

INSPECTION

1. INSPECT SPEEDOMETER ON-VEHICLE

Using a speedometer tester, inspect the speedometer for allowable indication error and check the operation of the odometer.

HINT:

Tire wear and tire over or under inflation will increase the indication error.

If error is excessive, replace the speedometer.

USA (mph)		CANADA (km/h)	
Standard indication	Allowable range	Standard indication	Allowable range
20	18 - 24	20	17 - 24
40	38 - 44	40	38 - 46
60	56 - 66	60	57.5 - 67
80	78 - 88	80	77 - 88
100	98 - 110	100	96 - 109
120	118 - 132	120	115 - 130
		140	134 - 151.5
		160	153 - 173

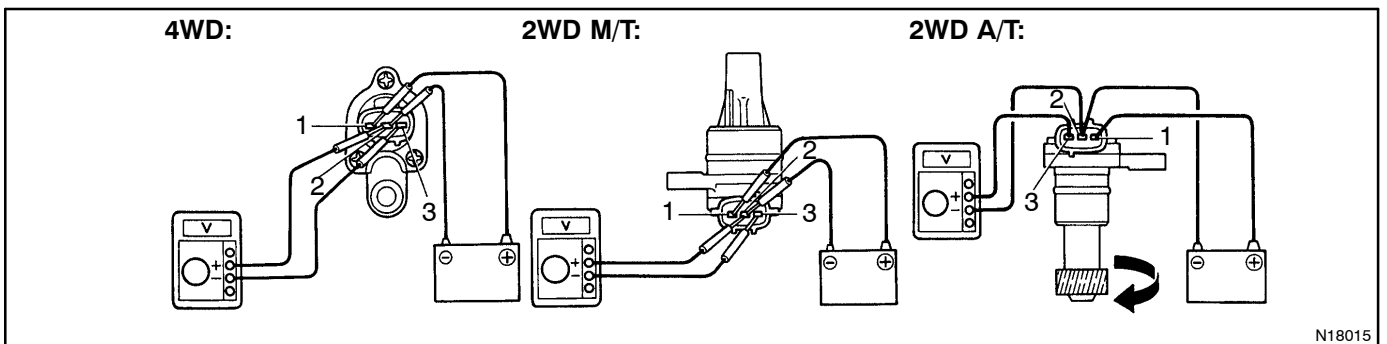
2. INSPECT VEHICLE SPEED SENSOR OPERATION

- Connect the positive (+) lead from battery to terminal 1 and negative (-) lead to terminal 2.
- Connect the positive (+) lead from tester to terminal 3 and the negative (-) lead to terminal 2.
- Rotate the shaft.
- Check that there is voltage change from approx. 0 V to 11 V or more between terminals 2 and 3.

HINT:

The voltage change should be 4 times for every revolution of the speed sensor shaft.

If operation is not as specified, replace the sensor.



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3. INSPECT TACHOMETER ON-VEHICLE

(a) Connect a tune-up test tachometer, and start the engine.

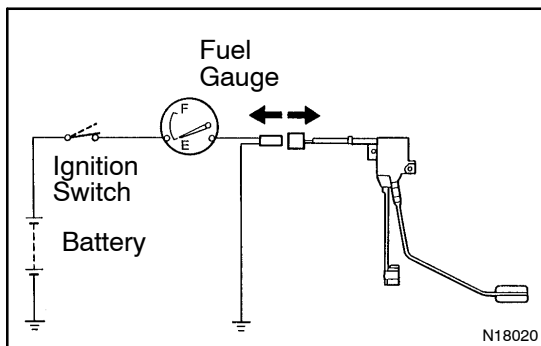
NOTICE:

- Reversing the connection of the tachometer will damage the transistors and diodes inside.
- When removing or installing the tachometer, be careful not to drop or subject it to heavy shocks.

(b) Compare the tester with tachometer indications.

DC 13.5 V 20° C at (68 ° F)

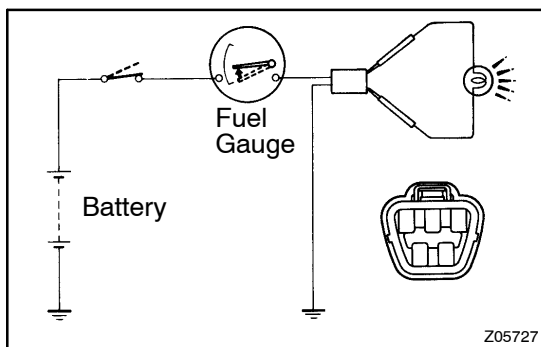
Standard indication	Allowable range
700	630 - 770
1,000	900 - 1,100
2,000	1,850 - 2,150
3,000	2,800 - 3,200
4,000	3,800 - 4,200
5,000	4,800 - 5,200
6,000	5,750 - 6,250



4. INSPECT FUEL RECEIVER GAUGE OPERATION

(a) Disconnect the connector from the sender gauge.

(b) Turn the ignition switch ON, check that the receiver gauge needle indicates EMPTY.



(c) Connect terminals 2 and 3 on the wire harness side connector through a 3.4-W Watts test bulb.

(d) Turn the ignition switch ON, check that the bulb lights up and the receiver gauge needle moves towards the full side.

HINT:

Because of the silicon oil in the gauge, it will take a short time for needle to stabilize.

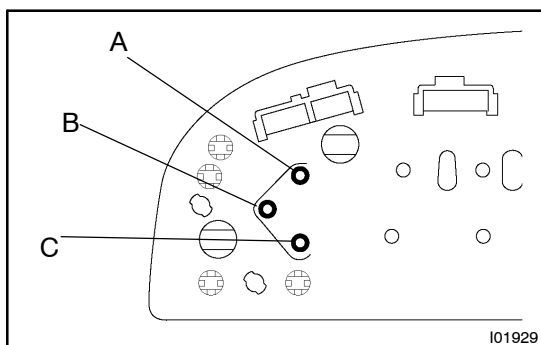
If operation is not as specified, inspect the receiver gauge resistance.

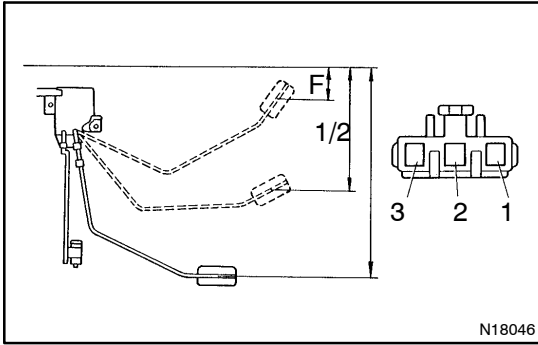
5. INSPECT FUEL RECEIVER GAUGE RESISTANCE

Measure the resistance between terminals.

Tester connection	Resistance (Ω)
A - B	Approx. 151
A - C	Approx. 254
B - C	Approx. 103

If resistance value is not as specified, replace the receiver gauge.



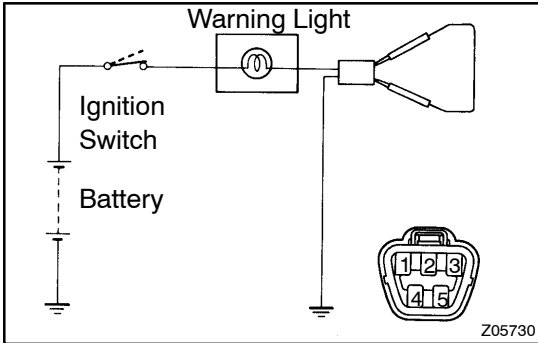


6. INSPECT FUEL SENDER GAUGE RESISTANCE

Measure the resistance between terminals 2 and 3 for each float position.

Float position: mm (in.)	Resistance (Ω)
F: Approx. 31.1 (1.224)	Approx. 3.0
1/2: Approx. 93.7 (3.689)	Approx. 32.5
E: Approx. 180.0 (7.087)	Approx. 110.0

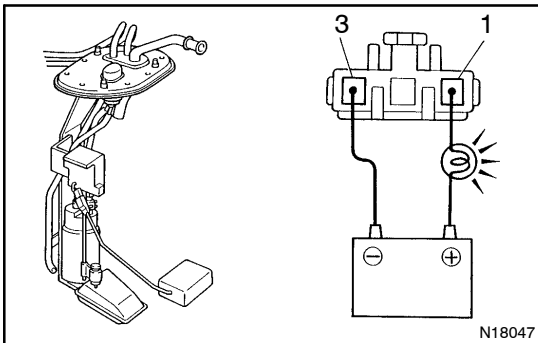
If resistance value is not as specified, replace the sender gauge.



7. INSPECT FUEL LEVEL WARNING LIGHT

- (a) Disconnect the connector from the sender gauge.
- (b) Connect terminals 1 and 3 on the wire harness side connector.
- (c) Turn the ignition switch ON, check that the warning light lights up.

If the warning light does not light up, test the bulb or inspect wire harness.

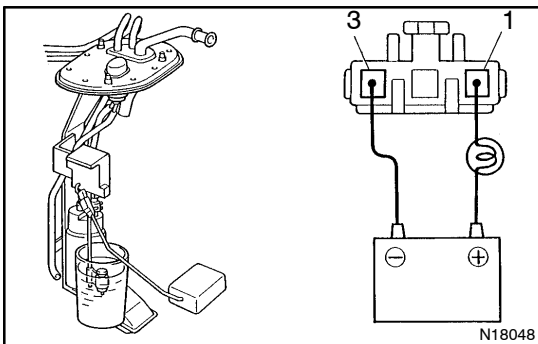


8. INSPECT FUEL LEVEL WARNING SWITCH

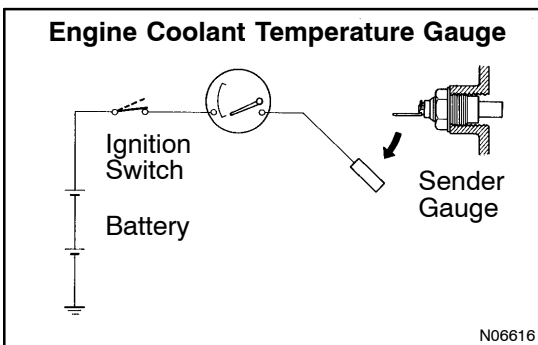
- (a) Apply battery positive voltage between terminals 1 and 3 through a 3.4 - W test bulb, check that the bulb lights up.

HINT:

It takes a short time for the bulb to light up.

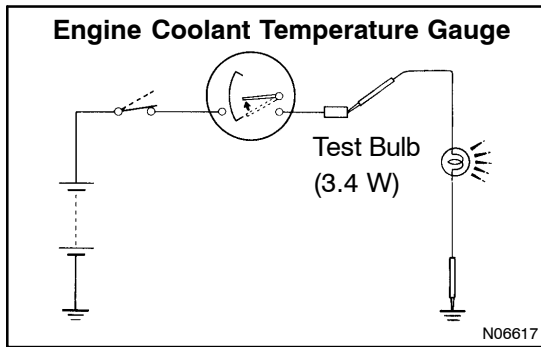


- (b) Submerge the switch in fuel, check that the bulb goes out. If operation is not as specified, replace the sender gauge.

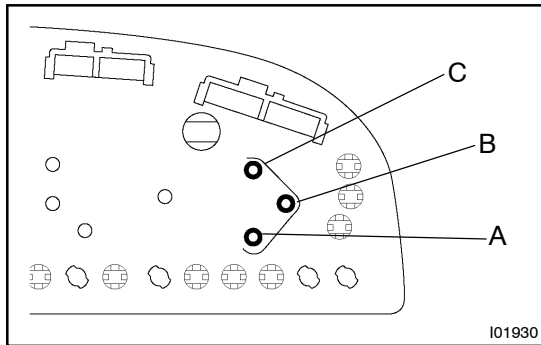


9. INSPECT ENGINE COOLANT TEMPERATURE RECEIVER GAUGE OPERATION

- (a) Disconnect the connector from the sender gauge.
- (b) Turn the ignition switch ON and check that the receiver gauge needle indicates COOL.



- (c) Ground terminal on the wire harness side connector through a 3.4 - W test bulb.
 - (d) Turn the ignition switch ON, and check that the bulb lights up and the receiver gauge needle moves to the hot side.
- If operation is as specified, replace the sender gauge. Then, recheck the system.
- If operation is not as specified, measure the receiver gauge resistance.



10. INSPECT ENGINE COOLANT TEMPERATURE RECEIVER GAUGE RESISTANCE

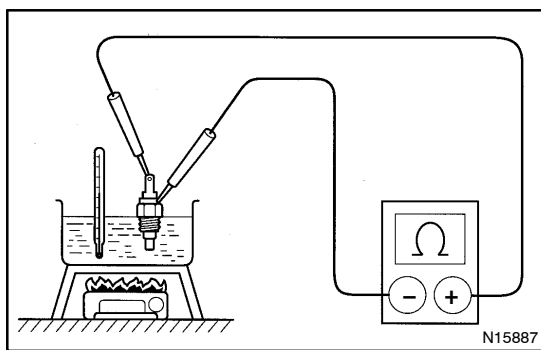
Measure the resistance between terminals.

Tester connection	Resistance (Ω)
A - B	Approx. 90
A - C	Approx. 170
B - C	Approx. 230

HINT:

Connect the test leads so that the current from the ohmmeter can flow according to the above order. This circuit includes the diode.

If resistance value is not as specified, replace the receiver gauge.

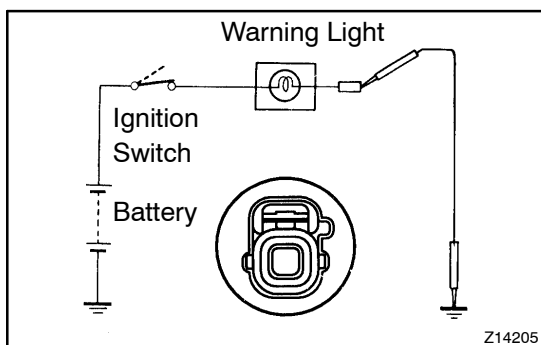


11. INSPECT ENGINE COOLANT TEMPERATURE SENDER GAUGE RESISTANCE

Measure the resistance between the terminal and gauge body.

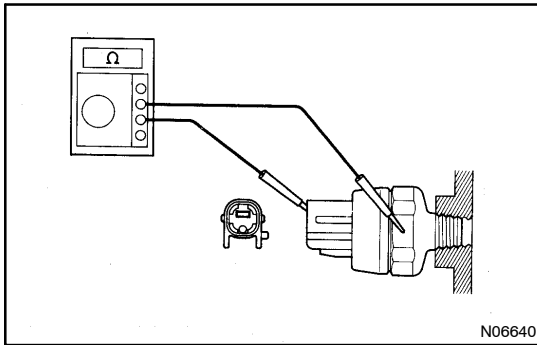
Temperature °C (°F)	Resistance (Ω)
50 (122.0)	234 ~ 314
120 (248.0)	24.0 ~ 30.5

If resistance value is not as specified, replace the engine coolant temperature sender gauge.



12. INSPECT LOW OIL PRESSURE WARNING LIGHT

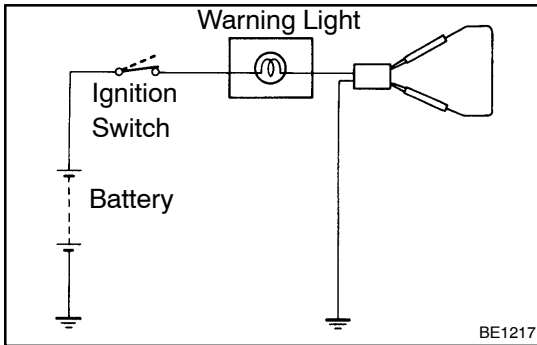
- (a) Disconnect the connector from the warning switch and ground terminal on the wire harness side connector.
 - (b) Turn the ignition switch ON and check that the warning light lights up.
- If the warning light does not light up, test the bulb.

**13. INSPECT LOW OIL PRESSURE SWITCH**

- (a) Disconnect the connector from the switch.
- (b) Check that there is continuity between terminal and ground with the engine stopped.
- (c) Check that there is no continuity between terminal and ground with the engine running.

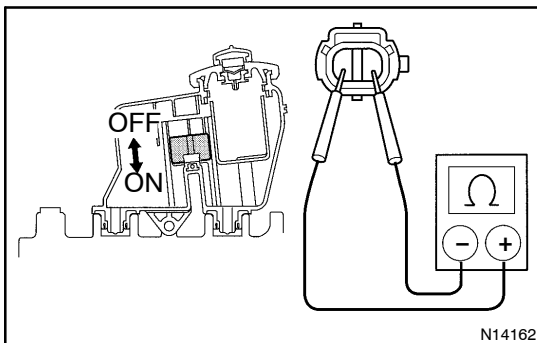
HINT:

Oil pressure should be over 24.5 kPa (0.25 kg/cm², 3.55 psi).
If operation is not as specified, replace the switch.

**14. INSPECT BRAKE WARNING LIGHT**

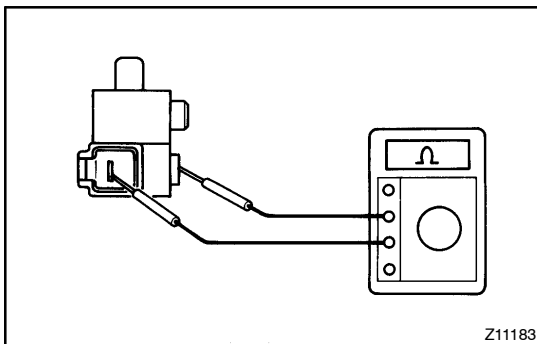
- (a) Disconnect the connectors from the level warning switch and parking brake switch.
- (b) Connect terminals on the wire harness side connector of the level warning switch connector.
- (c) Turn the ignition switch ON and check that the warning light lights up.

If the warning light does not light up, test the bulb.

**15. INSPECT BRAKE FLUID LEVEL WARNING SWITCH CONTINUITY**

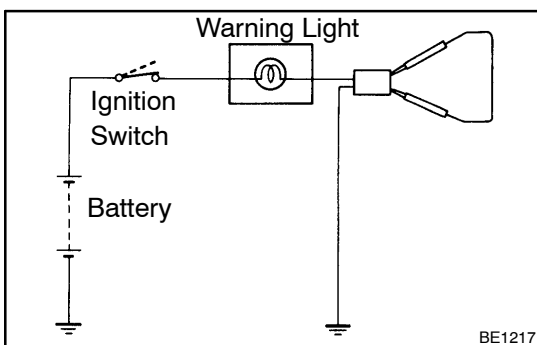
- (a) Check that there is no continuity between terminals with the switch OFF (float up).
- (b) Check that there is continuity between terminals with the switch ON (float down).

If operation is not as specified, replace the switch.

**16. INSPECT PARKING BRAKE SWITCH CONTINUITY**

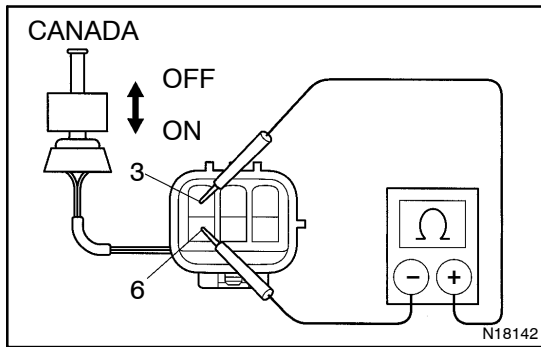
- (a) Check that there is continuity between terminals with the switch ON (switch pin released).
- (b) Check that there is no continuity between terminals with the switch OFF (switch pin pushed in).

If operation is not as specified, replace the switch.

**17. INSPECT WASHER LEVEL WARNING LIGHT**

- (a) Disconnect the connectors from the level warning switch and parking brake switch.
- (b) Connect terminals on the wire harness side connector of the level warning switch connector.
- (c) Remove the CHARGE fuse and turn the ignition switch ON, and check that the warning light comes on.

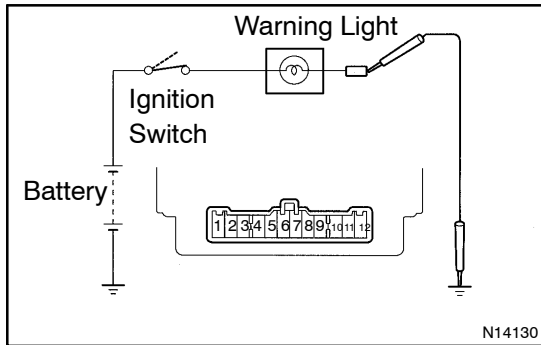
If the warning light does not light up, test the bulb.



18. INSPECT WASHER LEVEL WARNING SWITCH

- (a) Check that there is no continuity between terminals with the switch OFF (float up).
- (b) Check that there is continuity between terminals with the switch ON (float down).

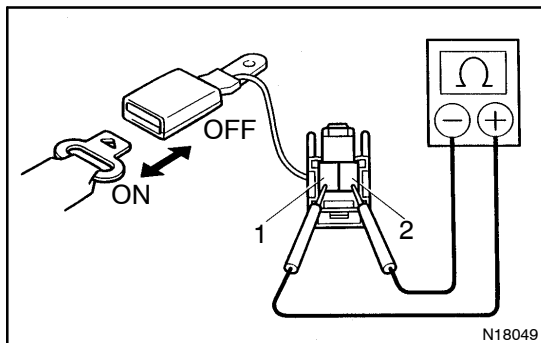
If operation is not as specified, replace the switch.



19. INSPECT SEAT BELT WARNING LIGHT

- (a) Ground terminal 2 on the integration relay with the connectors still connected.
- (b) Turn the ignition switch ON and check that the warning light lights up.

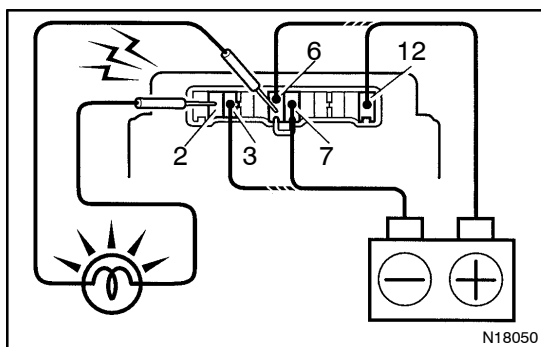
If the warning light does not light up, inspect the bulb or wire harness.



20. INSPECT BUCKLE SWITCH CONTINUITY

- (a) Check that there is continuity between terminals on the switch side connector with the switch ON (buckle fastened).
- (b) Check that there is no continuity between terminals on the switch side connector with the switch OFF (buckle unfastened).

If operation is not as specified, replace the seat belt inner.

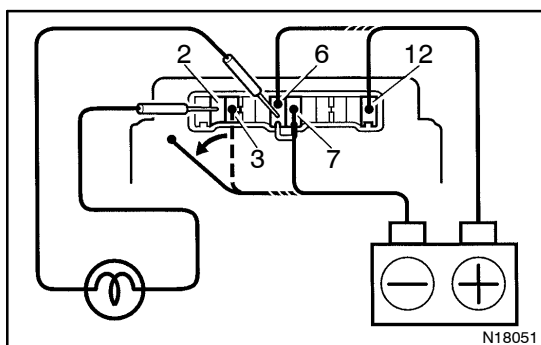


21. INSPECT INTEGRATION RELAY SEAT BELT WARNING SYSTEM OPERATION

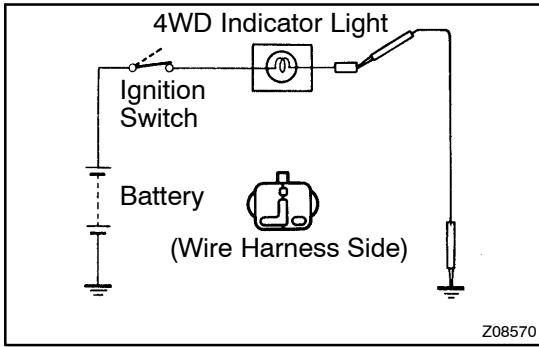
- (a) Connect the positive (+) lead from the battery to terminal 12 and negative (-) lead from the battery to terminal 7.
- (b) Connect the terminal 2 to terminal 5 through the 3.4 - Watt test bulb.
- (c) Connect the negative (-) lead from the battery to terminal 3.
- (d) Check that the bulb lights and the chime sounds for 4 - 8 seconds.
- (e) Return to step (a) and operate the chime again.
- (f) Check that the buzzer does not sound when disconnecting terminal 3 from the negative (-) lead.
- (g) Check that the chime stops sounding.

HINT:

Check the chime sounds within a period of 4 to 8 seconds. If operation is not as specified, replace the relay.

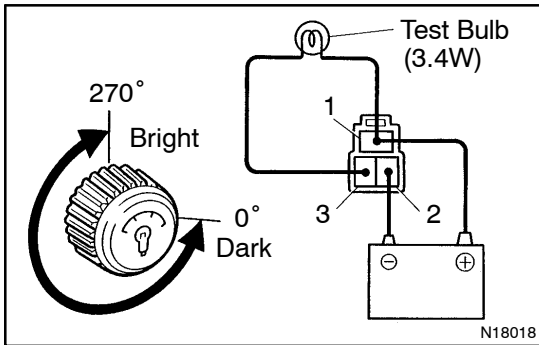


22. INSPECT INTEGRATION RELAY CIRCUIT
(See page BE-13)



23. INSPECT 4WD INDICATOR LIGHT

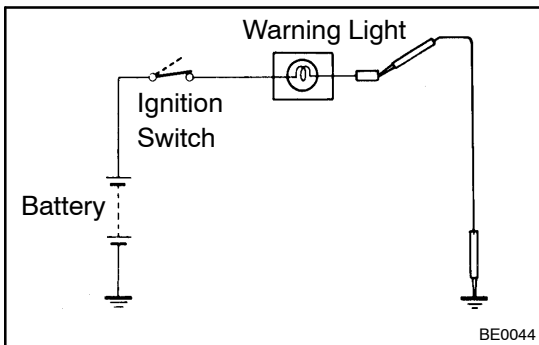
- (a) Disconnect the connector from the 4WD indicator switch. Connect the switch terminal 2 and body ground.
- (b) Turn the ignition switch ON. Check that the bulb lights up. If operation is not as specified, remove and test the bulb.



24. INSPECT LIGHT CONTROL RHEOSTAT

- (a) Connect terminals 1 and 3 through a 3.4 - W test bulb.
- (b) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2.
- (c) Turn the rheostat knob to fully counterclockwise, check that the test bulb goes out.
- (d) Gradually turn the rheostat knob to clockwise, check that the test bulb brightness changes from dark to bright.

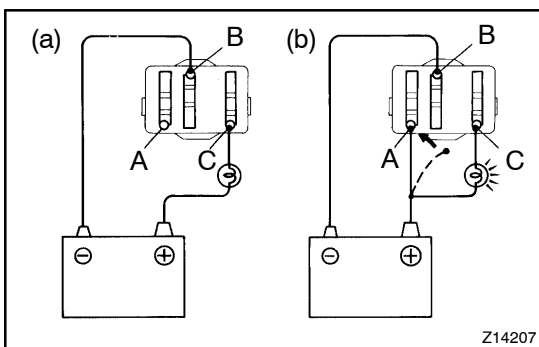
If operation is not as specified, replace the rheostat.



25. INSPECT OPEN DOOR WARNING LIGHT

- (a) Disconnect the connector from the door courtesy switch and ground terminal on the wire harness side connector.
- (b) Turn the ignition switch ON, check that the warning light lights up.

If the warning light does not light up, test the bulb.



26. INSPECT BULB CHECK RELAY OPERATION

- (a) Connect the positive (+) lead from the battery to terminal C through a 1.4 W test bulb and the negative (-) lead to terminal B, check that the test bulb does not light up.
- (b) Connect the positive (+) lead from the battery to terminal A and check that the test bulb lights up.

If operation is not as specified, replace the relay.