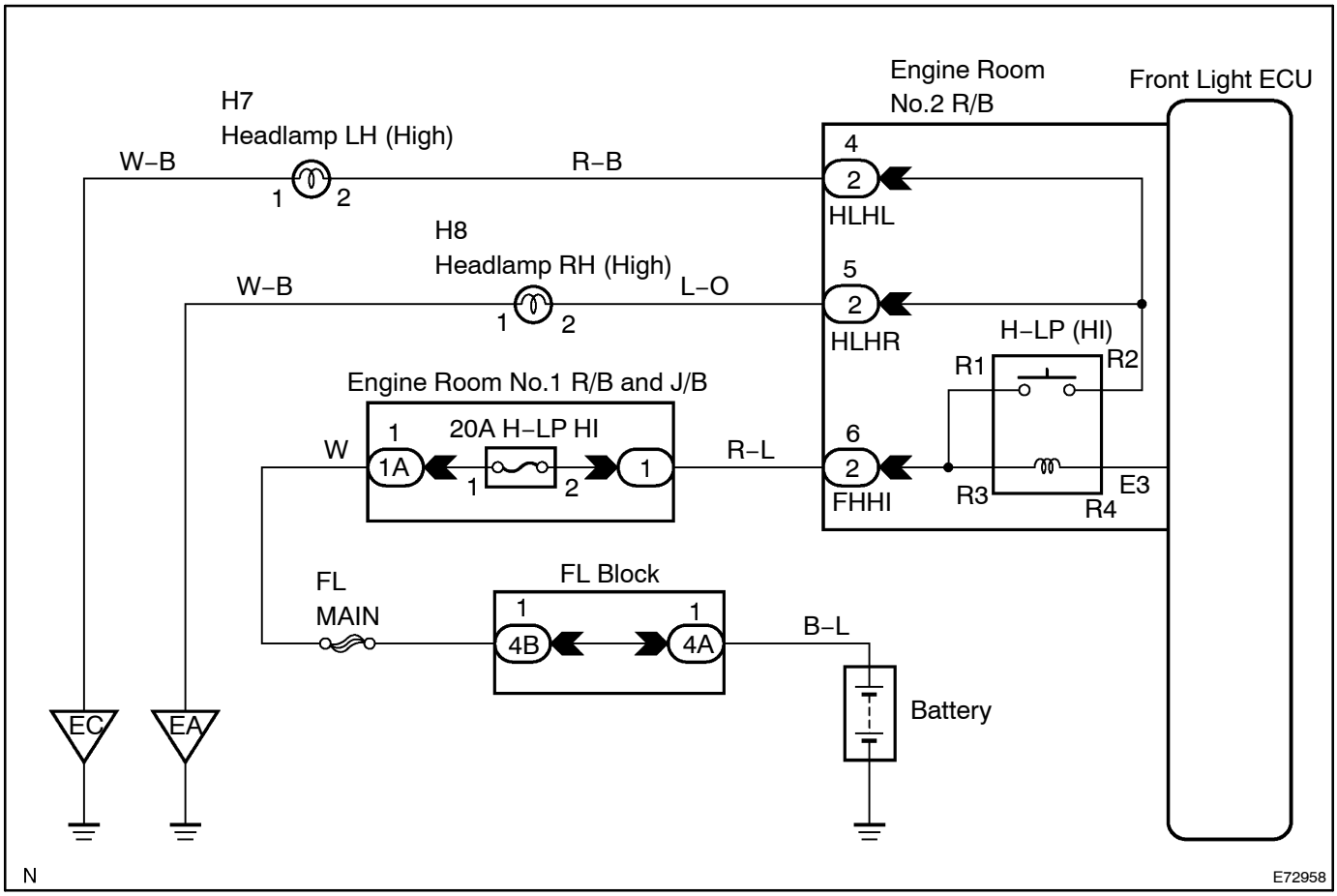
HEADLIGHT(HI–BEAM) CIRCUIT

CIRCUIT DESCRIPTION

The front light ECU receives headlamp HI switch information from the combination switch, and turns on the headlight.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST ON INTELLIGENT TESTER II

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch to the ON position and turn the intelligent tester II main switch on.
(c) Select the item below in the ACTIVE TEST and then check the headlamp operation.

BODY NO.5 (MULTIPLEX NETWORK FRONT LIGHT ECU):

Item	Test Details	Diagnostic Note
Light Head (High)	Light HEAD (high) ON/OFF	–

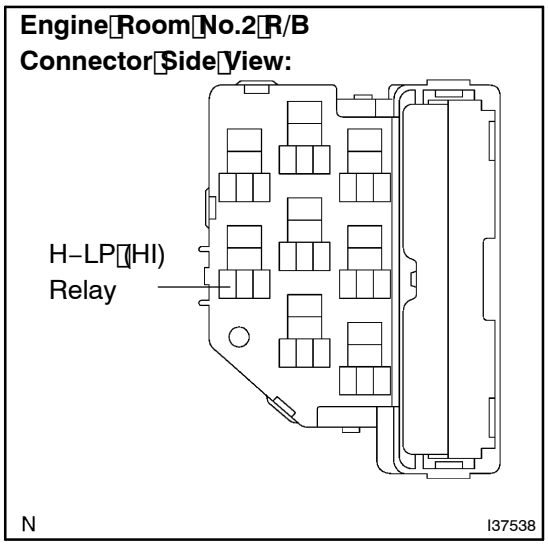
OK: High beam comes on.

NG → **Go to step 2**

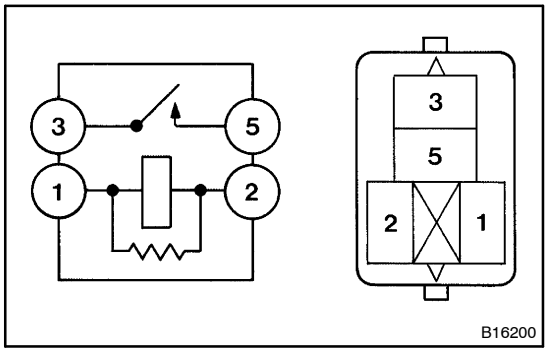
OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE
(SEE PAGE 05–1369)

2	INSPECT RELAY



(a) Remove the H–LP (HI) relay from the engine room No.2 R/B.



(b) Inspect the H–LP (HI) relay continuity.
(1) Measure the resistance according to the value(s) in the table below.

Standard:

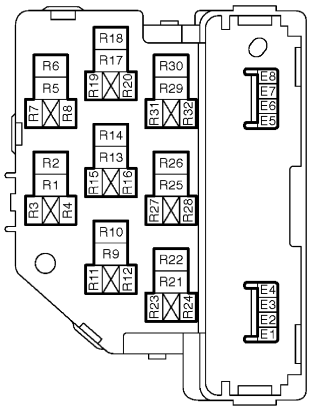
Tester Connection	Specified Condition
3 – 5	10 kΩ or higher
3 – 5	Below 1 Ω (When battery voltage is applied to terminals 1 – 2)

NG → **REPLACE RELAY**

OK

3	INSPECT MULTIPLEX NETWORK BODY ECU(ENGINE ROOM NO.2 R/B)

Engine Room No.2 R/B
Relay Side View:



N I37539

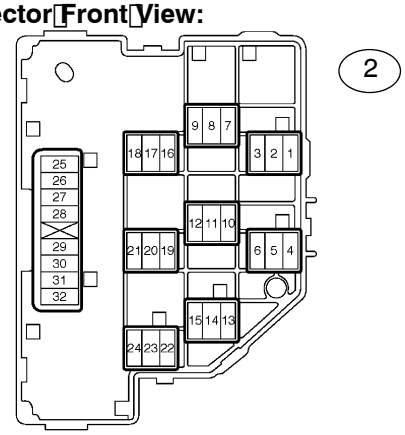
(a) Using a service wire, connect the R1 and R2 in engine room No.2 R/B.
OK: Head lamp (Hi) comes on.

NG → **Go to step 5**

OK

4	INSPECT MULTIPLEX NETWORK BODY ECU (ENGINE ROOM NO.2 R/B)

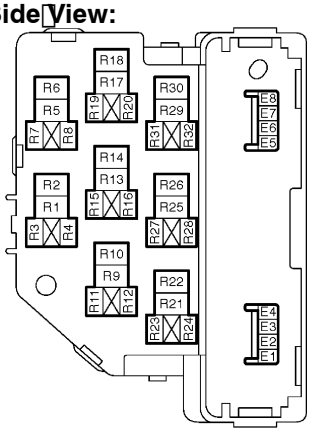
Engine Room No.2 R/B
Connector Front View:



N I37540

(a) Disconnect 2–6 connector from the engine room No.2 R/B.
(b) Remove the front light ECU from the engine room No.2 R/B.

Engine Room No.2 R/B
Relay Side View:



N I37539

(c) Using a service wire, connect R3 and R4 in the engine room No.2 R/B.
(d) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Condition	Specified Condition
2–6 – E3	Connect R3 and R4	Below 1 Ω

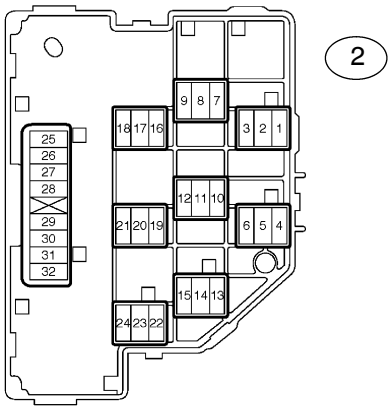
NG → **REPLACE MULTIPLEX NETWORK BODY ECU (ENGINE ROOM NO.2 R/B)**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–1369)

5 INSPECT MULTIPLEX NETWORK BODY ECU(ENGINE ROOM NO.2 R/B)

Engine Room No.2 R/B
Connector Front View:



(a) Measure the voltage according to the value(s) in the table below.

HINT:

Inspect the side the suspected malfunctioning part is on.

Standard:

Tester Connection	Condition	Specified Condition
2–4 – Body ground (*1)	Connect R1 and R2	10 to 14 V
2–5 – Body ground (*2)	Connect R1 and R2	10 to 14 V

*1: LH side

*2: RH side

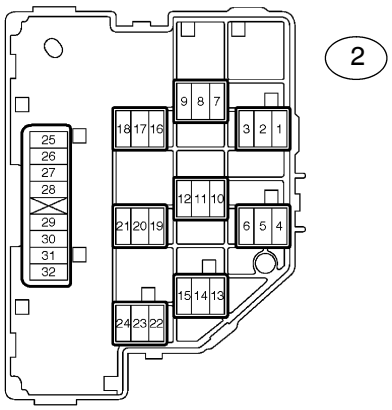
NG → **Go to step 6**

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (EACH OF HEADLAMP (HI–BEAM) CIRCUIT)

6 CHECK HARNESS AND CONNECTOR(POWER SOURCE CIRCUIT)

Engine Room No.2 R/B
Connector Front View:



(a) Disconnect 2–6 connector from the engine room No.2 R/B.

(b) Measure the voltage according to the value(s) in the table below.

Standard:

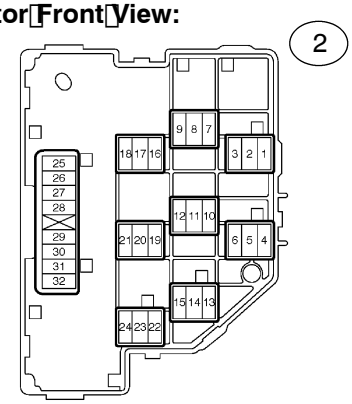
Tester Connection	Condition	Specified Condition
2–6 – Body ground	Always	10 to 14 V

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

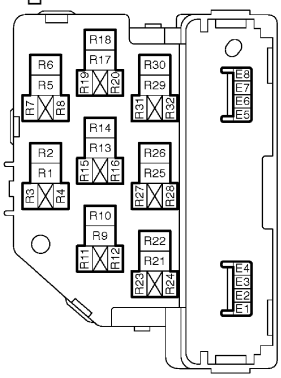
OK

7	INSPECT MULTIPLEX NETWORK BODY ECU (ENGINE ROOM NO.2 R/B)

Engine Room No.2 R/B
Connector Front View:



Relay Side View:



I37540
I37539
I39838

(a) Remove the front light ECU from engine room No.2 R/B.
(b) Using a service wire, connect R3 and R4 of the engine room No.2 R/B.
(c) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Condition	Specified Condition
2–6 – E3	Connect R3 and R4	Below 1 Ω
2–4 – 2–6	Connect R1 and R2	Below 1 Ω
2–5 – 2–6	Connect R1 and R2	Below 1 Ω

NG → **REPLACE MULTIPLEX NETWORK BODY ECU (ENGINE ROOM NO.2 R/B)**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–1369)