after the engine has reached normal operating temperature. If the tappet noise should not stop, have the vehicle inspected by an Authorised Mazda Dealer.

FUEL INJECTION MODEL
1. Make sure the parking brake is applied.
2. **Manual Transaxle**—Depress the clutch pedal fully and shift the transaxle into NEUTRAL. Keep the clutch pedal depressed while cranking the engine.
   **Automatic Transaxle**—Place the transaxle selector lever in P (Park) or N (Neutral).
3. Turn the ignition switch to START(III) and hold it there until the engine starts (a maximum of 10 seconds). Then release the key.

NOTE
Whether the engine is cold or warm, it should be started without depressing the accelerator.

If the engine fails to start using the above procedures:
When the engine is cold (Engine coolant temperature is below 0°C (32°F))—It may be that the engine is flooded (has excessive fuel in the cylinders). If this is the case, follow the starting procedure below.
(1) Depress the accelerator fully and hold it...
(2) While holding the accelerator fully depressed, turn the ignition switch to the START/II) position and hold it (a maximum of 10 seconds; cranking) to discharge the excess fuel.

If the engine starts, the engine speed will increase suddenly; release the key and the accelerator immediately. In this case, the following steps are not necessary.

(3) Release the accelerator after cranking the engine.

(4) Without depressing the accelerator, crank the engine until it starts (a maximum of 10 seconds).

When the engine is warm—
The above procedure should not be performed because it will make starting even more difficult. If the engine is unusually difficult to restart when it is warm (fails to start after repeated attempts without depressing the accelerator), depress the accelerator about halfway to start it.

In extremely cold weather—below −18°C (0°F)—or after the vehicle has been idle several days, let it warm up without operating the accelerator.

**CAUTION**

Do not keep the starter engaged for more than 10 seconds. If the engine stalls or fails to start, wait 5 to 10 seconds before reengaging the starter; otherwise, you may damage it.

**NOTE**

Engine noise (from valve tappets) may occur if the engine has not been operated for an extended period. The noise should stop after the engine has reached normal operating temperature. If the noise does not stop, have the vehicle inspected by an Authorised Mazda Dealer.

4. Let the engine warm up for about 10 seconds before driving.
Manual Transaxle Operation

The shift pattern is conventional, as shown. Press the clutch pedal all the way down while shifting; then release it slowly.

A special safety feature prevents inadvertent shifting from 5 (Fifth) to R (Reverse). The gearshift lever must be returned to the Neutral position before shifting into R (Reverse).

**NOTE**

Make sure the vehicle is completely stopped before shifting into R (Reverse).

**SHIFT POINT RECOMMENDATIONS**

In order to save fuel and improve driveability, we recommend these shift points.

- **FIRST GEAR** ........ Up to 24 km/h (15 mph),
  then shift to second
- **SECOND GEAR** .... Up to 40 km/h (25 mph),
  then shift to third.
- **THIRD GEAR** ...... Up to 64 km/h (40 mph),
  then shift to fourth.
- **FOURTH GEAR** ... Up to 72 km/h (45 mph),
  then shift to fifth.
- **FIFTH GEAR** ........ From 72 km/h (45 mph),
  up to cruising speed.

**CAUTION**

To avoid premature clutch wear and damage, do not drive with your foot resting on the clutch pedal; do not use the clutch to hold the vehicle stopped on an upgrade, as when waiting for a traffic light.

**NOTE**

Once the vehicle reaches the desired road speed (or when the vehicle speed is compatible with traffic flow or legal speed limits) at approximately 40 km/h (25 mph) or above, the transaxle should be shifted into FOURTH gear as soon as possible to maintain best fuel economy.

Downshifting from FOURTH gear is not necessary unless the engine begins to lug (this condition is likely at speeds of 30 km/h (19 mph) or less).
Automatic Transaxle

Right-hand drive model

Selector lever

Lock-release button
To prevent unsafe shifting

Hold button
Pushing this button activates the hold mode. Pushing it again deactivates this mode.

Hold indicator
This indicator comes on when the hold mode is selected.

Shift pattern indicator
Shows selector lever position

Shift while holding in the lock-release button
Shift without holding in the button
**AUTOMATIC TRANSAXLE**

**Left-hand drive model**

- **Lock-release button**: To prevent unsafe shifting.
- **Selector lever**:
- **Hold button**: Pushing this button activates the hold mode. Pushing it again deactivates this mode.
- **Shift pattern indicator**: Shows selector lever position.
- **Hold indicator**: This indicator comes on when the hold mode is selected.

- **Shift while holding in the lock-release button**
- **Shift without holding in the button**
Automatic Transaxle Operation

All normal forward driving is done with the selector in the D (Drive) position.

NOTE
For smooth operation, depress the brake pedal when shifting from N (Neutral) or P (Park) to a forward or reverse gear.

CAUTION
- Do not accelerate the engine in R (Reverse) or any of the forward positions with the brakes on.
- When stopped on an upgrade, do not hold the vehicle stationary with engine power. Use the brake.
- Do not shift from N (Neutral) or P (Park) into L (Low), 2 (Second), D (Drive) or R (Reverse) when the engine is above idle speed.

TRANSAXLE RANGES

P (Park)
This position locks the transaxle and prevents the front wheels from rotating. Always come to a complete stop before shifting into this position. The transaxle may be damaged if you shift into P (Park) while the vehicle is in motion.

WARNING!
- Do not use the P (Park) position in place of the parking brake. Always make sure the selector lever is latched in P (Park) so that it cannot be moved unless the lock release button is pushed in, AND set the parking brake fully.
- Turn the ignition switch off when you leave the vehicle, even momentarily. Never leave the vehicle unattended while the engine is running. Unexpected and possible sudden vehicle movement may occur if these precautions are not taken.
- Never leave a child unattended in a vehicle.

R (Reverse)
This position allows the vehicle to move backward. Always come to a complete stop before shifting into or out of R (Reverse); you may damage the transaxle if you shift into R while the vehicle is in motion, except as explained under Rocking the Vehicle (page 3-6).

N (Neutral)
The wheels and transaxle are not locked.

D (Drive)
This is the normal forward driving position, and the transaxle will automatically shift through a four-gear sequence, providing the best economy and power.

NOTE
For extra power when passing another vehicle or climbing steep grades, depress the accelerator fully, at which time the transaxle will shift down into the next lower gear.
S (Second)
Manually shift the selector lever to this position for driving in heavy, slow-moving traffic or when climbing hills.

L (Low)
Shift the selector lever to this position in hard-pulling situations and for climbing steep grades.

Shift up patterns without hold mode engaged
D = 1st, 2nd, 3rd, 4th
S = 1st, 2nd, 3rd
L = 1st, 2nd

Moving up a Steep Grade from a Standing Start
To move up a steep grade from a standing start, depress the brake pedal, shift the selector lever to D (Drive), S (Second) or L (Low), depending on load weight and steepness of the grade, and release the parking brake. Depress the accelerator gradually while releasing the brakes.

D (Drive)
The transaxle is held in third (3). When stopping, however, it automatically downshifts to first (1) then returns to third (3) via second (2) for smoother acceleration.

S (Second)
The transaxle is held in second (2). Do not exceed 104 km/h (65 mph) in this position.

L (Low)
The transaxle is held in first (1). Do not exceed 59 km/h (37 mph) in this position.

Shift up patterns with hold engaged
D-Hold = 3rd (Momentary 1st and 2nd, for standing start)
S-Hold = 2nd (Fixed)
L-Hold = 1st (Fixed)

When the ignition is switched OFF, hold mode is automatically cancelled.

HOLD MODE
This system stops the automatic speed change operation and has three defined positions: third (3) in D, second (2) in S, and first (1) in L. Use this system when starting the vehicle from a complete stop on slippery surfaces such as snowy, slushy, or muddy roads; when driving up steep inclines; and for braking assistance when descending hills.

Pushing the hold button activates the hold mode. Pushing the button again deactivates this mode.
Power Brakes

Your vehicle has power-assisted brakes that adjust automatically through normal usage. In the event power assist is lost because of a stalled engine or some other reason, you can still stop your vehicle by applying greater force to the brake pedal than you normally would. The stopping distance, however, will be longer.

When the engine is not running, the reserve brake power is partially depleted each time the brake pedal is applied. Do not pump the brake pedal when the power assist has been interrupted, except when necessary to maintain steering control on slippery surfaces.

Brakes

If the brakes should fail to operate while the vehicle is in motion, you can make an emergency stop with the parking brake. The stopping distance, however, will be much greater than normal.

WARNING!

- Do not drive with your foot resting on the brake pedal. This will create abnormally high brake temperatures, excessive brake lining and pad wear, and increased stopping distances.
- When descending a long or steep hill, shift to a lower gear and avoid continuous application of the brakes, which will cause the brakes to overheat and result in a temporary loss of braking performance.
- Driving through water deep enough to wet the brakes may adversely affect brake performance. It may result in the vehicle not slowing down at the usual rate and pulling to one side when the brakes are applied. Applying the
brakes lightly will indicate whether they have been affected in this way. To dry the brakes, apply them lightly while maintaining a safe forward speed until brake performance returns to normal.

ANTILOCK BRAKE SYSTEM* (ABS)
- It may happen that vibration is felt in the steering wheel, body and/or brake pedal when the ABS is functioning; such vibration is simply an indication that the system is functioning.
- Sound of the pump motor operating may be heard from the engine compartment when the ignition switch is turned to the ON(II) position or while driving the vehicle as the system is automatically operated.
- Sound of the accumulator pressure being released may be heard when the brake pedal is depressed. This is a normal condition and indicates that the hydraulic booster in the ABS is operating.

Parking Brake

- To set the parking brake, pull the handle fully and firmly upward while applying the brake.
- To release the parking brake, pull the handle up and push the button. Then lower it while holding the button in.

WARNING!
- Do not use the selector lever in place of the parking brake. Always set the parking brake fully AND make sure the selector lever is securely latched in P (Park) with an automatic transaxle or in 1 (First) with a manual transaxle.

* Some models.
BRAKE SYSTEM

Brake System Warning

- Turn the ignition switch off whenever you leave the vehicle. Never leave it unattended while the engine is running.
- Unexpected and sudden vehicle movement may occur if these precautions are not taken.

Check the brake warning light each time you start the engine. This light will be on when the engine is running and the parking brake is set.

Before driving, be sure the parking brake is fully released and the brake warning is off. If it stays on after the parking brake is released, the brake system has a malfunction. Immediate attention is necessary.

WARNING!
Do not drive with the parking brake on. This will cause abnormally high brake temperatures and excessive wear of the brake lining or pad, or both. It will also increase stopping distances.

If the brake warning light remains on after the parking brake is fully released, there may be a malfunction in the brake system. For more information, refer to Warnings and Indicators (page 4-18).

Brake Pad Wear Indicator (Front disc brake pads)

When the disc brake pads become worn, the built-in wear indicators will contact the disc plates, causing a screeching noise to warn the driver that the brake pads should be replaced.

If you hear a squealing or scraping noise while driving, have the brake pads checked and if necessary replaced by an Authorised Mazda Dealer as soon as possible.

WARNING!
Failure to replace the disc pads may result in damage to the brake system and adversely affect brake performance.
POWER STEERING

Power Steering*

Power steering uses energy from the engine to assist you in steering the vehicle. If the engine is off or if the power steering system becomes inoperative, the vehicle may still be steered, but it will require increased steering effort. Should you notice any change in the effort required to steer during normal vehicle operation, have the power steering system checked by an Authorised Mazda Dealer.

CAUTION

- Never hold the steering wheel against a stop (extreme right or left turn) for more than five seconds with the engine running. More than five seconds in either position may cause damage to the power steering pump.
- If the power steering drive belt breaks or if the power steering pump malfunctions, the steering effort will become hard.

*Some models.
Instrument Cluster

- Speedometer
- Turn-signal indicators
- Tachometer
- Warning and indicator lights
- Clock
- Fuel gauge
- Low fuel level warning light
- Engine temperature gauge
- Trip meter
- Odometer
- Rear fog light indicator
- High-beam indicator light
- Trip meter reset button
GAUGES

Gauges

SPEEDOMETER
The speedometer indicates the forward speed of the vehicle.

ODOMETER
The odometer indicates the total distance the vehicle has been driven.

TRIP METER
The trip meter logs the distance on each trip. It is returned to zero by pushing in the reset button. Use it also for checking fuel consumption.

ENGINE TEMPERATURE GAUGE
This gauge shows the temperature of the engine coolant when the ignition switch is ON[II].

If the gauge pointer moves beyond the normal range area toward the H position, it indicates overheating that may damage the engine.

Do not continue driving with an overheated engine. If your vehicle overheats, refer to Overheating (page 5-2).

FUEL GAUGE
The fuel gauge indicates the approximate amount of fuel remaining in the fuel tank.

The low fuel level warning light indicates that the fuel tank will soon be empty. The warning light will come on when the fuel level has dropped to about 9 litres (2.4 US gal, 2.0 Imp gal). Fill up the tank as soon as possible.

NOTE
This gauge is designed to continue indicating the amount of fuel remaining in the fuel tank even after the ignition switch has been turned to OFF.
**TACHOMETER**

The tachometer indicates the approximate number of engine revolutions per minute (rpm).

Use this while driving to select the correct shift points and prevent engine lugging and overrevving.

**CAUTION**

Do not operate the engine within the tachometer’s RED ZONE. This may cause severe engine damage.

**Instrument Panel Illumination**

When the vehicle’s parking lights or headlights are on, rotate the thumbwheel to adjust the instrument panel illumination intensity.
WARNINGS AND INDICATORS

Warning Lights/Beeps

CHECKING OPERATION
The warning lights are checked by turning the ignition switch ON (II) (do not start the engine). Any light that does not come on should be checked by an Authorized Mazda Dealer.

After starting the engine, check to make sure all warning lights are off. If any is still on, it indicates a situation that needs attention. When releasing the parking brake, the brake system warning should go off.

BRAKE SYSTEM WARNING
This warning has two functions.

Parking Brake Warning
This warning lights when the parking brake is applied with the ignition switch in the ON (II) position. The warning should go off when the parking brake is released.

Low Brake Fluid Level Warning
If the warning light remains on, it may indicate that the brake fluid level in the reservoir is low.

If it stays on:
1. Be sure the parking brake is fully released.
2. If this light is still on, drive to the side of the road and park in a safe place. 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.
3. With the engine stopped, check the brake fluid level immediately and add fluid as required (page 7-26).
4. After adding fluid, if the warning 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 off, have your brake system inspected as soon as possible.

WARNING!
Driving the vehicle with a warning light on is dangerous. If the brake warning remains on, have the brakes checked and repaired immediately.
CHARGING SYSTEM WARNING

This warning indicates a malfunction of either the alternator or the electrical charging system.

If it comes on while the vehicle is moving:
1. Drive to the side of the road and park off the right-of-way.
2. With the engine off, inspect the alternator drive belt for looseness and breakage.
3. If the belt is OK, the problem is in the electrical system. Have an Authorised Mazda Dealer find and correct it as soon as possible.

CAUTION
Do not drive the vehicle with a loose or broken alternator belt; the engine could be damaged by overheating because this belt also drives the water pump.

ENGINE OIL PRESSURE WARNING

This warning indicates that the engine oil pressure is low.

If the warning light comes on while driving:
1. Drive to the side of the road and park off the right-of-way.
2. With the engine off, check the engine oil level (page 7-16). If the level is low, add oil as required.
   - If the warning light remains on after adding oil or if oil is not available, call an Authorised Mazda Dealer.

CAUTION
If the engine is not stopped as soon as possible, severe engine damage could result.

STOP LIGHT MALFUNCTION WARNING

This warning indicates that one of the stop lights has burned out or the circuit is malfunctioning and should be repaired as soon as possible.

LOW WASHER FLUID LEVEL WARNING

If the warning light comes on, it indicates low fluid level in the windshield washer fluid reservoir. Check the level and add fluid if necessary (page 7-25).

LIGHTS-ON WARNING

If you forget to turn off the lights when stopping the engine, a beep will sound when the door is opened.
WARNINGS AND INDICATORS

ANTILOCK BRAKE SYSTEM (ABS) WARNING

This warning will come on when the ignition switch is turned to ON(II). It goes off when the engine is running. If the ABS control unit determines that some components are operating incorrectly, the control unit turns the antilock warning light on.

ABS OPERATION
The ABS control unit continuously monitors the speed of each wheel. If a wheel is about to lock up, the ABS responds by automatically releasing and re-applying the brake for that wheel. The driver may hear a "chattering" type noise from the brake system. This is a normal condition and indicates that the ABS is operating.

WARNING!
The ABS cannot compensate for unsafe or reckless driving, excessive speed, following another vehicle too closely, or hydroplaning (a condition of reduced tire friction due to water on the road). Do not rely on ABS as a substitute for safe driving techniques.

CAUTION
- If the ABS warning light remains on while the vehicle is in motion, it indicates that the ABS control unit has detected a malfunction in the system. If this occurs, the brake system will function the same as a normal brake system without ABS.
- Be aware that braking distances may be longer on loose surfaces, (such as snow or gravel), which usually lie on top of hard surfaces. A vehicle with normal braking system may require less distance to stop under these conditions. This is because the tires build up a wedge of the loose layer when the wheels are skidding. (See Illustration)
NOTE
When the engine is jump started in order to charge the battery, the engine may idle roughly, and at the same time, the anti-lock brake system warning light may flash on and off. This is due to the lack of battery capacity, and in no way indicates a malfunction in the system. Under these circumstances, you should drive the vehicle only after restoring the battery's voltage.

Indicator Lights

**HEADLIGHT HIGH-BEAM INDICATOR**
This indicator comes on when the headlights are on and in the high-beam position or when the turn-signal lever is pulled into the Flash-to-Pass position.

**REAR FOG LIGHT INDICATOR**
This indicator light comes on when the rear fog lights are operating.

**HAZARD WARNING FLASHER INDICATOR**
This indicator light comes on when the hazard warning switch is on.

**HOLD INDICATOR**
(4-speed automatic transaxle)
This indicator comes on when the hold mode is selected (page 4-10).

*Some models*
Lighting Control

To turn the lights on, twist the knob on the end of the control lever.

**First stop**
Tail, parking, and license lights and instrument panel lights ON.

**Second stop**
Head, tail, parking, and license lights and instrument panel lights ON.

**NOTE**
- When turning the knob from the first stop to the second stop, the headlights rise and come on.

- When returning the knob back to the first stop, the headlights go off and retract. If you wish to raise the headlights when the knob is at the first stop, or OFF, position, you may do so by pushing the headlight retractor switch.

**WARNING!**
*Do not operate the lighting control or headlight retractor switch if anyone's hands are near the headlights.*

Push the lever forward for high beams. Pull it back for low beams. The high-beam indicator illuminates in blue when the headlight high beams are switched on.

**NOTE**
To prevent the battery from being discharged, do not leave the lights on for a long time while the engine is not running.
Turn Signals

**FLASHING HEADLIGHTS**
Pull the lever toward you to momentarily turn on the high beam. (Headlights may be in the ON or OFF position.) The high-beam indicator in the instrument panel glows when flash-to-pass is activated. If this feature is used when headlights are not on, there is a short delay for the headlights to raise from the retracted position. When the lever is released, they will automatically retract.

The ignition switch must be ON (II).

**TURN SIGNALS**
Move the lever up or down to the stop position to engage turn signals. They will self-cancel after the turn is completed. If the indicator continues to flash after a turn, manually return the lever to the OFF (centre) position.

**LANE-CHANGE SIGNALS**
Move the lever partway and hold it there. The lever will return to the OFF (centre) position when released.

Green indicators on the instrument panel indicate which turn signal is working. If an indicator stays on and does not flash or if it flashes abnormally, one of the turn-signal bulbs may be burned out and will require replacement.
LIGHTING

Headlight Retractor

Push the switch to raise the headlights when it is necessary for ...
- Washing the vehicle
- Preventing the headlights from freezing.
- Repairing a headlight

CAUTION
- It is possible, (during very cold weather or while driving on a snow-covered road,) that the headlight retractor mechanism and the area around the headlight cover might become frozen. If this trouble occurs, do not try to raise or retract the headlights because trying to force the headlights up or down in this way might cause damage to the headlight retractor mechanism. It might also cause the battery to become discharged, or some other problem. Therefore, before attempting to raise or retract the headlights, be sure to first open the hood and break the ice.
- We recommend that the headlights be kept in the raised position for parking and driving under very cold weather.

To raise the headlights, only use the headlight retractor switch, do not use the light switch.

The ignition switch can be at any position.

For convenience sake, an independant headlight retractor switch (the headlights do not turn on) is provided. To raise or retract the headlights, push the switch.

NOTE
The headlight will not retract if headlights are already on.

WARNING!
Do not operate the headlight retractor switch if anyone's hands are near the headlights.
IF A HEADLIGHT RETRACTOR DOES NOT OPERATE
1. Turn off the ignition switch.
2. Lift the hood and open the fuse block cover by unhooking the tab on one end and tilting the cover back toward the other end.
3. Pull the RETRACTOR (30A) fuse straight out with the removal tool provided on the fuse panel cover. (Refer to page 5-6.)
4. Check the removed fuse. If it is blown, replace it with a new fuse of same rating. However, if the fuse has not blown, or if a new fuse does not solve the problem, remove the fuse and operate the headlight motor manually.

WARNING!
Always remove the RETRACTOR (30A) fuse before manually operating a headlight motor; otherwise the motor may suddenly activate.
5. Remove the cap from the top of the headlight motor, then turn the knob in the direction of the arrow (clockwise) until the headlight is fully raised or retracted.
6. Replace the cap properly.
7. Reinstall the fuse and main fuse block cover.

**WARNING!**
When installing the fuse, make sure no object is in the vicinity of the headlight retractor. It may move without notice while the fuse is being installed.

Have the system checked by an Authorised Mazda Dealer as soon as possible.

Rear Fog Lights

When visibility is poor due to thick fog, turn the rear fog lights on to prevent other vehicles from colliding into your vehicle from behind. The rear fog lights will not function when the headlight switch is not on. The indicator light comes on when the rear fog lights are on.
Running Light

In some countries, certain regulations require vehicles to be driven with lights illuminated during daytime operation. For that reason, the running lights automatically turn on when the ignition switch is turned to the ON (II) position. The running lights are switched OFF under the following conditions:
- When the light switch is turned OFF
- When flashing the headlights

Dim-dip Light

When the lighting control switch is at the first click stop position and the ignition switch is at the ON (II) position, the headlights will be automatically dimmed at a reduced intensity.

*Some models
WIPERS AND WASHER

Windshield Wipers

The ignition switch must be ON (II). To turn the wipers on, turn the knob.

**INT** — Intermittent wiper operation
**I** — Normal wiper speed
**II** — Fast wiper speed

**Variable-Speed Intermittent Wiper**
Set the knob to the INT position and choose the desired speed of the wipers by turning the ring.

**ONE-TOUCH WIPERS**
For a single wiping cycle, pull the lever down and release it with the lever in the OFF position.

*Some models.
Windshield Washer

The vehicle is equipped with either of two types of washer systems. The ignition switch must be ON (II).

Type A
Pull the lever toward you and hold it to activate the washer fluid. If the wipers are in the OFF or INT position, they will automatically turn on and wipe for 1 to 3 cycles after the lever is released.

Type B
Pull the lever toward you and hold it to activate the washer fluid. To activate the wipers, pull the lever down.

If the washer does not work, check the washer fluid level (page 7-27), which may be low. If the fluid level is sufficient, consult an Authorised Mazda Dealer.

WARNING!
Do not use the washer in freezing temperature without first warming the windshield with the defroster; the washer solution may freeze on the windshield and obscure your vision.

CAUTION
To prevent possible damage to the wiper arms and other components, do not attempt to move the wipers manually.
WIPERS AND WASHER

Rear Window Wiper and Washer

The ignition switch must be in the ON(I) position.

- To turn on the rear wiper, turn the ring to INT. The wiper wipes for 3 cycles, then pauses for 14 seconds. It repeats wiping cycle after each 14-second interval.
- To spray washer fluid, turn the ring to the position. The wiper activates automatically, and after the ring is released, it will wipe 2 cycles and stop.

NOTE
The wiper lever has two positions: one up and one down. Either can be used.

CAUTION
- To prevent possible damage to the wiper or window, do not operate the wiper when the window is dry.
- To prevent damage to the wiper blade, do not use gasoline, kerosene, paint thinner, or other solvents on or near it.
- To prevent damage to the wiper arm or other components, do not attempt to move the wiper manually.
- To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.

if the washer does not work, check the washer fluid level, which may be low (page 7-27). If the fluid level is sufficient, consult an Authorised Mazda Dealer.

WARNING!
Do not use the washer in freezing weather without first warming the window with the defroster; the washer solution may freeze on the window and obscure your vision.

HEADLIGHT WASHER

To clean the headlights, push the switch with the ignition switch in the ACC(I) or ON(I) position.

CAUTION
Do not operate washer for more than 10 seconds.

4-30  *Some models.
REAR WINDOW DEFROSTER

Rear Window Defroster

This defroster clears frost, fog, and thin ice from the interior and exterior of the rear window.

The ignition switch must be ON(II).

If there is a heavy accumulation of snow on the rear window, brush it off.

Depress the switch to operate the rear window defroster.

The indicator comes on when the rear window defroster is on.

CAUTION
To prevent damage to the conductors bonded to the inside surface of the rear window, never use sharp instruments or window cleaners containing abrasives.

NOTE
- The rear defroster is switched off automatically after 10—20 minutes. To reactivate the defroster, simply push the switch again.
  The indicator light illuminates when the rear window defroster is operating.
- To prevent the battery from being discharged, operate the defroster only while the engine is running.
INTERIOR FEATURES

Clock

The clock normally displays time. When the knob is pressed, the date is displayed for 6 seconds with the ignition switch in ACC(I) or ON(II) position. When the instrument panel illumination is on, the intensity of the display will be reduced.

Time setting
Turn the knob counterclockwise and hold it until the hour advances to the desired time. Turn the knob clockwise and hold it until the minute advances to the desired time.

NOTE
When the time is being set, a bar flashes on the left end of the display. The upper bar indicates a.m., the lower bar indicates p.m.

Reset
To clear away minutes, pull the knob. The clock will be set precisely on the hour. If the knob is pulled while the time is from 9:01 to 9:29, the time will be reset to 9:00. If pulled while it is at 9:30 to 9:59, the display will be reset to 10:00. This procedure is useful when you want to set the clock against a radio broadcast time signal.

Date setting
While date is on the display, turn the knob counterclockwise and hold it until the month advance to the desired date. Turn the knob clockwise and hold it until the day advance to the desired date.

NOTE
When the electrical power source is disconnected from the clock, the time is automatically set at 1:00 and the date at 1/1 (January 1).
Cigarette Lighter

To operate the cigarette lighter, press it in and release it. When it is heated, it automatically pops out ready for use. If the engine is not running, the ignition switch must be at ACC(i) for the lighter to operate.

CAUTION

- Do not hold the lighter in manually because it will become overheated.
- Only a genuine Mazda lighter or equivalent should be used in the cigarette lighter socket. The use of plug-in accessories (shavers and coffee-pots, for example) may damage the socket or cause electrical failure.

- If the lighter does not pop out within 30 seconds, remove it to prevent overheating.

Ashtrays

FRONT ASHTRAY

To open the ashtray, push the release catch. The ashtray should pop open automatically. To remove the ashtray, open it to the normal position, hold the lid firmly and pull the ashtray all the way out. After using the ashtray, push it in fully.

WARNING!

Do not use the vehicle’s ashtrays as waste receptacles. Putting lit cigarettes or matches in an ashtray with other combustible materials may cause a fire.

4-33
**INTERIOR FEATURES**

**Glove Box**
To open the glove box lid, pull the latch toward you.
If the glove box has lockable lid, insert the key into the slot; then turn the key clockwise to lock, counterclockwise to unlock.

**WARNING!**
To reduce the chance of injury in case of an accident or a sudden stop, always keep the glove box lid closed while driving.

**Sunvisors**
To use a sunvisor, pull it downward.
To use a sunvisor at a side window, pull it downward and swing it to the side.

**REAR ASHTRAY**
To remove, open the cover and pull the ashtray upward.

**WARNING!**
Do not use the vehicle’s ashtrays as waste receptacles.
Putting lit cigarettes or matches in an ashtray with other combustible materials may cause a fire.
Vanity Mirror

To use the vanity mirror, pull down the
visor.

Armrest (Rear seat)

To use the armrest, pull it down.

Coat Hook

WARNING!
Do not hang anything on the coat
hook that might obstruct the driver's
view.
Footrest
(Right-hand drive model)

A convenient footrest is provided for the driver's left foot.
Climate Control Features

Right-hand drive model

Side vent  Vents  Side vent
Air-conditioner switch*  Climate control  Lap louver  Vent

Left-hand drive model

Side vent  Vents  Side vent
Air-conditioner switch*  Climate control panel  Lap louver  Vent

Temperature lever  Air intake selector
Function selector  Fan switch

* Some models.

4-37
CLIMATE CONTROL SYSTEM

Controls

**FAN SWITCH**
This switch allows variable fan speeds.
- OFF — Fan off
- 1 — Low speed
- 2 — Medium speed
- 3 — High speed
- 4 — Superhigh speed

**TEMPERATURE LEVER**
This lever controls air temperature by sliding the lever either to the right for hot or to the left for cold.

**AIR INTAKE SELECTOR**
This selector controls the source of air entering the vehicle. It is recommended that under normal conditions the lever be kept in the outside air position.

*Recirculated Air Position*
Outside air is shut off. Air within the vehicle is recirculated. This position can be used when driving on a dusty road or in similar conditions to help prevent undesirable outside air from entering the vehicle.
Outside Air Position
Air enters the system from outside the vehicle. This position is used for normal ventilation and heating.

WARNING!
Continued operation in the outside position allows a humidity buildup inside the vehicle and may fog the glass.

FUNCTION SELECTOR
This selector is used to select the flow of air from vents.

Face Position
The air is directed toward the face(s). Each vent has an individual control that can be used to direct the air discharged from the vent. Warm, cool, or fresh air is directed through the vents.
**Face-Floor Position**
The air is directed toward the face(s) and the floor.
The air to the floor is warmer than to the face(s) (except when the temperature lever is set to the extreme left position).

**Floor Position**
Most of the air is delivered to the floor; a small amount is delivered to the windshield and side vents.

**Floor-Defroster Position**
Most of the air is delivered to the floor and the windshield; a small amount is delivered to the side vents.
Defroster Position
Most of the air is delivered to the windshield; a small amount is delivered to the side vents.

AIR-CONDITIONER SWITCH*  
Right-hand drive model
Push the A/C switch to turn the air-conditioner on. An indicator light on the switch will illuminate when the fan switch is on. For moderate cooling, also push the ECO switch, if desired. Push the A/C switch once again to turn the air conditioner off.

NOTE
For MAX cooling, push only the A/C switch and set the air intake selector to the horizontal position and the fan switch to position 4.

Left-hand drive model
Push the switch to turn the air conditioner on. An indicator light on the switch will illuminate when the fan switch is on. Push the switch once again to turn the air conditioner off.

NOTE
Whenever service to the air-conditioning system is required, make sure the service facility uses a refrigerant recycling system. These systems will capture the refrigerant for reuse. Releasing refrigerant into the atmosphere can damage our environment.

*Some models.
CLIMATE CONTROL SYSTEM

System Operation

Operating Tips for Air-Conditioner System

- If the vehicle has been parked in direct sunlight during hot weather, open the windows to let warm air escape before operating the air conditioner.
- To clean misted windows on rainy days, decrease the humidity inside the vehicle by operating the air conditioner.

VENTILATION

1. Set the function selector to the face position.
2. Set the air intake selector to the position.
3. Set the temperature lever to the desired position.
4. Set the fan switch to the desired speed.

HEATING

1. Set the function selector to the floor position.
2. Set the air intake selector to the position.
3. Set the temperature lever to the right position.
4. Set the fan switch to the desired speed.
5. If dehumidified heating is desired, turn on the air conditioner.
NOTE
• If cool air is desired at face level, set the function selector to the position.
• If the windshield fogs up easily, set the function selector to the position.

COOLING® (Air Conditioning)
1. Start the engine. Turn the air conditioner on.
2. Set the function selector to the face position.
3. Set the air intake selector to the or position.
4. Set the temperature lever to the left desired position.
5. Set the fan switch to the desired speed.
6. Adjust the fan switch and temperature lever to maintain maximum comfort.

NOTE
• If warmer air is desired at floor level, set the function selector to the position and adjust the temperature lever to maintain maximum comfort.
• When maximum cooling is desired, set the temperature lever to the extreme left position and set the air intake selector to the position, then set the fan switch to the 4 position.

CAUTION
When using the air conditioner while driving up long hills or in heavy traffic, closely monitor the temperature gauge. The air conditioner may cause engine overheating. If the gauge indicates overheating, turn the air conditioner off. (Refer to Overheating on page 5-2.)

WARNING!
Do not use the position during cool operation in extremely humid weather. The difference between the temperature of outside air and that of the windshield could cause the outer surface of the windshield to fog up causing loss of vision.

*Some models.
WINDSHIELD DEFROSTING

1. Set the function selector to the position.
2. Set the air intake selector to the position.
3. Set the temperature lever to the desired position.
4. Set the fan switch to the desired speed.
5. If dehumidified heating is desired, turn on the air conditioner.

NOTE
- For maximum defrosting, set the temperature lever to the extreme right position and the fan switch to the position 4.
- If warm air is desired at floor, set the function selector to the position.

NOTE
- Clear all ice and snow from the windshield, rear window, outside rearview mirrors, and all side windows before driving.
- Clear all snow and ice from the hood and the air inlet in the cowling grille to improve heater and defroster efficiency and to reduce the probability of fogging on the inside of the windshield.
Vents

The vents may be opened or closed by rotating the wheels.

Lap Louver

Rotate the louver up or down for vertical adjustment. Shut off the air by turning the louver all the way up.

* Some models
In Case of Emergency

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ROAD WARNING, OVERHEATING

Hazard Warning Flasher

The hazard warning flasher serves as a warning to other drivers to exercise extreme caution when approaching, overtaking, or passing your vehicle. It should be used whenever emergency repairs are being made or when the vehicle is stopped near the edge of a roadway.

Depress the flasher switch with the ignition switch in any position and all turn-signal lights will flash simultaneously.

NOTE
- The turn signals do not work when the hazard flasher is on.
- Care must be taken when using the hazard warning flasher while the vehicle is being towed. Local regulations may prohibit using it in this manner.

Overheating

If your temperature gauge indicates overheating, if you experience a loss of power, or if you hear a loud knocking or ping noise, the engine has probably overheated. You should follow these procedures if you experience any of these signals.

1. Drive safely to the side of the road and stop your vehicle; set the automatic transaxle in P (Park), or shift the manual transaxle to neutral and apply the parking brake.
2. Make sure the air conditioner is off.
3. If coolant or steam is boiling out of the radiator, stop the engine. Then turn the ignition switch to the ON(II) position, but do not start the engine. The radiator cooling fan will automatically operate with the ignition switch in the ON(II) position. If the cooling fans do not operate, call an Authorised Mazda Dealer for assistance.
   If coolant is not boiling out, allow the engine to idle and open the hood to permit the engine to cool gradually.
   If the temperature does not go down with the engine idling, stop the engine and allow sufficient time for it to cool.
Jump-Starting

4. The coolant level should then be checked. If the level in the reservoir is low, look for leaks at the radiator hoses and connections, heater hoses and connections, radiator, and water pump. If you find a major leak or another problem that may have caused the engine to overheat, do not run the engine until it has been corrected. Call an Authorised Mazzia Dealer for assistance. If you do not find a leak or other problem, carefully add coolant to the reservoir (page 7-18).

Jump-starting can be dangerous if done incorrectly. Therefore, to avoid harm to yourself or damage to your vehicle or battery, follow jump-starting procedures on the next page. If in doubt, we strongly recommend that you have a competent mechanic or a road service business do any jump-starting of your vehicle.

CAUTION
Use only a 12-volt jumper system. You can damage a 12-volt starting motor, ignition system, and other electrical parts beyond repair by use of a 24-volt power supply (two 12-volt batteries in series or a 24-volt motor generator set).

WARNING!
• Keep all flames away from the top of open battery cells, and avoid creating any sparks near the cells.
• Gas that can be exploded by a flame or a spark is produced during normal battery operation.
• Do not attempt a jump-start if the discharged battery is frozen or if the fluid level is low; the battery may rupture or explode.

WARNING!
Do not remove the radiator cap when the engine and radiator are hot. Scalding hot coolant and steam may blow out under pressure. This could cause serious injury.

CAUTION
If the engine frequently overheats, have the cooling system checked and repaired.
JUMP-STARTING PROCEDURE

1. Make sure the booster battery is 12-volt and that its negative terminal is grounded.
2. If the booster battery is in another vehicle, do not allow the vehicles to touch.
3. Turn off all unnecessary electrical loads.
4. Connect the jumper cables in the exact sequence in the illustration. First connect one end of a jumper cable to the positive terminal of the discharged battery, then the other end to the positive terminal on the booster battery. Next connect one end of the other jumper cable to the negative terminal of the booster battery, then the other end to a solid, stationary, metallic point (for example, the engine lifting bracket) away from the battery. Do not connect it to or near any part that moves when the engine is cranked and NOT TO THE BATTERY NEGATIVE (−) TERMINAL, being careful that the clamps from one cable do not touch the clamps on the other cable or any metal on either vehicle. Do not lean over the battery when making connections.
5. Start the engine of the vehicle with the booster battery and let it run a few minutes. Then start the engine of the vehicle with the discharged battery.
6. Carefully disconnect the cables in the exact reverse order described in step 4.
EMERGENCY STARTING, ELECTRICAL CIRCUIT PROTECTION

Push-Starting

A vehicle with an automatic transaxle cannot be started by pushing. Gasoline engine models (with a catalytic converter) with a manual transaxle should not be push-started because it might damage the emission control system. Follow the directions on the previous page for jump-starting. Gasoline engine models (without a catalytic converter) with a manual transaxle may be push-started. To start your vehicle by pushing, providing the battery is not completely discharged, you must carefully follow these steps on how to prepare and operate the vehicle being pushed.

1. Turn off all unnecessary electrical accessories.
2. Turn the ignition switch to the ON(II) position.
3. Depress the clutch pedal and shift the gearshift lever to third before being pushed.
4. Slowly release the clutch pedal when vehicle speed reaches about 15 km/h (9 mph) and depress the accelerator halfway until the engine starts.

CAUTION
Never tow a vehicle to start it because the sudden surge forward when the engine starts could cause a collision with the tow vehicle.

Fuses

A vehicle’s electrical system is protected from over-load damage by fuses and a circuit breaker. The vehicle has two fuse panels—one on the driver’s side of the fire wall, the other in the engine compartment near the battery. If any of your vehicle’s lights, accessories, or controls do not work, check the appropriate circuit protector. If a fuse has blown, the wire inside it will be melted.

Always replace a blown fuse with one of the same rating. If the same fuse blows again, avoid using the system involved and immediately consult an Authorized Mazda Dealer.

NOTE
Two kinds of fuses are used: standard for lower amperage rating and main for higher.

5-5
FUSE REPLACEMENT

CAUTION

- Never replace a fuse with anything but another fuse of the same rating. A higher-capacity fuse could cause damage and even start a fire.
- Never install a wire instead of the proper fuse—even for a temporary repair. It may cause extensive wiring damage and possibly a fire.
- Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.

If the electrical system does not work, first check the driver’s side fuses.
1. Turn off the ignition switch and all other switches.
2. Pull the suspected fuse straight out with the removal tool provided on the fuse panel cover.
3. Check the removed fuse; replace if it is blown.

4. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, have an Authorised Mazda Dealer fix it.

NOTE

Three kinds of spare fuses are attached to the fuse cover. If you do not have a spare, use a fuse of the same rating from a circuit you may not need for operating the vehicle, such as the radio or clock (ROOM).
If the headlights or other electrical components do not work and the fuses are OK, check the fuse block in the engine compartment. If a fuse is blown, it must be replaced.

1. Turn off the ignition switch and all other switches.
2. Open the fuse block cover by unhooking the tab on one end and tilting the cover back toward the other end.
3. Check the fuses. If one is blown, replace it with a new one of the same rating.

If the 80A fuse is blown, it must be removed as follows.
1. Disconnect the negative battery cable.
2. Remove nuts (A).
3. Lift the fuse block and remove bolts (B).
4. Replace the fuse with a new one of the same rating.
5. Install in the reverse order of removal.

Circuit breaker
The climate control systems require high amperage. If the rated amperage is exceeded, a protective circuit breaker will open. If the circuit is broken by the circuit breaker, turn all heater and air-conditioner switches off and restore the circuit by pushing the reset button. If it breaks again, have it inspected by an Authorised Mazda Dealer.
## ELECTRICAL CIRCUIT PROTECTION

### Fuse Panel Description

**Fuse block**

```
1 2 3 4 5 6
7 8 9 10
```

<table>
<thead>
<tr>
<th>#</th>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PTC</td>
<td>30A</td>
<td>Pink</td>
<td>PTC heater</td>
</tr>
<tr>
<td>2</td>
<td>HEAD</td>
<td>30A</td>
<td>Pink</td>
<td>Headlights</td>
</tr>
<tr>
<td>3</td>
<td>MAIN</td>
<td>80A</td>
<td>Black</td>
<td>For protection of all circuits</td>
</tr>
<tr>
<td>4</td>
<td>BTN</td>
<td>60A</td>
<td>Yellow</td>
<td>HAZARD, ROOM, DOOR LOCK, STOP and TAIL fuses, Alternator</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>COOLING FAN</td>
<td>30A</td>
<td>Pink</td>
<td>Cooling fan</td>
</tr>
</tbody>
</table>

### FUSE BLOCK (ENGINE COMPARTMENT)

#### Carburetor model

<table>
<thead>
<tr>
<th>#</th>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>AD FAN*</td>
<td>20A</td>
<td>Yellow</td>
<td>Additional cooling fan for air conditioner</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>RETRACTOR</td>
<td>30A</td>
<td>Green</td>
<td>Headlight retractor</td>
</tr>
</tbody>
</table>

### Fuel injection model

<table>
<thead>
<tr>
<th>#</th>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FUEL INJ</td>
<td>30A</td>
<td>Pink</td>
<td>Fuel-injection system</td>
</tr>
<tr>
<td>2</td>
<td>HEAD</td>
<td>30A</td>
<td>Pink</td>
<td>Headlights</td>
</tr>
<tr>
<td>3</td>
<td>MAIN</td>
<td>80A</td>
<td>Black</td>
<td>For protection of all circuits</td>
</tr>
<tr>
<td>4</td>
<td>BTN</td>
<td>60A</td>
<td>Yellow</td>
<td>HAZARD, ROOM, DOOR LOCK, STOP and TAIL fuses, Alternator</td>
</tr>
<tr>
<td>5</td>
<td>ABS*</td>
<td>60A</td>
<td>Yellow</td>
<td>Antilock brake system</td>
</tr>
<tr>
<td>6</td>
<td>COOLING FAN</td>
<td>30A</td>
<td>Pink</td>
<td>Cooling fan</td>
</tr>
<tr>
<td>7</td>
<td>AD FAN*</td>
<td>20A</td>
<td>Yellow</td>
<td>Additional cooling fan for air conditioner</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>ST SIGN</td>
<td>10A</td>
<td>Red</td>
<td>Engine control unit</td>
</tr>
<tr>
<td>10</td>
<td>RETRACTOR</td>
<td>30A</td>
<td>Green</td>
<td>Headlight retractor</td>
</tr>
</tbody>
</table>

---

*Some models.*
## ELECTRICAL CIRCUIT PROTECTION

### FUSE PANEL (FIRE WALL)

Right-hand drive model

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A REAR WIPER*</td>
<td>10A</td>
<td>Red</td>
<td>Rear wiper and washer</td>
</tr>
<tr>
<td>B HAZARD</td>
<td>10A</td>
<td>Red</td>
<td>Hazard warning lights</td>
</tr>
<tr>
<td>C ROOM</td>
<td>10A</td>
<td>Red</td>
<td>Interior lamp, Luggage compartment lamp</td>
</tr>
<tr>
<td>D ENGINE</td>
<td>15A</td>
<td>Blue</td>
<td>Engine control system</td>
</tr>
<tr>
<td>E RADIO</td>
<td>15A</td>
<td>Blue</td>
<td>Radio (Cassette tape player), Clock, Cigarette lighter, Electric control mirror</td>
</tr>
<tr>
<td>F DOOR LOCK*</td>
<td>30A</td>
<td>Green</td>
<td>Power door lock</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>G DIM. DIP*</td>
<td>7.5A</td>
<td>Brown</td>
<td>Dim-dip lights</td>
</tr>
<tr>
<td>H POWER WIND*</td>
<td>30A</td>
<td>Green</td>
<td>Power windows</td>
</tr>
<tr>
<td>I METER</td>
<td>10A</td>
<td>Red</td>
<td>Gauges, Back-up lights, Turn signals</td>
</tr>
<tr>
<td>J WIPER</td>
<td>20A</td>
<td>Yellow</td>
<td>Windshield wipers and washer</td>
</tr>
<tr>
<td>K STOP</td>
<td>15A</td>
<td>Blue</td>
<td>Stoplights, Horn</td>
</tr>
<tr>
<td>L TAIL</td>
<td>10A</td>
<td>Red</td>
<td>Taillights, Parking lights, Instrument cluster illumination, License plate light</td>
</tr>
<tr>
<td>M SUN ROOF*</td>
<td>15A</td>
<td>Blue</td>
<td>Sunroof</td>
</tr>
<tr>
<td>N ABS*</td>
<td>10A</td>
<td>Red</td>
<td>Anti-lock brake system</td>
</tr>
<tr>
<td>P R.FOG*</td>
<td>10A</td>
<td>Red</td>
<td>Rear fog lights</td>
</tr>
</tbody>
</table>

### Circuit breaker

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>G HEATER</td>
<td>30A</td>
<td>—</td>
<td>Heater fan motor</td>
</tr>
<tr>
<td>R R.DEF</td>
<td>30A</td>
<td>—</td>
<td>Rear window defroster</td>
</tr>
</tbody>
</table>

*Some models.

5-9
## Electrical Circuit Protection

### Left-hand drive model

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A REAR WIPER*</td>
<td>15A</td>
<td>Blue</td>
<td>Rear wiper and washer</td>
</tr>
<tr>
<td>B HAZARD</td>
<td>15A</td>
<td>Blue</td>
<td>Hazard warning lights</td>
</tr>
<tr>
<td>C ROOM</td>
<td>10A</td>
<td>Red</td>
<td>Interior lamp, luggage compartment lamp</td>
</tr>
<tr>
<td>D ENGINE</td>
<td>15A</td>
<td>Blue</td>
<td>Engine control system</td>
</tr>
<tr>
<td>E RADIO</td>
<td>15A</td>
<td>Blue</td>
<td>Radio (Cassette tape player), clock, cigarette lighter, electric control mirror</td>
</tr>
<tr>
<td>F DOOR LOCK*</td>
<td>30A</td>
<td>Green</td>
<td>Power door lock</td>
</tr>
<tr>
<td>G SEAT WARMER*</td>
<td>15A</td>
<td>Blue</td>
<td>Seat warmer</td>
</tr>
<tr>
<td>H POWER WIND*</td>
<td>30A</td>
<td>Green</td>
<td>Power windows</td>
</tr>
<tr>
<td>I METER</td>
<td>15A</td>
<td>Blue</td>
<td>Gauges, back-up lights, turn signals</td>
</tr>
<tr>
<td>J WIPER</td>
<td>20A</td>
<td>Yellow</td>
<td>Windshield wipers and washer</td>
</tr>
<tr>
<td>K STOP</td>
<td>10A</td>
<td>Red</td>
<td>Stoplights, horn</td>
</tr>
<tr>
<td>L TAIL</td>
<td>15A</td>
<td>Blue</td>
<td>Tail lights, parking lights, instrument cluster illumination, license plate light</td>
</tr>
<tr>
<td>M SUN ROOF*</td>
<td>15A</td>
<td>Blue</td>
<td>Sunroof</td>
</tr>
<tr>
<td>N ABS*</td>
<td>10A</td>
<td>Red</td>
<td>Anti-lock brake system</td>
</tr>
</tbody>
</table>

### Circuit breaker

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>FUSE RATING</th>
<th>COLOUR</th>
<th>PROTECTED COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>O RUN LIGHT*</td>
<td>15A</td>
<td>Blue</td>
<td>Running light</td>
</tr>
<tr>
<td>P HEAD CLEANER*</td>
<td>30A</td>
<td>Green</td>
<td>Headlight cleaner</td>
</tr>
<tr>
<td>Q HEATER</td>
<td>30A</td>
<td>—</td>
<td>Heater fan motor</td>
</tr>
</tbody>
</table>

* Some models.

---

5-10
Towing

With either automatic or manual transaxle:
1. Set the ignition switch in the ACC(I) position;
2. Place the selector lever or shift lever in N (Neutral);
3. Release the parking brake.

**CAUTION**
Do not tow with sling-type equipment.
Use wheel lift or flat bed equipment.

As a general rule, towed vehicles should be pulled with the driving wheels (front wheels) off the ground.

If excessive damage or other conditions prevent towing the vehicle with the driving wheels off the ground, use wheel dollies.

If towing is necessary, we recommend having it done by an Authorised Mazda Dealer or a commercial tow-truck service. Proper lifting and towing procedures are necessary to prevent damage to the vehicle. Government laws applicable to vehicles in tow must be followed.
If it is necessary to tow the vehicle with all wheels on the ground, the vehicle may be towed only forward at LESS than 56 km/h (35 mph) and for a MAXIMUM distance of 80 km (50 miles). Failure to observe this rule could result in transaxle damage.

**NOTE**
If towing speed must exceed 56 km/h (35 mph) or if the towing distance must exceed 80 km (50 miles), your vehicle must be towed with the driving wheels off the ground or carried by flat bed truck.

The following points are important when towing a vehicle with all wheels on the ground:

With either automatic or manual transaxle:
1. Set the ignition switch in the ACC( ) position;
2. Place the selector lever or shift lever in N (Neutral);
3. Release the parking brake.

**CAUTION**
Remember that the power assist for the brakes and steering will not be available when the engine is inoperative.

**Towing Hook**
The towing hook should be used only in an emergency situation (for example, to pull the vehicle out of a ditch, a snow bank, or mud). When the towing hook is used, always pull the cable or chain in a straight direction with respect to the hook. Do not apply force to the hook from any side direction. To prevent damage, do not take up slack in the cable or chain too quickly.

**CAUTION**
To use the towing hook, the running light* has to be removed by removing the mounting screw and disconnecting the connector.

*Some models.
CAUTION
Do not use the hook loops under the front of the vehicle for towing purposes. These hook loops are designed ONLY for transport tiedown. If tiedown hook loops are used for towing, the front bumper will be damaged.
IF YOU HAVE A FLAT TYRE

Storing Tyre, Jack and Tool

The spare tyre, tool bag, jack, and jack handle are stored in the luggage compartment.

To remove the jack:
Turn the wing bolt counterclockwise.
Spare tyre

Either the conventional spare tyre or the temporary spare tyre is provided.

CONVENTIONAL SPARE TYRE
This is the same type and size of tyre that is mounted on your vehicle as original equipment. It may be used as a spare or as one of the tyres used for the normal tyre rotation.

To remove spare tyre:
Turn the tyre-hold down bolt counterclockwise with the wheel lug wrench.

Store jack and tyre in the reverse order of removal.

NOTE
To prevent the jack, jack handle, and tool bag from rattling while the vehicle is in motion, store them properly.

TEMPORARY SPARE TYRE
This tyre is smaller than a conventional tyre and is designed for emergency use only. This spare tyre should be used only for VERY short periods. Temporary spares should NEVER be used for long drives or extended periods.

When using the temporary spare tyre, observe the following precautions:
- Any continuous road use of this tyre could result in tyre failure, loss of vehicle control, and possible personal injury.
- Do not exceed the vehicle's maximum load rating or the load-carrying capacity moulded on the sidewall of the temporary spare tyre.
- Under no circumstance should you exceed 80 km/h (50 mph); a higher speed could damage the tyre.
- Avoid driving over obstacles. Also, do not take the vehicle through an automatic car wash. Because this tyre's diameter is smaller than the diameter of a conventional tyre, the ground clearance is reduced approximately 25mm (1 in).
IF YOU HAVE A FLAT TYRE

Changing Tyres

JACKING INSTRUCTIONS
The jack is provided for emergency tyre changing only. Follow jacking instructions to reduce the possibility of personal injury.

• Never get beneath the vehicle while using the jack.
• Do not start or run the engine while the vehicle is on the jack.

WARNING!
• Never attempt vehicle repairs in the traffic lanes of a public road or highway. Always move the vehicle completely off the road and onto the shoulder before trying to change a tyre. If you cannot find a firm, level place off the road, call a road service company for assistance.
• Do not exceed the jack's maximum permissible load: 600 kg (1,320 lbs).
• Be sure to use the correct front and rear jacking positions on the vehicle; never use the bumpers or any other part of the vehicle for jack support.

• Do not use a tyre chain on this tyre. Because of its smaller size, a tyre chain will not fit properly. This could cause damage to the vehicle and result in loss of the chain.
• The tyre should not be installed on the front axle if the vehicle must be driven in snow or on ice.
To avoid loss of vehicle control under snowy and icy conditions, install the temporary spare tyre on the rear axle and use a conventional tyre on the front axle.
• Do not use the temporary spare tyre on any other vehicle because this tyre has been designed especially for your vehicle.
• Use only one temporary spare tyre.
TYRE REPLACEMENT
1. Park on a level surface and set the parking brake firmly.
2. Set the automatic transaxle in P (Park), or shift the manual transaxle into R (Reverse).

WARNING!
When one front wheel is lifted off the ground, neither the automatic transaxle P (Park) position nor the manual transaxle R (Reverse) position will prevent the vehicle from moving and possibly slipping off the jack, even if these positions are properly engaged. To prevent vehicle movement while changing a tyre, always set the parking brake fully, and always block the wheel diagonally opposite the wheel being changed.

3. Activate the hazard warning flasher.
4. Remove the lug wrench, jack, jack handle, and spare tyre from the vehicle.
5. Block both the front and rear of the wheel that is diagonally opposite the jack position.
6. If vehicle has wheel covers, use the removal tool* or another suitable tool to remove the cover from the wheel with a flat tyre.

NOTE
To prevent scratching the wheel when removing the cover, put a piece of cloth or heavy paper between the tool and the wheel.

* Some models
IF YOU HAVE A FLAT TYRE

7. Loosen the lug nuts counterclockwise one turn each, but do not remove any nut until the tyre has been raised off the ground.

8. Place the jack at the front or rear jacking position closest to the tyre you are changing. Place the jack under the side sill.

WARNING!
To reduce the possibility of injury, be sure to use only the jack provided with the vehicle and the correct jacking position; never use any other part of the vehicle for jacking support.

9. Insert the jack handle into the jack and turn it clockwise until the tyre just clears the ground, less than 30mm (1.2 inch). Make sure the vehicle is stable and that there is no chance for it to slip or move.

10. Remove the lug nuts by turning them counterclockwise, and then remove the wheel.

11. Mount the spare tyre into position and tighten the lug nuts by hand.

12. Install the lug nuts with the bevelled edge inward; then tighten them by hand.
IF YOU HAVE A FLAT TYRE

WARNING!
Your vehicle has metric threads on the wheel studs and nuts. Make certain during wheel removal that the same nuts removed are reinstalled or, if replaced, that nuts with metric threads and the same chamfer configuration are used. Installation of a nonmetric thread nut on a metric stud or vice versa will not properly secure the wheel to the hub and will damage the stud so that it must be replaced. Be sure to use extreme care in checking for thread style before installing aftermarket lug nuts or wheels. If in doubt, consult an Authorised Mazda Dealer. Damaged studs may result in wheel loss and personal injury.

CAUTION
Check the inflation pressure as soon as possible after installing the spare tyre. Adjust it to the specified pressure, if necessary.
Refer to Section 9.

NOTE
To prevent the jack, jack handle, tool bag, and spare tyre from rattling while the vehicle is in motion, store them properly.
EXTERIOR CARE

Exterior General Caution

Finish Maintenance

It is very important to follow label directions when using any chemical cleaner or polish. Read all warning and caution statements that appear on the label.

1. Damage to the vehicle's finish can be caused by small deposits of dirt, insects, tree sap, chemicals and bird droppings. Prompt removal of these deposits will preserve the vehicle's finish. A mild car wash soap should be used; avoid using strong soaps or chemical detergents.

2. Wash your Mazda by hand, using plenty of water and a mild car wash soap. When using an automatic car wash, choose one without excessive brush pressure, and an ample supply of rinse water.

3. Wash away the detergent using plenty of clean water. The water used for washing and rinsing should be cold or lukewarm.

4. To help protect your vehicle from rust and deterioration, wash it thoroughly and frequently (at least once a month), paying particular attention to the removal of any accumulation of salt, dirt, mud, or other materials from the underside of the fenders. Remove these completely from the underbody by using a stream of water. If the mud is difficult to remove, use a mild soap or a car-washing detergent.

5. After soaping, rinse the vehicle thoroughly with lukewarm or cold water. Do not allow the soap to dry on the finish. In addition, the painted and bright metal exterior surfaces of your vehicle should be coated with a good quality wax.

CAUTION

- Do not wash or wax in direct sunlight.
- Washing the vehicle should be delayed if the body is hot. If not, water spots may form on the paint surface.
- Do not use hot water. It is best to use cool to lukewarm water to prevent damaging the paint.
- Wiping off dust or dirt with a dry cloth may scratch the finish.
- When cleaning plastic wheel covers, wash with plenty of water. Use a sponge, chamois, or soft cloth to prevent scratching or damaging the finished surface.
- Wipe the vehicle dry using a chamois to avoid water spots.
**Polishing and Waxing**

1. The vehicle should be washed and dried before being waxed.
2. Use wax which contains no abrasives. Waxes containing large amounts of abrasive will remove paint and may etch or otherwise damage bright metal parts.
3. Use a good grade of carnauba wax for metallic, mica and solid dark colours.
4. When waxing, coat evenly with the supplied sponge or a soft cloth.
5. Wipe the vehicle using soft cloth such as flannel.

**Paint Damage Touch-up**

- Repair damage in coated film caused by stone chipping, damage during parking etc., by using Mazda touch-up paint immediately after removing the dirt and grease with a clean soft cloth, before rust begins to form.
- If rust has already begun to form:
  1. Remove rust completely with sandpaper, etc.
  2. Wipe with a clean soft cloth.
  3. Apply rust preventive primer to the area.
  4. Apply a suitable top coat material to the area.
- Of course there will be no problem if you assign the work to an Authorised Mazda Dealer.
EXTERIOR CARE

Cavity Protection

Cavities are treated for protection at the factory, but additional protective treatment after the vehicle has been put into use will extend the life of the body. We recommend that you consult an Authorised Mazda Dealer concerning this additional precaution.

Bright-Metal Maintenance

- Use tar remover and not knives or other sharp objects to remove road tar and insects.
- To protect the surfaces of bright-metal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.
- During winter weather or in coastal areas, cover the bright-metal parts with a heavier coating of wax or preservative. If necessary, coat the parts with noncorrosive petroleum jelly or other protective compound.

CAUTION
Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.

Undercoating

This special coating is applied to the critical parts of the underside to protect vehicles from damage caused by chemicals or stones. This coating is liable to be damaged as the vehicle is used. Consequently, check this coating periodically and, if damage is found, repair it.

In this connection, Mazda Dealers are well informed on how repairs should be made. We recommend that you consult with a Mazda Dealer.

WARNING!
After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water.
Aluminum Wheel Maintenance

The aluminum wheels are coated with a clear protective finish.

**NOTE**
- Do not use any abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum wheels. These may scratch or damage the finish.
- Use only a mild soap or neutral detergent, and rinse thoroughly with water. Also, be sure to clean the wheels after driving on salted roads. This helps prevent corrosion.
- Avoid washing the wheels with high-speed car-wash brushes.

Interior General Precautions

Prevent caustic solutions such as perfume and cosmetic oil from contacting the dashboard because they may cause damage or discoloration. If they do contact the dashboard, wipe them off immediately.

Cleaning Interior and Floor

Rust begins to form not only from the outside but also from the inside. Water, humidity, salt, mud, etc. collect under the mat in the luggage compartment, so rust could begin from there. Periodically dry the floor after removing the accumulations of mud and deposits of salt which rapidly attach metal. If you place or carry de-icing salt, fertilizer, chemicals etc. in the luggage compartment or elsewhere, take every possible precaution to be sure that they do not adhere to the floor or fall onto the floor.
**INTERIOR CARE**

**Upholstery and Interior Trim Cleaning**

**VINYL**
Remove dust and loose dirt from vinyl with a whisk broom or vacuum cleaner. Clean vinyl surfaces with a leather and vinyl cleaner.

**LEATHER**
Genuine leather is not uniform and may have scars, scratches, and wrinkles. Clean the surface with a leather and vinyl cleaner or with a mild soap solution. Wipe it clean with a damp soft cloth and dry and buff the surfaces with a dry soft cloth.

**FABRIC**
Remove dust and loose dirt from fabric with a whisk broom or vacuum cleaner. Clean with a mild soap solution recommended for upholstery or carpets. Remove fresh spots immediately with a fabric spot cleaner. 
This fabric can be stained and its colour can be affected. Also its fire-resistant properties can be reduced if the material is not properly taken care of.

**CAUTION**
Using any but recommended cleaners and procedures may affect the fabric’s appearance and fire-resistant properties.

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**Lap/Shoulder Belt Webbing Cleaning**

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpets; follow the instructions provided with the soap. Do not bleach or redye the webbing because this may weaken it.

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**Interior Window Glass Cleaning**

If the interior glass surfaces of the vehicle become fogged (that is, covered with an oily, greasy, or waxy film), they should be cleaned with glass cleaner. Follow the directions on the container of cleaner.

**CAUTION**
Do not scrape or scratch the inside of the rear window. This may result in damage to the rear window defroster grid.
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MAINTENANCE SERVICES

Maintenance Services

Owner's Responsibility

Maintenance Services and Record Retention are the owner's responsibility.

You should retain evidence that proper maintenance has been performed on your vehicle in accordance with scheduled maintenance.

Detailed warranty information is also provided with your Mazda vehicle. Claims made during the warranty term will not qualify under any warranty if they result from lack of maintenance rather than from defective material or workmanship. We recommend that such maintenance be performed by an Authorised Mazda Dealer using genuine Mazda parts.

Scheduled Maintenance Services

NOTE
After 80,000 km (48,000 miles) or 48 months, continue to follow the described scheduled maintenance items periodically.

Emission control and related systems:
The ignition and fuel systems are vitally important to the proper operation of the emission control and related systems, as well as for efficient engine operation. It is strongly recommended that all servicing related to these systems be done by your Authorised Mazda Dealer.
### MAINTENANCE SERVICES

**With catalytic converter**

<table>
<thead>
<tr>
<th>MAINTENANCE INTERVALS</th>
<th>Number of months or km (miles), whichever comes first</th>
<th>Engines type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months*¹</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>x 1000 km</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>miles</td>
<td>0.6</td>
</tr>
<tr>
<td>Valve and exhaust manifold bolts and nuts</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>Drive belts*²</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Engine timing belt*²</td>
<td>Replace every 100,000 km (60,000 miles)</td>
<td></td>
</tr>
<tr>
<td>Engine oil*³</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Oil filter*⁴</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Cooling system (including coolant level adjustment)</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Engine coolant</td>
<td>Replace every 2 years</td>
<td></td>
</tr>
<tr>
<td>Idle speed Carburetor model</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Fuel injection model</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

* Under each of the two columns (Engine type) represent the applicable vehicle to be serviced.
  *¹ Major service interval at 12 months/20,000 km (12,000 miles).
  *² Lubrication service based on distance only for 10,000 km (6,000 miles), not time.
  *³ Adjusts alternator and water pump drive belt, power steering and air conditioner drive belt, if equipped.
  *⁴ Replacement of timing belt is required at every 100,000 km (60,000 miles). Failure to replace timing belt may result in damage to the engine.
  * If the vehicle is operated under the following conditions, it is suggested that the engine oil and oil filter be changed more often than at usual recommended intervals.
    a) Driving in dusty conditions.
    b) Extended periods of idling or low speed operation.
    c) Driving for a prolonged period in cold temperatures or driving only short distance regularly.
## MAINTENANCE SERVICES

<table>
<thead>
<tr>
<th>MAINTENANCE INTERVALS</th>
<th>Number of months or km (miles), whichever comes first</th>
<th>Engine type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months $^1$</td>
<td>$^1$</td>
</tr>
<tr>
<td></td>
<td>$^1$</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>$^1$</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>$^1$</td>
<td>km</td>
</tr>
<tr>
<td>Choke system (Carburetor model)</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Air cleaner element$^*2$</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Fuel filter</td>
<td>Carburetor model</td>
<td>R</td>
</tr>
<tr>
<td>Fuel filter</td>
<td>Fuel injection model</td>
<td>R</td>
</tr>
<tr>
<td>Fuel lines and hoses</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Initial ignition timing</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Spark plugs</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Throttle sensor (Fuel injection model)</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Throttle positioner system (Manual transaxle with carburetor model)</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>EGR system (Automatic transaxle with carburetor model)</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Evaporative system (Fuel injection model)</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

$^*1$ Under each of the two columns (Engine type) represent the applicable vehicle to be serviced.

$^*1$ Major service interval at 12 months/20,000 km (12,000 miles)
Lubrication service based on distance only for 10,000 km (6,000 miles), no time

$^*5$ If the vehicle is operated in very dusty or sandy areas, inspect and if necessary, replace more often than at usual recommended intervals.
# MAINTENANCE SERVICES

I: Inspect: Visual examination and/or functional measurement of a system's operation or performance  
A: Adjust: Examination resulting in adjustment or replacement  
R: Replace or change

<table>
<thead>
<tr>
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<th>Number of months or km (miles), whichever comes first</th>
<th>Engine type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months¹</td>
<td>12</td>
</tr>
<tr>
<td>km 1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>miles 0.6</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Distributor (Manual transaxle with carburetor model)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery electrolyte level and specific gravity</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>All electrical systems²</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Headlamp alignment</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Clutch pedal</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Clutch fluid</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Brake lines, hoses and connections</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Brake pedal</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Brake fluid**</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Parking brake</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Power brake unit and hoses</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Disc brakes</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Drum brakes (if equipped)</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Power steering fluid</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

* Under each of the two columns (Engine type) represent the applicable vehicle to be serviced.

¹ Major service interval at 12 months/20,000 km (12,000 miles).

² This is a full function check of all electrical systems, i.e., all lights, washers (including condition of blades), power windows, sun roof, horn, etc.

³ Replace every 2 years.

If there has been continuous hard driving, mountain driving, or if the brakes are used extensively or the vehicle is operated in extremely humid climates, the brake fluid should be changed annually.

7-5
### MAINTENANCE SERVICES

**I**: Inspect. Visual examination and/or functional measurement of a system's operation or performance  
**A**: Adjust. Examination resulting in adjustment or replacement  
**R**: Replace or change  
**T**: Tighten  

#### MAINTENANCE INTERVALS

<table>
<thead>
<tr>
<th>MAINTENANCE ITEM</th>
<th>Number of months or km (miles), whichever comes first</th>
<th>Engine type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months *1</td>
<td>12</td>
</tr>
<tr>
<td>km</td>
<td>1,000</td>
<td>10</td>
</tr>
<tr>
<td>miles</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Manual transaxle oil</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Drive shaft dust boots</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Bolts and nuts on chassis and body</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>Body condition (for rust, corrosion and perforation)</td>
<td>Inspect annually</td>
<td></td>
</tr>
<tr>
<td>Exhaust system heat shield</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Tires (including spare tire, with inflation pressure adjustment)</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Hinges and catches</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Underside of vehicle</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Seat belts</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

\*: Under each of the two columns (Engine type) represent the applicable vehicle to be serviced.

\*1: Major service interval at 12 months/20,000 km (12,000 miles)
Lubrication service based on distance only for 10,000 km (6,000 miles), not time.
## MAINTENANCE SERVICES

### (Without catalytic converter)

I: Inspect. Visual examination and/or functional measurement of a system's operation or performance  
A: Adjust. Examination resulting in adjustment or replacement  
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T: Tighten

<table>
<thead>
<tr>
<th>MAINTENANCE INTERVALS</th>
<th>Number of months or km (miles), whichever comes first</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAINTENANCE ITEM</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>Intake and exhaust manifold bolts and nuts</td>
<td>T</td>
</tr>
<tr>
<td>Drive belts<strong>1</strong></td>
<td>A</td>
</tr>
<tr>
<td>Engine timing belt<strong>2</strong></td>
<td></td>
</tr>
<tr>
<td>Engine oil<strong>3</strong></td>
<td>R</td>
</tr>
<tr>
<td>Oil filter<strong>4</strong></td>
<td>R</td>
</tr>
<tr>
<td>Cooling system (including coolant level adjustment)</td>
<td>I</td>
</tr>
<tr>
<td>Engine coolant</td>
<td></td>
</tr>
</tbody>
</table>

Replace every 100,000 km (60,000 miles)  
Replace every 2 years

---

*1 Major service interval at 12 months/20,000 km (12,000 miles)

*2 Lubrication service based on distance only for 10,000 km (6,000 miles), not time

*3 Adjust alternator and water pump drive belts, power steering and air conditioner drive belt, if equipped.

*4 Replacement of timing belt is required at every 100,000 km (60,000 miles). Failure to replace timing belt may result in damage to the engine.

If the vehicle is operated under the following conditions, it is suggested that the engine oil and oil filter be changed more often than at usual recommended intervals:

- a) Driving in dusty conditions.
- b) Extended periods of idling or low speed operation.
- c) Driving for a prolonged period in cold temperatures or driving only short distances regularly.
## MAINTENANCE SERVICES

**I**: Inspect: Visual examination and/or functional measurement of a system's operation or performance  
**A**: Adjust: Examination resulting in adjustment or replacement  
**R**: Replace or change

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>12</th>
<th>24</th>
<th>36</th>
<th>48</th>
<th>70</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of months or km (miles), whichever comes first</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Months*1 x 1000 km</td>
<td>1.0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Miles</td>
<td>0.6</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Idle speed</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Idle mixture</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Choke system</td>
<td>I</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air cleaner element†</td>
<td>I</td>
<td>R</td>
<td>I</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel filter</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel lines and hoses</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial ignition timing</td>
<td></td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Spark plugs</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throttle positioner system</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dashpot</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery electrolyte level and specific gravity</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All electrical system*†</td>
<td></td>
<td></td>
<td></td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

*1 Major service interval at 12 months/20,000 km (12,000 miles)  
*5 Lubrication service based on distance only for 10,000 km (6,000 miles), not time  
*6 If the vehicle is operated in very dusty or sandy areas, inspect and, if necessary, replace more often than at usual recommended intervals.  
*6 This is a full function check of all electrical systems, i.e., all lights, wipers (including condition of blades), power windows, sun roof, horn, etc.
## MAINTENANCE SERVICES

I: Inspect; Visual examination and/or functional measurement of a system's operation or performance  
A: Adjust; Examination resulting in adjustment or replacement  
R: Replace or change

<table>
<thead>
<tr>
<th>MAINTENANCE INTERVALS</th>
<th>Number of months or km (miles), whichever comes first</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months $^1$</td>
</tr>
<tr>
<td></td>
<td>$\times 1000$</td>
</tr>
<tr>
<td></td>
<td>miles</td>
</tr>
<tr>
<td>Head lamp alignment</td>
<td>A</td>
</tr>
<tr>
<td>Clutch pedal</td>
<td>I</td>
</tr>
<tr>
<td>Clutch fluid</td>
<td>I</td>
</tr>
<tr>
<td>Brake lines, hoses and connections</td>
<td>I</td>
</tr>
<tr>
<td>Brake pedal</td>
<td>I</td>
</tr>
<tr>
<td>Brake fluid $^7$</td>
<td>I</td>
</tr>
<tr>
<td>Parking brake</td>
<td>A</td>
</tr>
<tr>
<td>Power brake unit and hoses</td>
<td>I</td>
</tr>
<tr>
<td>Disc brakes</td>
<td>I</td>
</tr>
<tr>
<td>Drum brakes</td>
<td>I</td>
</tr>
<tr>
<td>Power steering fluid</td>
<td>I</td>
</tr>
<tr>
<td>Power steering system and hoses</td>
<td>I</td>
</tr>
<tr>
<td>Steering and front suspension</td>
<td>I</td>
</tr>
<tr>
<td>Manual transaxle oil</td>
<td>A</td>
</tr>
</tbody>
</table>

$^1$ Major service interval at 12 months/20,000 km (12,000 miles)

$^7$ Lubrication service based on distance only for 10,000 km (6,000 miles), not time

$^7$ Replace every 2 years.

If there has been continuous hard driving, mountain driving, or if the brakes are used extensively or the vehicle is operated in extremely humid climates, the brake fluid should be changed annually.
## MAINTENANCE SERVICES

I: Inspect: Visual examination and/or functional measurement of a system's operation or performance
A: Adjust: Examination resulting in adjustment or replacement
T: Tighten

<table>
<thead>
<tr>
<th>MAINTENANCE INTERVALS</th>
<th>Number of months or km (miles), whichever comes first</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months (^1)</td>
</tr>
<tr>
<td></td>
<td>(\times 1000)</td>
</tr>
<tr>
<td></td>
<td>miles</td>
</tr>
<tr>
<td>Drive shaft dust boots</td>
<td>I</td>
</tr>
<tr>
<td>Bolts and nuts on chassis and body</td>
<td>T</td>
</tr>
<tr>
<td>Body condition (for rust, corrosion and perforation)</td>
<td>Inspect annually</td>
</tr>
<tr>
<td>Tires (including spare tire, with inflation pressure adjustment)</td>
<td>I</td>
</tr>
<tr>
<td>Hinges and catches</td>
<td>A</td>
</tr>
<tr>
<td>Underside of vehicle</td>
<td>I</td>
</tr>
<tr>
<td>Seat belts</td>
<td>I</td>
</tr>
</tbody>
</table>

\(^1\) Major service interval at 12 months/20,000 km (12,000 miles)
Lubrication service based on distance only for 10,000 km (6,000 miles), not time

7-10
Routine Service

It is strongly recommended that the following items be checked daily or weekly:

- **Engine Oil Level** (page 7-16)
- **Engine Coolant Level** (page 7-18)
- **Brake and Clutch Fluid Level** (page 7-20)
- **Automatic Transaxle Fluid Level** (page 7-24)
- **Washer Fluid Level** (page 7-25)
- **Tyre Inflation Pressure** (page 7-37)

### Maintenance Service Precautions

When performing any inspection or maintenance work on your vehicle, always exercise care to reduce the risk of personal injury or damage to the vehicle.

Here are some general precautions that should be closely observed in carrying out any service operation:

- Do not work on the engine while it is hot. Always turn it off and allow it to cool.
- If you must work with the engine running, make sure that no article of clothing, including neckties and handkerchiefs, can become entangled by any moving parts. Remove watches, bracelets, rings, necklaces, and similar items. Keep hands, clothing, hair, and tools away from moving fans and drive belts.
- Never get under the vehicle while it is supported by a jack. If it is necessary to work under the vehicle, use safety stands.
- Keep smoking materials, flames, and sparks away from the battery and all fuel and fuel-related parts.
- Never connect or disconnect either the battery or any transistorized component while the ignition switch is ON(III).
- When connecting the battery cables, pay special attention to their polarities. Never connect a positive cable to a negative terminal or a negative cable to a positive terminal.
- Remember that the battery, ignition cables, and vehicle wiring carry high currents or voltage. Be careful not to cause a short circuit.
- When performing any checks in an enclosed space with the engine running, such as in a garage, be sure there is proper ventilation.
- There are strict environmental laws regarding the disposal of waste oil and fluids. Please dispose of your waste carefully 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.

You should be aware that improper or incomplete servicing may result in operating problems. This section gives instructions only for those items that are relatively easy for an owner to perform.
Performing do-it-yourself maintenance during the warranty period may affect your warranty coverage. Read the separate Mazda Warranty statement for details and suggestions. If doubt about any servicing, have it done by an Authorised Mazda Dealer.

WARNING!
- On vehicles equipped with an automatic transaxle, do not release the bonnet latch until the selector lever has been securely latched in P (Park) and the parking brake has been firmly set. Turn the ignition switch off unless it is necessary to check systems with the engine running. If the vehicle has a manual transaxle, do not release the bonnet latch unless the ignition switch is first turned off, the shift lever is placed in 1 (First), and the parking brake is firmly set.
- With a manual transaxle, if it is necessary to check beneath the bonnet with the engine running, place the shift lever in NEUTRAL and set the parking brake firmly. Unexpected and possibly sudden vehicle movement may occur if these precautions are not taken.
- To avoid the possibility of personal injury, you should always turn off the ignition switch and remove the key before working under the bonnet unless the procedure specifically requires otherwise. If it requires running the engine while working under the bonnet, do not permit any clothing, such as neckties or handkerchiefs, near the engine or cooling fan. They can become entangled in moving parts and result in personal injury and damage to the vehicle. Also remove watches, bracelets, and rings for safety.
Engine Compartment Overview

50HC engine with carburetor model

- Brake/Clutch fluid reservoir
- Power steering fluid reservoir
- Windshield washer reservoir
- Engine oil filler cap
- Automatic transaxle dipstick
- Battery
- Fuse block
- Radiator coolant reservoir
- Dipstick
- Spark plugs
- Radiator cap
- Headlight retractor motor

50HC: Single overhead camshaft

*Some models
SOHC engine with fuel injection model

- Brake/Clutch fluid reservoir
- Oil filler
- Engine oil-filler cap
- Automatic transaxle dipstick*
- Radiator coolant reservoir
- Power steering fluid reservoir*
- Windshield washer reservoir
- Dipslick
- Headlight retractor motor
- Spark plugs
- Radiator cap
- Headlight retractor motor
- Air cleaner
- Battery
- Fuse block

SOHC: Single overhead camshaft

7-14 *Some models.
DOHC engine with fuel injection model

- Brake/Clutch fluid reservoir
- Engine oil-filler cap
- Radiator coolant reservoir
- Power steering fluid reservoir*
- Windshield washer reservoir
- Dipstick
- Spark plugs
- Radiator cap
- Headlight retractor motor
- Air cleaner

DOHC: Double overhead camshaft

* Some models
ENGINE OIL AND OIL FILTER

Checking Engine Oil Level

1. Be sure the vehicle is on level ground.
2. Warm up the engine to the normal operating temperature.
3. Turn off the engine and wait 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 the dipstick out again and check the level. If the level is between F and L, it is adequate.
   If it is near or at L, add enough oil to bring the level to F.
   **Do not overfill.**

**NOTE**
The distance between L and F on the dipstick represents 0.6 litre (0.85 US qt, 0.7 Imp qt).

Changing Engine Oil and Filter

Change engine oil and filter according to the Scheduled Maintenance on pages 7-2 through 7-10.

**WARNING!**
Continuous contact with USED Engine oil has caused skin cancer in laboratory mice. Protect your skin by washing with soap and water. Keep all engine oil out of the reach of children.
1. Warm up the engine for a few minutes and then turn it off. Remove the oil filter cap.
2. Drain the oil into a suitable container after removing the oil filler cap and drain plug.

*Both the oil and the engine are hot. Do not burn yourself.*

3. Remove the engine oil filter with an oil filter wrench.
4. Use a clean rag to clean the mounting surface of the oil filter on the engine.
5. Apply a small amount of engine oil to the rubber seal of a new oil filter.
6. Install the oil filter and tighten it. (Please refer to the oil filter caution label for tightening instructions.)
7. Replace the drain plug tightly after the oil has thoroughly drained.
8. Refill the engine with new oil to the F mark on the dipstick.

*Do not overtill.*
9. Refit the oil filler cap securely.
10. Start the engine and inspect around the oil filter seal for leaks.
11. Turn off the engine and wait 5 minutes for the oil to return to the oil pan.

Check the oil level and fill to the F mark if necessary.

**Oil capacity**

<table>
<thead>
<tr>
<th>Engine Capacity</th>
<th>Oil Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6 litre engine</td>
<td>3.4 litres (3.5 US qt, 3.0 Imp qt)</td>
</tr>
<tr>
<td>1.8 litre engine</td>
<td>4.0 litres (4.2 US qt, 3.5 Imp qt)</td>
</tr>
</tbody>
</table>

**NOTE**
Use only the specified engine oil (refer to chart on page 7-47).

**CAUTION**
- Follow these instructions carefully. An improper oil filter installation can cause oil leakage and engine damage.
- Although oil filters may have the same external appearance, their internal designs differ significantly. These filters are not interchangeable. To avoid potential engine damage, use only the specified filter for each application.
ENGINE COOLING SYSTEM

Engine Cooling System

The cooling system is a high-pressure type with a reservoir and is filled with year-round coolant at the factory.

Check the antifreeze protection and coolant level at least once a year—at the beginning of the winter season—and before traveling to a colder climate.

WARNING!

- Never attempt to remove the radiator cap while the engine is operating. Doing so might lead to cooling system and engine damage and could result in serious personal injury from escaping hot coolant or steam.
- Turn off the engine and wait until it has cooled. Even then, use extreme care when removing the radiator cap. Wrap a thick cloth around it, and turn it counterclockwise slowly to the first stop. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap—still using a cloth—turn it, and remove it.
- Even if the engine is not operating, do not remove the radiator cap while the engine and radiator are hot. Scalding hot coolant and steam may still blow out under pressure; this could cause serious injury.

Checking Coolant Level

Check the condition and connections of all cooling system hoses and heater hoses. Replace any swollen or deteriorated hoses.

The coolant level should be full in the radiator and between F (full) and L (low) on the coolant reservoir when the engine is cool.
Changing Coolant

Change coolant according to the Scheduled Maintenance Charts.

**CAUTION**
- Use only soft (demineralised) water in the coolant mixture.
- The engine in your vehicle has aluminium engine parts and must be protected by an ethylene-glycol coolant to prevent corrosion and freezing. DO NOT USE alcohol or methanol antifreeze or mix them with the specified coolant.
- Do not use a solution that contains more than 60 percent antifreeze, which would reduce the effectiveness of solution.

For mixture percentage, refer to the following table.

<table>
<thead>
<tr>
<th>Protection</th>
<th>Mixture percentage (volume)</th>
<th>Antifreeze solution</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above −16°C (3°F)</td>
<td>35</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Above −26°C (−15°F)</td>
<td>45</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Above −40°C (−40°F)</td>
<td>55</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>

**WARNING!**
To prevent burning yourself, do not remove the radiator cap or loosen the drain plug if the engine is hot.

1. Turn the radiator cap counterclockwise and remove it.
2. Loosen the radiator drain plug and drain the coolant into a suitable container.
3. With the drain plug loose, flush out the system with running water.
4. Drain the system completely and retighten the drain plug. Add the necessary amount of ethylene-glycol coolant and water to provide the required protection.
against freezing and corrosion. In extremely cold climates, add the necessary amount of ethylene-glycol coolant in accordance with the instructions of the coolant manufacturer.

5. Run the engine at idle with the radiator cap off. Slowly add additional coolant if necessary.

6. At this point, wait until the engine reaches normal operating temperature. Depress the accelerator two or three times; then add coolant if required.

Be careful not to burn yourself.

7. Install the radiator cap. Inspect all connections for leaks and recheck the coolant level in the reservoir.

The brake fluid reservoir includes the clutch fluid reservoir.

Check the fluid level in the reservoir periodically; it should be between MAX and MIN on the reservoir.

Before adding fluid, clean the area around the reservoir cap thoroughly to prevent brake/clutch fluid contamination. If the level is low, add fluid to the MAX level.

This is a normal condition associated with wear of brake/clutch linings. If the fluid level is excessively low, have the brake/clutch system checked by an Authorised Mazda Dealer.

CAUTION

- Use only the specified brake/clutch fluid. (Refer to chart on page 7-47.)
- Do not mix different types of fluid.
- In the event the brake/clutch system requires frequent supplies of fluid, the vehicle should be inspected by an Authorised Mazda Dealer.
Checking Brake Pedal

**CHECKING PEDAL FREE PLAY**

Turn off the engine and depress the brake pedal several times to deplete the vacuum in the power brake unit. Gently depress the brake pedal by hand and measure the distance it moves until slight resistance is felt. If the free play is more or less than specified, have the brakes adjusted by an Authorised Mazda Dealer.

Pedal free play: 4—7mm (0.16—0.28 in)

**CHECKING PEDAL CLEARANCE**

Start the engine and check the brake pedal for smooth operation and proper clearance when it is fully depressed (approximately 60 kg [132 lb, 589N]). The clearance is measured between the center of the upper surface of the brake pedal pad and the floorboard without the carpet. If it is less than the following clearance, have the brakes adjusted by an Authorised Mazda Dealer.

Clearance:
- Approximately 70mm (2.76 in) min

Checking Parking Brake

Check the stroke of the parking brake by counting the number of clicks heard while fully applying it from the released position. Also, the parking brake alone should securely hold the vehicle on a fairly steep grade. If the number of clicks is more or less than specified, have the parking brake adjusted by an Authorised Mazda Dealer.

Stroke:
- 5—7 clicks at a force of 10 kg (22 lb, 98 N)
BRAKES, CLUTCH*, POWER STEERING*

Checking Power Brakes

Check the power brakes for proper operation:
- Depress the brake pedal a few times and then hold it down. Start the engine and the pedal should drop slightly.
- Depress the brake pedal, stop the engine, and hold the pedal down for about 30 seconds. The pedal should neither drop nor rise.
- Restart the engine, let it run for about a minute, and turn it off. Then firmly depress the brake pedal several times. The pedal travel should decrease with each subsequent stroke.

If the brakes do not operate properly, have the brake system checked by an Authorised Mazda Dealer.

Checking Clutch Fluid Level

Refer to page 7-20 brake/clutch fluid level.

Checking Power Steering Fluid Level

Check the fluid level in the power steering fluid reservoir periodically; it should be between F (full) and L (low) on the reservoir. If the level is low, add fluid to the F (full) level.

In the event the power steering system requires frequent supplies of fluid, the vehicle should be inspected by an Authorised Mazda Dealer.
CAUTION
To avoid damage to the power steering pump, do not operate the vehicle for prolonged periods with a low power steering fluid level.

NOTE
Use only specified power steering fluid. (Refer to chart on page 7-47.)

Checking Manual Transaxle Oil Level

1. Park the vehicle on level ground and set the parking brake firmly. Turn the engine off.
2. Remove the speedometer cable and driven gear from the transaxle case.
3. Wipe the driven gear clean and reinstall it.
4. Pull it out again. The oil level should be between L and F, as illustrated.

If the level is low, check for leaks before adding oil.
Do not overfill.

Changing Manual Transaxle Oil

1. Remove the speedometer cable and driven gear from the transaxle case.
2. Remove the drain plug and the gasket from the bottom of the transaxle case.
3. After the oil has drained completely, reinstall a new gasket and tighten the drain plug.
4. Add oil through the speedometer driven gear hole until it reaches the specified level.
5. Reinstall the cable and driven gear.

NOTE
Use only specified manual transaxle oil. (Refer to chart on page 7-47.)
AUTOMATIC TRANSAXLE

Checking Automatic Transaxle Fluid Level

The automatic transaxle fluid level should be checked regularly. Take the following precautions to measure the fluid level properly. The volume of the transaxle fluid changes with the temperature. For that reason, it is best to check the level after having driven the vehicle for 30 minutes. If necessary, however, the fluid can also be checked when the vehicle has not been driven.

**WARNING!**
To avoid sudden movement of the vehicle, set the parking brake and depress the brake pedal while shifting the selector lever.

**CAUTION**
- Low fluid level causes transaxle slippage. Overfilling can cause foaming, loss of fluid, and transaxle malfunction.
- The use of a nonspecified fluid could result in transaxle malfunction and failure.

1. Park the vehicle on level ground and set the parking brake firmly.
2. Idle the engine about 2 minutes. Depress the brake pedal; move the selector lever through all ranges and set it in P (Park) position.
3. With the engine still idling, pull out the dipstick, wipe it clean, and reinsert it fully.
4. Pull the dipstick out again.

The proper fluid level is marked as follows:

**Use fluid hot scale:**
If the vehicle has been driven and the fluid is warmed to normal operating temperature of approximately 65°C (149°F), the fluid level must be between Full and Low.

**Use fluid cold scale:**
If the engine has not been running and the outside temperature is approximately 20°C (68°F), the fluid level must be between Full and Low.

*Some models.*
NOTE
- Use the cold scale as a rough reference only.
- If the outside temperature is lower than 20°C (68°F), start the engine and measure the fluid level after letting the engine run to reach operating temperature.
- If the vehicle has been driven for an extended period at high speeds or in city traffic in hot weather, it is usually best to measure the fluid level after stopping the engine and allowing the fluid to cool for 30 minutes.

When inserting the dipstick, be sure to insert it completely. When adding fluid, do so while measuring with the dipstick to make sure the fluid level does not go beyond the Full position. Do not overfill.

NOTE
Use only the specified automatic transaxle fluid. (Refer to chart on page 7-47.)

CHECKING WASHER FLUID LEVEL

Check fluid level in the washer fluid reservoir and add fluid if necessary. Plain water may be used if washer fluid is not available. However, use washer solution in cold climates to prevent freezing.

WARNING!
Do not use radiator coolant or antifreeze in the washer fluid reservoir. Radiator coolant can severely affect visibility when sprayed on the windshield and may cause damage to paint and body trim.
Body Lubrication

All moving points of the body, such as door and bonnet 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 engine bonnet’s secondary latch keeps the bonnet from opening when the primary latch is released.

Element Replacement
A viscous paper air cleaner filter is used. It must be replaced when necessary, and it should not be cleaned and reused.

Carburetor models
1. Turn the wing-nut counterclockwise and remove.
2. Unfasten the clamps to remove air cleaner cover.
3. Wipe the inside of the air cleaner housing and cover with a damp cloth.
4. Replace the air cleaner element.
5. Install in the reverse order of removal.

Fuel injection models
1. Loosen the hose band and remove the intake air hose.
2. Remove the attaching bolts of the air cleaner cover.
3. Wipe the inside of the air cleaner and cover with a damp cloth.
4. Replace the air cleaner element.
5. Install in the reverse order of removal.
Wiper Blades

WIPER BLADE MAINTENANCE

CAUTION

Commercial hot waxes applied by automatic car washes have been known to affect the cleanliness of the window.

Contamination of either the window or the wiper blades with foreign matter can reduce the effectiveness of the window wipers. Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial car washes. If the blades are not wiping properly, clean both the window and the blades with a good cleaner or mild detergent, and rinse thoroughly with clear water. Repeat if necessary.

CAUTION

To prevent damage to wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.

WINDSHIELD WIPER BLADE REPLACEMENT

When the wipers no longer clean adequately, the wiper blades may be worn or cracked, requiring replacement.

CAUTION

To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.

Replace the element according to the Scheduled Maintenance Charts.

NOTE

If the vehicle is operated in extremely dusty or sandy areas, replace this element more often than at the usual recommended intervals.

CAUTION

Do not drive with the air cleaner removed or excessive engine wear will result. Driving without an air cleaner encourages backfiring, which could cause a fire in the engine compartment.
1. Raise the wiper arm and turn the wiper blade assembly to expose the plastic locking clip. Compress the clip and slide the blade assembly downward, then lift it off the arm.

CAUTION
Do not allow the wiper arm to fall against the windshield.

2. Firmly grasp the end of the blade rubber and pull until the tabs are free of the metal support.

3. Remove the metal retainers from the blade rubber and install them in new blade rubber.

CAUTION
Do not bend the metal retainers.
REAR WIPER BLADE REPLACEMENT
When the wiper no longer cleans adequately, the wiper blade may be worn or cracked, requiring replacement.

NOTE
Be careful not to scratch the window with the wiper frame.

4. Carefully insert a 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.

1. Raise the wiper arm and turn the wiper blade assembly to expose the plastic locking clip. Compress the clip and slide the blade assembly downward; then lift it off the arm.

CAUTION
Do not allow the wiper arm to fall against the rear window.
WIPER BLADES, BATTERY

Battery

WARNING!
- Keep lighted cigarettes and all other flames or sparks away from the battery. Hydrogen, which is a highly combustible gas, is always present in battery cells.
- Keep batteries out of the reach of children because batteries contain SULFURIC ACID. Prevent its contact with skin, eyes, clothing, and the vehicle.
- If electrolyte gets to your eyes, flush them with clean water for at least 15 minutes and get immediate medical attention. If possible, continue to apply water with a sponge or cloth while en route to the medical office.
- If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel a pain or a burning sensation, get medical attention immediately.
- When charging or working near a battery, wear eye protection. Always provide ventilation. When lifting a plastic-cased battery, ex-
cessive pressure on the end walls could cause acid to spew through the vent caps, resulting in personal injury. Lift with a battery carrier or with your hands on opposite corners.

- Never attempt to charge the battery when the negative(−) cable terminal is connected.

**MAINTENANCE**

For best battery service:
- Keep battery securely mounted.
- Keep battery top clean and dry.
- Keep terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse any spilled electrolyte from the battery immediately with a solution of water and baking soda.
- If the vehicle is not going to be used for an extended time, disconnect the battery cables.

**CHECKING ELECTROLYTE LEVEL**

Check whether the electrolyte level is between the upper and lower lines. If low, add distilled water. Do not overfill.
The specific gravity of the electrolyte should be examined with a hydrometer, particularly during cold weather. If the reading is low, have the battery charged.
BATTERY, BELT TENSIONS

BATTERY RECHARGING

- If the battery becomes discharged in a short time (because, for example, the headlights or interior lights were left on while the vehicle was not in use), recharge it by slow charging (trickle) for 10 hours.
- If the battery gradually discharges because of high electric load while the vehicle is being used, recharge it with the boost range of the battery charger at 20—30A for two hours.

CAUTION

When recharging the battery, observe the following precautions.
- The battery must be removed from the vehicle and put in a place with good ventilation.
- Do not bring anything like a fire, cigarettes, sparks, or flame near the battery.
- Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin gassing (boiling) violently or if the temperature of the electrolyte of any cell exceeds 49°C (120°F).

- Wear eye protection when checking the battery during charging.
- Disconnect the battery charger in the following order.
  1) Turn off the battery charger main switch.
  2) Unhook the negative clamp from the negative battery terminal.
  3) Unhook the positive clamp from the positive battery terminal.

NOTE

- Before performing maintenance or recharging the battery, turn off all accessories and stop the engine.
- The negative (−) battery cable must be removed first and installed last if the battery is disconnected.

Checking Belt Tensions

Apply moderate thumb pressure (approximately 10 kg, 22 lbs, 98N) midway between pulleys, and check the deflection.

WARNING!

- Remove the key from the ignition switch before checking belt tension.
- Keep hair, loose clothing, neckties, necklaces, and similar articles away from drive belts, especially when the engine is running. ALWAYS REMOVE ALL TOOLS from the engine compartment before attempting to start the engine. Any of the above items could become entangled in the belts and cause severe personal injury or damage to the vehicle, or both.

NOTE

If the drive belt becomes worn, cracked, or frayed, it should be replaced.
**ALTERNATOR DRIVE BELT**

<table>
<thead>
<tr>
<th>Deflection</th>
<th>New</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8—9mm</td>
<td>9—10mm</td>
</tr>
<tr>
<td></td>
<td>(0.31—0.35 in)</td>
<td>(0.35—0.39 in)</td>
</tr>
</tbody>
</table>

**Adjustment**
1. Loosen the alternator mounting bolt and adjusting bolt.
2. Move the alternator to obtain proper belt tension.
3. Tighten the bolts and recheck the deflection.

**AIR-CONDITIONER (A/C) DRIVE BELT**

<table>
<thead>
<tr>
<th>Deflection</th>
<th>New</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8—9mm</td>
<td>9—10mm</td>
</tr>
<tr>
<td></td>
<td>(0.31—0.35 in)</td>
<td>(0.35—0.39 in)</td>
</tr>
</tbody>
</table>

**Adjustment**
1. Loosen the idler pulley locknut.
2. Turn the idler pulley adjusting bolt until the correct tension is obtained.
3. Tighten the locknut and recheck the deflection.

**POWER STEERING (P/S) PUMP DRIVE BELT**

<table>
<thead>
<tr>
<th>Deflection</th>
<th>New</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8—9mm</td>
<td>9—10mm</td>
</tr>
<tr>
<td></td>
<td>(0.31—0.35 in)</td>
<td>(0.35—0.39 in)</td>
</tr>
</tbody>
</table>

**Adjustment**
1. Loosen the mounting bolt and locknuts.
2. Turn the adjusting bolt until the correct tension is obtained.
3. Tighten the locknuts and mounting bolt and recheck the deflection.

* Some models. 7-33
Air-conditioner (A/C) and power steering (P/S) pump drive belt

<table>
<thead>
<tr>
<th>Deflection</th>
<th>New</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>B—9mm</td>
<td>8—9mm</td>
<td>9—10mm</td>
</tr>
<tr>
<td>(0.31—0.35 in)</td>
<td>(0.35—0.39 in)</td>
<td></td>
</tr>
</tbody>
</table>

Adjustment
1. Loosen the mounting bolt and locknuts.
2. Turn the adjusting bolt until the correct tension is obtained.
3. Tighten the locknuts and mounting bolt and recheck the deflection.

If necessary, clean the electrodes with a fine wire brush and carefully scrape the carbon off the insulator with a small file. The spark plugs should then be blown clean with compressed air and the upper insulator wiped clean.

Replacing Spark Plugs

Warning
The spark plugs may be hot. Do not burn yourself.

1. Clean any dirt from around the spark plug base of each spark plug.
2. Remove the plugs with a spark plug wrench.
3. Install each new plug by hand as far as it will go. If necessary, a spark plug wrench may be used for an extension; if a plug does not turn in smoothly, remove it and try again to ensure the correct engagement of the threads on the spark plug with the threads in the cylinder head.
4. Tighten the plugs with a spark plug wrench. Do not overtighten.
5. Make sure the spark plug leads are installed in the correct order. Fasten the boot squarely over the end of each plug.
CAUTION
- The spark plugs must be securely tightened, but not overtightened. A plug that's too loose can get very hot and possibly damage the engine; one that's too tight could damage the threads in the cylinder head.
- Be sure the socket wrench is fitted squarely over the spark plug.

NOTE
- When removing or unfastening the spark plug cable leads, pull the boot, not the lead itself.
- When installing the plugs, use a small amount of antiseize compound or molybdenum-based thread lubricant on the first few threads.
### RECOMMENDED SPARK PLUGS

#### 1.6-litre engine with carburetor

<table>
<thead>
<tr>
<th></th>
<th>with catalytic converter</th>
<th>without catalytic converter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGK</td>
<td>BKR5E11</td>
<td>BKR5E11</td>
</tr>
<tr>
<td>NIPPONDENSO</td>
<td>K16PR-U11</td>
<td>K16PR-U11</td>
</tr>
<tr>
<td></td>
<td>BKR6E11</td>
<td>BKR6E11</td>
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<tr>
<td></td>
<td>K20PR-U11</td>
<td>K20PR-U11</td>
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</tbody>
</table>

#### 1.6-litre engine with fuel injection

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NGK</td>
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<tr>
<td></td>
<td>BKR7E11</td>
<td>BKR7E11</td>
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<tr>
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<td>K16PR-U11</td>
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<tr>
<td></td>
<td>K19PR-U11</td>
<td>K20PR-U11</td>
</tr>
<tr>
<td></td>
<td>K22PR-U11</td>
<td>K22PR-U11</td>
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</table>

#### 1.8-litre SOHC engine

<table>
<thead>
<tr>
<th></th>
<th>BKR5E11</th>
<th>BKR6E11</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIPPONDENSO</td>
<td>K16PR-U11</td>
<td>K20PR-U11</td>
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#### 1.8-litre DOHC engine

<table>
<thead>
<tr>
<th></th>
<th>with catalytic converter</th>
<th>without catalytic converter</th>
</tr>
</thead>
<tbody>
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<td>BKR5E11</td>
<td>BKR5E11</td>
</tr>
<tr>
<td></td>
<td>BKR6E11</td>
<td>BKR6E11</td>
</tr>
<tr>
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<td>K16PR-U11</td>
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<tr>
<td></td>
<td>K20PR-U11</td>
<td>K20PR-U11</td>
</tr>
<tr>
<td></td>
<td>K22PR-U11</td>
<td>K22PR-U11</td>
</tr>
</tbody>
</table>

SOHC: Single overhead camshaft
DCHC: Double overhead camshaft

### Tyre Care

For proper performance, safety, and maximum fuel economy, you must always maintain recommended tyre pressures and stay within the load limits and weight distribution recommended for your vehicle.

**CAUTION**

Never use spark plugs with an improper heat range; they will adversely affect engine performance and durability.
INFLATION PRESSURES

All tyre pressures (including the spare) should be checked monthly when the tyres are cold. Recommended pressures must be maintained for the best ride, top vehicle handling, and minimum tyre wear. Refer to tyre inflation pressure chart on page 95.

NOTE
- Warm tyres normally exceed recommended pressures; Do not release air from warm tyres to adjust the pressure.
- Underinflation results in excessive wear, poor handling, reduced fuel economy, and the possibility of blowouts of overheated tyres. Also, low tyre pressure can cause poor sealing of the tyre bead. If the tyre pressure is excessively low, wheel deformation and/or tyre separation are possible. So keep your tyre pressures at the proper levels. If a tyre frequently needs refilling, have it checked by an Authorised Mazda Dealer or a tyre shop.
- Overinflation produces a harsh ride, handling problems, excessive wear at the center of the tyre tread, and a greater possibility of damage from road hazards.

WARNING!
Overinflation or underinflation can reduce tyre life, adversely affect vehicle handling, and lead to sudden tyre failure. This could result in loss of vehicle control.
TYRE ROTATION
To equalize tread wear, it is recommended that the tyres be rotated every 6,000 km (3,750 miles) or sooner if irregular wear develops. During rotation, check the tyres for correct balance.

When rotating tyres, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tyre pressure, improper wheel alignment, out-of-balance wheels, or severe braking. After rotation, be sure to bring the front and rear tyre pressures to specification and check lug nut tightness.

NOTE
Disc brake pads should be inspected for wear whenever tyres are rotated.

CAUTION
Rotate radial tyres that have an asymmetric tread pattern only from front to rear and not from right to left.

TYRE REPLACEMENT
If the tyre is worn evenly, a tread wear indicator will appear as a solid band across the tread. Replace the tyre when this happens. Replacement of an unevenly worn tyre may be necessary before an indicator band appears across the entire tread.

WARNING!
- When replacing tyres, never mix radial, bias-belted, and bias-type tyres. Use only the tyre sizes listed on the tyre label attached to your vehicle, on the frame of the driver’s door. Make sure that all
Spare tyre

Tyres and wheels are the same size and have the same load-carrying capacity. Use only tyre and wheel combinations recommended on the tyre label or by an Authorised Mazda Dealer. Failure to follow these precautions can adversely affect the safety and handling of your vehicle.

- The use of any other tyre size or type may seriously affect ride, handling, ground clearance, tyre clearance, and speedometer calibration.
- Driving on worn-out tyres is very hazardous and will reduce braking effectiveness, steering accuracy, and traction.

Check the spare tyre at least monthly to be sure it is properly inflated and stored securely.

TEMPORARY SPARE TYRE

The temporary spare tyre is easier to handle because of its construction, it is lighter and smaller than a conventional tyre. It is to be used only for emergency situations and for limited travel. Use the temporary spare tyre only until the conventional tyre is repaired. Check the temporary spare tyre pressure at least once a month and maintain it at 415 kPa (4.2 kg/cm², 60 psi).

CAUTION
- Do not use the temporary spare tyre rim with a snow tyre or conventional tyre.
- The temporary spare tyre has a tread life of up to 4,800 km (3,000 miles), depending on road conditions and driving habits.
- When the tread wear indicator appears across the tread, replace the tyre with the same type of temporary spare tyre.
- To conserve the tyre’s tread life, the temporary spare tyre should be used only until the conventional tyre can be repaired which should be as soon as possible.
WHEELS, LIGHT BULBS

Wheels

WHEEL REPLACEMENT
When replacing wheels for any reason, make sure the new wheels are equivalent to original factory units in diameter, rim width, and offset.
Proper tyre balancing provides the best riding comfort and helps reduce tyre tread wear. Out-of-balance tyres can cause annoying vibration and uneven tyre wear, such as cupping and flat spots.

CAUTION
A wrong-sized wheel may adversely affect wheel life and bearing life, braking and stopping abilities, handling characteristics, ground clearance, body-to-tyre clearance, snow chain clearance, speedometer calibration, headlight aim, and bumper height.

Headlights

Your vehicle’s headlights have replaceable halogen bulbs. A burned-out bulb should be replaced.

HALOGEN BULBS
Halogen bulbs contain pressurized gas that will produce flying pieces of glass if broken. Always handle them carefully and avoid scratches and abrasion. If the bulbs are lit, avoid their contact with liquids. Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit. A bulb should be operated only when installed in a headlight.
If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.
Keep bulbs out of the reach of children.
HALOGEN HEADLIGHT BULB REPLACEMENT

WARNING!
Wear eye protection when changing a bulb. Allow the bulb to cool before handling it.

1. Raise the headlights with the headlight retractor switch.

WARNING!
Do not operate the headlight retractor switch if anyone's hands are near the headlights.

2. Pull the RETRACTOR (30A) fuse straight out with the removal tool provided on the fuse box cover. (Refer to page 5-6.)

3. Loosen the screws and remove the headlight retractor lid.

WARNING!
To avoid personal injury that might result from the accidental lowering of the headlights while you are replacing the headlight, pull out the RETRACTOR (30A) fuse.
4. Disconnect the connector.

5. Remove the sealing cover.

6. Untasten the bulb retaining spring.

7. Carefully remove the headlight bulb from its socket in the reflector by gently pulling it straight backward out of the socket. Do not rotate the bulb while removing it.

8. Install the new headlight bulb in the reverse order of removal.
NOTE
- Do not touch the glass portion of the bulb.
- Install the sealing cover properly.
- Check the aim of the headlights and adjust if necessary.
- Use the protective cover and carton to promptly dispose of the old bulb.
LIGHT BULBS

Bulb Replacement (Front)

1. Turn-signal light  2. Parking light

Running light

Side Turn-signal light

*Some models.
Bulb Replacement (Rear)

1. Back-up light
2. Rear fog light

Luggage compartment light

1. Turn-signal light
2. Stop/Tail light

License plate light

* Some models. 7-45
LIGHT BULBS

Bulb Replacement (Interior)

Map light* (with sunroof)

Interior light (Type A)

Interior light (Type B)

Map light* (without sunroof)

Courtesy light*

*Some models.
LUBRICANT SPECIFICATIONS

Recommended Lubricants

<table>
<thead>
<tr>
<th>Lubricant</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine oil*</td>
<td>API Service 3D, SE, SF or SG</td>
</tr>
<tr>
<td>Manual transaxle oil</td>
<td>API Service GL-4 or GL-5 (SAE 75W-90)</td>
</tr>
<tr>
<td>Automatic transaxle fluid</td>
<td>ATF M-III or Dexron® II</td>
</tr>
<tr>
<td>Power steering fluid</td>
<td>ATF M-III or Dexron® II</td>
</tr>
<tr>
<td>Brake/clutch fluid</td>
<td>SAE J1703 or FMVSS116 DOT-3</td>
</tr>
</tbody>
</table>

* Refer to the recommended SAE viscosity numbers on the next page.

To help achieve proper engine and powertrain performance and durability, use only lubricating oils of the proper quality. The correct oils also help promote engine efficiency that results in improved fuel economy. Engine oils labeled Energy Conserving Oil are now available. They contribute to fuel economy by reducing the amount of fuel necessary to overcome engine friction and in other ways. Often these improvements are difficult to measure in everyday driving, but in a year's time, they can offer significant cost and energy savings. These oils are recommended for use in conjunction with the recommended API classification.
LUBRICANT SPECIFICATIONS

Recommended SAE Viscosity Numbers

<table>
<thead>
<tr>
<th>Temperature °C (°F)</th>
<th>-30</th>
<th>-20</th>
<th>-10</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
</tr>
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<tbody>
<tr>
<td>Engine oil</td>
<td>5W-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5W-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10W-20</td>
<td>20W-20</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10W-40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20W-40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20W-40</td>
<td>20W-50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

CAUTION BEFORE CHECKING LUBRICANTS
Always be sure to clean the area around any filler plug, drain plug, and dipstick before checking or draining any lubricant. This is especially important in dusty/sandy areas and when the vehicle is used on unpaved roads. Cleaning the plug and dipstick areas will prevent dirt and grit from entering the engine and other mechanisms they could damage.

Engine oil viscosity (thickness) has an effect on fuel economy and cold-weather operation (starting and oil flow). Lower-viscosity engine oils can provide better fuel economy and cold-weather performance; however, higher-temperature weather conditions require higher-viscosity engine oils for satisfactory lubrication. Using oils of any viscosity other than those recommended could result in engine damage.

When choosing an oil, consider the range of temperature your vehicle will be operated in before the next oil change. Then select the recommended oil viscosity from the chart.
Minor Troubleshooting Guide

The following procedures may help if any of the problems listed below should occur. These suggestions are intended only as emergency measures. If you are in doubt whether the problem is fully corrected, see your Authorised Mazda Dealer as soon as possible. Minor problems may lead to serious ones, if neglected.

ENGINE WILL NOT START

If the engine will not turn over, inspect these items:
1. Ignition switch.
2. Fuses, including fuse block in the engine compartment.
3. Battery and connections.
4. Cable connections to starter and solenoid.

If the engine turns over, inspect these items:
1. Fuel gauge, to see that the tank is not empty.
2. Ignition system-distributor leads, coil.
4. Carburetor for flooding and fuel supply to carburetor.
5. Choke mechanism.
6. Fuel line and air flow system.

ENGINE STARTS, BUT ...

If the oil pressure warning light comes on, inspect these items:
1. Engine oil level.
2. Electric circuit and switch.

If the alternator warning light comes on, inspect these items:
1. Drive belt, broken, or needs adjustment tension and condition.
2. Alternator.
3. Battery and connections.

If stalling occurs while idling, inspect these items:
1. Carburetor idle speed adjustment.
2. Choke mechanism.
3. Carburetor for flooding and fuel supply to carburetor.
4. Spark plugs.
5. Carburetor or throttle body (adjustment by an Authorised Mazda Dealer).
6. Fuel line and air flow system.

If idling is rough, inspect these items:
1. Air cleaner element.
2. Choke mechanism.
4. Carburetor or throttle body (adjustment by an Authorised Mazda Dealer).

If acceleration is poor, inspect these items:
1. Ignition system including spark plugs.
2. Air cleaner element.
3. Carburetor.
4. Fuel line and air flow system.

If overheating occurs, inspect these items:
1. Radiator coolant level.
2. Restriction of airflow through radiator.
3. Drive belt tension and condition.
4. Radiator electric cooling fan.
5. Engine oil level.
6. Thermostat.
7. Ignition timing.

Carburetor model
Fuel injection model

7-49
TROUBLESHOOTING

If a flat spot occurs when accelerating, inspect these items:
1. **1** Carburetor.
2. Fuel lines and filter.
3. Air cleaner element.
4. **2** Throttle body (by an Authorised Mazda Dealer).

If full engine power is not obtained, inspect these items:
1. Air cleaner element and fuel filter.
2. Spark plugs and ignition system.
3. **1** Carburetor.
4. **2** Fuel line and air flow system.

ELECTRICAL SYSTEM PROBLEMS...

If a light does not come on, inspect these items:
1. Bulb and fuse.
2. Terminal connections and system ground.

---

**1** Carburetor model  
**2** Fuel Injection model
Customer Information
Registering Your Vehicle in A Foreign Country

When planning to register your vehicle in a foreign country, before taking it there you should confirm whether it conforms to regulations in that country. Even if you successfully register the vehicle in a foreign country, you may still experience such problems as these in its actual use and should therefore consider the possibility of having to deal with them:

1. The fuel specified for your vehicle may be unavailable. If other than specified fuel is used, it could cause problems to the engine and other fuel-related parts.

2. Because vehicles like yours may not be marketed in the new country of registration, parts, servicing techniques, and tools necessary to maintain and repair your vehicle may be unavailable. Even if vehicles like yours are sold there, mechanical specifications required by the government may vary enough from the country of purchase to cause similar problems. Further, you may experience difficulty in getting after-sales servicing for any one of several reasons.

3. There may be no Authorised Mazda Dealer in the area in which you plan to register your vehicle.

We must therefore clearly state that when you leave the country in which you purchased your Mazda as a new vehicle and register it in another country, troubles arising from the use of fuel other than specified fuel are not subject to manufacturer’s warranty. Further, we cannot assume any responsibility for problems that result from unsatisfactory service or lack of service because of the reasons outlined above.

Add-on Electric Equipment

The electric system of your Mazda is designed to perform under expected operation conditions. Before you install any additional electric equipment, consult an Authorised Mazda Dealer.

Improper installation of electrical equipment could cause fire. Some equipment or the way it’s installed may affect the correct operation of your vehicle, including the engine, the driver information system, the audio system, and the electrical charging system. We assume no responsibility for any expense you may incur or for any malfunctioning of your vehicle or any of its components or systems that may result from the installation of additional electric equipment that Mazda does not supply or approve for installation.
INSTALLATION OF A MOBILE TWO-WAY RADIO SYSTEM

If a mobile two-way radio system is installed improperly or if an excessively powerful type of system is used, the fuel injection system and other electronic systems may be affected. To avoid damage to your vehicle, consult an Authorised Mazda Dealer concerning the proper installation.
Specifications
SPECIFICATIONS

Specifications

The specifications given here are for information only. Before using them, see the CAUTIONS and other instructions throughout this manual. The index (page 10-1) may help you locate these items. An Authorised Mazda Dealer may also be able to help.

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>Unit: mm (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length</td>
<td>4,260 (167.7)</td>
</tr>
<tr>
<td>Overall width</td>
<td>1,675 (65.9)</td>
</tr>
<tr>
<td>Overall height</td>
<td>1,335 (52.6)</td>
</tr>
<tr>
<td>Front tread</td>
<td>1,430 (56.3)</td>
</tr>
<tr>
<td>Rear tread</td>
<td>1,435 (56.5)</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>2,500 (98.4)</td>
</tr>
</tbody>
</table>
### SPECIFICATIONS

#### ENGINE

<table>
<thead>
<tr>
<th>Item</th>
<th>1.6-litre</th>
<th>1.8-litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Carburetor</td>
<td>Fuel injection</td>
</tr>
<tr>
<td>Type</td>
<td>SOHC-16V in-line, 4-cyl</td>
<td>SOHC-16V in-line, 4-cyl</td>
</tr>
<tr>
<td>Bore x Stroke</td>
<td>78mm x 83.6mm (3.07 x 3.29 in)</td>
<td>83mm x 85mm (3.27 x 3.35 in)</td>
</tr>
<tr>
<td>Displacement</td>
<td>1,596cc (97.5 cu in)</td>
<td>1,840cc (112.2 cu in)</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>9.2</td>
<td>9.0</td>
</tr>
</tbody>
</table>

SOHC: Single Overhead Camshaft  
DOHC: Double Overhead Camshaft

#### ELECTRICAL SYSTEM

<table>
<thead>
<tr>
<th>Item</th>
<th>1.6-litre</th>
<th>1.8-litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>12V—60AH</td>
<td>12V—65amp</td>
</tr>
<tr>
<td>Alternator</td>
<td>12V—60amp</td>
<td>12V—65amp</td>
</tr>
<tr>
<td>Starter</td>
<td>12V—0.95kw</td>
<td>12V—0.95kw (MTX)</td>
</tr>
<tr>
<td>Spark-plug gap</td>
<td>with catalytic converter: 1.1 ± 0.03 mm (0.043 ± 0.004 in)</td>
<td>without catalytic converter: 0.8 ± 0.01 mm (0.031 ± 0.004 in)</td>
</tr>
</tbody>
</table>

9-3
## SPECIFICATIONS

### CAPACITIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Litre</th>
<th>US qt</th>
<th>Imp qt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine oil</td>
<td>1.6-litre</td>
<td>3.4</td>
<td>3.6</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>1.8-litre</td>
<td>4.0</td>
<td>4.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Coolant</td>
<td>MTX</td>
<td>5.0</td>
<td>5.3</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>ATX</td>
<td>6.0</td>
<td>6.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Transaxle oil</td>
<td>MTX</td>
<td>2.58</td>
<td>2.83</td>
<td>2.36</td>
</tr>
<tr>
<td></td>
<td>SOHC</td>
<td>3.35</td>
<td>3.55</td>
<td>2.96</td>
</tr>
<tr>
<td></td>
<td>DOHC</td>
<td>6.3</td>
<td>6.6</td>
<td>5.5</td>
</tr>
<tr>
<td>Fuel tank</td>
<td></td>
<td>55</td>
<td>14.5</td>
<td>12.1</td>
</tr>
</tbody>
</table>

SOHC: Single overhead camshaft engine  
DOHC: Double overhead camshaft engine  
MTX: Manual transaxle  
ATX: Automatic transaxle
## SPECIFICATIONS

### TYRES

<table>
<thead>
<tr>
<th>Size</th>
<th>165R13 82S</th>
<th>165/80R13 82S</th>
<th>155SR13 76S</th>
<th>155/80R13 78S</th>
<th>175/70R13 82H</th>
<th>185/60R14 82H</th>
<th>*175/65R14 (Temporary spare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kPa (kg/cm², ps)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>415 (4.2,60)</td>
</tr>
<tr>
<td>Up to 3 persons</td>
<td>Front</td>
<td>186 (1.9, 27)</td>
<td>196 (2.0, 28)</td>
<td>206 (2.1, 30)</td>
<td>206 (2.1, 30)</td>
<td>216 (2.2, 32)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rear</td>
<td>186 (1.9, 27)</td>
<td>177 (1.8, 26)</td>
<td>186 (1.9, 27)</td>
<td>186 (1.9, 27)</td>
<td>196 (2.0, 28)</td>
<td></td>
</tr>
<tr>
<td>~ Full load</td>
<td>Front</td>
<td>196 (2.0, 28)</td>
<td>216 (2.2, 32)</td>
<td>226 (2.3, 33)</td>
<td>216 (2.2, 32)</td>
<td>235 (2.4, 35)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rear</td>
<td>196 (2.0, 28)</td>
<td>196 (2.0, 28)</td>
<td>206 (2.1, 30)</td>
<td>206 (2.1, 30)</td>
<td>235 (2.4, 35)</td>
<td></td>
</tr>
</tbody>
</table>

1 Person's weight: About 75 kg
* Snow tyre
## SPECIFICATIONS

### LIGHT BULBS

<table>
<thead>
<tr>
<th>Light bulb</th>
<th>Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headlights</td>
<td>60/55</td>
</tr>
<tr>
<td>Front turn-signal lights</td>
<td>21</td>
</tr>
<tr>
<td>Front parking lights</td>
<td>5</td>
</tr>
<tr>
<td>Front side turn-signal lights</td>
<td>5</td>
</tr>
<tr>
<td>Rear turn-signal lights</td>
<td>21</td>
</tr>
<tr>
<td>Stop- and taillights</td>
<td>21/5</td>
</tr>
<tr>
<td>Back-up lights</td>
<td>21</td>
</tr>
<tr>
<td>Licence plate lights</td>
<td>5</td>
</tr>
<tr>
<td>Rear fog lights</td>
<td>21</td>
</tr>
<tr>
<td>Luggage compartment light</td>
<td>5</td>
</tr>
<tr>
<td>Interior light</td>
<td>10</td>
</tr>
<tr>
<td>Map light</td>
<td></td>
</tr>
<tr>
<td>With sunroof</td>
<td>8</td>
</tr>
<tr>
<td>Without sunroof</td>
<td>6</td>
</tr>
<tr>
<td>Running light*</td>
<td>55</td>
</tr>
<tr>
<td>Courtesy light*</td>
<td>5</td>
</tr>
</tbody>
</table>

*Some models.*
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<td>Pad wear indicator</td>
<td>4-13</td>
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<td>Parking brake</td>
<td>4-12</td>
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<td>Parking brake warning</td>
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<th>Page</th>
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<td>6-4</td>
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