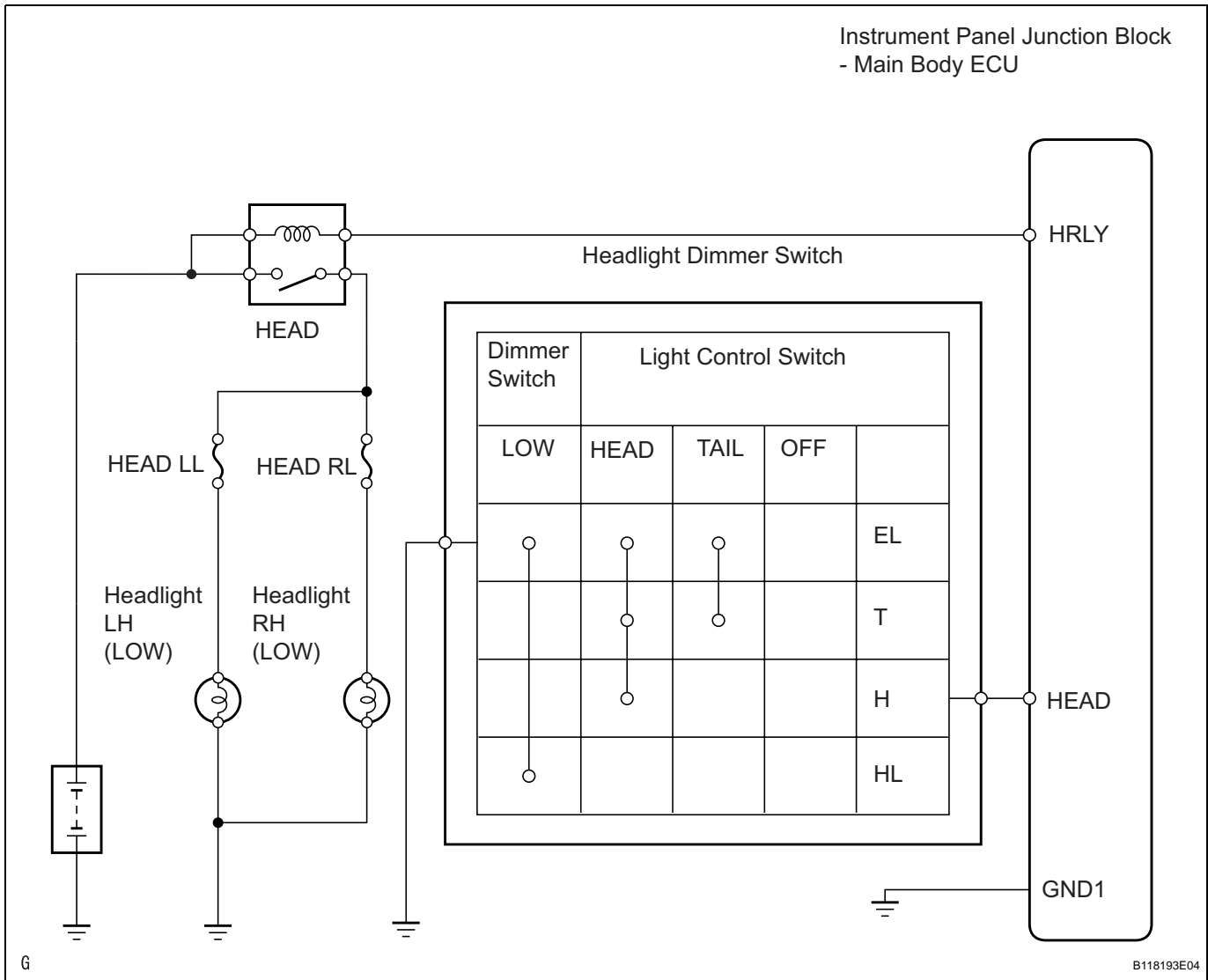


Headlight Relay Circuit

DESCRIPTION

When the light control switch, located on the headlight dimmer switch, is turned to the HEAD position, the HEAD relay illuminates the headlights.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 PERFORM ACTIVE TEST BY INTELLIGENT TESTER (HEADLIGHT)

- (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
- (b) Turn the ignition switch ON and press the intelligent tester main switch ON.
- (c) Select the item below in the ACTIVE TEST and then check the relay operation.

Main body ECU

Item	Test Details: Display (Range)	Diagnostic Note
HEAD LIGHT	Headlight Relay ON/OFF	-

OK:
Headlight comes on

OK → Go to step 7

NG

2 INSPECT FUSE (HEAD LL, HEAD RL)

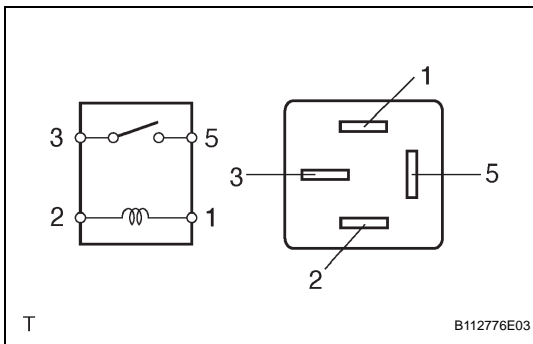
- (a) Remove the HEAD LL fuse and HEAD RL fuse from the engine room No. 2 relay block.
- (b) Measure the resistance of the fuses.

Standard resistance:
Below 1 Ω

NG → REPLACE FUSE

OK

3 INSPECT HEADLIGHT RELAY (Marking: HEAD)



- (a) Remove the headlight relay from the engine room No. 2 relay block.
- (b) Measure the resistance of the relay.

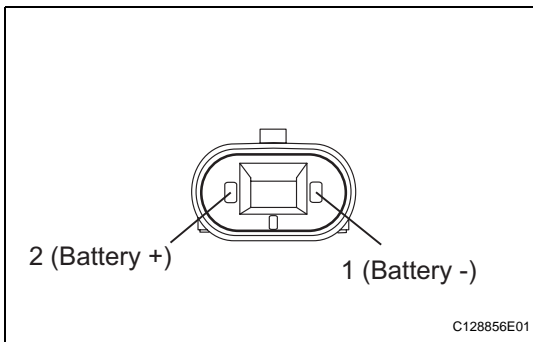
Standard resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (Battery voltage applied to terminals 1 and 2)

NG → REPLACE HEADLIGHT RELAY

OK

4 INSPECT BULB (HEADLIGHT BULB)



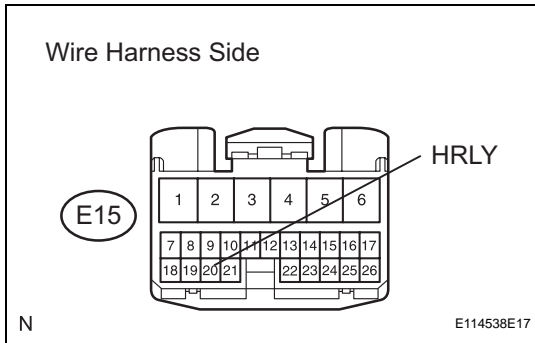
- (a) Remove the headlight bulbs (LOW).
- (b) Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, then check that the bulb illuminates.

OK:
Bulb illuminates.

NG → REPLACE BULB

OK

5 CHECK WIRE HARNESS (MAIN BODY ECU - BATTERY)



- (a) Disconnect the E15 main body ECU connector.
- (b) Measure the voltage of the wire harness side connector.

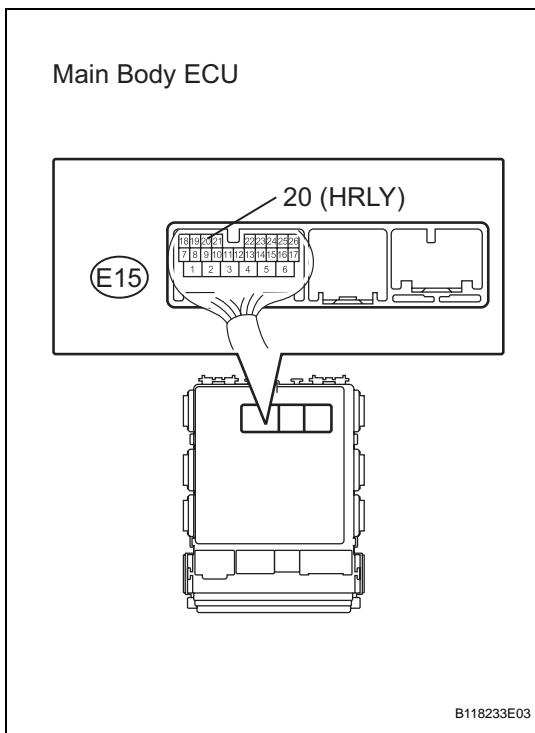
Standard voltage

Tester Connection	Specified Condition
E15-20 (HRLY) - Body ground	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

6 CHECK INSTRUMENT PANEL JUNCTION BLOCK (MAIN BODY ECU)



- (a) Measure the voltage of the main body ECU.

Standard voltage

Tester Connection	Condition	Specified Condition
E15-20 (HRLY) - Body ground	Light control switch OFF	10 to 14 V
E15-20 (HRLY) - Body ground	Light control switch HEAD	Below 1 V

NG → **REPLACE INSTRUMENT PANEL JUNCTION BLOCK (MAIN BODY ECU)**

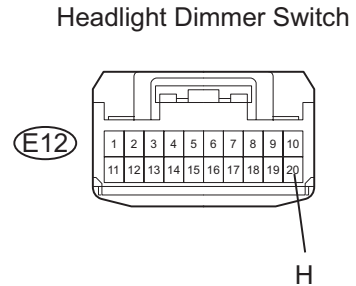
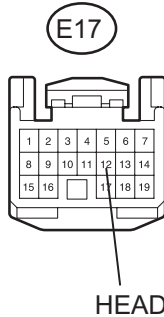
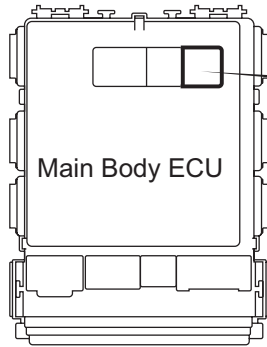
OK

REPAIR OR REPLACE HARNESS AND CONNECTOR (HEAD RELAY - HEADLIGHT BULB AND BODY GROUND)

7 CHECK WIRE HARNESS (HEADLIGHT DIMMER SWITCH - MAIN BODY ECU)

Wire Harness Side

Instrument Panel Junction Block



B128083E01

- (a) Disconnect the E17 main body ECU connector.
- (b) Disconnect the E12 headlight dimmer switch connector.
- (c) Measure the resistance of the wire harness side connectors.

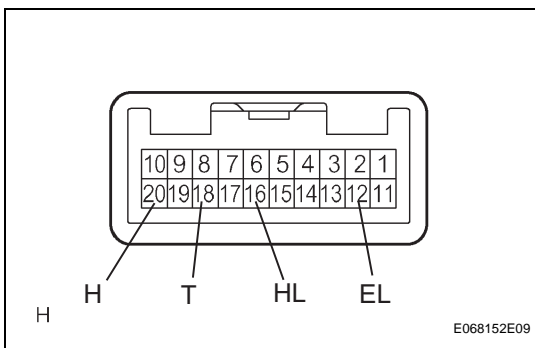
Standard resistance

Tester Connection	Specified Condition
E17-12 (HEAD) - E12-20 (H)	Below 1 Ω
E17-12 (HEAD) or E12-20 (H) - Body ground	10 kΩ or higher

NG REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

8 INSPECT HEADLIGHT DIMMER SWITCH



- (a) Disconnect the E12 headlight dimmer switch.
- (b) Measure the resistance of the switch.

Standard resistance

Tester Connection	Switch Condition	Specified Condition
18 (T) - 12 (EL)	TAIL	Below 1 Ω
18 (T) - 12 (EL)	OFF	10 kΩ or higher
20 (H) - 12 (EL)	HEAD	Below 1 Ω
20 (H) - 12 (EL)	OFF	10 kΩ or higher
16 (HL) - 12 (EL)	LOW	Below 1 Ω
16 (HL) - 12 (EL)	HIGH	10 kΩ or higher

NG REPLACE HEADLIGHT DIMMER SWITCH ASSEMBLY

OK

REPAIR OR REPLACE HARNESS AND CONNECTOR (HEADLIGHT DIMMER SWITCH - BODY GROUND)

