ECM POWER SOURCE CIRCUIT

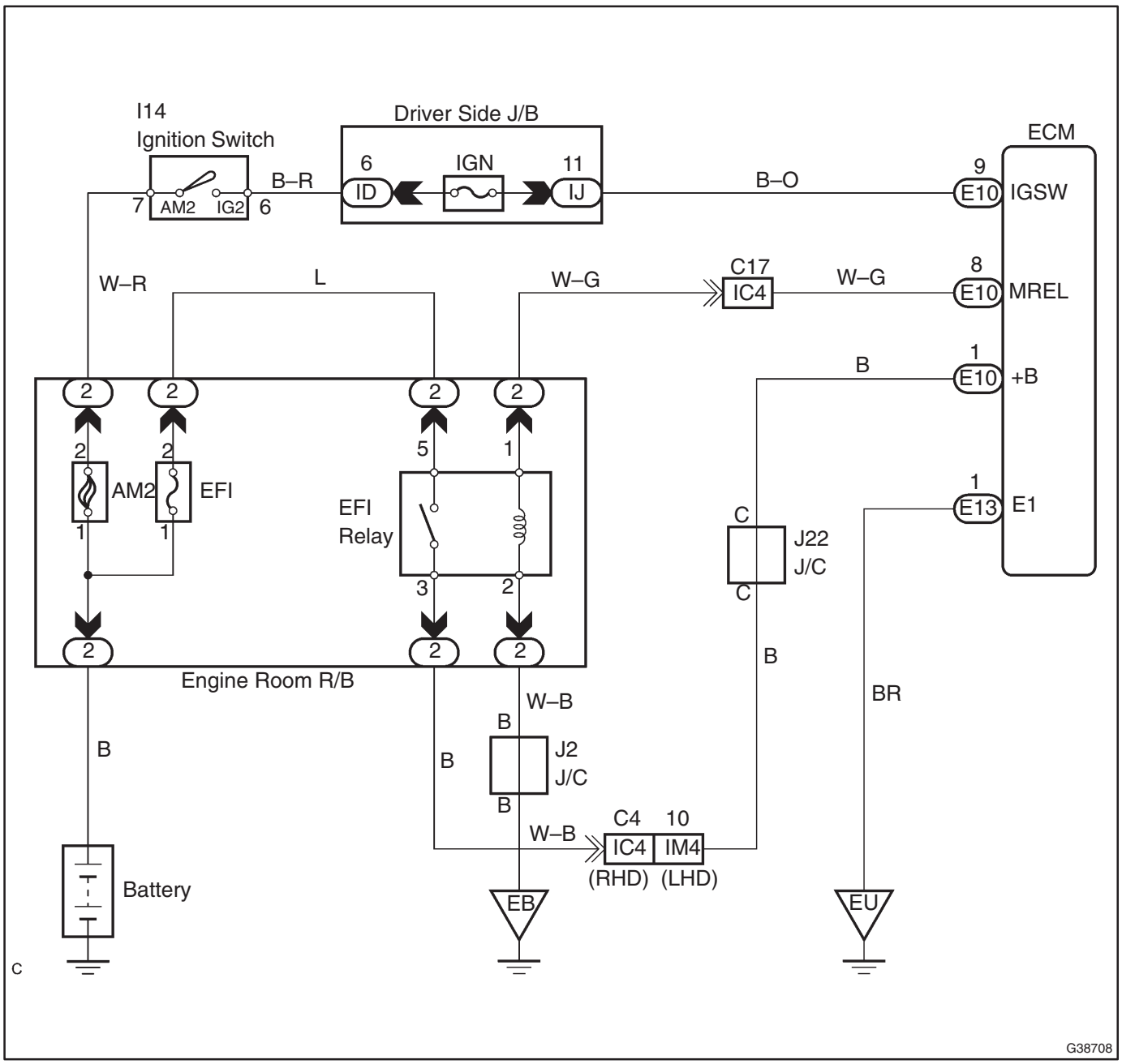
CIRCUIT DESCRIPTION

When the ignition switch is turned ON, battery voltage is applied to terminal IGSW of the ECM and the EFI relay (Marking: EFI) control circuit in the ECM sends a signal to terminal MREL of the ECM switching on the EFI relay.

This signal causes current to flow to the coil, closing the contacts of the EFI relay and supplying power to terminal +B of the ECM.

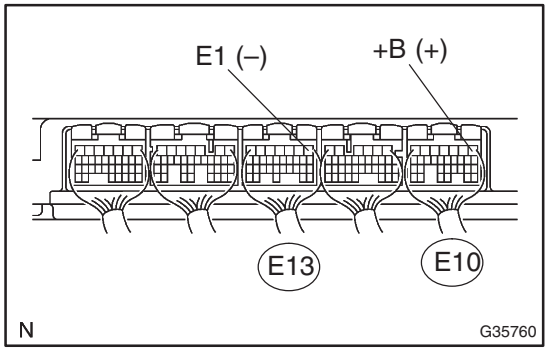
If the ignition switch is turned off, the ECM continues to switch on the EFI relay for a maximum of 2 seconds for the initial setting of the throttle valve.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT ECM(+B VOLTAGE)



(a) Turn the ignition switch to ON.
(b) Measure the voltage between terminals of the E10 and E13 ECM connectors.

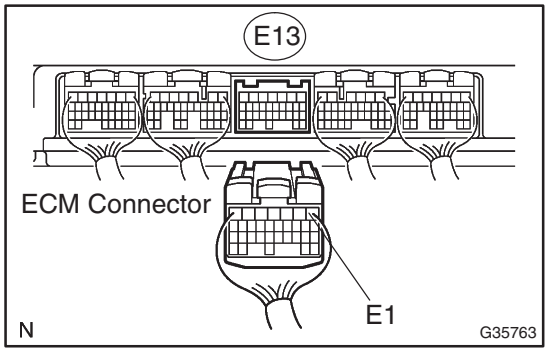
Standard:

Symbols (Terminal No.)	Specified condition
+B (E10–1) – E1 (E13–1)	9 to 14 V

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE (See page 05–202)**

NG

2 CHECK HARNESS AND CONNECTOR(ECM – BODY GROUND)



(a) Disconnect the E13 ECM connector.
(b) Check for resistance between the wire harness side connectors.

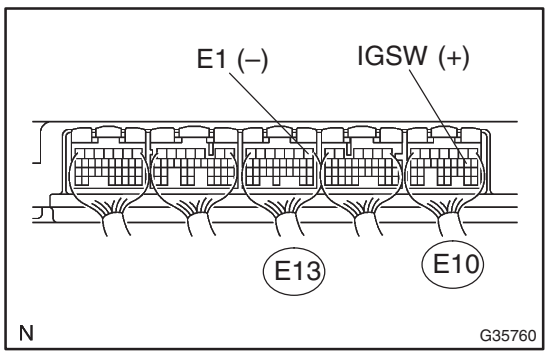
Standard (Check for open):

Symbols (Terminal No.)	Specified condition
E1 (E13–1) – Body ground	Below 1 Ω

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

OK

3 INSPECT ECM(IGSW VOLTAGE)



(a) Turn the ignition switch to ON.
(b) Measure the voltage between terminals of the E10 and E13 ECM connectors.

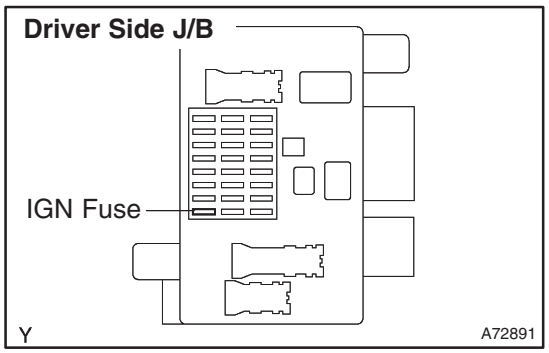
Standard:

Symbols (Terminal No.)	Specified condition
IGSW (E10–9) – E1 (E13–1)	9 to 14 V

OK → **Go to step 6**

NG

4 CHECK FUSE(IGN FUSE)

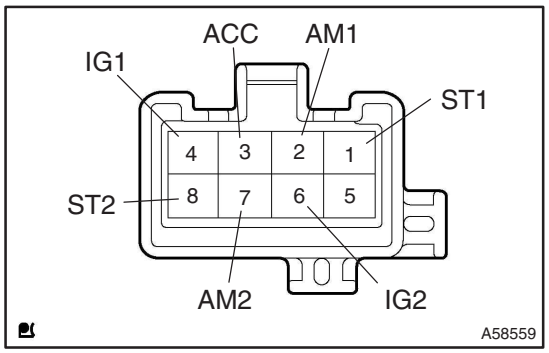


(a) Remove the IGN fuse from the driver side J/B.
(b) Check for resistance in the IGN fuse.
Standard: Below 1 Ω

NG → **CHECK FOR SHORT IN ALL HARNESSES AND COMPONENTS CONNECTED FUSE AND REPLACE FUSE**

OK

5 INSPECT IGNITION SWITCH ASSY



(a) Check for resistance between the connector terminals shown in the chart below.
Standard:

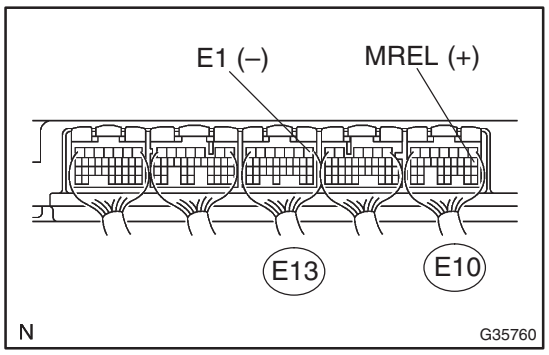
Switch position	Terminal No.	Specified condition
LOCK	All terminal to terminal	10 kΩ or higher
ACC	2 – 3	Below 1 Ω
ON	2 – 3, 2 – 4, 3 – 4 6 – 7	Below 1 Ω
START	1 – 2, 1 – 4, 2 – 4 6 – 7, 6 – 8, 7 – 8	Below 1 Ω

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

OK

CHECK AND REPAIR HARNESS AND CONNECTOR (BATTERY – IGNITION SWITCH, IGNITION SWITCH – ECM)

6 INSPECT ECM(MREL VOLTAGE)



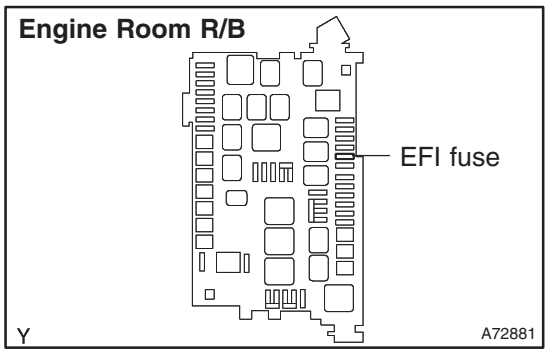
(a) Turn the ignition switch to ON.
(b) Measure the voltage between the terminals of the E10 and E13 ECM connectors.
Standard:

Symbols (Terminal No.)	Specified condition
MREL (E10–8) – E1 (E13–1)	9 to 14 V

NG → **REPLACE ECM (See Pub. No. RM1017E, page 10–11)**

OK

7 CHECK FUSE(EFI FUSE)

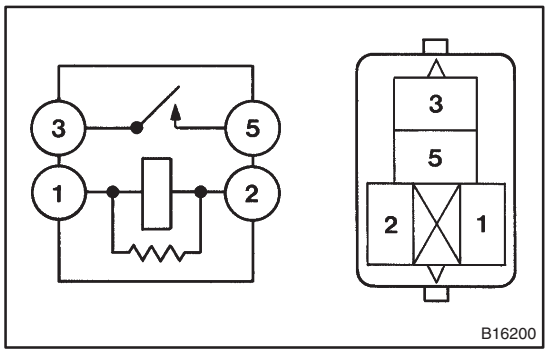


(a) Remove the EFI fuse from the engine room R/B.
(b) Check for resistance in the EFI fuse.
Standard: Below 1 Ω

NG → **CHECK FOR SHORT IN ALL HARNESSES AND COMPONENTS CONNECTED FUSE AND REPLACE FUSE**

OK

8 INSPECT EFI RELAY



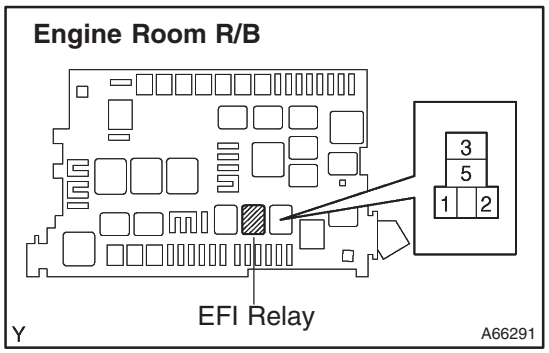
(a) Remove the EFI relay from the engine room R/B.
(b) Inspect the EFI relay.
Standard:

Terminal No.	Condition	Specified condition
3 – 5	Usually	10 kΩ or higher
3 – 5	Apply B+ between Terminals 1 and 2	Below 1 Ω

NG → **REPLACE EFI RELAY**

OK

9	CHECK HARNESS AND CONNECTOR(EFI RELAY – ECM, EFI RELAY – BODY GROUND)



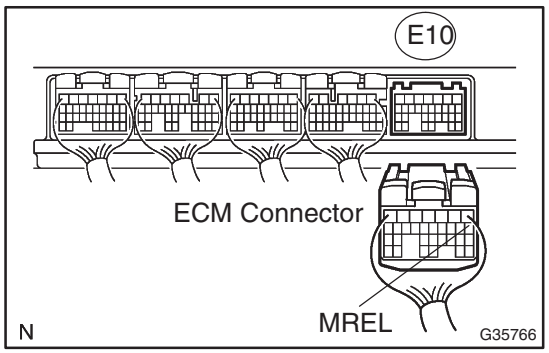
(a) Check the harness and the connector between the EFI relay and the ECM connector.
(1) Remove the EFI relay from the engine room R/B.
(2) Disconnect the E10 ECM connector.
(3) Check for resistance between the wire harness side connectors.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
EFI relay (1) – MREL (E10–8)	Below 1 Ω

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
EFI relay (1) or MREL (E10–8) – Body ground	10 kΩ or higher



(b) Check the harness and the connector between the EFI relay and the body ground.
(1) Remove the EFI relay from the engine room R/B.
(2) Check for continuity between the wire harness side connector and the body ground.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
EFI relay (2) – Body ground	Below 1 Ω

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

OK

CHECK AND REPAIR HARNESS AND CONNECTOR (TERMINAL +B OF ECM – BATTERY POSITIVE TERMINAL)