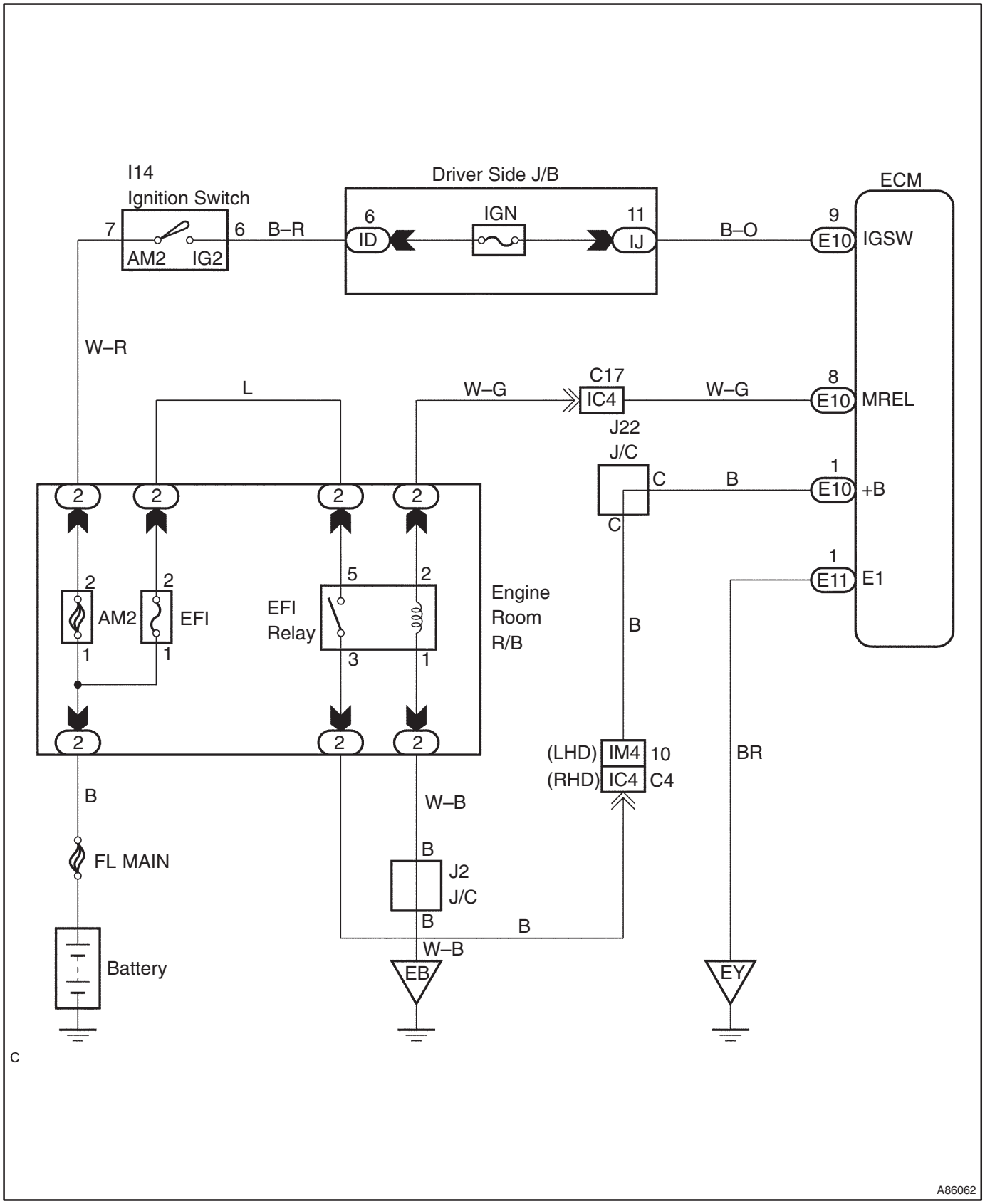
ECM POWER SOURCE CIRCUIT

CIRCUIT DESCRIPTION

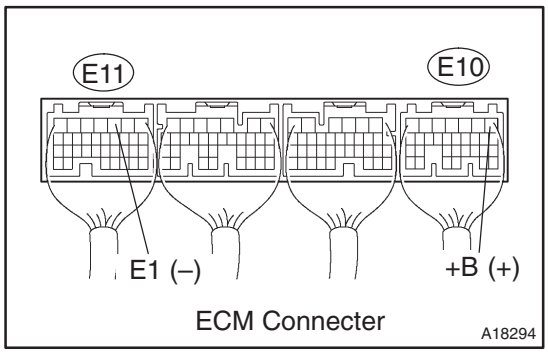
When the ignition switch is turned to ON, the battery voltage is applied to terminal IGSW of the ECM. The ECM ”MREL” output signal causes a current to flow to the coil, closing the contacts of the EFI relay and supplying power to terminal +B of the ECM.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT ECM(+B VOLTAGE)



(a) Turn the ignition switch to ON.
(b) Measure the voltage according to the value(s) in the table below.

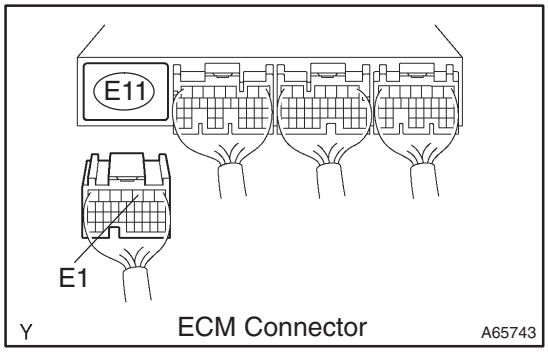
Standard:

Tester Connection	Specified Condition
+B (E10–1) – E1 (E11–3)	9 to 14 V

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE (See page 05–8)**

NG

2 CHECK HARNESS AND CONNECTOR(ECM – BODY GROUND)



(a) Disconnect the battery negative cable.
(b) Disconnect the E11 ECM connector.
(c) Measure the resistance according to the value(s) in the table below.

Standard (Check for open):

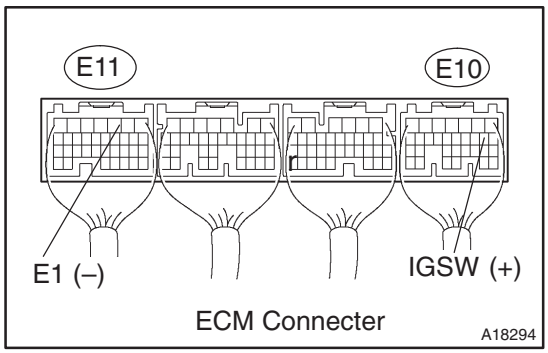
Tester Connection	Specified Condition
E1 (E11–3) – Body ground	Below 1 Ω

(d) Reconnect the ECM connector.
(e) Reconnect the battery negative cable.

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

OK

3 INSPECT ECM(IGSW VOLTAGE)



(a) Turn the ignition switch to ON.
(b) Measure the voltage according to the value(s) in the table below.

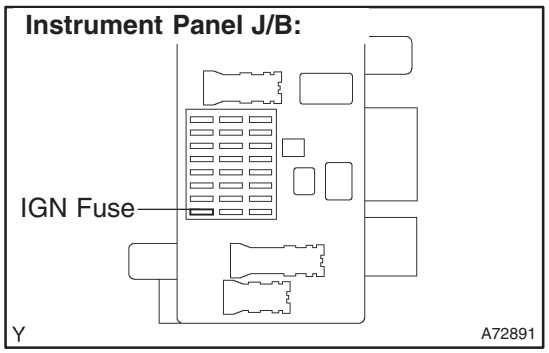
Standard:

Tester Connection	Specified Condition
IGSW (E10–9) – E1 (E11–3)	9 to 14 V

OK → **Go to step 6**

NG

4 CHECK FUSE(IGN FUSE)

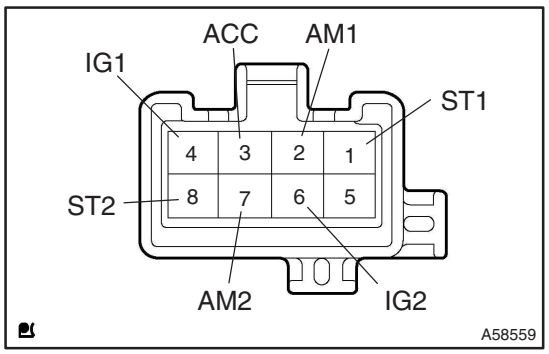


(a) Remove the IGN fuse from the instrument panel J/B.
(b) Check the IGN fuse resistance.
Standard: Below 1 Ω
(c) Reinstall the IGN fuse.

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

OK

5 INSPECT IGNITION SWITCH ASSY



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

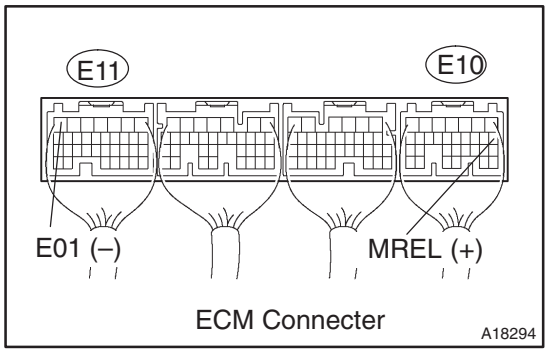
Switch position	Terminal No.	Specified condition
LOCK	All terminal to terminal	10 kΩ or higher
ACC	2 – 3	Below 1 Ω
ON	2 – 3, 2 – 4, 3 – 4 6 – 7	Below 1 Ω
START	1 – 2, 1 – 4, 2 – 4 6 – 7, 6 – 8, 7 – 8	Below 1 Ω

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)



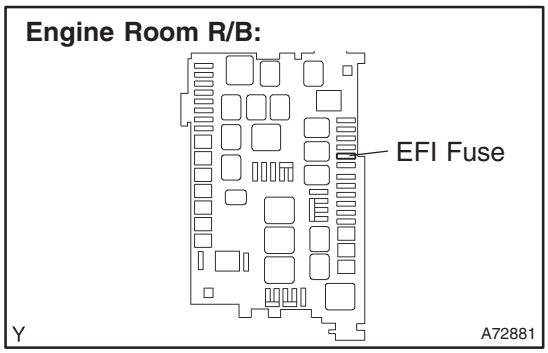
(a) Turn the ignition switch to ON.
(b) Measure the voltage according to the value(s) in the table below.
Standard:

Tester Connection	Specified Condition
MREL (E10–8) – E01 (E11–7)	9 to 14 V

NG → **REPLACE ECM (See page 10–12)**

OK

7 CHECK FUSE(EFI FUSE)

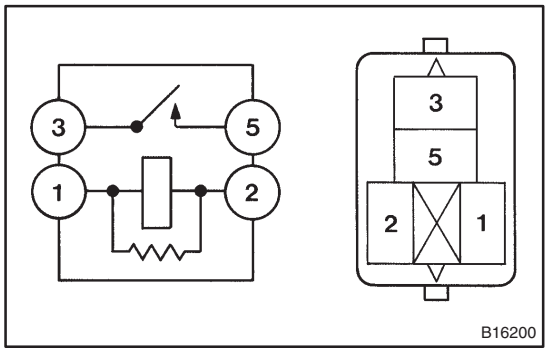


(a) Remove the EFI fuse from the engine room R/B.
(b) Check the EFI fuse resistance.
Standard: Below 1 Ω
(c) Reinstall the EFI fuse.

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

OK

8 INSPECT EFI RELAY



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

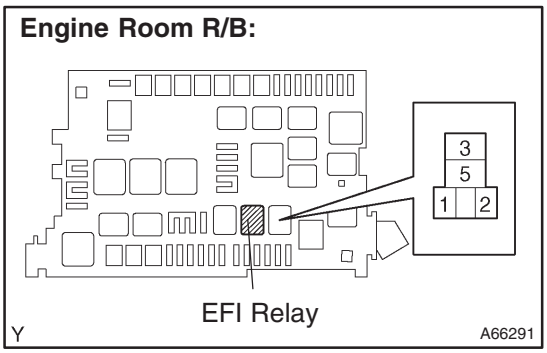
Tester Connection	Specified Condition
3 – 5	10 kΩ or higher
3 – 5	Below 1 Ω (when battery voltage applied to terminals 1 and 2)

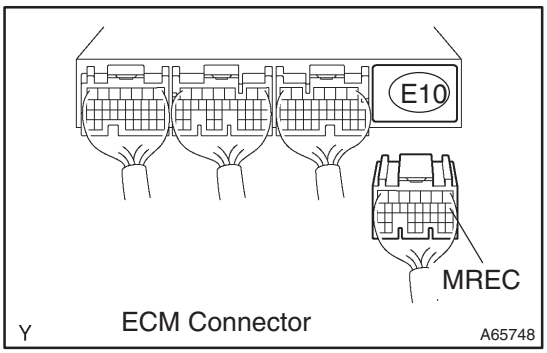
(c) Reinstall the EFI relay.

NG → **REPLACE EFI RELAY**

OK

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





(a) Check the harness and connectors between the EFI relay and the ECM.
  (1) Remove the EFI relay from the engine room R/B.
  (2) Disconnect the E10 ECM connector.
  (3) Measure the resistance according to the value(s) in the table below.

Standard (Check for open):

Tester Connection	Specified Condition
EFI relay (1) – MREL (E10–8)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
EFI relay (1) or MREL (E10–8) – Body ground	10 kΩ or higher

  (4) Reinstall the EFI relay.
  (5) Reconnect the ECM connector.

(b) Check the harness and connector between the EFI relay and the body ground.
  (1) Remove the EFI relay from the engine room R/B.
  (2) Measure the resistance according to the value(s) in the table below.

Standard (Check for open):

Tester Connection	Specified Condition
EFI relay (2) – Body ground	Below 1 Ω

  (3) Reinstall the EFI relay.

OK → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

NG

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