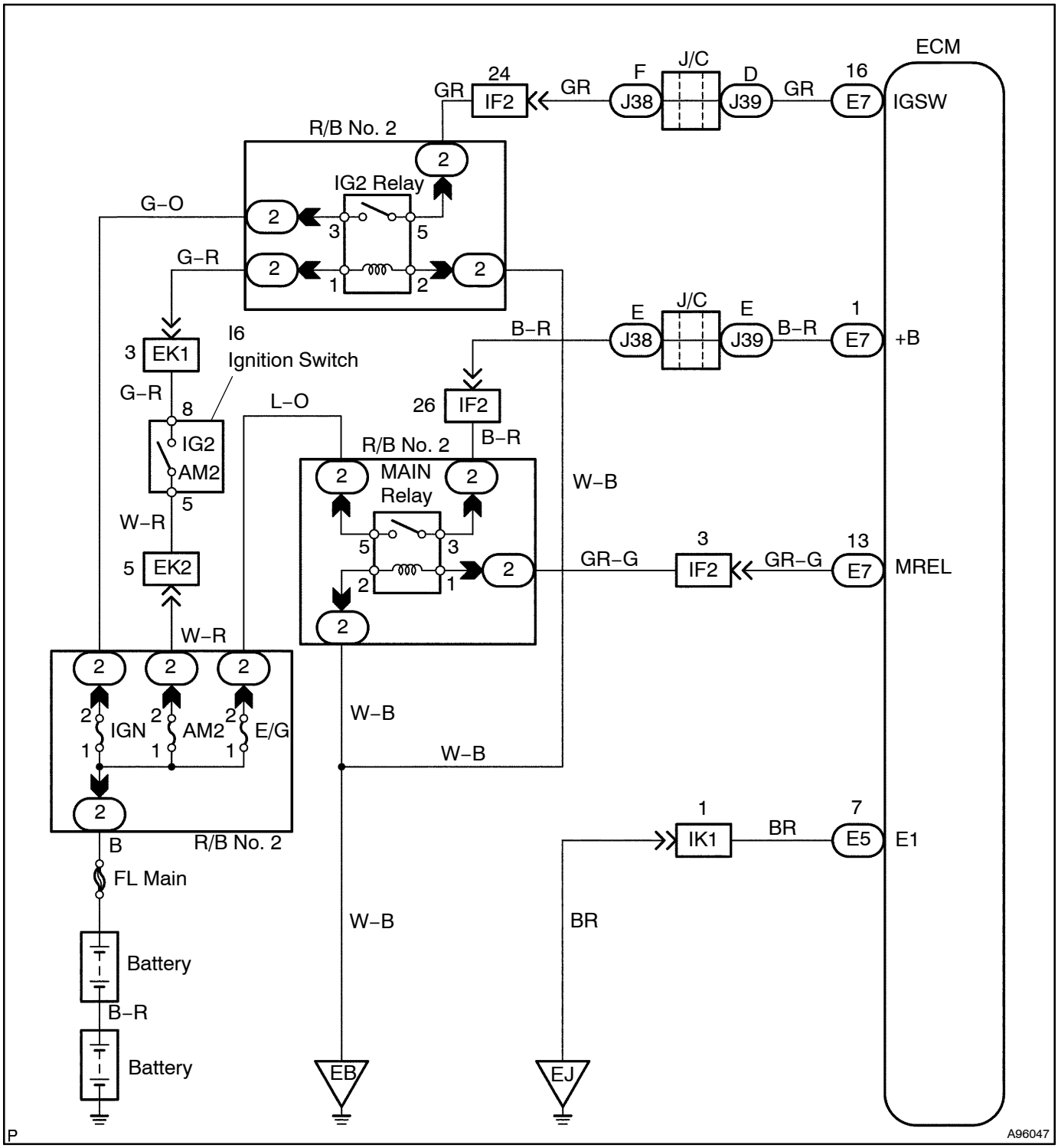
ECM POWER SOURCE CIRCUIT

CIRCUIT DESCRIPTION

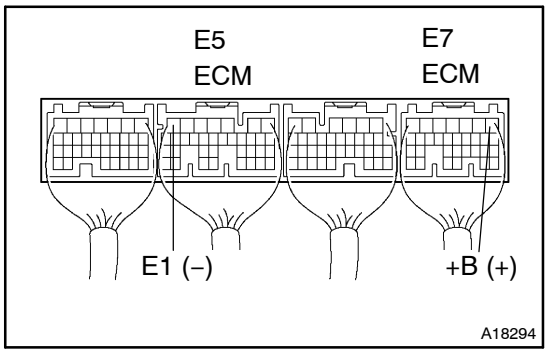
When the ignition switch is turned ON, battery positive voltage is applied to the coil, closing the contacts of the MAIN relay and supplying power to terminal +B of the ECM.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK ECM (+B VOLTAGE)



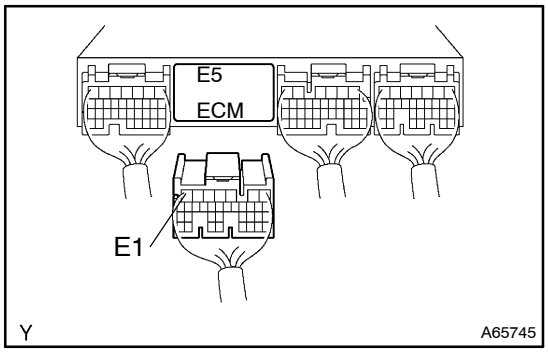
(a) Turn the ignition switch ON.
(b) Measure the voltage of the ECM connectors.
Standard:

Tester Connection	Specified Condition
E7–1 (+B) – E5–7 (E1)	18 to 27 V

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN PROBLEM SYMPTOMS TABLE (See page 05–22)**

NG

2 CHECK WIRE HARNESS (ECM – BODY GROUND)



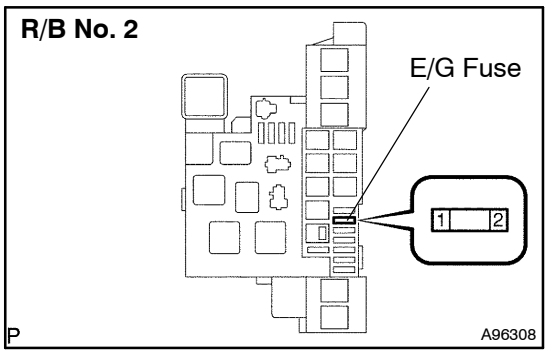
(a) Disconnect the E5 ECM connector.
(b) Measure the resistance of the wire harness side connector.
Standard:

Tester Connection	Specified Condition
E5–7 (E1) – Body ground	Below 1 Ω

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

OK

3 INSPECT FUSE (E/G)

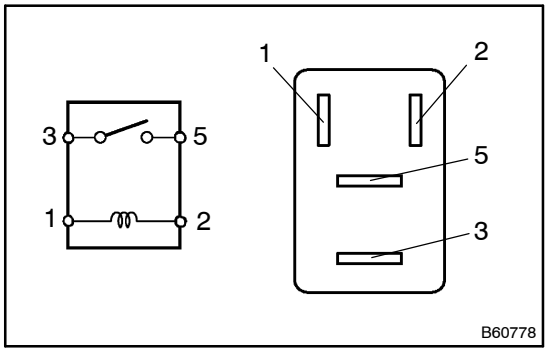


(a) Remove the E/G fuse from the R/B No. 2.
(b) Measure the resistance of the fuse.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

4 INSPECT RELAY (MAIN)



(a) Remove the MAIN relay from the R/B No. 2.
(b) Measure the resistance of the relay.

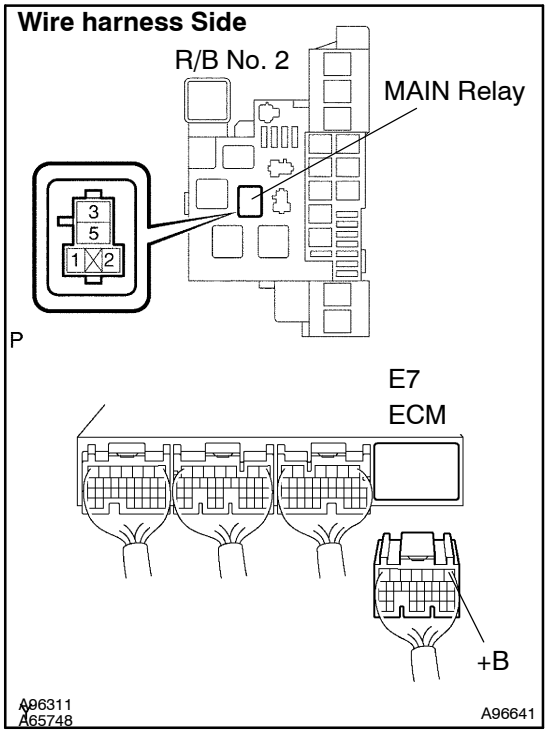
Standard:

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

NG → **REPLACE RELAY**

OK

5 CHECK WIRE HARNESS (MAIN RELAY – ECM, MAIN RELAY – BODY GROUND)



(a) Check the wire harness between the MAIN relay and ECM.
  (1) Remove the MAIN relay from the R/B No. 2.
  (2) Disconnect the E7 ECM connector.
  (3) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
R/B No. 2 MAIN relay terminal 3 – E7–1 (+B)	Below 1 Ω
R/B No. 2 MAIN relay terminal 3 or E7–1 (+B) – Body ground	10 kΩ or higher

(b) Check the wire harness between the MAIN relay and body ground.
  (1) Remove the MAIN relay from the R/B No. 2.
  (2) Measure the resistance of the wire harness side connector.

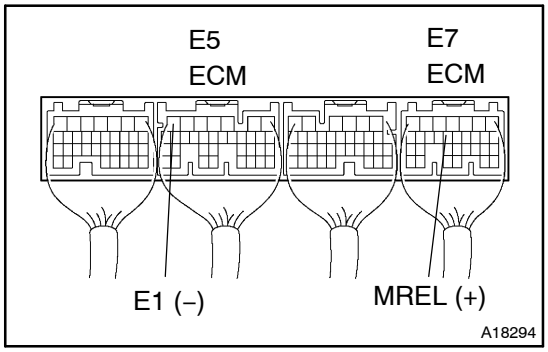
Standard:

Tester Connection	Specified Condition
R/B No. 2 MAIN relay terminal 2 – Body ground	Below 1 Ω

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

OK

6 CHECK ECM (MREL VOLTAGE)



(a) Turn the ignition switch ON.
(b) Measure the voltage of the ECM connectors.

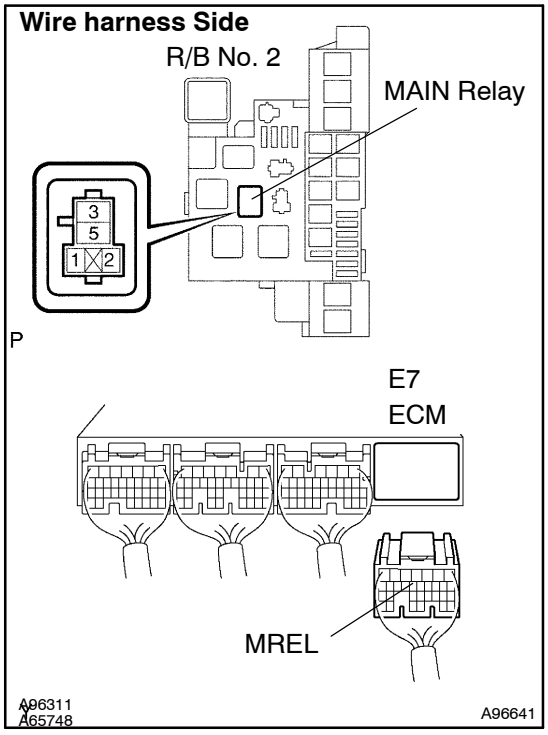
Standard:

Tester Connection	Specified Condition
E7–13 (MREL) – E5–7 (E1)	17 to 28 V

NG → **REPLACE ECM (See page 10–10)**

OK

7 CHECK WIRE HARNESS (MAIN RELAY – ECM, MAIN RELAY – BODY GROUND)



(a) Check the wire harness between the MAIN relay and ECM.
  (1) Remove the MAIN relay from the R/B No. 2.
  (2) Disconnect the E7 ECM connector.
  (3) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
R/B No. 2 MAIN relay terminal 1 – E7–13 (MREL)	Below 1 Ω
R/B No. 2 MAIN relay terminal 1 or E7–13 (MREL) – Body ground	10 kΩ or higher

(b) Check the wire harness between the MAIN relay and body ground.
  (1) Remove the MAIN relay from the R/B No. 2.
  (2) Measure the resistance of the wire harness side connector.

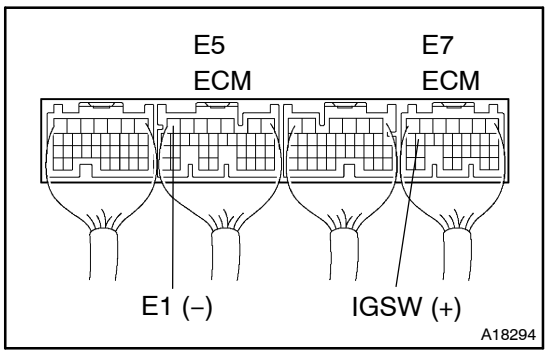
Standard:

Tester Connection	Specified Condition
R/B No. 2 MAIN relay terminal 2 – Body ground	Below 1 Ω

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

OK

8 CHECK ECM (IGSW VOLTAGE)



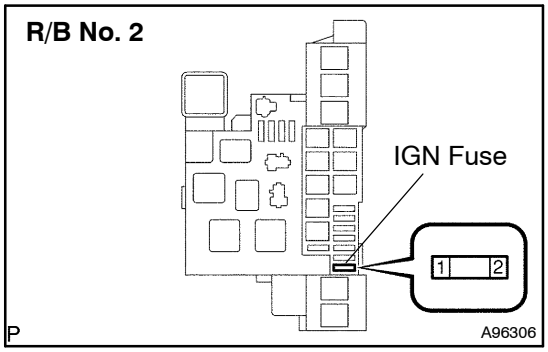
(a) Turn the ignition switch ON.
(b) Measure the voltage of the ECM connectors.
Standard:

Tester Connection	Specified Condition
E7–16 (IGSW) – E5–7 (E1)	17 to 28 V

OK → **REPLACE ECM (See page 10–10)**

NG

9 INSPECT FUSE (IGN)

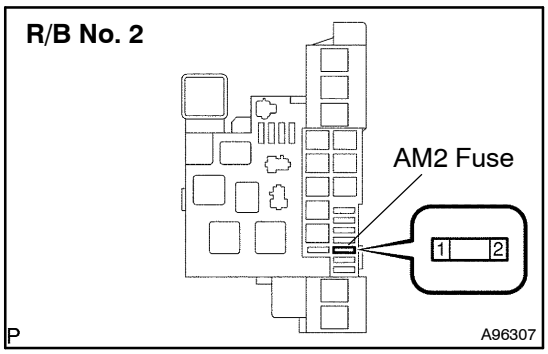


(a) Remove the IGN fuse from the R/B No. 2.
(b) Measure the resistance of the fuse.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

10 INSPECT FUSE (AM2)

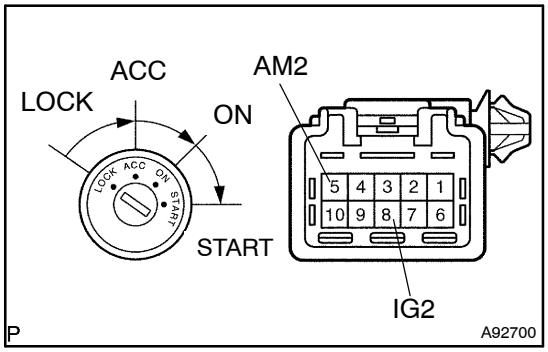


(a) Remove the AM2 fuse from the R/B No. 2.
(b) Measure the resistance of the fuse.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

11 INSPECT IGNITION SWITCH ASSY



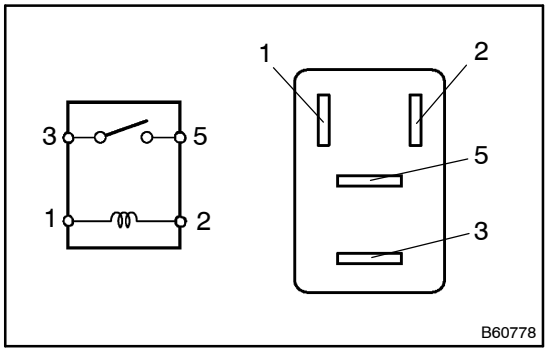
(a) Measure the resistance between the switch terminals.

Tester Connection	Condition	Specified Condition
5 (AM2) – 8 (IG2)	LOCK	10 kΩ or higher
5 (AM2) – 8 (IG2)	ON	Below 1 Ω

NG → **REPLACE IGNITION SWITCH ASSY**

OK

12 INSPECT RELAY (IG2)



(a) Remove the IG2 relay from the R/B No. 2.
(b) Measure the resistance of the relay.

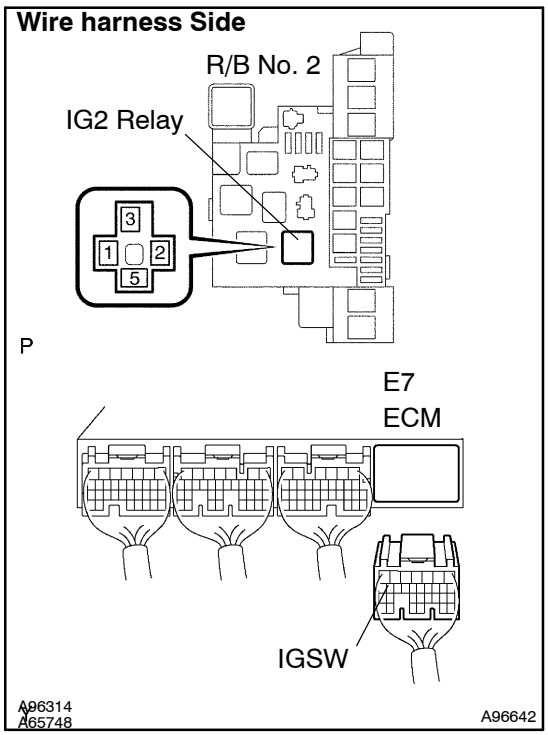
Standard:

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

NG → **REPLACE RELAY**

OK

13 CHECK WIRE HARNESS (IG2 RELAY – ECM, IG2 RELAY – BODY GROUND)



(a) Check the wire harness between the IG2 relay and ECM.
  (1) Remove the IG2 relay from the R/B No. 2.
  (2) Disconnect the E7 ECM connector.
  (3) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
R/B No. 2 IG2 relay terminal 5 – IGSW (E7–16)	Below 1 Ω
R/B No. 2 IG2 relay terminal 5 or IGSW (E7–16) – Body ground	10 kΩ or higher

(b) Check the wire harness between the IG2 relay and body ground.
  (1) Remove the IG2 relay from the R/B No. 2.
  (2) Measure the resistance of the wire harness side connector.

Standard:

Tester Connection	Specified Condition
R/B No. 2 IG2 relay terminal 2 – Body ground	Below 1 Ω

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

OK

REPAIR OR REPLACE HARNESS AND CONNECTOR