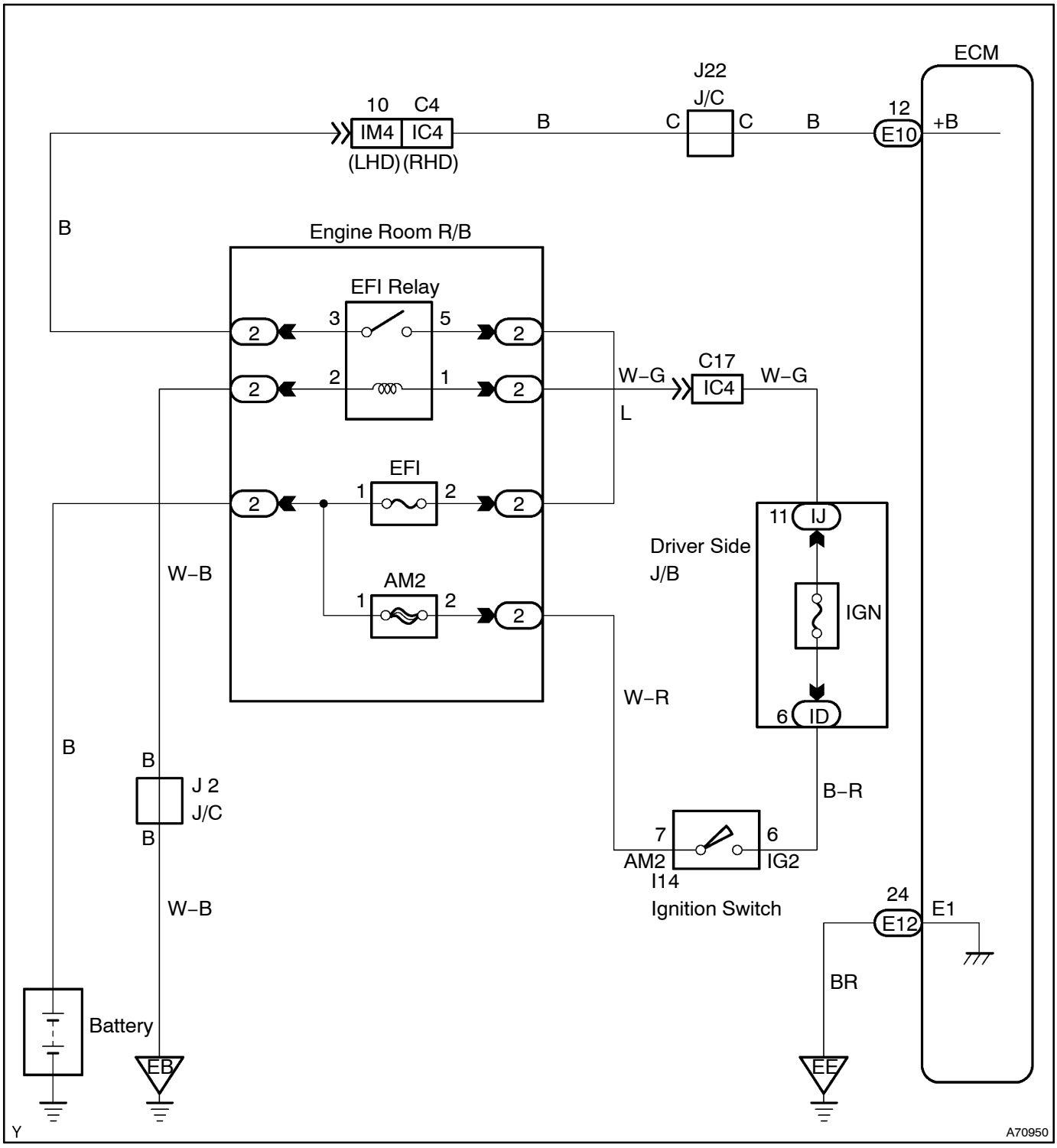
ECM POWER SOURCE CIRCUIT

CIRCUIT DESCRIPTION

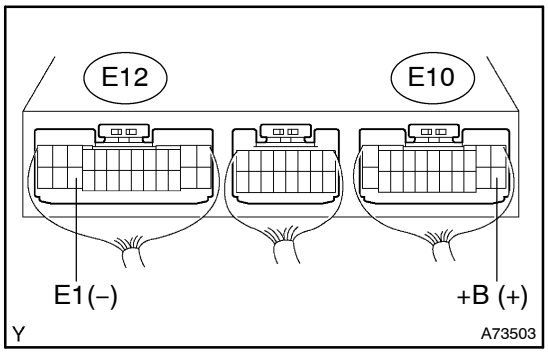
When the ignition switch is turned ON, battery voltage is applied to the coil, closing the contacts of the main relay and supplying power to the terminal +B of the ECM.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK ECM (+B VOLTAGE)



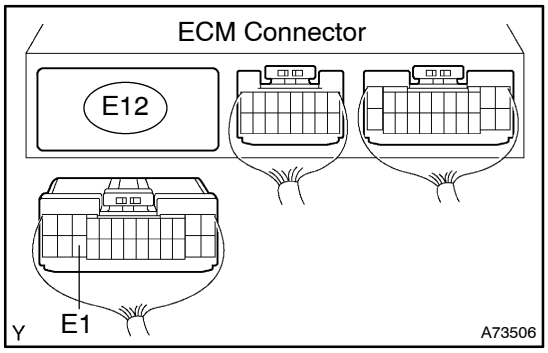
(a) Turn the ignition switch ON.
(b) Measure the voltage between the terminals of the E10 and E12 ECM connectors.
Standard:

Symbols (Terminal No.)	Specified condition
+B (E10–12) ⇔ E1 (E12–24)	9 – 14 V

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE** (See page 05–15)

NG

2 CHECK HARNESS AND CONNECTOR (ECM GROUND)



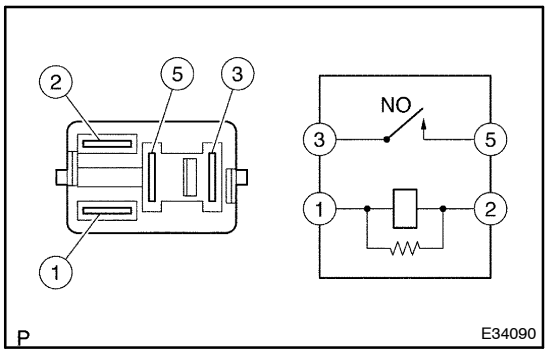
(a) Disconnect the E12 ECM connector.
(b) Check the continuity between the wire harness side connector.
Standard (Check for open):

Symbols (Terminal No.)	Specified condition
E1 (E12–24) ⇔ Body ground	Continuity

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

OK

3 INSPECT EFI RELAY



(a) Remove the EFI relay.
(b) Check the continuity between the terminals.
Standard:

Terminal No.	Specified condition
1 ⇔ 2	Continuity
3 ⇔ 5	No continuity

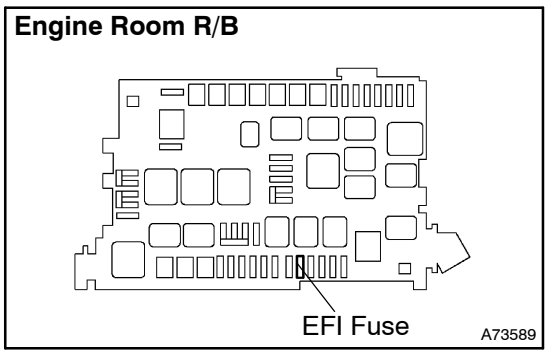
(c) Apply the battery positive voltage between the terminals 1 and 2.
(d) Check the continuity between the terminals 3 and 5.
Standard:

Terminal No.	Specified condition
3 ⇔ 5	Continuity

NG → **REPLACE EFI RELAY**

OK

4	INSPECT FUSE (EFI FUSE)

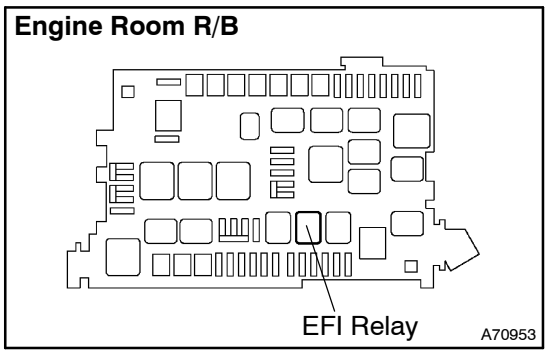


(a) Remove the EFI fuse.
(b) Check the continuity of the EFI fuse.
Standard: Continuity

NG → **CHECK FOR SHORT IN ALL HARNESS AND COMPONENTS CONNECTED FUSE (EFI FUSE)**

OK

5	CHECK RELAY OPERATION (EFI RELAY)

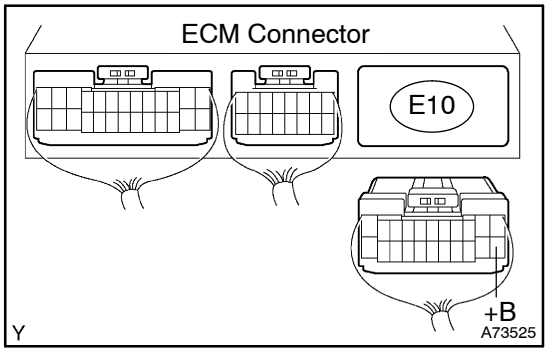


(a) Confirm that the EFI relay operates normally when turning the ignition switch ON.
Result:
EFI relay operation should is heard successively when turning the ignition switch ON

NG → **Go to step 7**

OK

6 CHECK HARNESS AND CONNECTOR (ECM ⇔ EFI RELAY)



(a) Disconnect the E10 ECM connector.
(b) Remove the EFI relay.
(c) Check the continuity between the wire harness side connectors.

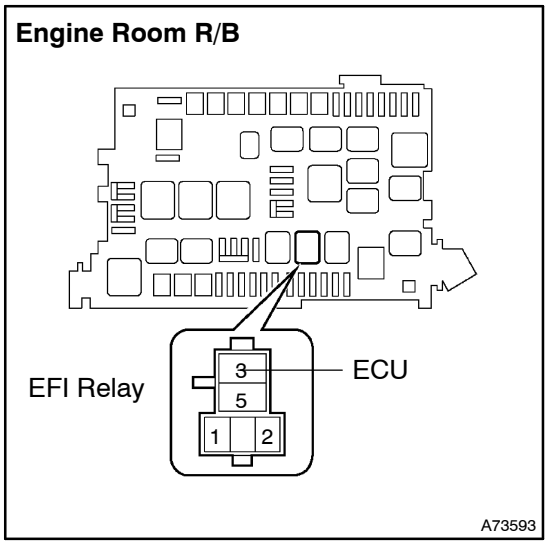
Standard (Check for open):

Symbols (Terminal No.)	Specified condition
+B (E10–12) ⇔ ECU (EFI relay terminal 3 of R/B)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
+B (E10–12) or ECU (EFI relay terminal 3 of R/B) ⇔ Other terminals and body ground	No continuity

NOTICE:
Do not insert the tester leads hard in the procedure (c), or the holder may be damaged.

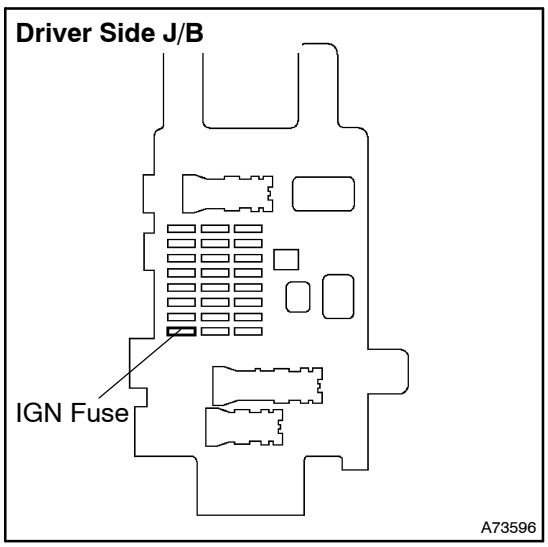


NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK OR REPAIR HARNESS OR CONNECTOR (EFI RELAY ⇔ BATTERY)

7 INSPECT FUSE (IGN FUSE)



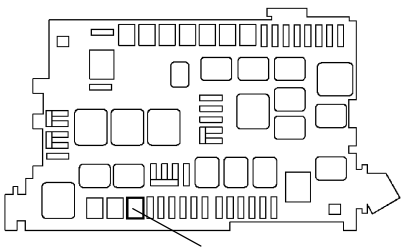
(a) Remove the IGN fuse.
(b) Check the continuity of the IGN fuse.

Standard: Continuity

NG → **CHECK FOR SHORT IN ALL HARNESS AND COMPONENTS CONNECTED FUSE (IGN FUSE)**

OK

8 INSPECT FUSE (AM2 FUSE)

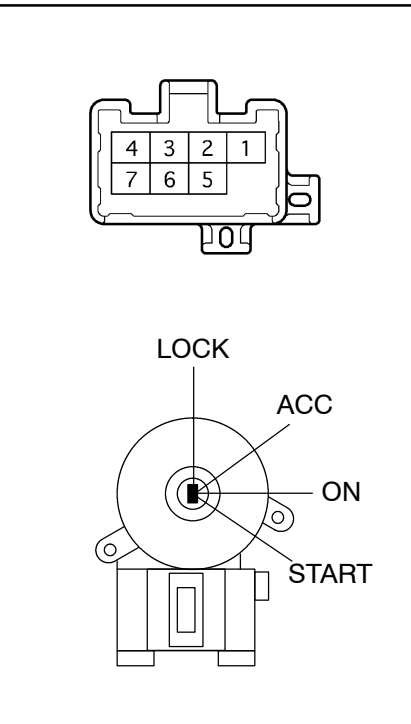


(a) Remove the AM2 fuse.
(b) Check the continuity of the AM2 fuse.
Standard: Continuity

NG → **CHECK FOR SHORT IN ALL HARNESS AND COMPONENTS CONNECTED FUSE (AM2 FUSE)**

OK

9 INSPECT IGNITION OR STARTER SWITCH ASSY



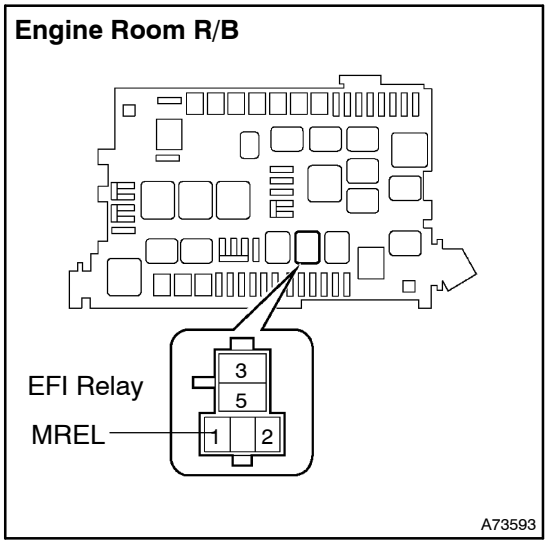
(a) Check the continuity between the terminals.
Standard:

Switch position	Terminal No.	Specified condition
LOCK	All Terminals	No continuity
ACC	2 ⇔ 3	Continuity
ON	2 ⇔ 3 ⇔ 4 5 ⇔ 6	
START	1 ⇔ 2 ⇔ 3 5 ⇔ 7	

NG → **REPLACE IGNITION OR STARTER SWITCH ASSY**

OK

10 CHECK HARNESS AND CONNECTOR (EFI RELAY ⇔ IGNITION SWITCH)



(a) Remove the EFI relay.
(b) Disconnect the I14 ignition switch connector.
(c) Check the continuity between the wire harness side connectors.

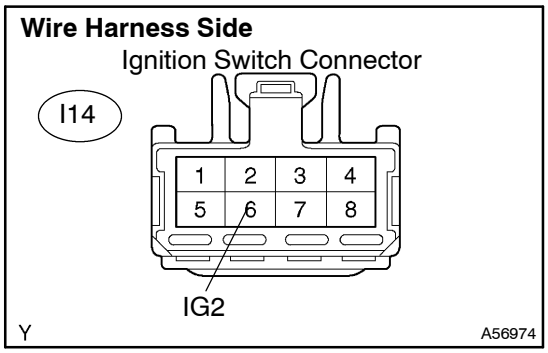
Standard (Check for open):

Symbols (Terminal No.)	Specified condition
MREL (EFI relay terminal 1 of R/B) ⇔ IG2 (I14–6)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
MREL (EFI relay terminal 1 of R/B) or IG2 (I14–6) ⇔ Other terminals and body ground	No continuity

NOTICE:
Do not insert the tester leads hard in the procedure (c), or the holder may be damaged.

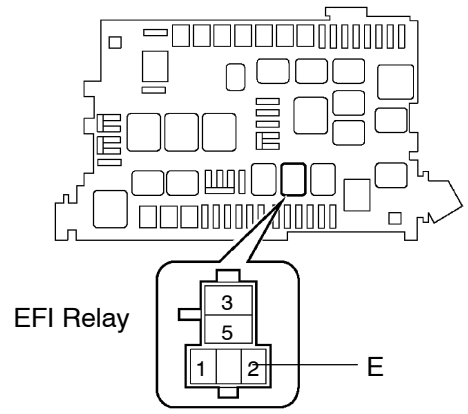


NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

11	CHECK HARNESS AND CONNECTOR (EFI RELAY ⇔ BODY GROUND)

Engine Room R/B



(a) Remove the EFI relay.
(b) Check the continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
E (EFI relay terminal 2 of R/B) ⇔ Body ground	Continuity

NOTICE:
Do not insert the tester leads hard in the procedure (b), or the holder may be damaged.

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

OK

CHECK OR REPAIR HARNESS OR CONNECTOR (IGNITION SWITCH ⇔ BATTERY)