

SECTION 8-3

DO-IT-YOURSELF MAINTENANCE

Electrical components

Checking auxiliary battery condition	194
Auxiliary battery recharging precautions	195
Checking and replacing fuses	196
Adding washer fluid	197
Replacing light bulbs	198

Checking auxiliary battery condition—
—Precautions

⚠ CAUTION

AUXILIARY BATTERY PRECAUTIONS

The battery produces flammable and explosive hydrogen gas.

- Do not cause a spark from the battery with tools.
- Do not smoke or light a match near the battery.

The electrolyte contains poisonous and corrosive sulfuric acid.

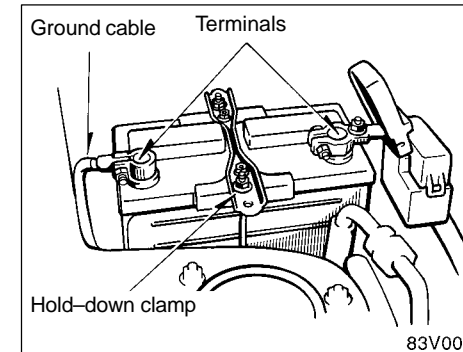
- Avoid contact with eyes, skin or clothes.
- Never ingest electrolyte.
- Wear protective safety glasses when working near the battery.
- Keep children away from the battery.

EMERGENCY MEASURES

- If electrolyte gets in your eyes, flush your eyes 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 contact area. If you feel pain or burning, get medical attention immediately.
- If electrolyte gets on your clothes, there is a possibility of its soaking through to your skin, so immediately take off the exposed clothing and follow the procedure above, if necessary.
- If you accidentally swallow electrolyte, drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Then go immediately for emergency help.
- **Warning:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

—Checking auxiliary battery exterior



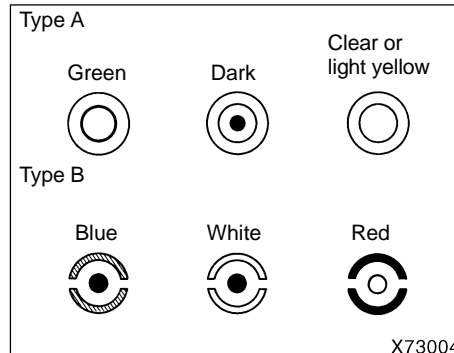
Check the battery for corroded or loose terminal connections, cracks, or loose hold-down clamp.

- a. If the battery is corroded, wash it off with a solution of warm water and baking soda. Coat the outside of the terminals with grease to prevent further corrosion.
- b. If the terminal connections are loose, tighten their clamp nuts—but do not overtighten.
- c. Tighten the hold-down clamp only enough to keep the battery firmly in place. Overtightening may damage the battery case.

NOTICE

- ◆ *Be sure the traction motor and all accessories are off before performing maintenance.*
- ◆ *When checking the battery, remove the ground cable from the negative terminal ("—" mark) first and reinstall it last.*
- ◆ *Be careful not to cause a short circuit with tools.*
- ◆ *Take care no solution gets into the battery when washing it.*

—Checking auxiliary battery condition



CHECKING BY INDICATOR

Check the battery condition by the indicator color.

Indicator color		Condition
Type A	Type B	
Green	Blue	Good
Dark	White	Charging necessary. Have battery checked by your EV service station.
Clear or Light Yellow	Red	Have battery checked by your EV service station.

NOTICE

Do not refill the battery with water.

Auxiliary battery recharging precautions

During recharging, the battery is producing hydrogen gas.

Therefore, before recharging:

1. If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.
2. Make sure the power switch on the recharger is off when connecting the charger cables to the battery and when disconnecting them.

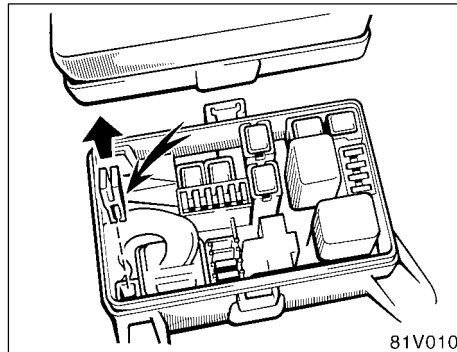
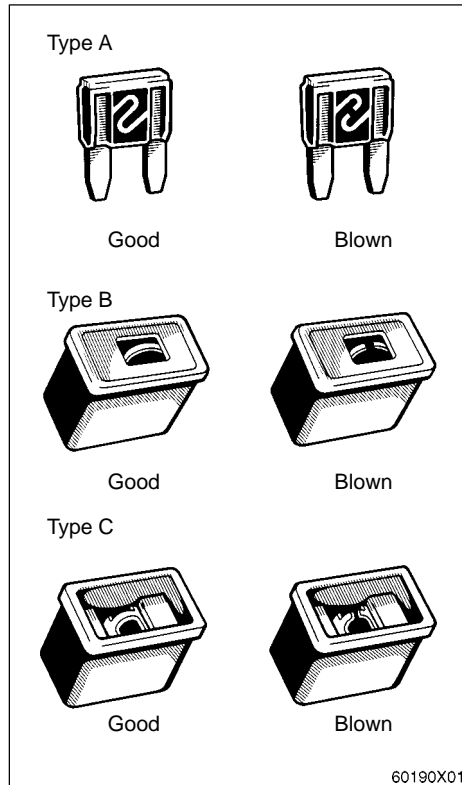
CAUTION

- **Always charge the battery in an unconfined area. Do not charge the battery in a garage or closed room where there is not sufficient ventilation.**
- **Only do a slow charge (5A or less). Charging at a quicker rate is dangerous. The battery may explode, causing personal injuries.**

NOTICE

Never recharge the battery with the motor switch on. Also, be sure all accessories are turned off.

Checking and replacing fuses



If the headlights or other electrical components do not work, check the fuses. If any of the fuses are blown, they must be replaced.

See "Fuse locations" on page 177 in Section 8-1 for locations of the fuses.

Turn the motor switch and inoperative component off. Pull a suspected fuse straight out and check it.

Determine which fuse may be causing the problem. The lid of the fuse box shows the name of the circuit for each fuse. See page 208 in Section 9 of this manual for the functions controlled by each circuit.

Type A fuses can be pulled out by the pull-out tool. The location of the pull-out tool is shown in the illustration.

If you are not sure whether the fuse has blown, try replacing the suspected fuse with one that you know is good.

If the fuse has blown, push a new fuse into the clip.

Only install a fuse with the amperage rating designated on the fuse box lid.

If you do not have a spare fuse, in an emergency you can pull out the "DOME" or "A/C" fuse, which may be dispensable for normal driving, and use it if its amperage rating is the same.

If you cannot use one of the same amperage, use one that is lower, but as close as possible to the rating. If the amperage is lower than that specified, the fuse might blow out again but this does not indicate anything wrong. Be sure to get the correct fuse as soon as possible and return the substitute to its original clip.

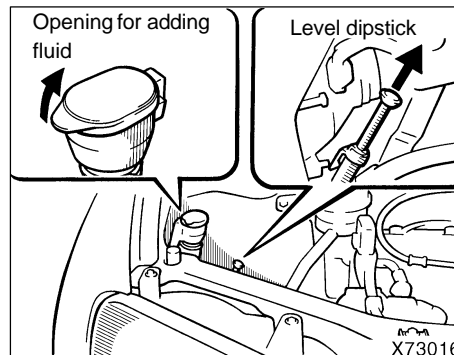
It is a good idea to purchase a set of spare fuses and keep them in your vehicle for emergencies.

If the new fuse immediately blows out, there is a problem with the electrical system. Have your EV service station correct it as soon as possible.

⚠ CAUTION

Never use a fuse with a higher amperage rating, or any other object, in place of a fuse. This may cause extensive damage and possibly a fire.

Adding washer fluid



Check the washer fluid level in the reservoir with the dipstick. If the washer fluid level is low, reinsert the dipstick securely and add washer fluid through the opening for adding fluid.

You may use plain water as washer fluid. However, in cold areas where temperatures range below freezing point, use washer fluid containing antifreeze. This product is available at your EV service station and most auto parts stores. Follow the manufacturer's directions for how much to mix with water.

⚠ CAUTION


To prevent burning yourself, do not check the washer fluid level when the motor is hot.

NOTICE

- ◆ After checking the washer fluid level, make sure the dipstick is securely reinserted. If it is loose, fluid may leak from the reservoir.
- ◆ Do not check the washer fluid level or add washer fluid when the motor is running or when it is hot. If the fluid is spilled over the hot traction motor, a fire could result.
- ◆ If you have added washer fluid until it is close to the top of the opening for adding fluid, do not pull out the dipstick. Otherwise, the fluid will overflow.
- ◆ Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.

Replacing light bulbs—

The illustrations on the following pages show the locations of light bulbs. If it is necessary to replace a bulb, make sure the motor switch and light switch are off. Use bulbs with the wattage ratings given in the table.

 CAUTION
<ul style="list-style-type: none"> ● To prevent yourself from burning, do not replace the light bulbs while they are hot. ● Halogen bulbs have pressurized gas inside and require special handling. They can burst or shatter if scratched or dropped. Hold a bulb only by its plastic or metal case. Do not touch the glass part of a bulb with bare hands.

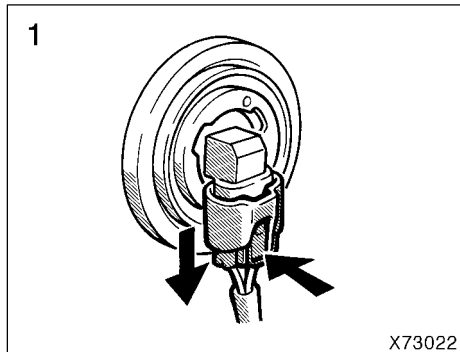
NOTICE
<i>Only use a bulb of the listed type.</i>

The inside of the lens of exterior lights such as headlights may temporarily fog up when the lens becomes wet in the rain or in a car wash. This is not a problem because the fogging is caused by the temperature difference between the outside and inside of the lens, just like the windshield fogged up in the rain. However, if there is a large drop of water on the inside of the lens, or if there is water pooled inside the light, contact your EV service station.

Light bulbs	Bulb No.	W	Type
Headlight Inner Outer	HB3 HB4	60 51	B A
Parking/front turn signal lights	1157NA	27/8	C
Front side marker lights	217	5	D
Rear side marker lights	194	3.8	D
Rear turn signal lights	7740	21	D
Stop/tail lights	7743	21/5	D
Back-up lights	7740	21	D
License plate light	217	5	D
High mounted stoplight	921	18	D
Interior light	—	8	E
Personal lights	—	8	C

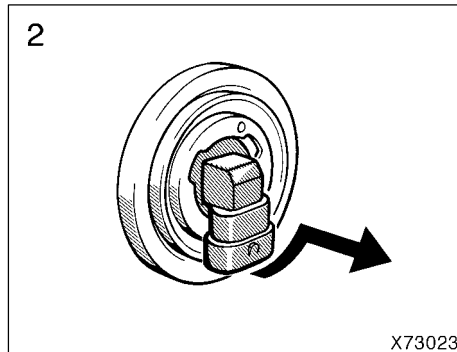
- A: HB4 halogen bulbs
- B: HB3 halogen bulbs
- C: Single end bulbs
- D: Wedge base bulbs
- E: Double end bulbs

—Headlights

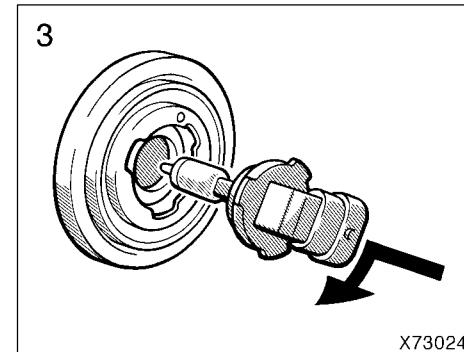


1. Open the hood. Unplug the connector while depressing the lock release.

If the connector is tight, wiggle it.



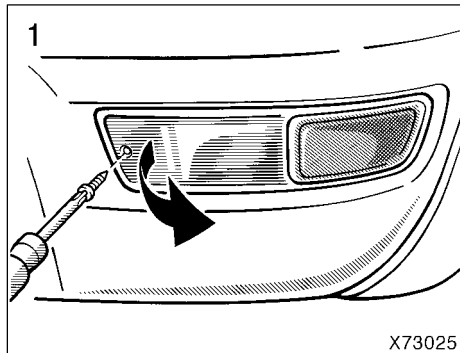
2. Turn the bulb and remove it.



3. Install a new bulb and plug in the connector into the mounting hole.

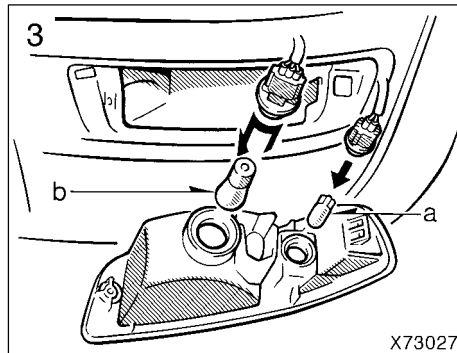
Aiming is not necessary after replacing the bulb. When aiming adjustment is necessary, contact your EV service station.

—Parking, front turn signal and front side marker lights



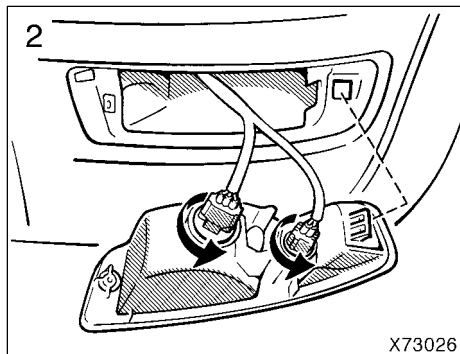
X73025

Use a Phillips-head screwdriver.



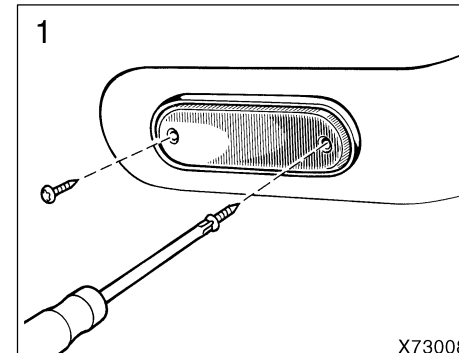
X73027

a: Front side marker light
b: Parking and front turn signal light



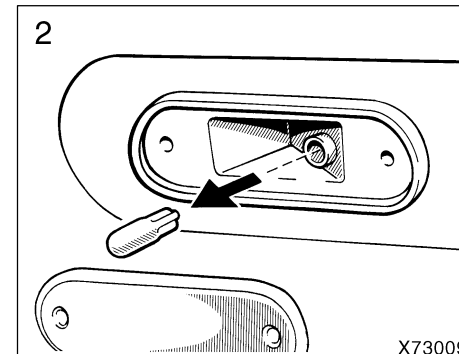
X73026

—Rear side marker lights



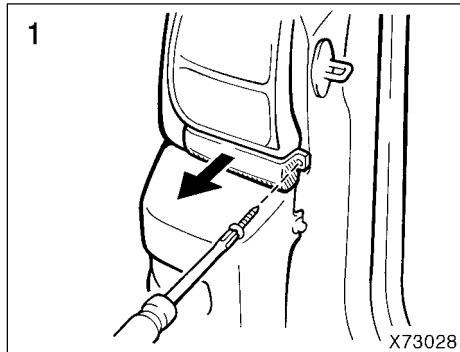
X73008

Use a Phillips-head screwdriver.

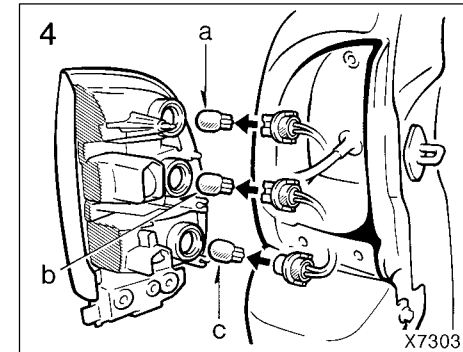
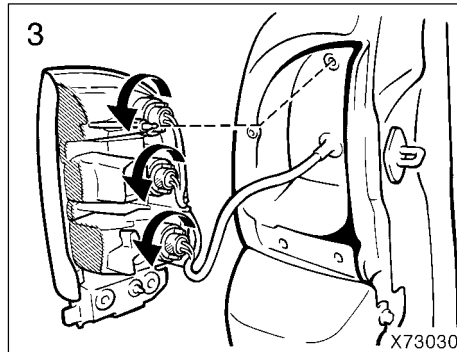
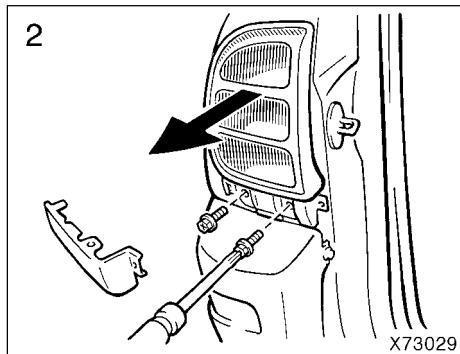


X73009

—Rear turn signal, stop / tail,
and back-up lights

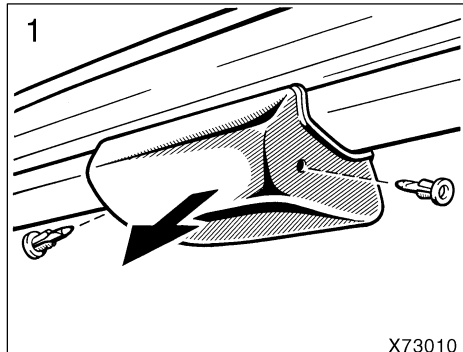


Use a Phillips-head screwdriver.

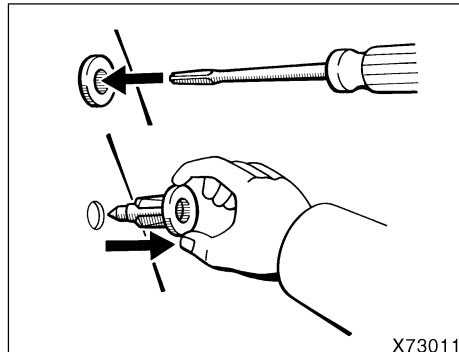


a: Back-up light
b: Rear turn signal light
c: Stop / tail light

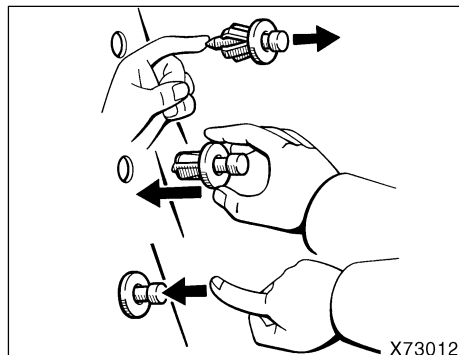
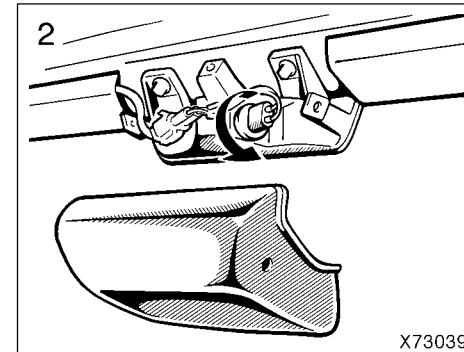
—High mounted stoplight



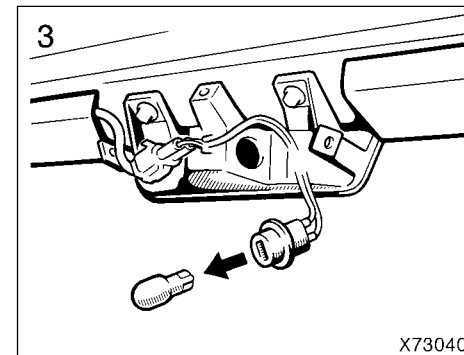
Remove and install the cover clips as shown in the following illustrations.



Removing cover clips



Installing cover clips



—License plate lights

