

## ***SECTION 7- 3***

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### **DO- IT- YOURSELF MAINTENANCE**

#### **Electrical components**

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### Checking battery condition— —Precautions

**⚠ CAUTION**

**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.

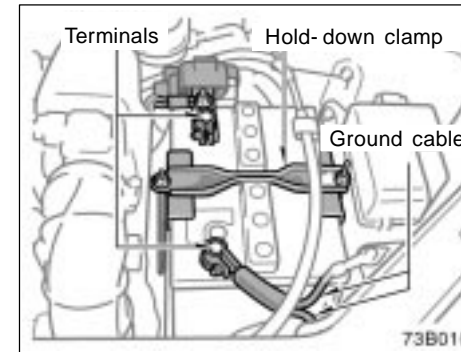
- Avoid contact with eyes, skin or clothes.
- Never ingest electrolyte.
- Wear protective safety glasses when working near the battery.
- Keep children away from the battery.

**EMERGENCY MEASURES**

- If electrolyte gets in your eyes, flush your eyes with clean water immediately 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.

### —Checking battery exterior



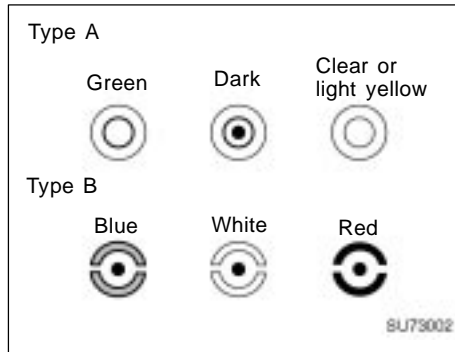
**Check the battery for corroded or loose terminal connections, cracks, or loose hold-down clamp.**

- 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 engine 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 battery condition**



**CHECKING BY THE 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 Scion dealer.
CLEAR or LIGHT YELLOW	RED	Have battery checked by your Scion dealer.

**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. Be sure the power switch on the recharger is off when connecting the charger cables to the battery and when disconnecting them.

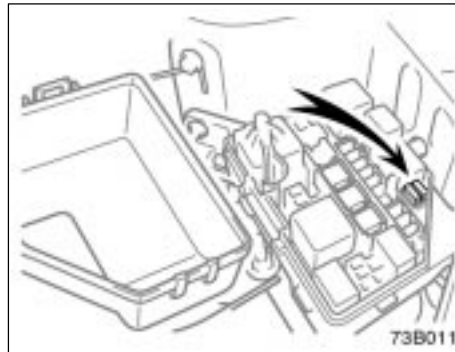
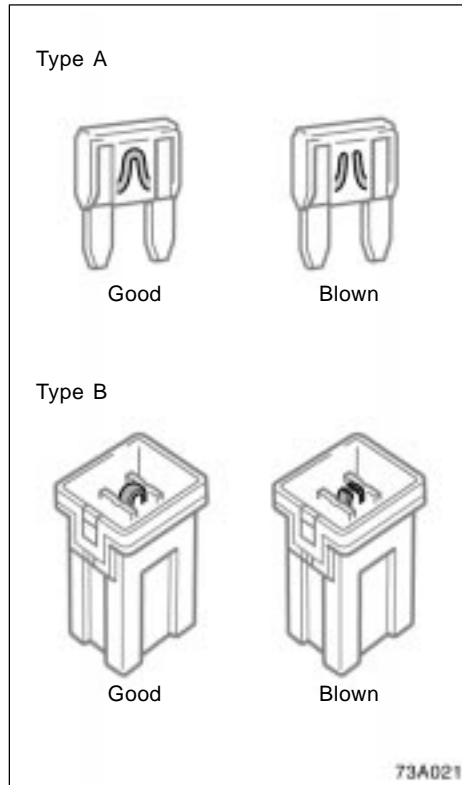
**CAUTION**

- **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 while the engine is running. 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 187 for locations of the fuses.

**Turn the ignition switch and inoperative component off. Pull the 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 222 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 "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 to the rating as possible. 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 Scion dealer correct it as soon as possible.

 <b>CAUTION</b>
<b>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.</b>

### Adding washer fluid


**If any washer does not work, the washer tank may be empty. Add washer fluid.**

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

<b>NOTICE</b>
<i>Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.</i>

### Replacing light bulbs—

The following illustrations show how to gain access to the bulbs. When replacing a bulb, make sure the ignition switch and light switch are off. Use bulbs with the wattage ratings given in the table.

 <b>CAUTION</b>
<ul style="list-style-type: none"><li>● <b>To prevent burning yourself, do not replace the light bulbs while they are hot.</b></li><li>● <b>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.</b></li></ul>

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

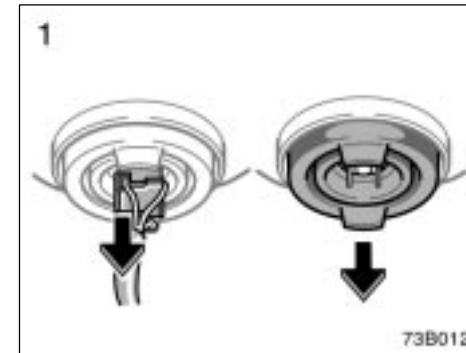
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The inside of the lens of exterior lights such as headlights may temporarily fog up when the lens becomes wet in the rain or in a car wash. This is not a problem because the fogging is caused by the temperature difference between the outside and inside of the lens, just like the windshield fogs 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 Scion dealer.

Light bulbs	Bulb No.	W	Type
Headlights	HB2	60/55	A
Parking and front side marker/front turn signal lights	1157NA	8/27	B
Side turn signal lights	—	5	D
Rear turn signal lights	7440- A	21	D
Stop/tail lights	7443	21/5	C
Back- up lights	7440	21	C
License plate lights	—	5	C
High mounted stoplight	921	18	C
Interior light	—	8	E

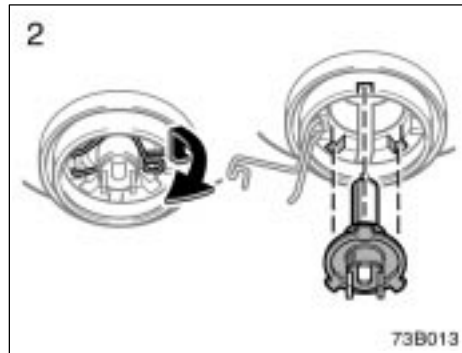
A: HB2 halogen bulbs  
B: Single end bulbs (amber)  
C: Wedge base bulbs (clear)  
D: Wedge base bulbs (amber)  
E: Double end bulbs

## —Headlights



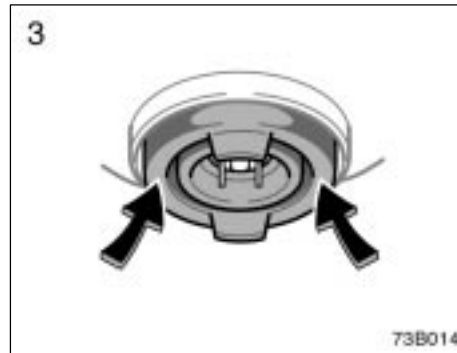
**1. Unplug the connector. Remove the rubber cover.**

If the connector is tight, wiggle it.



**2. Release the bulb retaining spring and remove the bulb. Install a new bulb and the bulb retaining spring.**

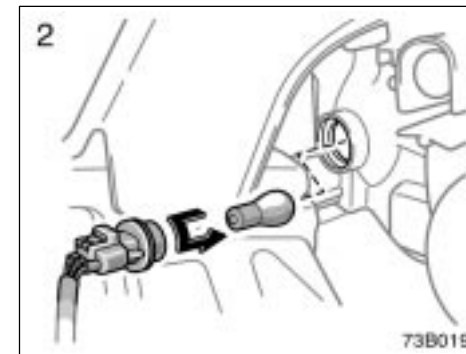
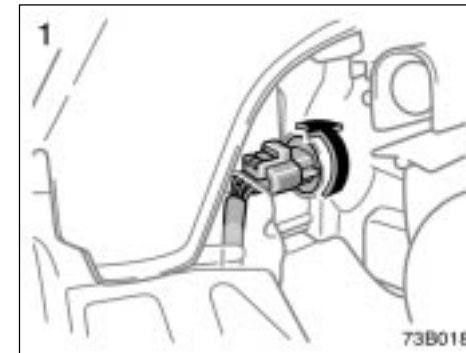
To install a bulb, align the tabs of the bulb with the cutouts of the mounting hole.



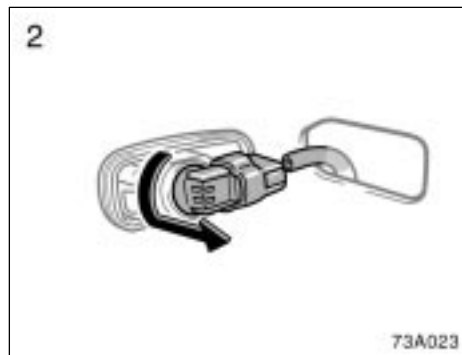
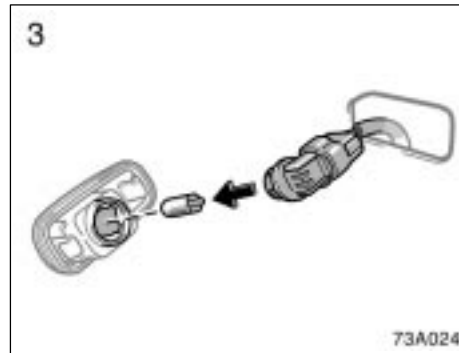
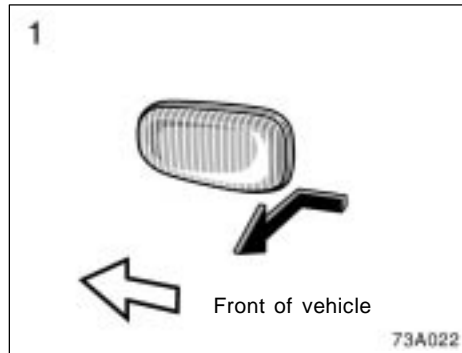
**3. Install the rubber cover as shown and fit it securely on the boss. Plug in the connector.**

Make sure the rubber cover fits securely on the connector and the headlight body. Aiming is not necessary after replacing the bulb. When aiming adjustment is necessary, contact your Scion dealer.

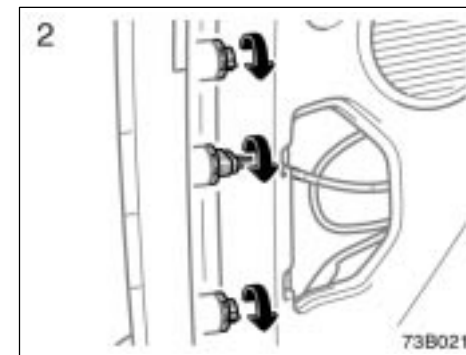
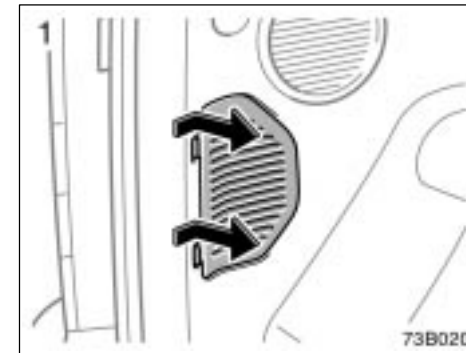
**—Parking and front side marker/front turn signal lights**



—Side turn signal lights



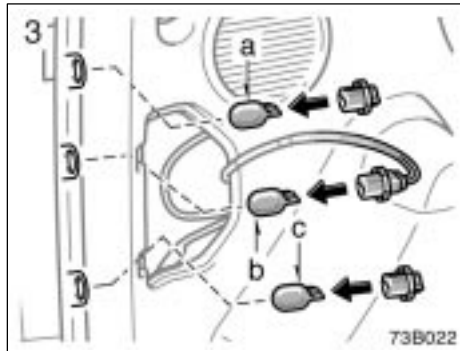
—Stop/tail, rear turn signal, back-up lights



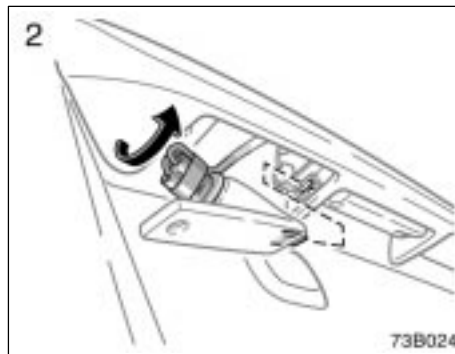
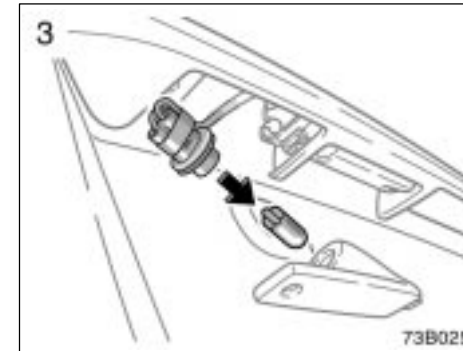


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—License plate lights



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



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—High mounted stoplight

