

8

Maintenance

Because your Mazda is a large piece of intricate machinery, it needs regular care in the form of maintenance and servicing. Many owners prefer to do much of this work themselves.

So Section 8 has been prepared as a guide for the operator who wants to self-service such minor jobs as changing the engine oil, replacing bulbs and wiper blades, charging the battery, and rotating the tires. All maintenance schedules are included, along with instructions on how to make regular inspections of such things as fluid levels.

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Maintenance

Introduction

Be extremely careful to prevent injury to yourself and others and damage to your vehicle when using this manual for inspection and maintenance.

If you're unsure about any procedure it describes, we strongly urge you to have a reliable and qualified service shop perform the work, preferably an Authorized Mazda Dealer.

Factory-trained Mazda technicians and genuine Mazda parts are best for your vehicle. Without this expertise and the parts that have been designed and made especially for your Mazda, inadequate, incomplete, and insufficient servicing may result in problems. This could lead to vehicle damage or an accident and injuries.

For expert advice and quality service, consult an Authorized Mazda Dealer.

The owner should retain evidence that proper maintenance has been performed as prescribed.

A claim against a warranty will not qualify if it results from lack of maintenance and not from defective material or authorized Mazda workmanship.

Any auto repair shop using parts equivalent to your Mazda's original equipment may perform maintenance. **But we recommend that it always be done by an Authorized Mazda Dealer using genuine Mazda parts.**

Scheduled Maintenance

Follow Schedule 1 if the vehicle is operated mainly where none of the following conditions apply. If any do apply, follow Schedule 2 (Puerto Rico residents follow Schedule 2).

- Repeated short-distance driving
- Driving in dusty conditions
- Driving with an extended use of brakes
- Driving in areas where salt or other corrosive materials are being used
- Driving on rough or muddy roads
- Extended periods of idling or low-speed operation
- Driving for a prolonged period in cold temperatures or extremely humid climates

NOTE
After the described period, continue to follow the described maintenance at the recommended intervals.

Maintenance

I : Inspect and repair, clean, adjust, or replace if necessary. (Oil-permeated air filter cannot be cleaned using the air-blow method.)

R : Replace

Schedule 1

MAINTENANCE INTERVALS MAINTENANCE ITEM	Number of months or miles (kilometers), whichever comes first								
	Months	6	12	18	24	30	36	42	48
	× 1000 miles (× 1000 km)	7.5 (12)	15 (24)	22.5 (36)	30 (48)	37.5 (60)	45 (72)	52.5 (84)	60 (96)
Drive belts (tension)					I				I
Engine oil	R	R	R	R	R	R	R	R	R
Engine oil filter	R	R	R	R	R	R	R	R	R
Engine timing belt	* ¹ Replace every 60,000 miles (96,000 km) * ^{2, 3} Inspect for 60,000 miles (96,000 km), 90,000 miles (144,000 km) Replace every 105,000 miles (168,000 km)								
Engine valve clearance									I
Hoses and tubes for emission									I* ³
Air filter					R				R
Spark plugs					R				R
Cooling system					I				I

*¹ Vehicles not covered under *² below.

*² If your vehicle was initially registered in one of these listed states, the scheduled maintenance services set forth in this section apply to it:
California, New York, Massachusetts, Connecticut, Vermont, New Jersey, Rhode Island, Delaware, Maryland, New Hampshire, Pennsylvania, Virginia, Maine, Washington DC.

*³ According to state and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or mileage (kilometrage) period to ensure long-term reliability.

Maintenance

I : Inspect and repair, clean, adjust, or replace if necessary.
R: Replace L: Lubricate

Schedule 1 (Cont'd)

MAINTENANCE INTERVALS	Number of months or miles (kilometers), whichever comes first								
	Months	6	12	18	24	30	36	42	48
	× 1000 miles	7.5	15	22.5	30	37.5	45	52.5	60
	(× 1000 km)	(12)	(24)	(36)	(48)	(60)	(72)	(84)	(96)
MAINTENANCE ITEM									
Engine coolant	Replace at first 45,000 miles (72,000 km) or 36 months; after that, every 30,000 miles (48,000 km) or 24 months								
Fuel filter									R*3
Fuel lines and hoses					I*3				I*3
Idle speed					I*3				I*3
Brake lines, hoses and connections					I				I
Disc brakes					I				I
Steering operation and linkages					I				I
Front suspension ball joints					I				I
Drive shaft dust boots					I				I
Bolts and nuts on chassis and body					I				I
Exhaust system heat shields					I				I
All locks and hinges	L	L	L	L	L	L	L	L	L
Manual transmission oil									R
Rear differential oil									R
Air conditioner refrigerant (if installed)		I			I		I		I
Air conditioner compressor (if installed)		I			I		I		I

*3 According to state and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or mileage (kilometrage) period to ensure long-term reliability.

Maintenance

I : Inspect and repair, clean, adjust, or replace if necessary. (Oil-permeated air filter cannot be cleaned using the air-blow method.)
R : Replace

Schedule 2

MAINTENANCE INTERVALS		Number of months or miles (kilometers), whichever comes first												
		Months	4	8	12	16	20	24	28	32	36	40	44	48
MAINTENANCE ITEM		× 1000 miles	5	10	15	20	25	30	35	40	45	50	55	60
		(× 1000 km)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)	(80)	(88)	(96)
Drive belts (tension)								I						I
Engine oil	Except Puerto Rico	R	R	R	R	R	R	R	R	R	R	R	R	R
	Puerto Rico	Replace every 3,000 miles (4,800 km) or 3 months												
Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	R	R
Engine timing belt		*1 Replace every 60,000 miles (96,000 km)												
		*2, *3 Inspect for 60,000 miles (96,000 km), 90,000 miles (144,000 km) Replace every 105,000 miles (168,000 km)												
Engine valve clearance														I
Air filter				I*3			R			I*3				R
Spark plugs							R							R
Cooling system							I							I

*1 Vehicles not covered under *2 below.

*2 If your vehicle was initially registered in one of these listed states, the scheduled maintenance services set forth in this section apply to it:
 California, New York, Massachusetts, Connecticut, Vermont, New Jersey, Rhode Island, Delaware, Maryland, New Hampshire, Pennsylvania, Virginia,
 Maine, Washington DC.

*3 According to state and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or mileage (kilometrage) period to ensure long-term reliability.

Maintenance

I : Inspect and repair, clean, adjust, or replace if necessary.
R: Replace L: Lubricate

Schedule 2 (Cont'd)

MAINTENANCE INTERVALS MAINTENANCE ITEM	Number of months or miles (kilometers), whichever comes first												
	Months	4	8	12	16	20	24	28	32	36	40	44	48
	× 1000 miles	5	10	15	20	25	30	35	40	45	50	55	60
	(× 1000 km)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)	(80)	(88)	(96)
Engine coolant	Replace at first 45,000 miles (72,000 km) or 36 months; after that, every 30,000 miles (48,000 km) or 24 months												
Engine coolant level	I	I	I	I	I	I	I	I	I	I	I	I	I
Fuel filter													R* ³
Fuel lines and hoses							I* ³						I* ³
Idle speed							I* ³						I* ³
Hoses and tubes for emission													I* ³
Function of all lights	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake lines, hoses and connections							I						I
Brake and clutch fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Disc brakes			I				I			I			I
Tire inflation pressure and tire wear	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering operation and linkages							I						I
Power steering fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Front suspension ball joints							I						I
Bolts and nuts on chassis and body			I				I			I			I
Exhaust system heat shields							I						I
All locks and hinges	L	L	L	L	L	L	L	L	L	L	L	L	L

*3 According to state and federal regulations, failure to perform maintenance on these items will not void your emissions warranties. However, Mazda recommends that all maintenance services be performed at the recommended time or mileage (kilometrage) period to ensure long-term reliability.

Maintenance

I : Inspect and repair, clean, adjust, or replace if necessary.
 R : Replace

Schedule 2 (Cont'd)

MAINTENANCE INTERVALS MAINTENANCE ITEM	Number of months or miles (kilometers), whichever comes first												
	Months	4	8	12	16	20	24	28	32	36	40	44	48
	× 1000 miles	5	10	15	20	25	30	35	40	45	50	55	60
(× 1000 km)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)	(80)	(88)	(96)	
Manual transmission oil							R						R
Rear differential oil							R						R
Drive shaft dust boots							I						I
Washer fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Air conditioner refrigerant (if installed)			I				I			I			I
Air conditioner compressor (if installed)			I				I			I			I

Owner Maintenance

■ Owner Maintenance Schedule

The owner or a qualified service technician should make these vehicle inspections at the indicated intervals to ensure safe and dependable operation.

Bring any problem to the attention of an Authorized Mazda Dealer or qualified service technician as soon as possible.

▼ When refueling

- Brake and clutch fluid level (page 8-18, 8-19)
- Engine coolant level (page 8-15)
- Engine oil level (page 8-13)
- Washer fluid level (page 8-24)

▼ At least monthly

- Tire inflation pressures (page 8-31)

▼ At least twice a year (for example, every spring and fall)

- Automatic transmission fluid level (page 8-22)
- Power steering fluid level (page 8-21)

You can do the following scheduled maintenance items if you have some mechanical ability and a few basic tools and if you closely follow the directions in this manual.

- Air filter (page 8-25)
- Engine coolant (page 8-16)
- Engine oil and oil filter (page 8-14)

■ **Owner Maintenance Precautions**

Improper or incomplete service may result in problems. This section gives instructions only for items easy to perform.

 **WARNING**

Maintenance Procedures:

Performing maintenance work on a vehicle can be dangerous. You can be seriously injured while performing some maintenance procedure. If you lack sufficient knowledge and experience or the proper tools and equipment to do the work, have it done by a qualified technician.

As explained in the Introduction (page 8-2), several procedure can be done only by a qualified service technician with special tools.

Improper owner maintenance during the warranty period may affect warranty coverage. For details, read the separate Mazda Warranty statement provided with the vehicle. If you're unsure about any servicing or maintenance procedure, have it done by an Authorized Mazda Dealer.

 **WARNING**

Running the Engine:

Working under the hood with the engine running is dangerous. It becomes even more dangerous when you wear jewelry or loose clothing. Either can become entangled in moving parts and result in injury. Therefore, if you must run the engine while working under the hood, make certain that you remove all jewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose clothing before getting near the engine or cooling fan.

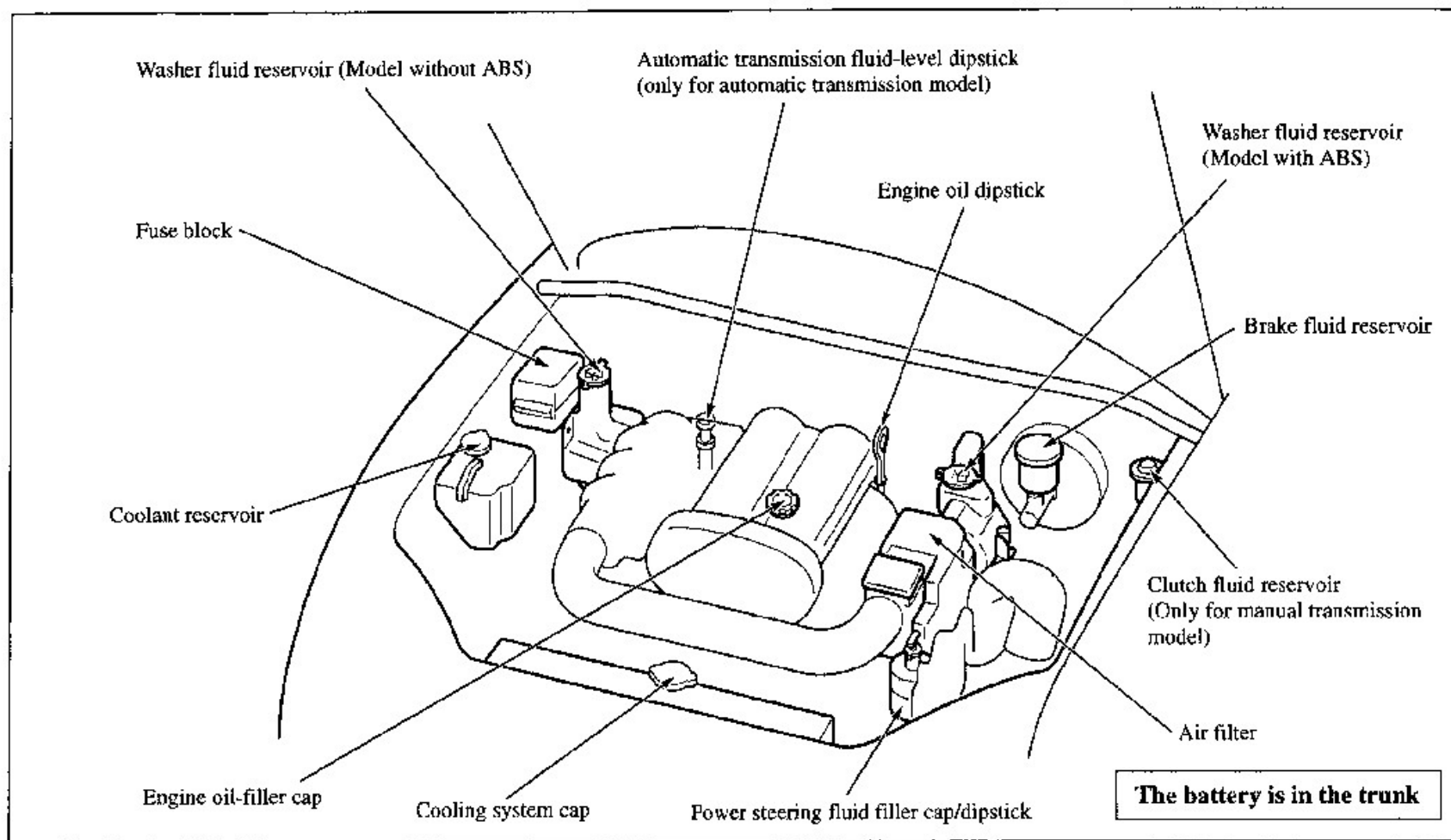
 **WARNING**

Electrical Fan and Engine

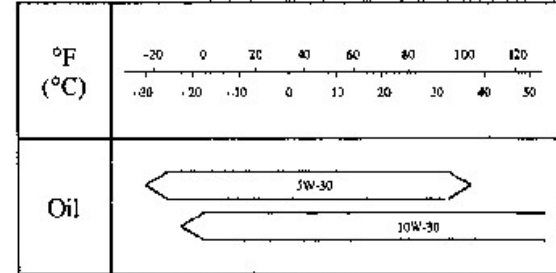
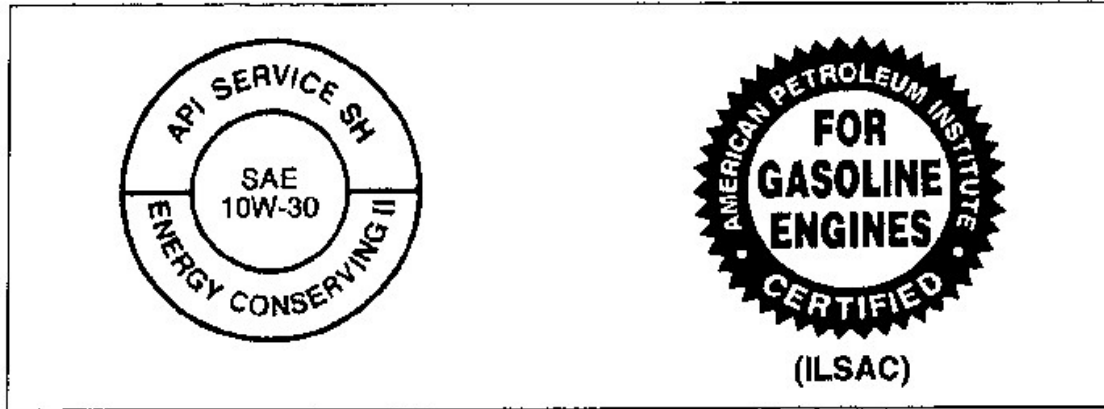
Inspection:

Inspecting the engine with the ignition switch in the ON(II) position is dangerous. The cooling fan could come on unexpectedly even when the engine isn't running. You could be seriously injured by the fan. Turn the ignition switch off and remove the key from the ignition switch when you inspect the engine.

■ Engine Compartment Overview



Maintenance



⚠ CAUTION

Using oils of viscosity besides those recommended for specific temperature ranges could result in engine damage.

■ **Engine Oil**

▼ **Recommended oil**

Oil container labels provide important information.

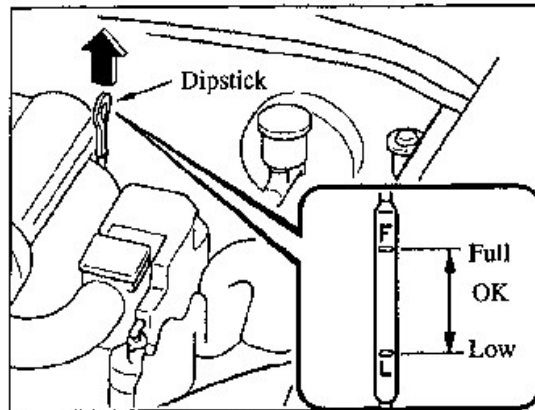
The quality designation “SG”, “SH”, “SJ”, or “ILSAC” must be on the label.

Engine oil viscosity, or thickness, has an effect on fuel economy and cold-weather operation (starting and oil flow). Low-viscosity engine oils can provide

improved fuel economy and cold-weather performance. But high-temperature weather conditions require higher-viscosity engine oils for satisfactory lubrication.

When choosing an oil, consider the temperature range your vehicle will operate in before the next oil change. Then select the recommended viscosity from this chart.

Energy conserving oils are recommended. A chief contribution they make to fuel economy is reducing the amount of fuel necessary to overcome engine friction.



▼ Inspecting engine oil level

1. Be sure the vehicle is on a level surface.
2. Warm up the engine to normal operating temperature.
3. Turn it off and wait 5 minutes for the oil to return to the oil pan.
4. Pull out the dipstick, wipe it clean, and reinsert it fully.

5. Pull it out again and examine the level. It's OK between L and F.

But if it's near at or below L, add enough oil to bring the level to F.

⚠ CAUTION

Don't add engine oil over F. This may cause engine damage.

NOTE

The distance between L and F on the dipstick represents **0.85 US qt (0.70 Imp qt, 0.8 liter)**.

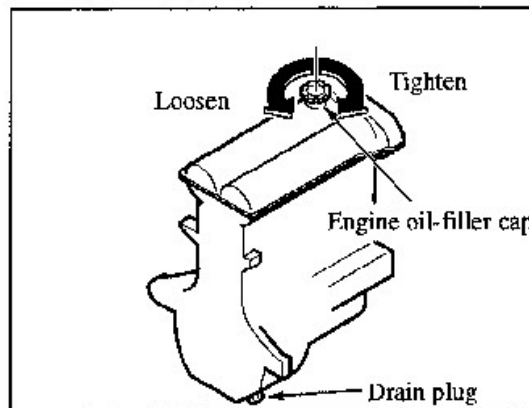
▼ **Changing engine oil and filter**

Change engine oil and filter according to Scheduled Maintenance (page 8-3).

Please act responsibly—protect the environment and take used oil to a recycling facility. Ask your dealer or a service station for information.

⚠ WARNING

Handling Used Engine Oil:
Continuous contact with used engine oil could be dangerous. It could cause skin cancer. Always wash with soap and water immediately after changing oil and filter.



Changing engine oil

1. Warm up the engine for a few minutes and turn it off. Remove the oil-filler cap.
2. Remove the drain plug and drain the oil into a suitable container.

⚠ WARNING

Checking or Changing Engine Oil:
Hot engine oil could be dangerous. If the engine has been running, the engine oil become very hot. You could be seriously burned. Don't check or change the engine oil when the engine is hot.

3. Replace the plug tightly after the oil has thoroughly drained.
4. Fill the engine with new oil to the F mark on the dipstick.
5. Securely replace the oil-filler cap.
6. Start the engine and inspect around the drain plug for leaks.
7. Turn it off 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 (General reference only)

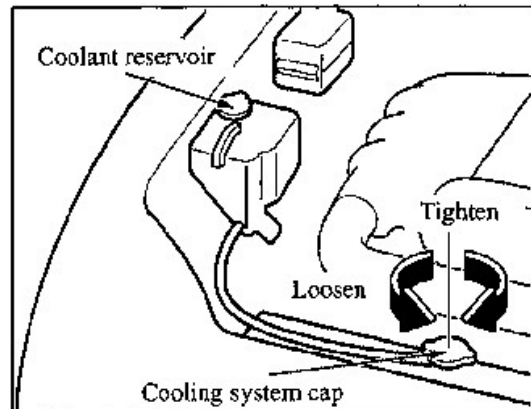
3.8 US qt (3.2 Imp qt, 3.6 liter)

NOTE

- The indicated engine oil capacities are for general reference purposes only. When adding or changing oil, verify the engine oil level with the oil dipstick.
- Use only specified engine oil (page 8-12).

Changing oil filter

Because you need a special tool to retighten the filter, an Authorized Mazda Dealer should do the work.



■ Engine Coolant

▼ Inspecting coolant level

⚠ WARNING

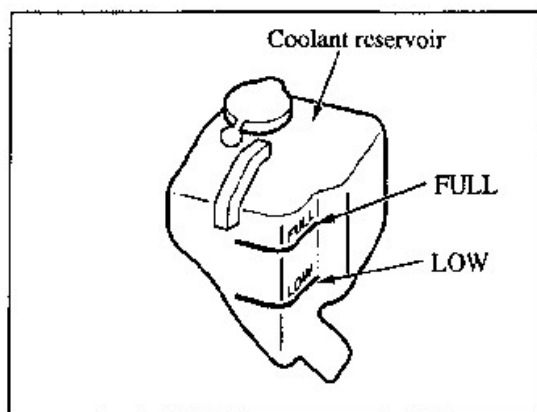
Hot Engine:

A hot engine is dangerous. If the engine has been running, parts of the engine compartment can become very hot. You could be burned. Don't inspect the coolant system or add coolant when the engine is hot.

Inspect the antifreeze protection and coolant level in the coolant reservoir at least once a year—at the beginning of the winter season—and before traveling where temperatures may drop below freezing.

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

The coolant should be at full in the radiator and between the FULL and LOW marks on the coolant reservoir when the engine is cool.



If it's at or near LOW, add enough coolant to the coolant reservoir to provide freezing and corrosion protection and to bring the level to FULL.

Do not overfill.

If new coolant is required frequently, consult an Authorized Mazda Dealer.

CAUTION

Radiator coolant will damage paint. Rinse it off quickly.

▼ Changing coolant

Change coolant according to Scheduled Maintenance (page 8-3).

CAUTION

- Use only soft (demineralized) water in the coolant mixture. Water that contains minerals will cut down on the coolant's effectiveness.
- Don't add only water. Always add a proper coolant mixture.
- The engine has aluminum parts and must be protected by an ethylene-glycol-based coolant to prevent corrosion and freezing.

DO NOT USE alcohol or methanol antifreeze. DO NOT MIX alcohol or methanol with the coolant. This could damage the cooling system.

(Continued)

- Don't use a solution that contains more than 60 percent antifreeze. This would reduce effectiveness.

For mixture percentage:

Protection	Volume	
	Antifreeze solution	Water
Above 3°F (-16°C)	35%	65%
Above -15°F (-26°C)	45	55
Above -40°F (-40°C)	55	45

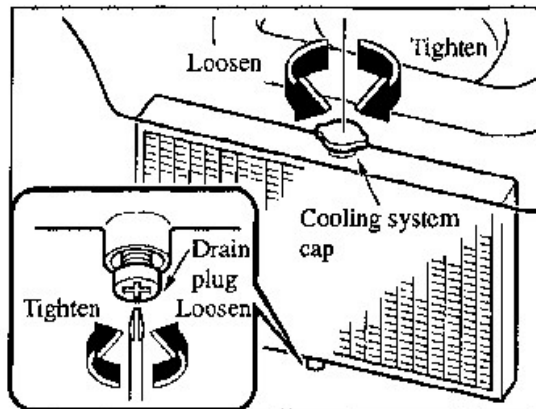
 **WARNING**

Removing the Cooling System Cap:
Removing the cooling system cap or the drain plug when the engine is running or warm is dangerous. Scalding coolant and steam may shoot out and severely burn you. This could also damage the cooling system and the engine. Don't remove the cooling system cap or the drain plug when the engine is running or warm.

NOTE

If the engine is hot, turn off the engine and wait until it's cool. Even then, be very careful when removing the cooling system cap. Wrap a thick cloth around it and slowly turn it counterclockwise to the first stop. Step back while the pressure escapes.

Maintenance

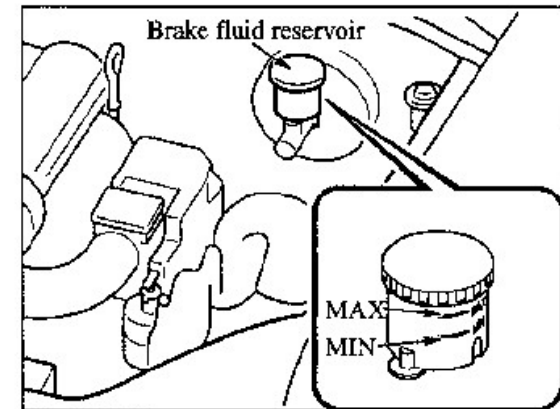


To change coolant

1. Remove the cooling system cap.
2. Only when the engine is cool, remove the radiator drain plug and drain the coolant into a suitable container.
3. Flush out the system with running water.
4. Drain the system completely. Insert and tighten the plug. Add as much ethylene-glycol-based coolant and water as necessary to provide freezing

and corrosion protection. In extremely cold climates, add the amount recommended in the coolant manufacturer's instructions.

5. Run the engine at idle with the cooling system cap off. Slowly add additional coolant if necessary.
6. At this point, wait until the engine reaches normal operating temperature; then depress the accelerator two or three times. Add more coolant, if necessary, until the system is full.
7. Install the cooling system cap. Inspect all connections for leaks. Inspect the level in the coolant reservoir one more time.



■ Inspecting Brake Fluid Level

Inspect the fluid level in the reservoir regularly. It should be kept at MAX. If it's low, add fluid until it reaches MAX.

Before adding fluid, thoroughly clean the area around the cap.

The level normally drops with accumulated mileage, a condition associated with wear of brake linings. If it is excessively low, have the brake system inspected by an Authorized Mazda Dealer.

⚠ CAUTION

Brake fluid will damage painted surfaces. If brake fluid does get on a painted surface, wipe it off immediately.

⚠ CAUTION

Using nonspecified brake fluids (see chart, page 10-2) will damage the system. Mixing different fluids will also damage it.

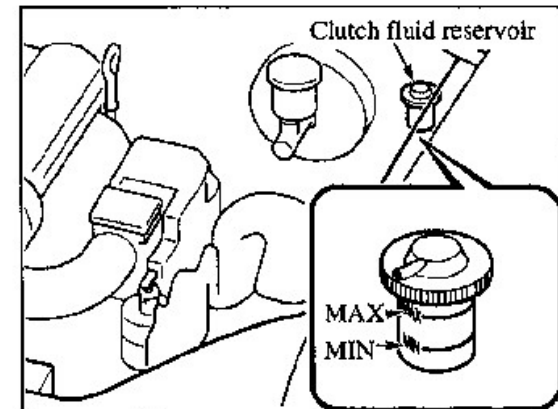
If the brake system frequently requires new fluid, consult an Authorized Mazda Dealer.

⚠ WARNING

Spilled Brake Fluid:
Spilled brake fluid is dangerous. If it gets in your eyes, they could be seriously injured. If this happens, immediately flush your eyes with water and get medical attention. Brake fluid spilled on a hot engine could cause a fire. Be careful not to spill brake fluid on yourself or on the engine.

⚠ WARNING

Low Brake Fluid Levels:
Low brake fluid levels could be dangerous. Low levels could signal brake lining wear or a brake system leak. Your brakes could fail and cause an accident. If you find a low fluid level, have the brakes inspected.



■ Inspecting Clutch Fluid Level

Inspect the level in the clutch fluid reservoir regularly. It should be kept at MAX. If it's less, add fluid until it reaches MAX.

Before adding fluid, thoroughly clean the area around the cap.

⚠ CAUTION

Clutch fluid will damage painted surfaces. If clutch fluid does get on a painted surface, wipe it off immediately.

⚠ CAUTION

Using nonspecified clutch fluids (see chart, page 10-2) will damage the system. Mixing different fluids will also damage it.

If the clutch system frequently requires new fluid, it should be inspected. Consult an Authorized Mazda Dealer immediately.

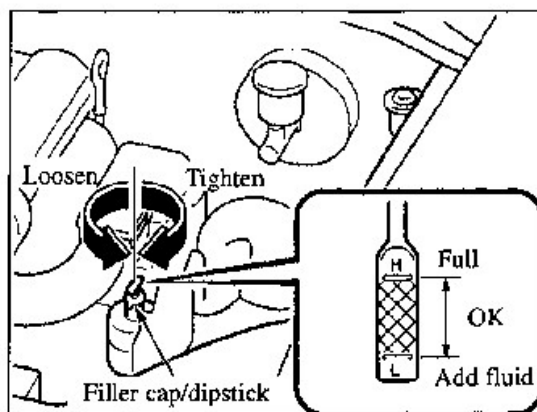
NOTE

Low clutch fluid level may signal a fluid leak. If you find a low fluid level, have the clutch inspected.

⚠ WARNING

Handling Clutch Fluid:

If clutch fluid gets in your eyes, you could be seriously injured. If it spills on a hot engine, a fire could start. Be very careful when handling clutch fluid.



■ **Inspecting Power Steering Fluid Level***

Inspect the fluid level at each engine oil change. Add fluid if necessary; it does not require periodic changing.

The level must be kept between the H and L marks.


Visually examine the lines and hoses for leaks and damage.

1. Park on a level surface, well off the right-of-way, and set the parking brake firmly.

2. Turn off the engine and allow it to cool.
3. Remove the filler cap and attached dipstick.
4. Wipe them clean and put them back.
5. Remove again and inspect the level.
6. It must be between H and L. Add fluid if necessary.

Don't overfill.

If new fluid is required frequently, consult an Authorized Mazda Dealer.

 CAUTION
<p>To avoid damage to the power steering pump, don't operate the vehicle for long periods when the power steering fluid level is low.</p>

NOTE

Use specified power steering fluid (chart, page 10-2).

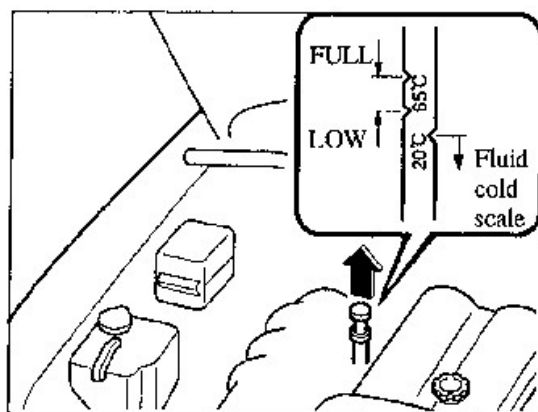
■ Inspecting Automatic Transmission Fluid Level

The automatic transmission fluid level should be inspected regularly. Measure it as described below.

The volume of fluid changes with the temperature. For that reason, it is best to examine the level after having driven the vehicle for 15 minutes. If necessary, however, it can also be inspected without driving when the outside temperature is above 68°F (20°C).

⚠ CAUTION

- Low fluid level causes transmission slippage. Overfilling can cause foaming, loss of fluid, and transmission malfunction.
- Use specified fluid (page 10-2) A nonspecified fluid could result in transmission malfunction and failure.
- The vehicle should not be driven if the fluid level is below the bottom of the dipstick and the outside temperature is above 68°F (20°C), or if evident automatic transmission fluid leaks are found.



1. Park on a level surface and set the parking brake firmly.
2. Idle the engine. Push down on the brake pedal.
3. Move the shift lever through all ranges and set it at P.

4. With the engine still idling, pull out the dipstick, wipe it clean.
5. Put the dipstick back into the filler tube and make sure it is fully seated.
6. Pull the dipstick out and read the fluid level.

The proper fluid level is marked on the dipstick as follows.

⚠ WARNING

Sudden Vehicle Movement:
Shifting the shift lever without first depressing the brake pedal is dangerous. The vehicle could move suddenly and cause an accident. Make sure the brake pedal is applied before shifting the shift lever.

▼ Fluid hot scale

When checking the fluid level at normal operating temperature, the fluid level should be within the FULL and LOW marks on the dipstick.

▼ Fluid cold scale

When the vehicle has not been driven but the engine is idling, and the outside temperature is above 68°F (20°C), the fluid level should be close to, but not above, the bottom notch on the dipstick.

NOTE

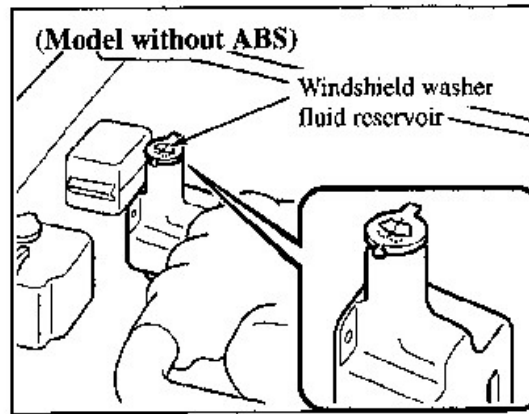
Use the cold scale as a reference.

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Fully insert the dipstick. When adding fluid, inspect with the dipstick to make sure it doesn't pass full.

NOTE

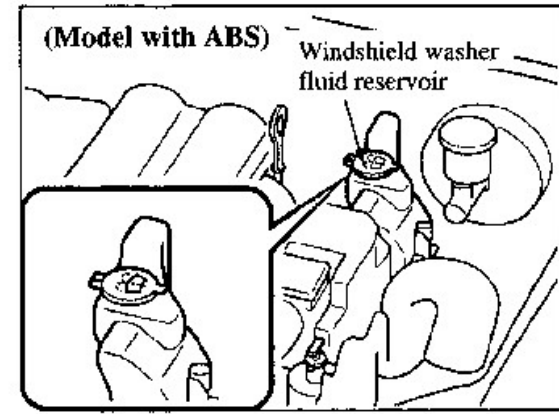
Inspect both sides of the dipstick for accurate reading.



■ Inspecting Washer Fluid Level

Inspect fluid level in the washer fluid reservoir; add fluid if necessary.

Use plain water if fluid is unavailable. But use only washer fluid in cold weather to prevent it from freezing.



⚠ WARNING

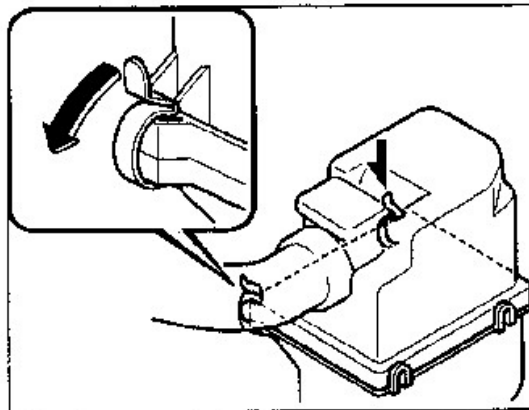
Substitute Washer Fluid:

Using radiator antifreeze as washer fluid is dangerous. If sprayed on the windshield, it will dirty the windshield, affect your visibility, and could result in an accident. Use only windshield washer fluid or plain water in the reservoir.

■ **Body Lubrication**

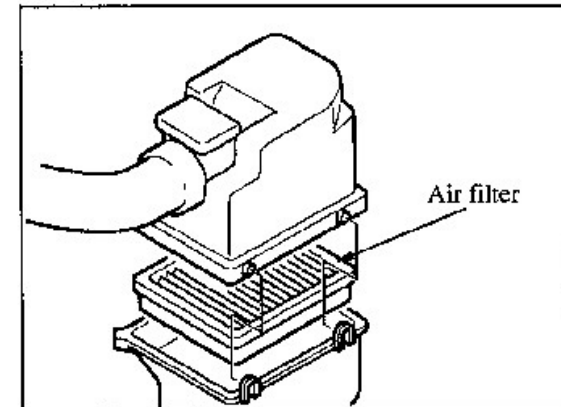
All moving points of the body, such as door and hood hinges and locks, should be lubricated each time the engine oil is changed. Use a nonfreezing lubricant on locks during cold weather.

Make sure the engine hood's secondary latch keeps the hood from opening when the primary latch is released.



■ **Maintaining the Air Filter**

A viscous paper air filter fits inside the air cleaner housing, as shown. It's been specially treated and should not be cleaned and reused. Replace it when necessary.



1. Unfasten the clamps.
2. Lift off the air filter cover and remove the filter.
3. Wipe inside the air cleaner housing with a damp cloth.
4. Replace the filter.
5. Install in the reverse order of removal.

Replace the filter according to Scheduled Maintenance (page 8-3).

Maintenance

NOTE

If the vehicle is operated in very dusty or sandy areas, replace the filter more often than recommended intervals.

CAUTION

Don't drive without an air filter. This could result in excessive engine wear.

■ Maintaining Wiper Blades

CAUTION

Hot waxes applied by automatic car washes have been known to affect the cleanability of windows.

Contamination of either the windshield or the blades with foreign matter can reduce wiper effectiveness. Common sources are insects, tree sap, and hot wax treatments used by some commercial car washes.

If the blades are not wiping properly, clean the window and blades with a good cleaner or mild detergent; then rinse thoroughly with clean water. Repeat if necessary.

CAUTION

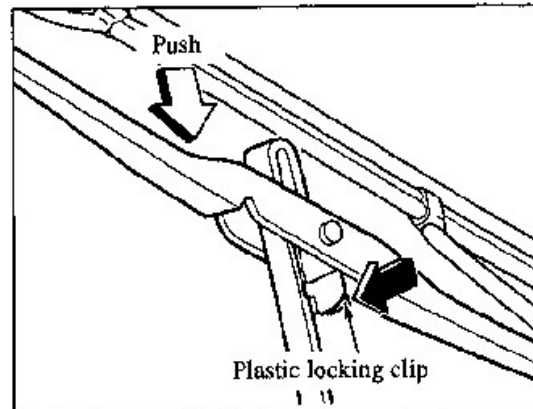
To prevent damage to the wiper blades, don't use gasoline, kerosene, paint thinner, or other solvents on or near them.

■ Replacing Windshield Wiper Blades

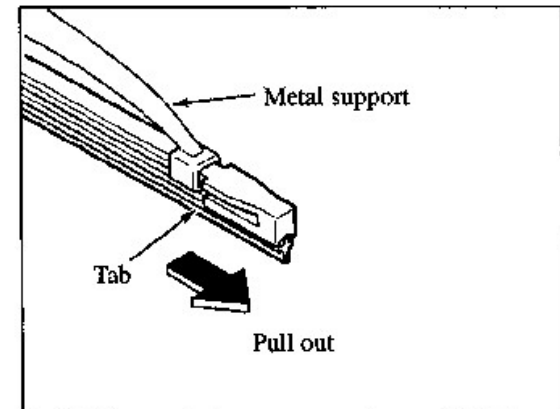
When the wipers no longer clean well, the blades are probably worn or cracked. Replace them.

⚠ CAUTION

To prevent damage to the wiper arms and other components, don't move the wipers by hand.



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

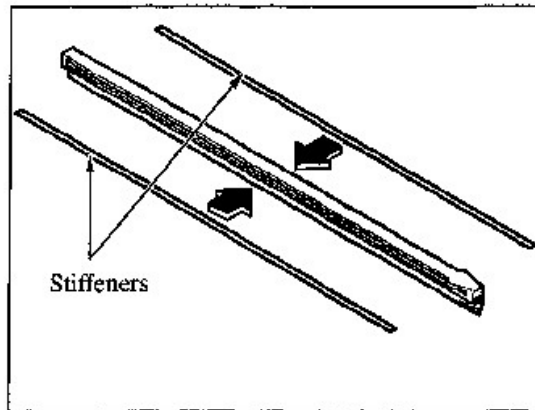


3. Hold the end of the rubber and pull until the tabs are free of the metal support.

⚠ CAUTION

To prevent damage to the windshield, don't let the wiper arm fall on it.

Maintenance

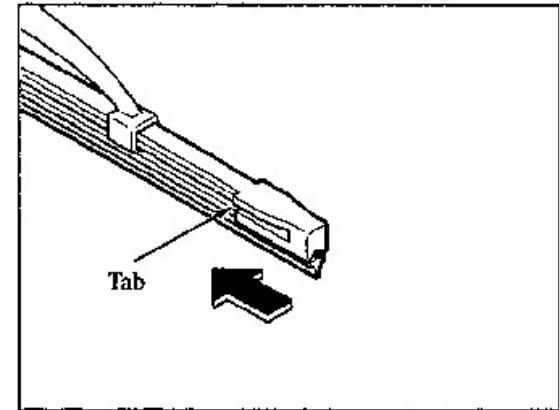


4. Remove the metal stiffeners from the blade rubber and install them in new blades.

CAUTION

- Don't bend the stiffeners. You need to use them again.
- If the metal stiffeners are switched, the blade's wiping efficiency could be reduced.

So don't use the driver's side metal stiffeners on the passenger's side, or vice versa.
- Be sure to reinstall the metal stiffeners in the new blade rubber so that the curve is the same as it was in the old blade rubber.



5. Carefully insert the new blade rubber. Then install the blade assembly in the reverse order of removal.

NOTE

Install the blade so that the tabs are toward the bottom of the wiper arm.

■ Battery

⚠ WARNING**Spilled Battery Fluid:**

*Spilled battery fluid is dangerous. Battery fluid contains **SULFURIC ACID** which could cause serious injuries, if it gets in your eyes or on your skin. If this happens, immediately flush your eyes with water for 15 minutes or wash your skin thoroughly and get medical attention. Be careful not to get battery fluid on yourself.*

⚠ WARNING**Battery-Related Explosion:**

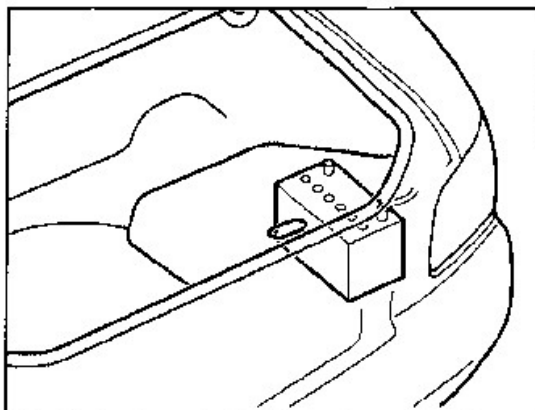
Flames and sparks near open battery cells are dangerous. Hydrogen gas, produced during normal battery operation, could ignite and cause the battery to explode. An exploding battery can cause serious burns and injuries. Keep all flames, including cigarettes, and sparks away from open battery cells.

⚠ WARNING**Children and Batteries:**

Allowing children to play near batteries is dangerous. Battery fluid could cause serious injuries if it gets in the eyes or on the skin. Always keep batteries out of the reach of children.

NOTE

The battery in this vehicle is unique and should only be replaced with the appropriate Mazda battery. For more details, contact your Authorized Mazda Dealer.



The battery is in the trunk.

To get the best service from a battery:

- Keep it securely mounted.
- Keep the top clean and dry.
- Keep terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse off spilled electrolyte immediately with a solution of water and baking soda.
- If the vehicle will not be used for an extended time, disconnect the battery cables.

■ Tires

For reasons of proper performance, safety, and better fuel economy, always maintain recommended tire inflation pressures and stay within the recommended load limits and weight distribution.

⚠ WARNING

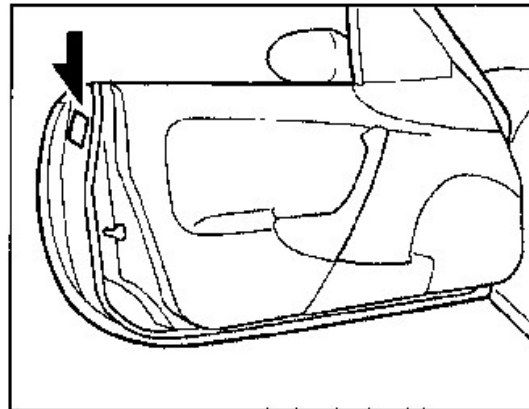
Using Different Tire Types:

Driving your vehicle with different types of tires is dangerous. It could cause poor handling and poor braking; leading to loss of control. Except when using the temporary spare tire, use only the same type tires (radial, bias-belted, bias-type) on all four wheels.

⚠ WARNING

Using Wrong-Sized Tires:

Using any other tire size than what is specified for your Mazda (page 10-4) is dangerous. It could seriously affect ride, handling, ground clearance, tire clearance, and speedometer calibration. This could cause you to have an accident. Use only tires that are the correct size specified for your Mazda.



▼ Tire inflation pressure

Inspect all tire pressures monthly (including the spare) when the tires are cold. Maintain recommended pressures for the best ride, top handling, and minimum tire wear.

Refer to the specification charts (page 10-4).

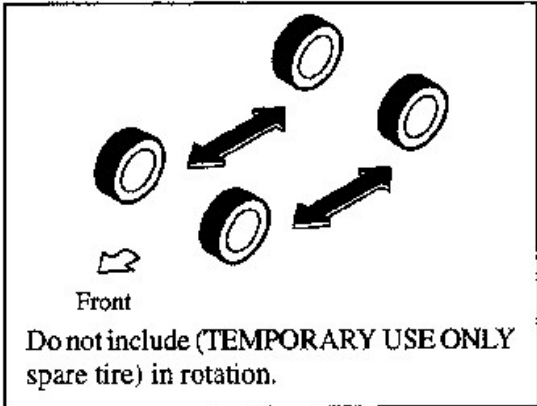
NOTE

- Warm tires normally exceed recommended pressures. Don't release air from warm tires to adjust the pressure.
- Underinflation can cause reduced fuel economy and poor sealing of the tire bead, which will deform the wheel and cause separation of tire from rim.
- Overinflation can produce a harsh ride and a greater possibility of damage from road hazards.

Keep your tire pressure at the correct levels. If one frequently needs inflating, have it inspected.

⚠ WARNING

Incorrect Tire Inflation:
Overinflation or underinflation of tires is dangerous. Adverse handling or unexpected tire failure could result in a serious accident. Always inflate the tires to the correct pressure (page 10-4).



▼ **Tire rotation**

To equalize tread wear, rotate the tires every 3,750 miles (6,000 km), or sooner if irregular wear develops. During rotation, inspect them for correct balance.

Also, inspect them for uneven wear and damage. Abnormal wear is usually caused by one or a combination of the following:

- Incorrect tire pressure

- Improper wheel alignment
- Out-of-balance wheel
- Severe braking

After rotation, bring all tire pressures to specification (page 10-4) and inspect the lug nuts for tightness.

⚠ CAUTION

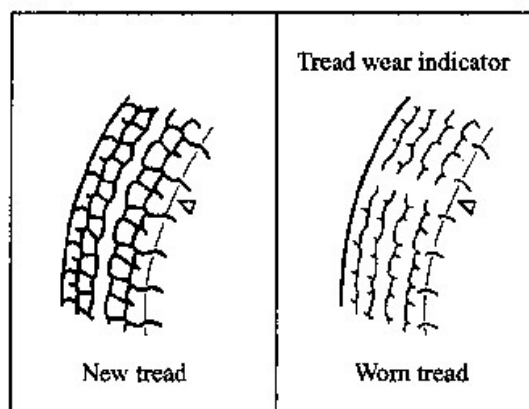
Rotate unidirectional tires and radial tires that have an asymmetrical tread pattern or studs only from front to rear, not from side to side. Tire performance will be weakened if rotated from side to side.

(Limited-Slip Differential*)**⚠ CAUTION**

Don't use the following:

- Tires not of the designated size
- Tires of different sizes or types at the same time
- Tires not sufficiently inflated

If these instructions aren't followed, the rotation of the left and right wheels will be different and will thus apply a constant load on the limited-slip differential. This will cause a malfunction.

**▼ Replacing a tire**

If a tire wears evenly, a wear indicator will appear as a solid band across the tread. Replace the tire when this happens. You may need to replace it before the band is across the entire tread.

⚠ WARNING***Worn Tires:***

Driving with worn tires is dangerous. Reduced braking, steering, and traction could result in an accident. Always use tires that are in good condition.

Maintenance

▼ Temporary spare tire

Inspect the temporary spare tire at least monthly to make sure it's properly inflated and stored.

The temporary spare tire is easier to handle because of its construction. It is lighter and smaller than a conventional tire and should be used only for an emergency and only for a short distance.

Use the temporary only until the conventional tire is repaired, which should be as soon as possible.

Maintain its pressure at 420 kPa (4.2 kgf/cm², 60 psi).

CAUTION

- Don't use your temporary spare tire rim with a snow tire or a conventional tire. Neither will properly fit and could damage both tire and rim.
- The temporary spare tire has a tread life of up to 3,000 miles (4,800 km), depending on road conditions and driving habits.
- When the tread wear solid-band indicator appears, replace the tire with the same type of temporary spare.

▼ Replacing a wheel

When replacing a wheel, make sure the new one is the same as the original factory wheel in diameter, rim width, and offset.

Proper tire balancing provides the best riding comfort and helps reduce tread wear. Out-of-balance tires can cause vibration and uneven wear, such as cupping and flat spots.

WARNING

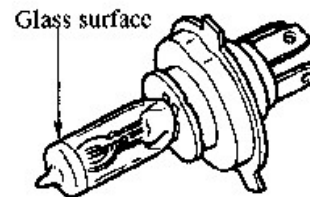
Using a Wrong-Sized Wheel:

Using a wrong-sized wheel is dangerous. Braking and handling could be affected, leading to loss of control and an accident. Always use wheels of the correct size on your vehicle.

⚠ CAUTION

A wrong-sized wheel may adversely affect

- Tire fit
- Wheel and bearing life
- Ground clearance
- Snow-chain clearance
- Speedometer calibration
- Headlight aim
- Bumper height



Do not touch the glass surface

■ Replace a Headlight Bulb

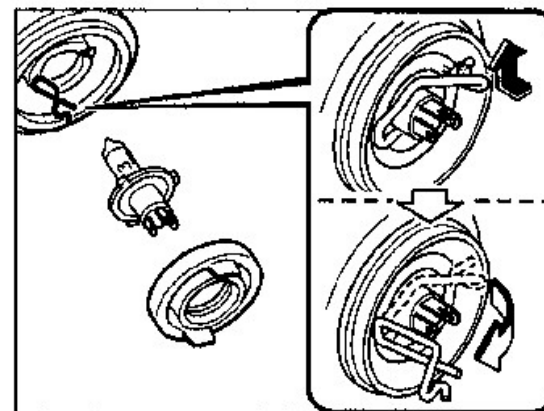
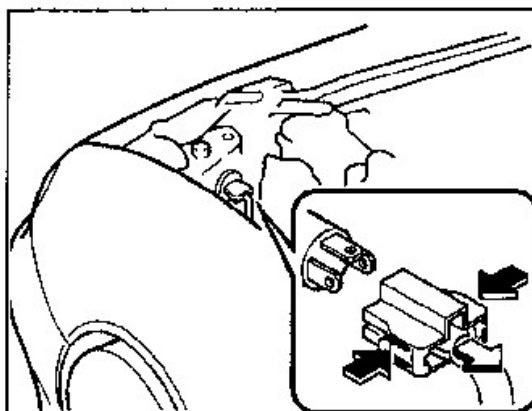
Your Mazda's headlights have replaceable halogen bulbs. One can be replaced without disturbing the rest of the headlight.

⚠ WARNING***Handling Halogen Bulbs:***

When a halogen bulb breaks, it is dangerous. These bulbs contain pressurized gas. If one is broken, it will explode and serious injuries could be caused by the flying glass. If the glass portion is touched with bare hands, body oil could cause the bulb to overheat and explode when lit. Never touch the glass portion of the bulb with your bare hands and always wear eye protection when handling or working around halogen bulbs.

⚠ WARNING

Children and Halogen Bulbs:
Playing with a halogen bulb is dangerous. Serious injuries could be caused by dropping a halogen bulb or breaking it some other way. Always keep halogen bulbs out of the reach of children.



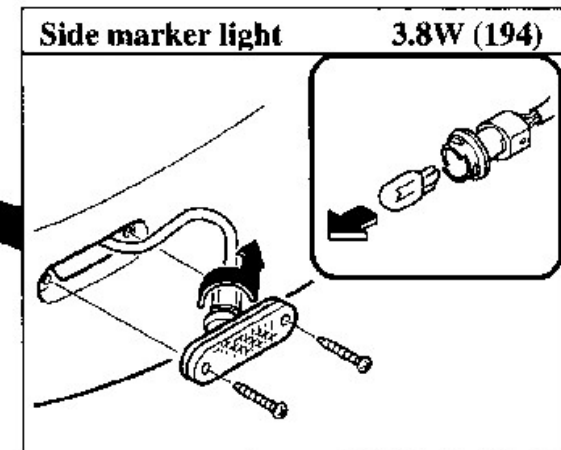
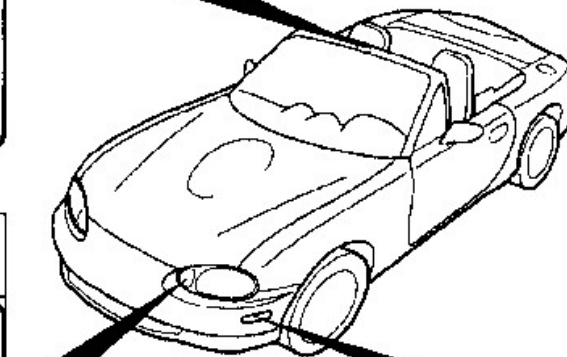
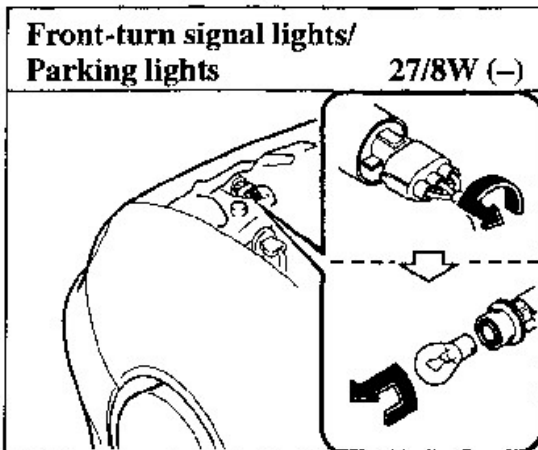
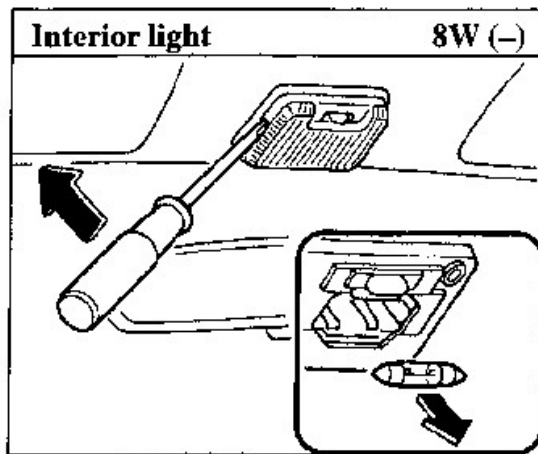
1. Make sure the headlight switch is off.
2. Lift the hood and find the bulb in the rear of the headlight body.
3. Disconnect the electrical connector from the bulb by squeezing the tabs and pulling it to the rear.
4. Pull off the sealing cover.
5. Unhook the bulb retaining spring.
6. Swing the retaining spring out and away to free the headlight bulb.
7. Carefully remove the headlight bulb from the socket by pulling it straight back.
8. Replace the bulb.

9. Install in the reverse order of removal.

NOTE
Use the protective cover and carton to dispose of the old bulb promptly out of the reach of children.

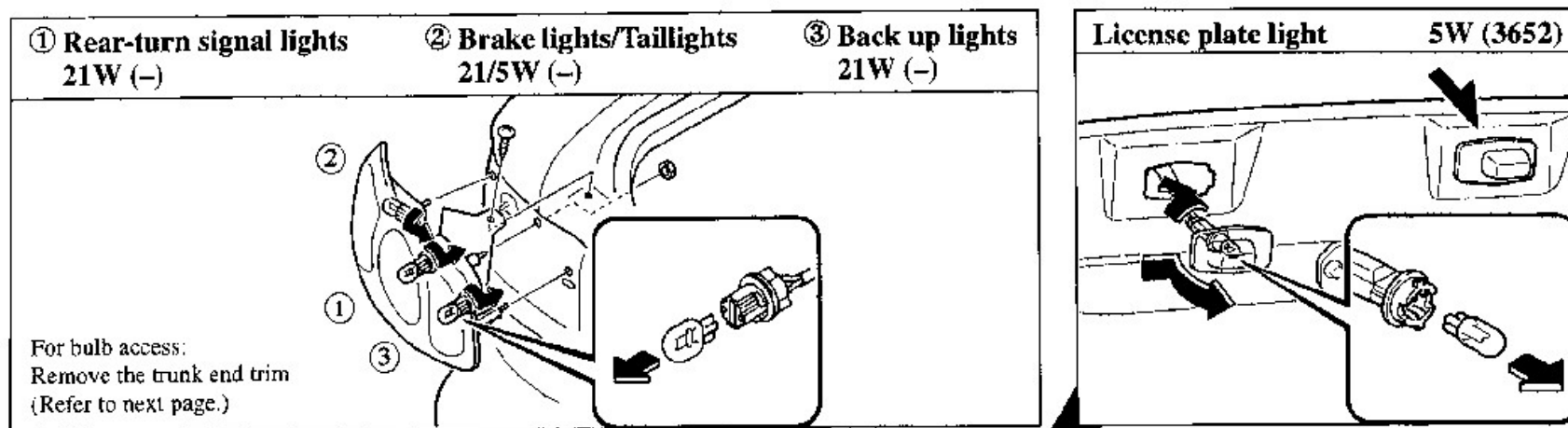
Maintenance

■ Replacing a Bulb (Front, Interior)

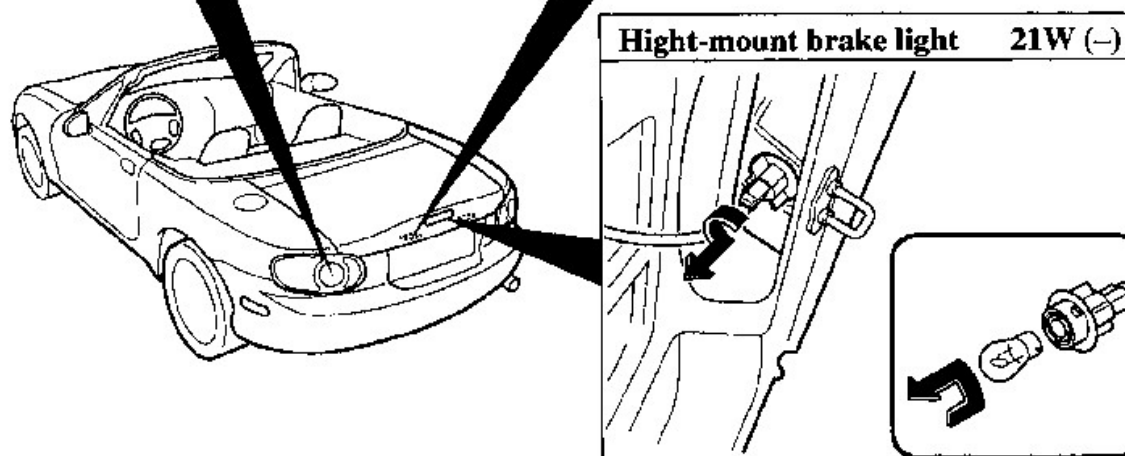


The number in () shows the bulb number.

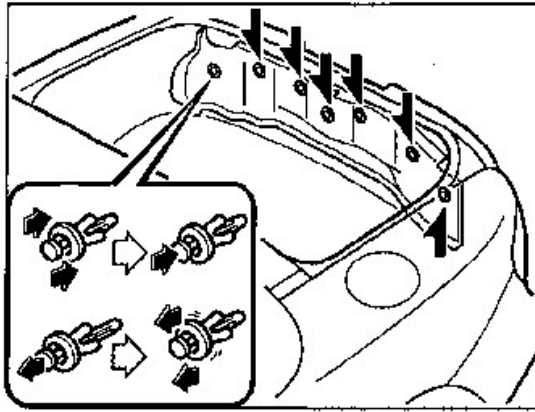
■ Replacing a Bulb (Rear)



The number in () shows the bulb number.



Maintenance



■ Trunk End Trim

To replace the turn-signal light, brake light/taillight or back-up light bulb, pull the center section of the plastic retainer and remove the retainers and trunk end trim.