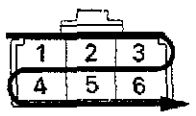
Example:



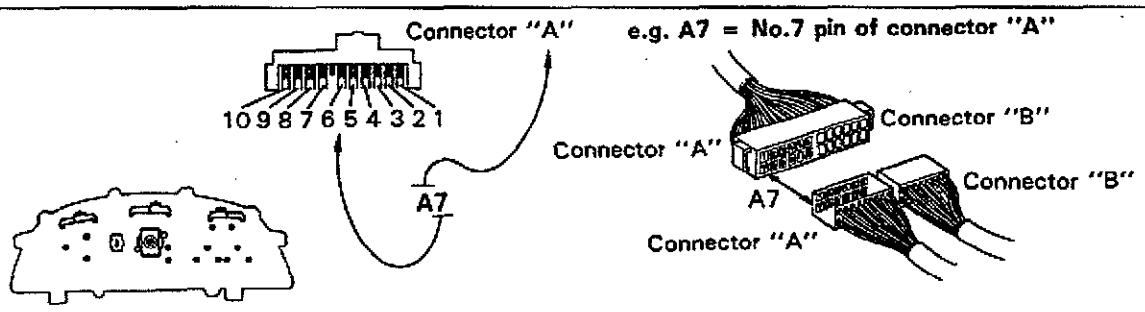
GENERAL INFORMATION

CONNECTOR

B5002-01

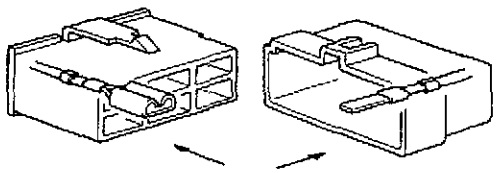
1. **PIN NUMBER OF FEMALE CONNECTOR**
   Numbered in order from upper left to lower right.
2. **PIN NUMBER OF MALE CONNECTOR**
   Numbered in order from upper right to lower left.
   HINT: When connectors with different or the same number of terminals are used with the same parts, each connector name (letter of the alphabet) and pin number is specified.

Example:



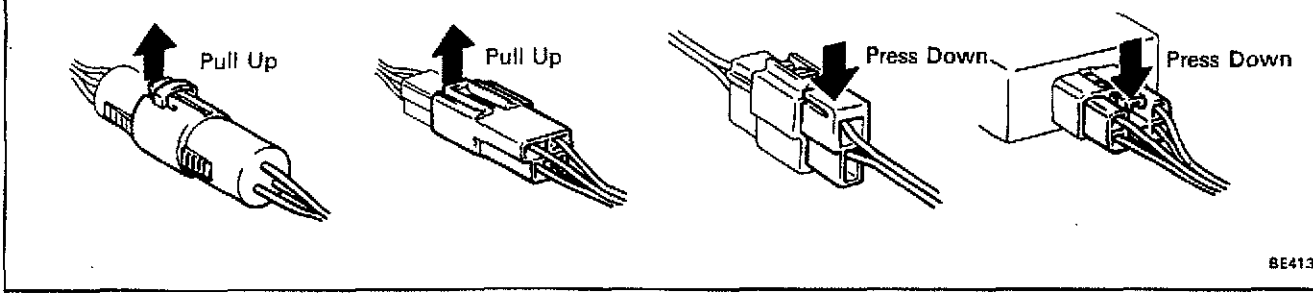
BE

Example:



3. **DISTINCTION OF MALE AND FEMALE CONNECTORS**
   Male and female connectors are distinguished by shape of their internal pins.
   (a) All connectors are shown from the open end, and the lock is on top.
   (b) To pull apart the connectors, pull on the connector itself, not the wires.
   HINT: Check to see what kind of connector you are disconnecting before pulling a apart.

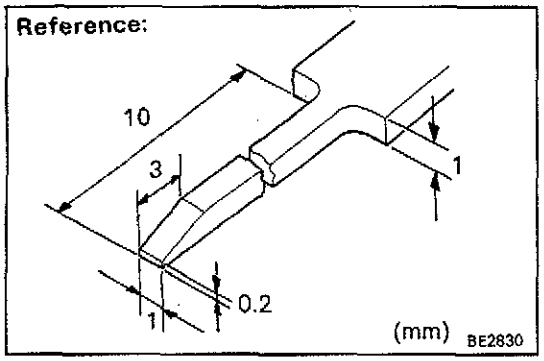
Example:



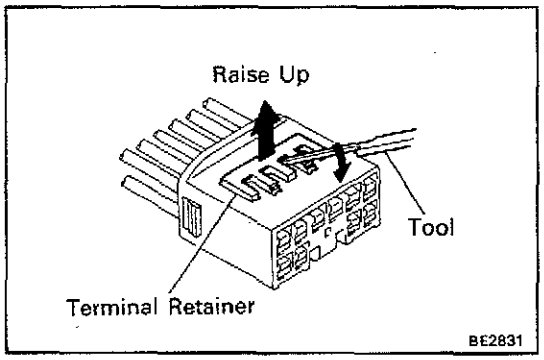
BE003-02

HOW TO REPLACE TERMINAL

(With Terminal Retainer Type)



HINT: To remove the terminal for this type of connector, please construct and use the special tool or similar object shown on the left.



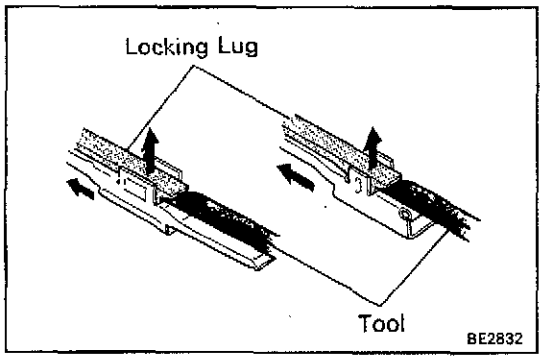
1. DISCONNECT CONNECTOR

Disconnect the connector according to the instructions on BE—2.

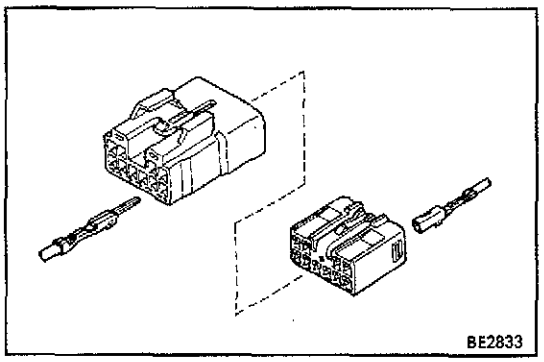
2. DISCONNECT TERMINAL FROM CONNECTOR

(a) Using the special tool, raise the retainer up to the temporary lock position.

HINT: The needle insertion position varies according to the connector's shape (number of terminals, etc.), so check the position before inserting it.



(b) Using the special tool, release the locking lug and pull the terminal out from rear.



3. INSTALL TERMINAL TO CONNECTOR

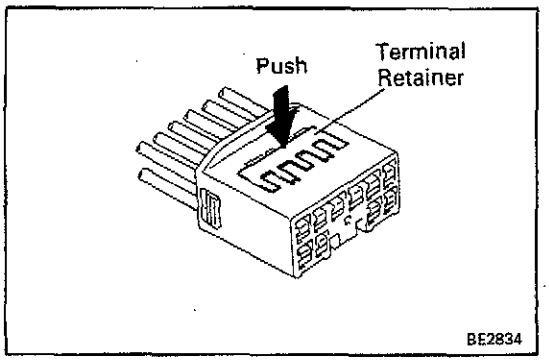
(a) Insert the terminal.

HINT:

(1) Make sure the terminal is positioned correctly.

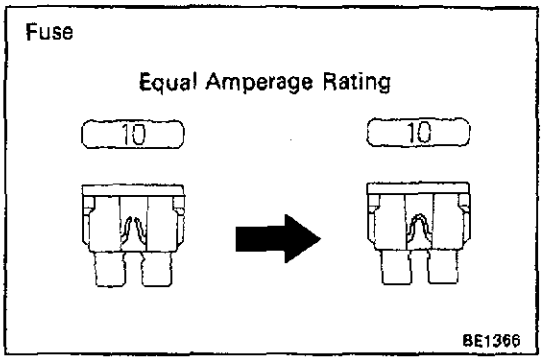
(2) Insert the terminal until the locking lug locks firmly.

(3) Insert the terminal with retainer in the temporary lock position.



(b) Push the retainer in as far as the full lock position.

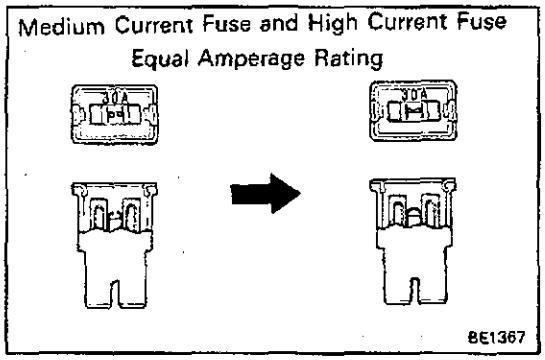
4. CONNECT CONNECTOR



FUSE REPLACEMENT

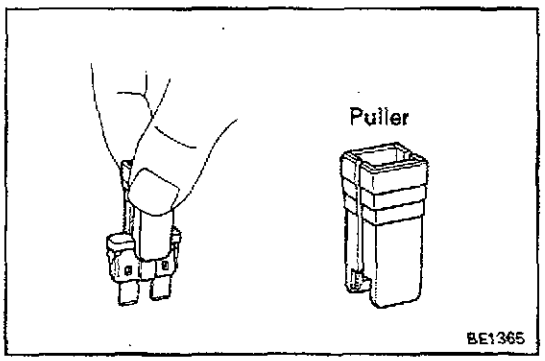
BE004-01

HINT: If replacing the fuse be sure to replace it with a fuse with an equal amperage rating.



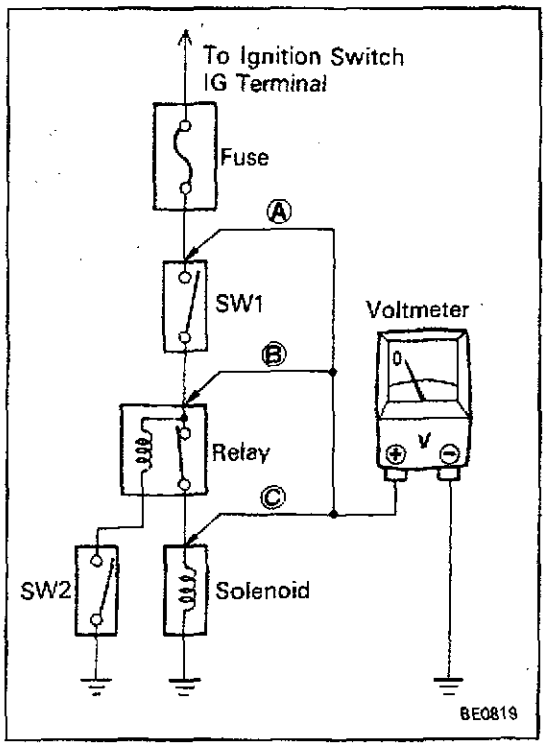
NOTICE:

- **Turn off all electrical components and the ignition switch before replacing a fuse or fusible link. Do not exceed the fuse or fusible link amperage rating.**



- **Always use a fuse puller for removing and inserting a fuse. Remove and insert straight in and out without twisting. Twisting could force open the terminals too much, resulting in a bad connection.**

If a fuse or fusible link continues to blow, a short circuit is indicated. The system must be checked by a qualified technician.

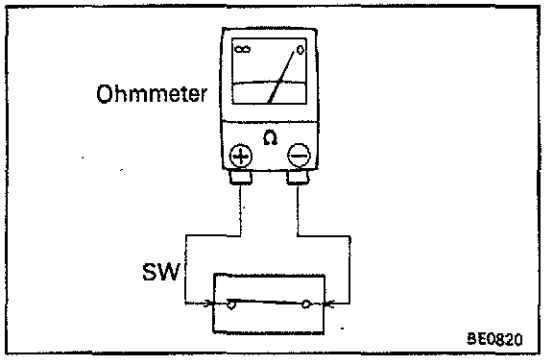


VOLTAGE CHECK

BE005-01

(a) Establish conditions in which voltage is present at the check point.
Example:
Ⓐ – Ignition SW on
Ⓑ – Ignition SW and SW 1 on
Ⓒ – Ignition SW, SW 1 and Relay on (SW 2 off)

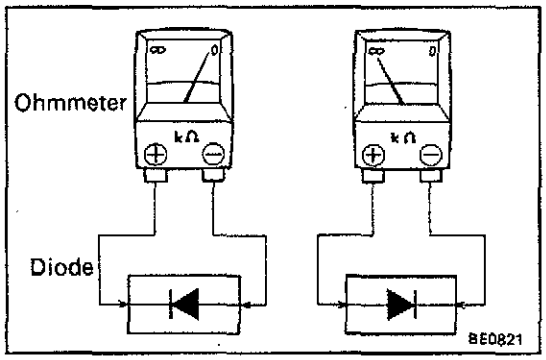
(b) Using a voltmeter, connect the negative (–) lead to a good ground point or negative (–) battery terminal and the positive (+) lead to the connector or component terminal. This check can be done with a test bulb instead of a voltmeter.



CONTINUITY AND RESISTANCE CHECK BE006-02

(a) Disconnect the battery terminal or wire so there is no voltage between the check points.

(b) Contact the 2 leads of an ohmmeter to each of the check points.

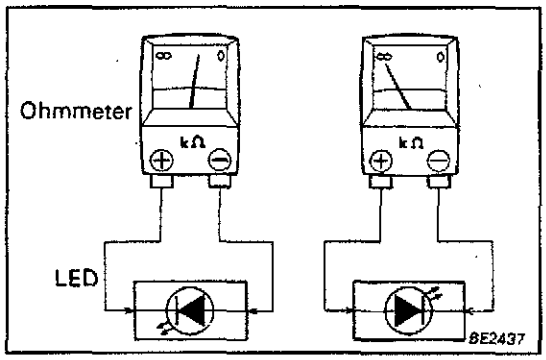


If the circuit has diodes, reverse the 2 leads and check again.

When contacting the negative (−) lead to the diode positive (+) side and the positive (+) lead to the negative (−) side, there should be continuity. When contacting the 2 leads in reverse, there should be no continuity.

HINT: Specifications may vary depending on the type of tester, so refer to the tester's instruction manual before performing the inspection.

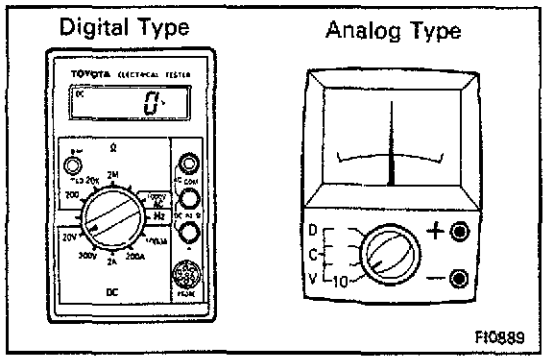
BE



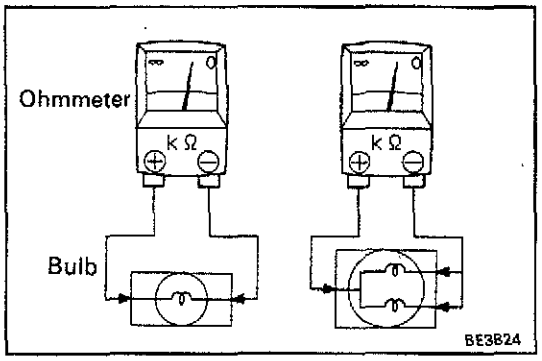
Check LED (Light Emitting Diode) in the same manner as that for diodes.

HINT:

- Use a tester with a power source of 3 V or greater to overcome the circuit resistance.
- If a suitable tester is not available, apply battery voltage and check that the LED lights up.

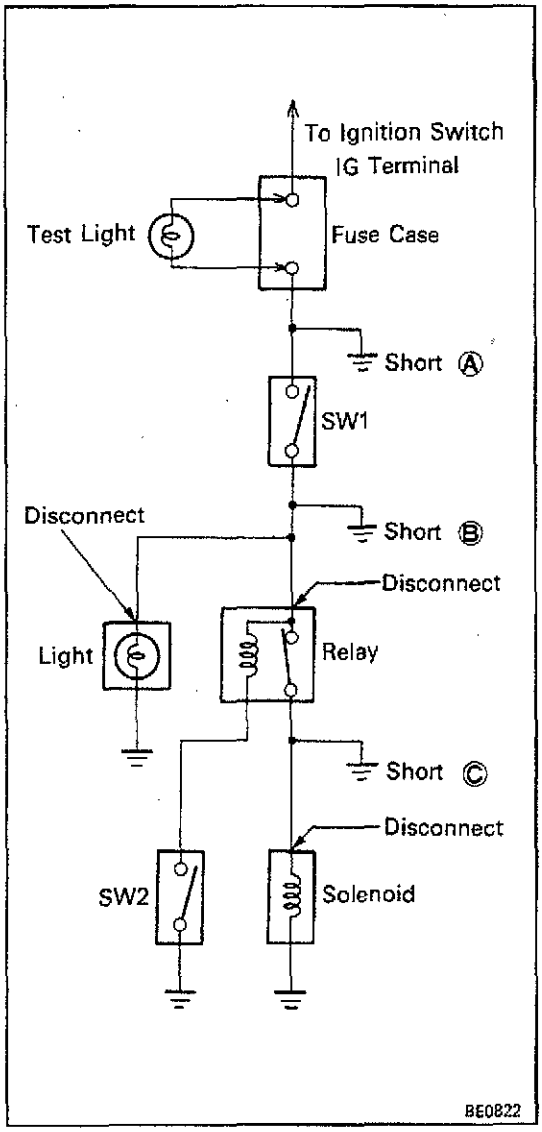


(c) Use a volt/ohmmeter with high impedance (10 kΩ/V minimum) for troubleshooting of the electrical circuit.



BULB CHECKING

(a) Remove the bulb.
(b) There should be continuity between the respective terminals of the bulb together with a certain amount of resistance.
(c) Apply the 2 leads of the ohmmeter to each of the terminals.
(d) Apply battery positive voltage and check that the bulb lights up.



SHORT CIRCUIT CHECK

(a) Remove the blown fuse and eliminate all loads from the fuse.
(b) Connect a test bulb in place of the fuse.
(c) Establish conditions in which the test bulb comes on. Example:
Ⓐ – Ignition SW on
Ⓑ – Ignition SW and SW 1 on
Ⓒ – Ignition SW, SW 1 and Relay on (Connect the Relay) and SW 2 off (or Disconnect SW 2)
(d) Disconnect and reconnect the connectors while watching the test bulb. The short lies between the connector where the test bulb stays lit and the connector where the bulb goes out.
(e) Find the exact location of the short by lightly shaking the problem wire along the body.

ELECTRICAL PARTS

BE000-01

Before removing and inspection the electrical parts, set the ignition switch to the LOCK position and disconnect the negative (−) terminal cable from the battery.

SYSTEM INSPECTION

BE00A-02

This inspection is a simple troubleshooting which should be carried out on the vehicle during system operation and is based on the assumption of system component trouble (except for the wires and connectors, etc.).
Always inspect the trouble taking the following items into consideration.

- Ground point fault.
- Open or short circuit of the wire harness.
- Connector or terminal connection fault.
- Fuse or fusible kink fault.

NOTICE:

- **This is an on−vehicle inspection during system operation. Therefore, inspect the trouble with due regard for safety.**
- **If connecting the battery directly, be careful not to short circuit, and select the applicable voltage.**

MOBILE COMMUNICATION SYSTEM

BE13A-01

If the vehicle is equipped with a mobile communication system, refer to the precautions in the IN section.