

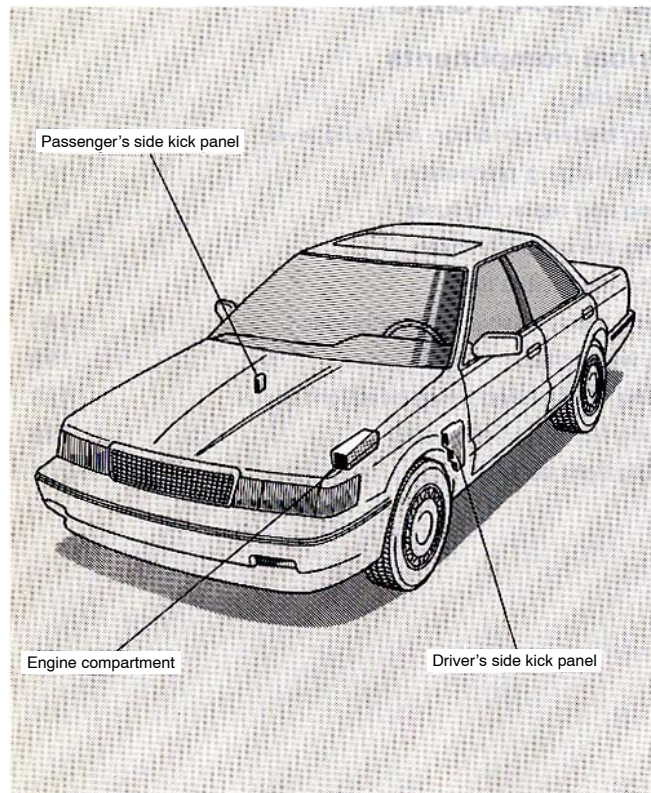
SERVICE PROCEDURES AND SPECIFICATIONS

Electrical components

Specifications	188
Checking battery condition and fluid level	191
Battery recharging precautions	193
Checking and replacing fuses	193
Checking the circuit breakers	195
Checking the fusible links	195
Replacing the windshield wiper blades	196
Adding washer fluid	198
Replacing semi sealed beam headlight bulbs	198
Replacing front fog light bulbs	199
Replacing light bulbs	201

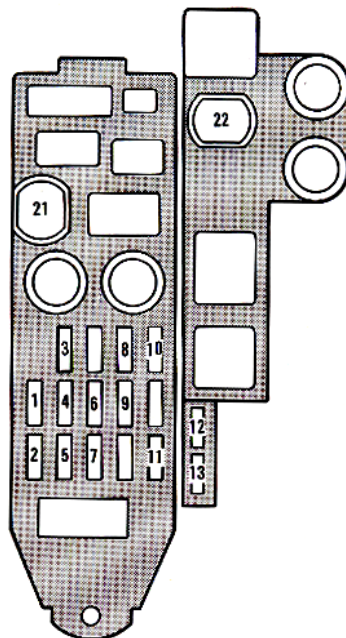
SPECIFICATIONS

- FUSES AND CIRCUIT BREAKERS LOCATION

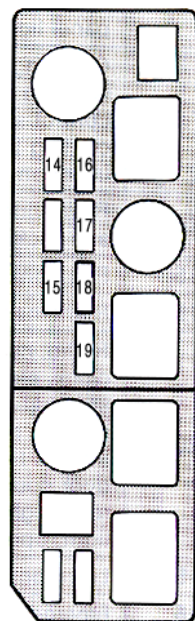


- FUSES AND CIRCUIT BREAKERS

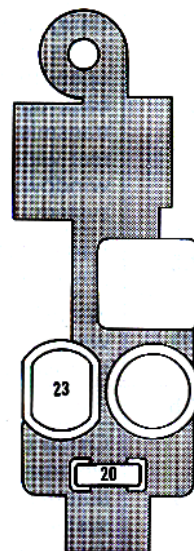
Driver's side kick panel



Engine compartment



Passenger's side kick panel



ELECTRICAL COMPONENTS

NO.	FUSE	AMPERE	CIRCUIT
1.	CIG	15	Cigarette lighter, digital clock display, shift lock system (automatic transmission)
2.	ENGINE	10	Charging system
3.	GAUGE	7.5	Gauges and meters, warning lights (except discharge and open door warning lights), back-up lights, automatic transmission overdrive system, rear window defogger, power windows, power door lock system
4.	RADIO	7.5	Radio, cassette tape player, power rear view mirrors
5.	WIPER	20	Windshield wipers and washer, rear window wiper and washer
6.	TURN	7.5	Turn signal lights
7.	ECU-IG	15	Cruise control system, electronically controlled automatic transmission system, shift lock system (automatic transmission)
8.	STOP	20	Stop lights, cruise control system cancel device

NO.	FUSE	AMPERE	CIRCUIT
9.	DEF-I/UP	10	Engine idle up system
10.	TAIL	15	Tail lights, parking lights, license plate lights, instrument panel lights, glovebox light
11.	IGN	7.5	Charging system, discharge warning light, emission control system, electric cooling fans, electronic fuel injection system
12.	ECU-B	10	Rear window defogger, anti-lock brake system
13.	FOG	15	Fog lights
14.	HEAD (RH)	15	Right-hand headlight
15.	DOME	20	Radio, cassette tape player, clock, electronically controlled automatic transmission system, power antenna, interior light, personal lights, door courtesy lights, trunk room light, ignition switch light, open door warning light
16.	HEAD (LH)	15	Left-hand headlight
17.	HAZ-HORN	15	Emergency flashers, horns

NO.	FUSE	AMPERE	CIRCUIT
18.	EFI	15	Electronic fuel injection system
19.	CHARGE	7.5	Charging system, discharge warning light
20.	A/C	10	Air conditioner system

NO.	CIRCUIT BREAKER	AMPERE	CIRCUIT
21.	DEFOG	30	Rear window defogger
22.	PWR	30	Moon roof, power windows, power door lock system, power seat
23.	HEATER	40	Air conditioner control system

CHECKING BATTERY CONDITION AND FLUID LEVEL

CAUTION: BATTERY PRECAUTIONS

The battery produces an inflammable and explosive hydrogen gas.

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

The electrolyte contains poisonous and corrosive sulfuric acid.

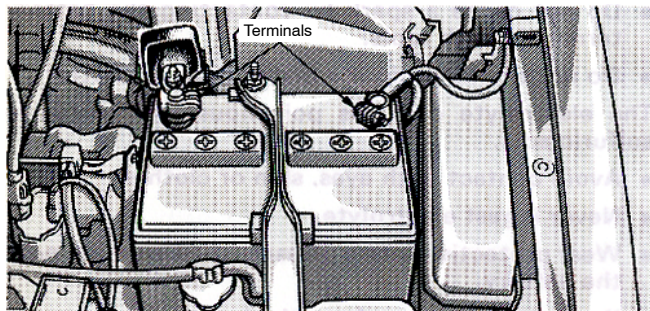
- Avoid contact with eyes, skin or clothes.
- Never ingest electrolyte.
- Wear protective safety glasses when working near the battery.
- Keep children away from the battery.

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 enroute to the medical office.
- If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel a pain or burn, get medical attention immediately.

ELECTRICAL COMPONENTS

- 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 happen to 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.

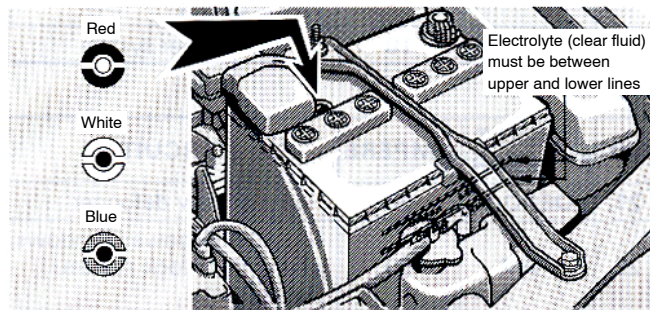


1. Check the battery for corroded or loose connections, cracks, or loose hold-down clamps.

- a. If the battery is corroded, wash it off with a solution of warm water and baking soda. Coat the terminals with grease to prevent further corrosion.
- b. If the connections are loose, tighten the clamp bolts-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.
- Remove the ground cable first and reinstall last.
- Be careful not to cause a short circuit with tools.



2. Check the indicator as shown.

RED – Add distilled water.

WHITE – Charging necessary.

BLUE – Good condition.

If the indicator is red, check the electrolyte level as shown.

- a. When checking the electrolyte level, look at all six cells, not just one or two.
- b. Remove the filler caps and replenish the battery with distilled water.
- c. After replenishing, be sure to securely retighten the filler caps.

NOTICE:

Do not overfill the battery, or the electrolyte may squirt out of the battery during periods of heavy charging, causing corrosion or damage.

BATTERY RECHARGING PRECAUTIONS

During recharging, the battery is producing hydrogen gas.

Therefore, before recharging:

1. Remove the filler caps if performing a quick charge (6A or above but max. 15A). Removing the filler caps is not necessary when performing a slow charge (under 5A).
2. Be sure the power switch on the recharger is off when connecting the charger cables to the battery and when disconnecting them.
3. If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.

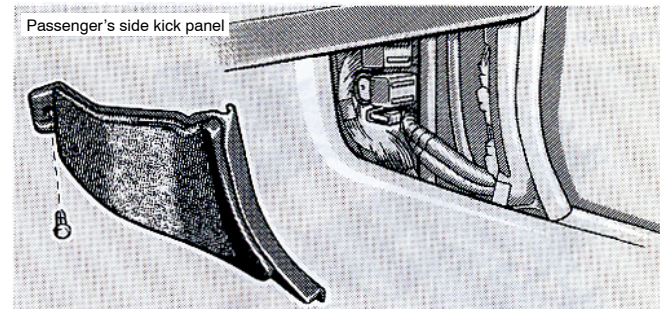
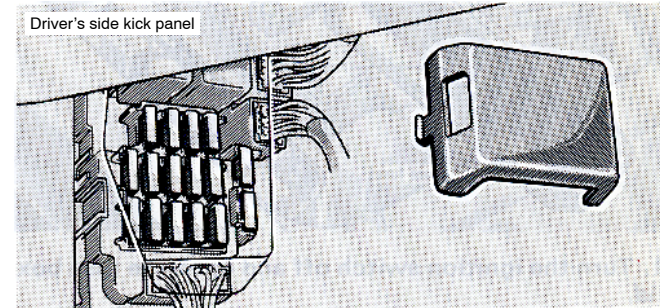
CAUTION:

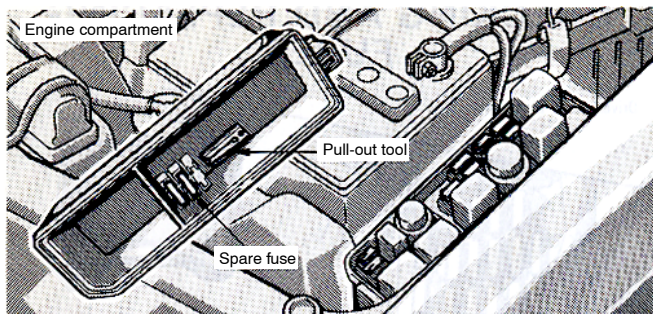
Always charge the battery in an unconfined area. Do not charge the battery in a garage or closed room where there is insufficient ventilation.

NOTICE:

Never recharge the battery while the engine is running. Also, be sure all accessories are turned off.

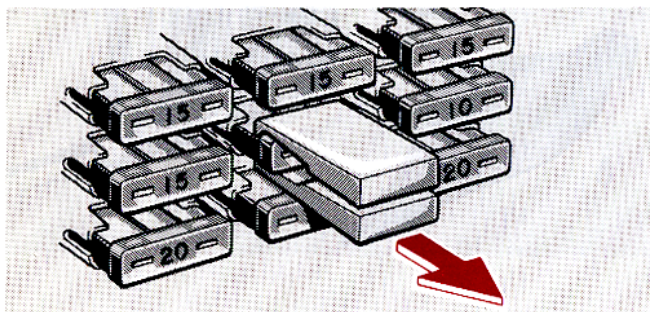
CHECKING AND REPLACING FUSES





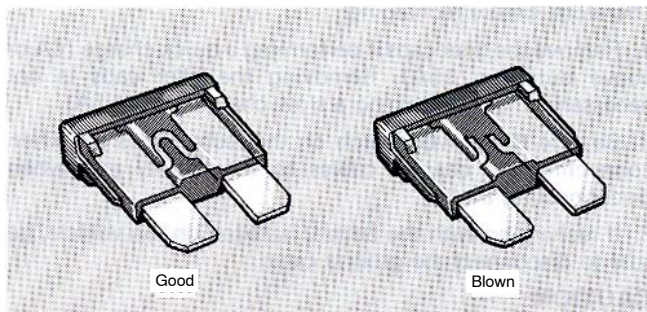
1. Turn the ignition switch off and open the fuse box lid.

Determine which fuse may be causing the problem. The lid of the fuse box shows the name of the circuit for each fuse.



2. Be sure the inoperative component is off. Pull a suspected fuse straight out with the pull-out tool and check it. If it has blown, push a new fuse into the clips.

- Look carefully at the fuse. If the thin wire is broken, the fuse has blown. If you are not sure or if it is too dark to see, try replacing the suspected fuse with one of the same value that you know is good.
- Install only 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 "CIG", "RADIO", "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 lower than, but as close as possible to, the amperage. 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 clips.

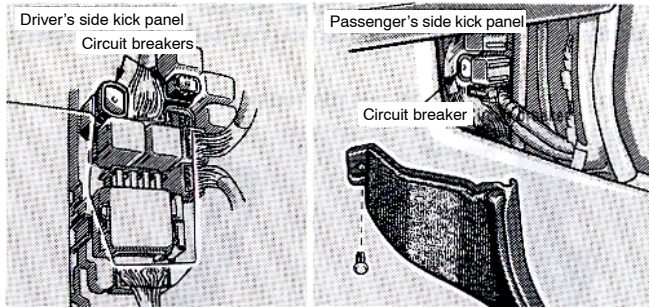
It is a good idea to purchase a set of spare fuses and keep them in your vehicle for emergencies.

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

NOTICE:

Never use a fuse with a higher amperage rating, or another object, in place of a fuse.

CHECKING THE CIRCUIT BREAKERS



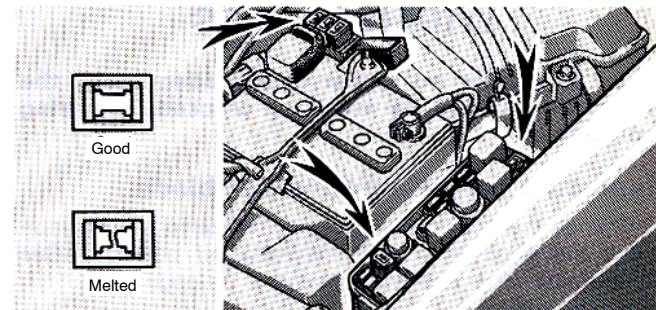
In the event the rear window defogger, air conditioner control system, power windows, power door locks, moon roof or power seat does not operate, check its circuit breaker (C-B).

To reset the circuit breaker, first turn the ignition switch off and carefully insert a thin object, such as a toothpick, needle or safety pin, into the hole in the circuit breaker and push until you hear a click. The component should now operate. This may be done without removing the circuit breaker.

If the circuit breaker immediately goes off again or the component does not operate, turn off the component switch and have the electrical system checked by your Lexus dealer as soon as possible.

If necessary, Specification gives the name of the circuit for each circuit breaker.

CHECKING THE FUSIBLE LINKS



If the headlights or other electrical components do not work and the fuses are O.K., check the fusible links. If any of the links is melted, it must be replaced.

ELECTRICAL COMPONENTS

If there is an overload in the circuits from the battery, the fusible links are designed to melt before the entire wiring harness is damaged.

NOTICE:

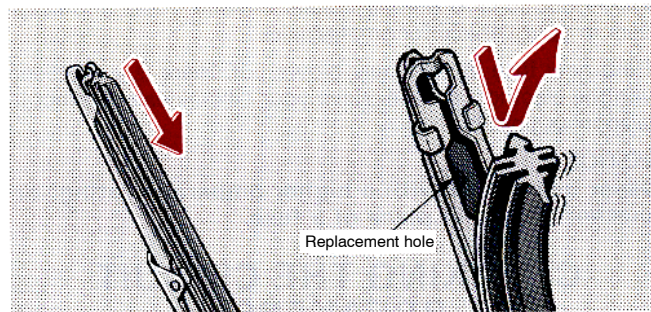
- Before replacing the fusible links, have the cause of electrical overload determined and repaired by your Lexus dealer.
- Always use a genuine Lexus fusible link or equivalent for replacement. Never install an ordinary wire – even for a temporary fix. It may cause extensive damage and possibly a fire.

REPLACING THE WINDSHIELD WIPER BLADES

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

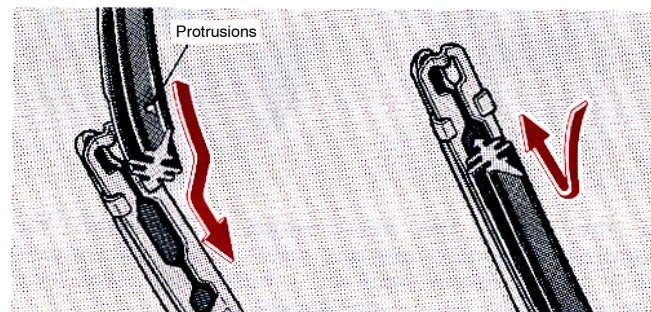
Replacing driver's side wiper blade

1. Change the position of the wiper blade to rest position above the hood if it is at the retracted position. (See "Windshield wiper and washer switch" on page 12.)
2. Swing the wiper arm away from the windshield until it stands.



3. Pull the top end of the rubber inward until the rubber blade is free of the end slot, and you can see the replacement hole.

4. Pull the rubber blade out the replacement hole.



5. To install a new rubber, insert the end with small protrusions into the replacement hole, and work the rubber along the slot in the blade frame.

6. Once all of the rubber is in the frame slot, allow it to expand and fill in the end.

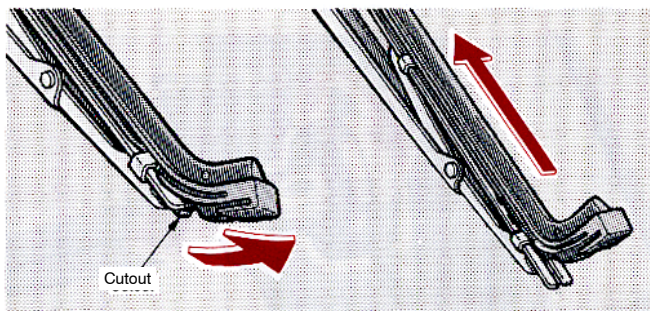
After replacement, return the wiper blade. If the blade was originally in the retracted position, then push the blade down from the rest position.

NOTICE:

- Be careful not to scratch the glass surface with the wiper frame.
- Do not replace the wiper blade at the retracted position as it may damage your vehicle's paint.

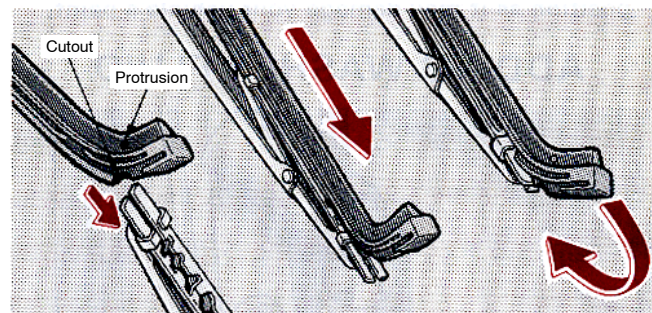
Replacing passenger's side wiper blade

1. Change the position of the wiper blade to rest position above the hood if it is at the retracted position. (See "Windshield wiper and washer switch" on page 12.)
2. Swing the wiper arm away from the windshield until it stands.



3. Pull the bottom end of the rubber outward until the cutout at the tip of the blade can be lifted free of the slot at the end of the blade frame.

4. Pull the rubber blade out fully from the opposite end.



5. To install a new rubber, slide the rubber blade into the groove, starting with the part of the rubber opposite the protrusion, and work the rubber along the slot in the blade frame.

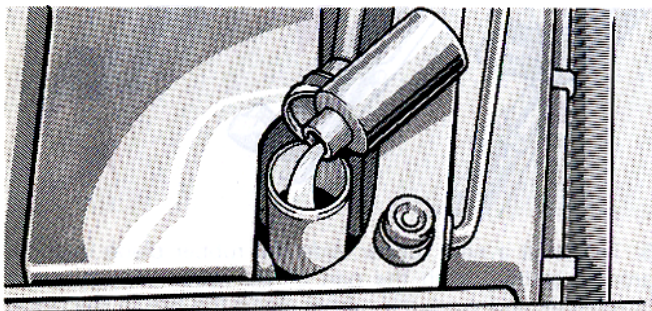
6. Pull the rubber past the bottom end of the blade frame up to the protrusion, and pull the rubber blade down to slide the blade tip onto the blade frame.

After replacement, return the wiper blade. If the blade was originally in the retracted position, then push the blade down from the rest position.

NOTICE:

- Be careful not to scratch the glass surface with the wiper frame.
- Do not replace the wiper blade at the retracted position as it may damage your vehicle's paint.

ADDING WASHER FLUID



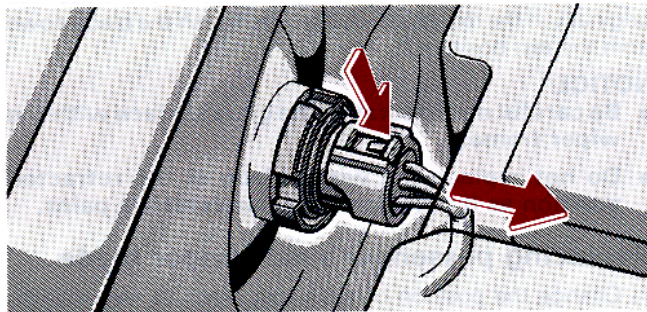
If the windshield washer does not work, the washer tank may be empty. Add washer fluid.

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 Lexus dealer and most auto parts stores. Follow the manufacturer's directions for how much to mix with water.

NOTICE:

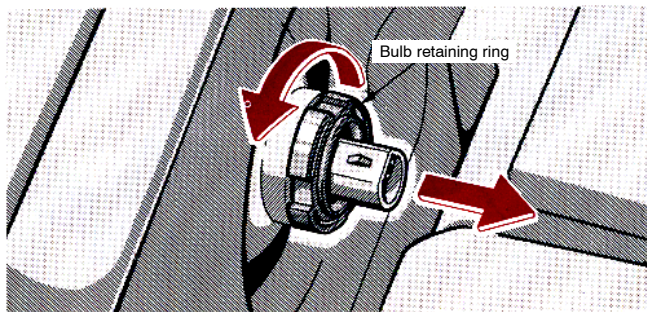
Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.

REPLACING SEMI-SEALED BEAM HEADLIGHT BULBS

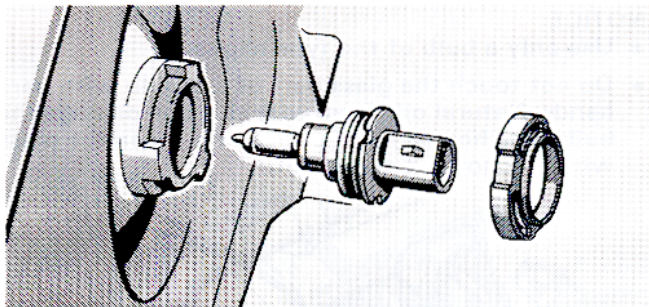


1. Open the hood and unplug the connector while depressing the lock release.

Before replacement, make sure the headlight switch is off. If the connector is tight, wiggle it.



2. Turn the bulb retaining ring counterclockwise and take out the bulb.



3. Install a new bulb and the bulb retaining ring.

Insert the connector

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

Bulb selection

Use a bulb number and wattage rating given below.

Bulb number: 9004

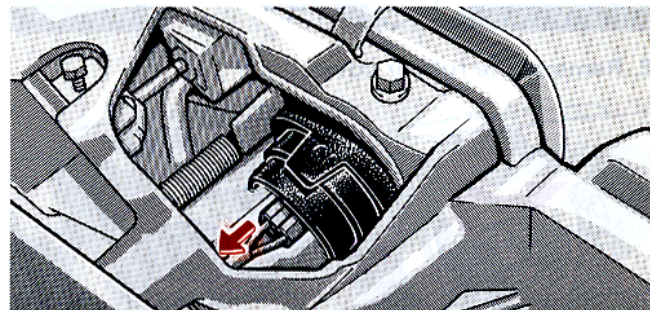
Wattage: 65/45

After replacement, have the headlight aim checked by your Lexus dealer.

NOTICE:

- Use only a bulb of the type above.
- Do not touch the glass part of the bulb with bare hands. Natural oils from your skin can damage the bulb and shorten its life. If you do, clean the glass with alcohol and a clean cloth.

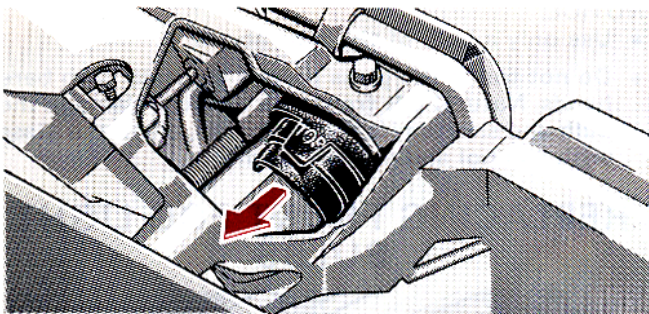
REPLACING FRONT FOG LIGHT BULBS



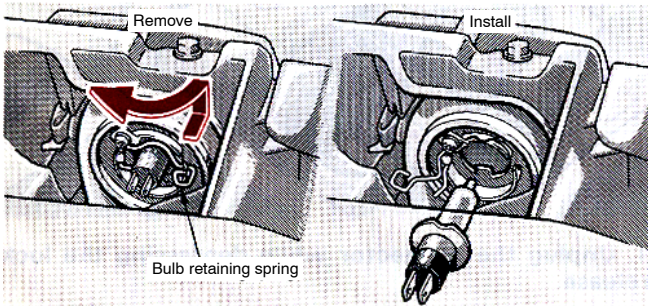
1. Unplug the connector while depressing the lock release.

Before replacement, make sure the front fog light switch is off.

If the connector is tight, wiggle it.



2. Remove the rubber cover.



3. Release the bulb retaining spring and remove the bulb. Install a new bulb and the bulb retaining spring.

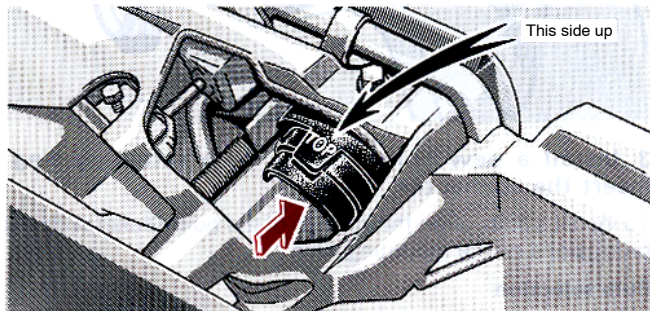
To install a bulb, align the cutouts of the bulb with the protrusions of the mounting hole.

Bulb selection

Use a bulb with the wattage rating of 55 (H3).

NOTICE:

- Use only a bulb of the type above.
- Do not touch the glass part of the bulb with bare hands. Natural oils from your skin can damage the bulb and shorten its life. If you do, clean the glass with alcohol and clean cloth.



4. Install the rubber cover with the tab upward and snuggle on the boss and connect the cords.

Make sure the rubber cover fits snugly on the mounting body.

REPLACING LIGHT BULBS

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

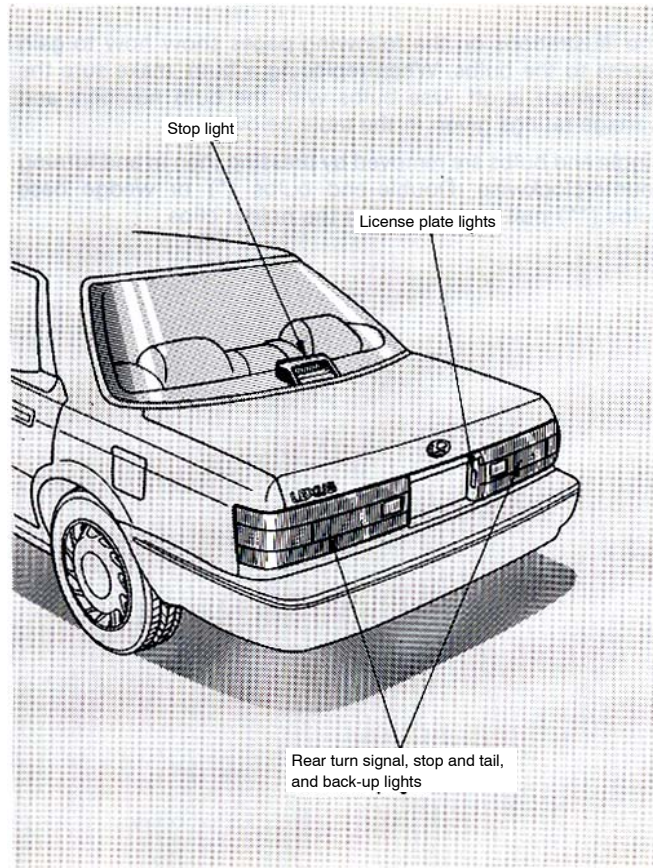
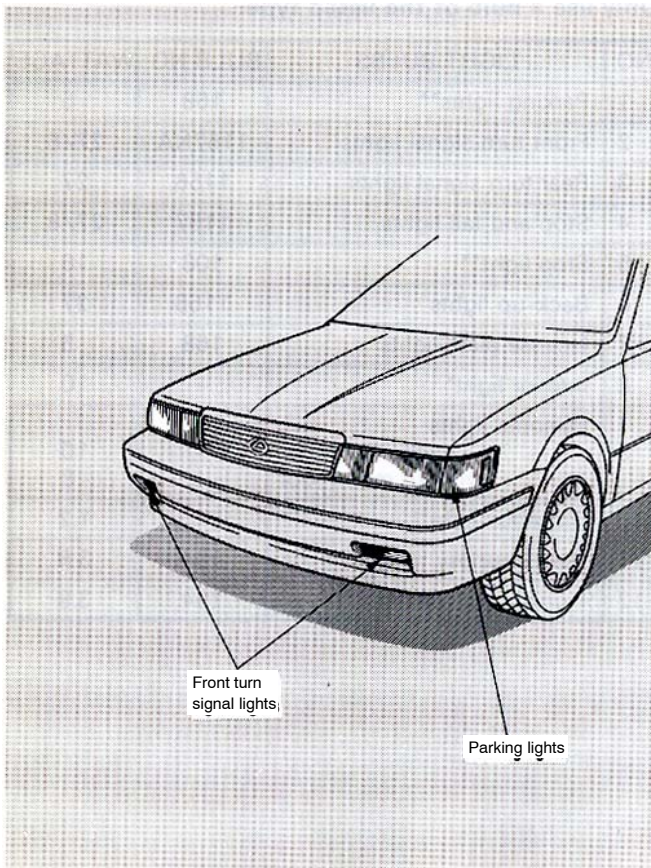
Single end bulbs are removed by pressing then in and turning counterclockwise. Double-end bulbs (*) or wedge base bulbs (**) pull straight out of the holder clips.

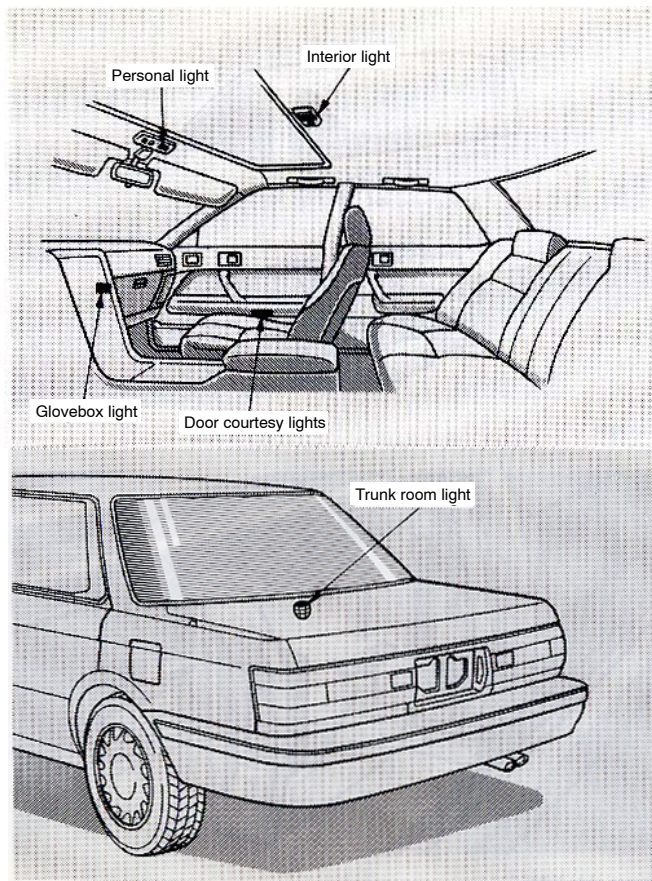
NOTICE:

Only use a bulb of the listed type.

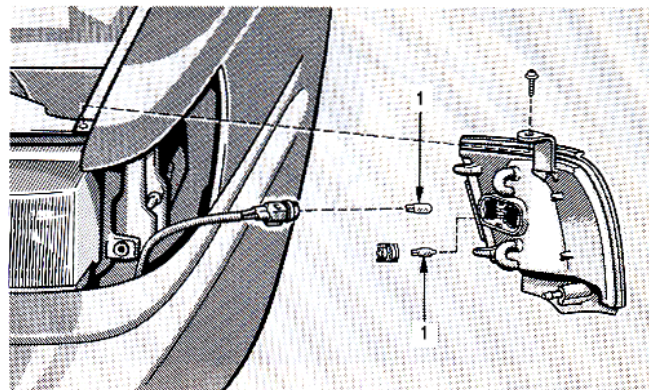
NO.	LIGHT BULBS	BULB NO.	WATTAGE
1	Parking lights**	168	5
2	Front turn signal lights	1157NA	27/8
3	Rear turn signal lights	1156	27
4	Stop and tail lights	1157	27/8
5	Stop light**	108	18
6	Back-up lights	1156	27
7	License plate lights	168	5
8	Interior light*	–	10
9	Personal lights		
	with moon roof	–	10
	without moon roof	–	8
10	Glovebox light**	–	1.2
11	Door courtesy lights**	194	3.8
12	Trunk room light**	194	3.8

LIGHT LOCATIONS

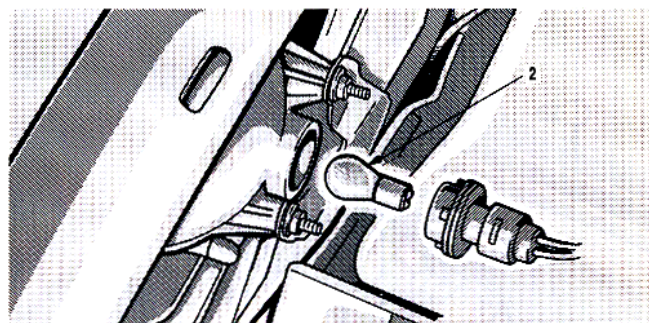




LIGHT BULBS

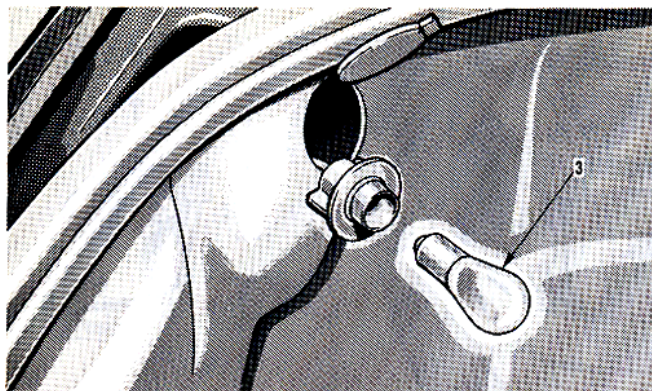


Parking lights

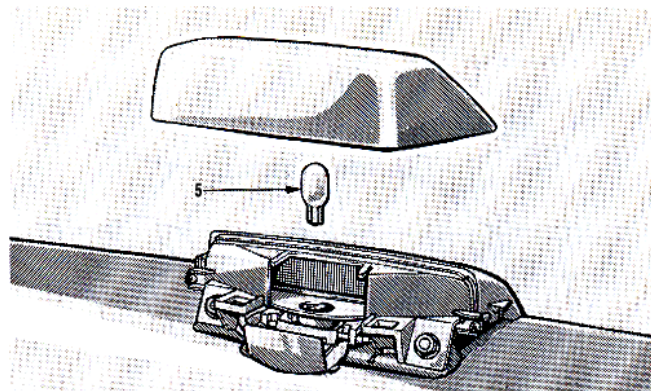


Front turn signal lights

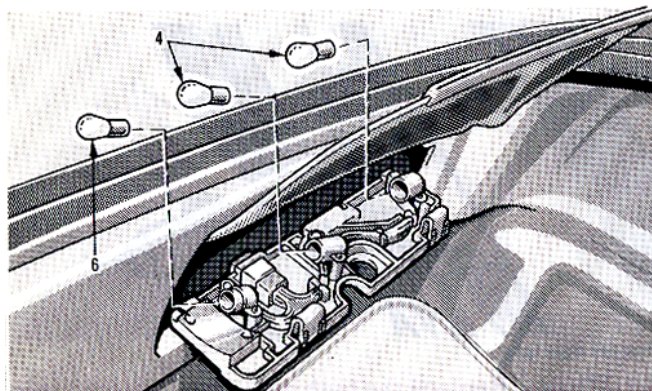
CAUTION:
Replace the bulb only when the engine is cold.



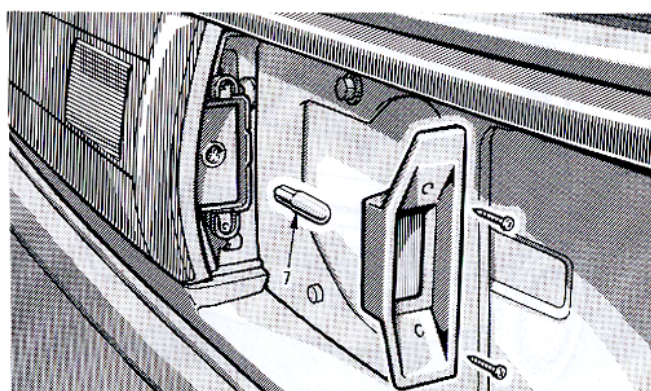
Rear turn signal lights



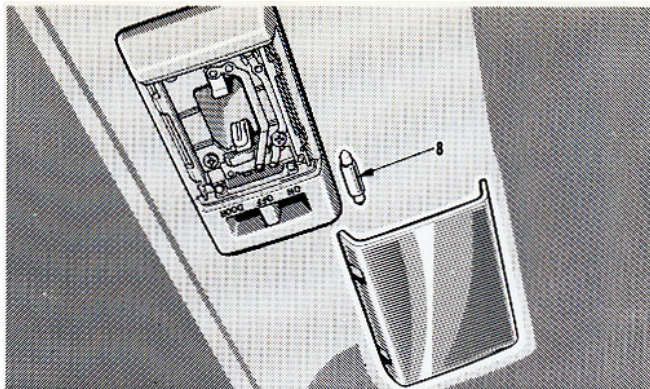
Stop light



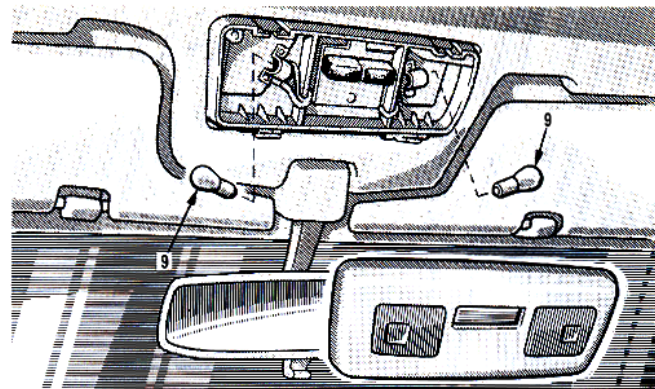
Stop and tail, and back-up lights



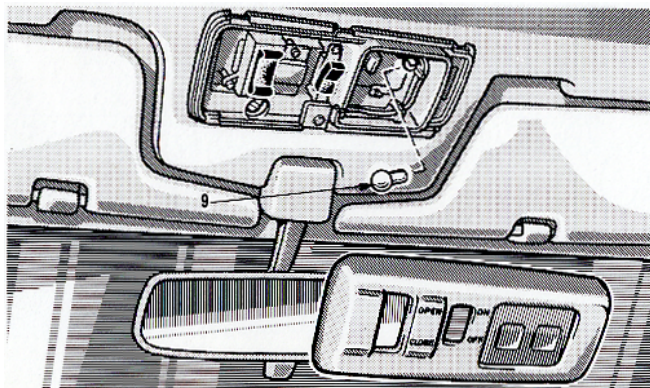
License plate lights



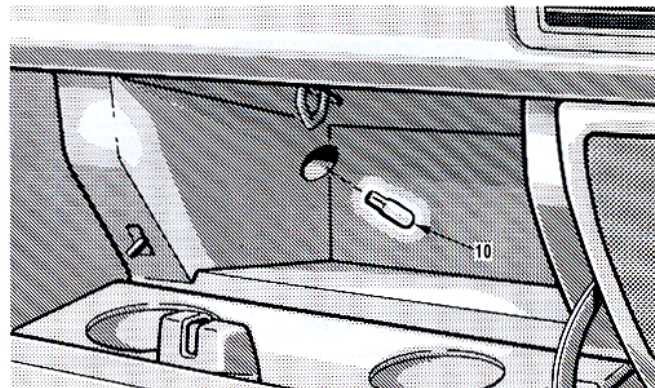
Interior light



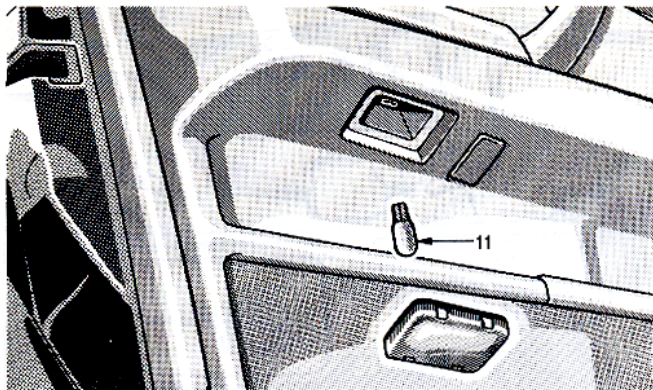
Personal lights without moon roof



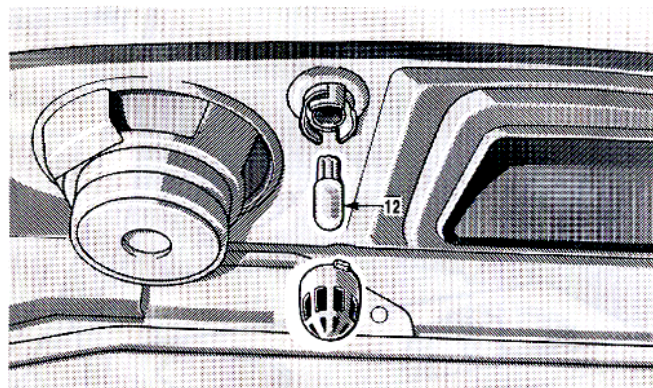
Personal lights with moon roof



Glovebox light



Door courtesy lights



Trunk room light