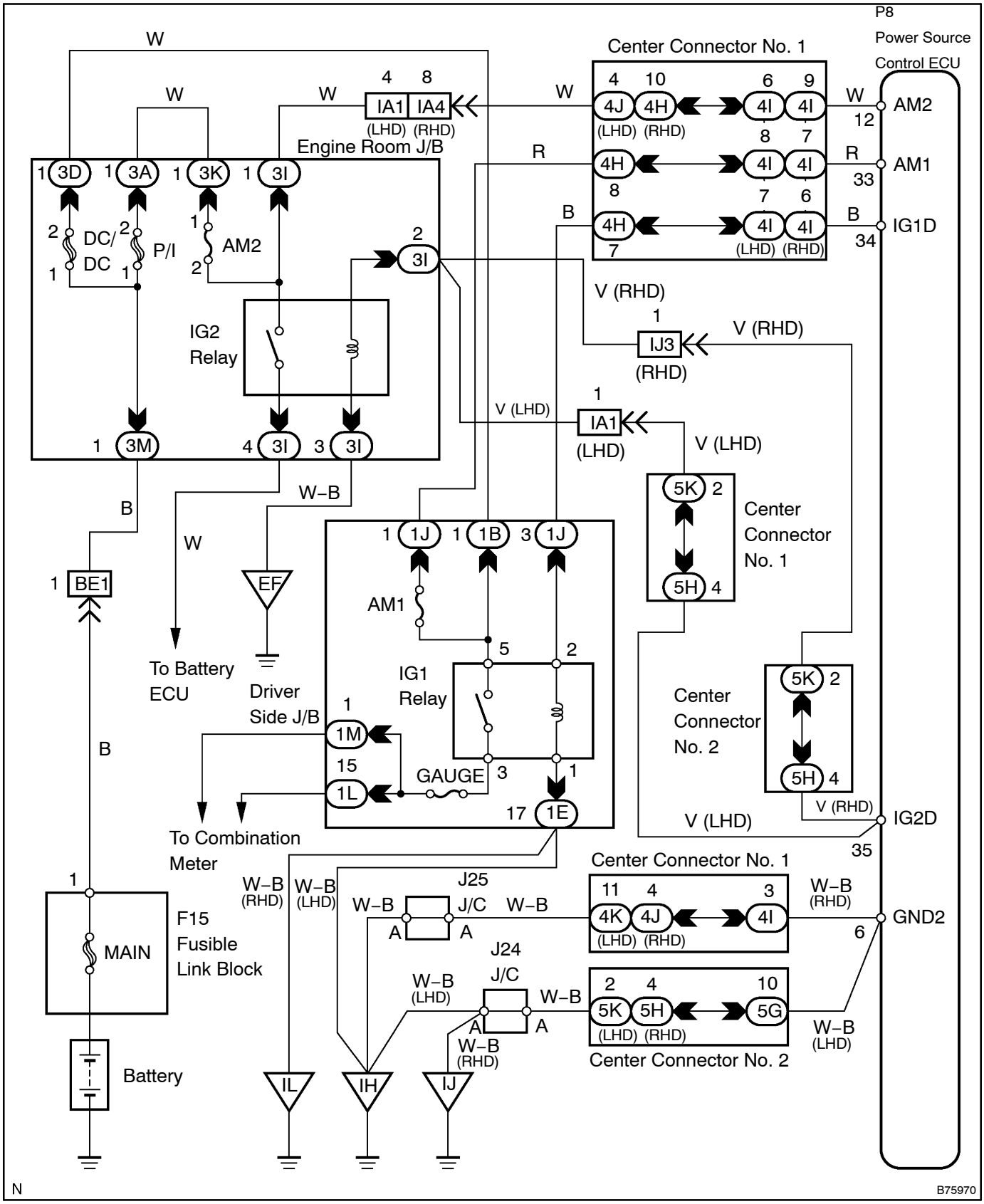
POWER MODE DOES NOT CHANGE TO ON (IG)

CIRCUIT DESCRIPTION

When the key is inserted into the key slot and the power switch is pressed, signals are input to the power source control ECU and power switch mode changes to OFF, ON(IG) or ON (ACC) according to the inputs.

WIRING DIAGRAM



INSPECTION PROCEDURE

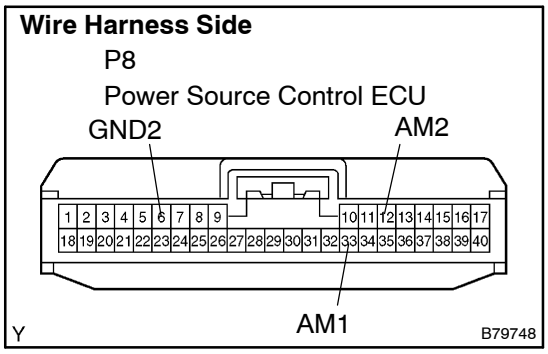
1 INSPECT FUSE (AM1, AM2)

(a) Remove the the AM1 fuse from the driver side J/B.
(b) Remove the the AM2 fuse from the engine room J/B.
(c) Measure the resistance.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

2 CHECK WIRE HARNESS (POWER SOURCE CONTROL ECU – BODY GROUND)



(a) Disconnect the P8 ECU connector.
(b) Measure the resistance and voltage between the wire harness side connector and body ground.
Standard:

Tester Connection	Specified Condition
P8–33 (AM1) – Body ground	10 to 14 V
P8–12 (AM2) – Body ground	10 to 14 V
P8–6 (GND2) – Body ground	Below 1 Ω

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

OK

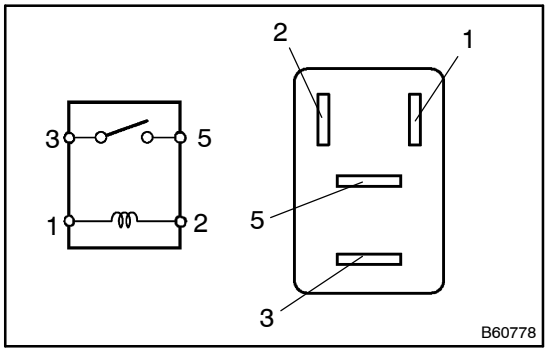
3 CHECK FOR DTCS

(a) Check for DTCs of power source control ECU.
OK: DTCs of power source control ECU are not output.

NG → **Go to DIAGNOSIS TROUBLE CODE CHART (See page 05–2143)**

OK

4 INSPECT RELAY (IG1)



(a) Remove the IG1 relay from the driver side J/B.
(b) Measure the resistance.

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)

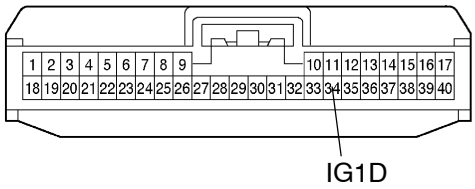
NG → **REPLACE RELAY**

OK

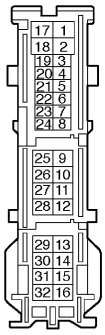
5 CHECK WIRE HARNESS (DRIVER SIDE J/B ASSY – POWER SOURCE CONTROL ECU AND BODY GROUND)

Wire Harness Side

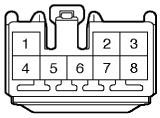
P8
Power Source Control ECU



1E
Driver Side J/B



1J
Driver Side J/B



Y

B79834

(a) Disconnect the 1J and 1E J/B connectors.
(b) Disconnect the P8 ECU connector.
(c) Measure the resistance between the wire harness side connectors and body ground.

Standard:

Tester Connection	Specified Condition
1J–3 – P8–34 (IG1D)	Below 1 Ω
1E–17 – Body ground	Below 1 Ω

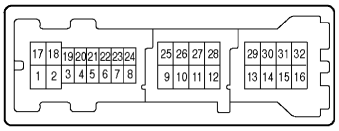
NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

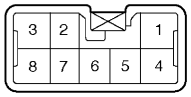
6 CHECK DRIVER SIDE J/B

Wire Harness Side

1E
Driver Side J/B



1J
Driver Side J/B



Y B79835

(a) Disconnect the 1J and 1E driver side J/B connector.
(b) Remove IG1 relay from driver side J/B.

Standard:

Tester Connection	Specified Condition
1J–3 –Driver side J/B IG1 relay terminal 2	Below 1 Ω
Body ground – Driver side J/B IG1 relay terminal 2	10 kΩ or higher
1E–7 – Driver side J/B IG1 relay terminal 1	Below 1 Ω

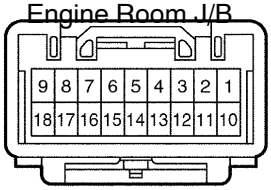
NG → **REPLACE DRIVER SIDE J/B**

OK

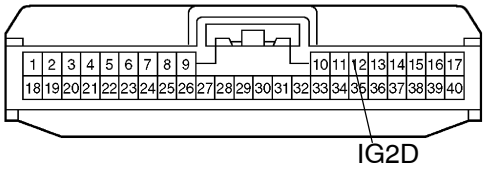
7 CHECK WIRE HARNESS (ENGINE ROOM J/B ASSY – POWER SOURCE CONTROL ECU AND BODY GROUND)

Wire Harness Side

3I
Engine Room J/B



P8
Power Source Control ECU



B80046

(a) Disconnect the 3I J/B connector.
(b) Disconnect the P8 ECU connector.
(c) Measure the resistance between the wire harness side connectors and body ground.

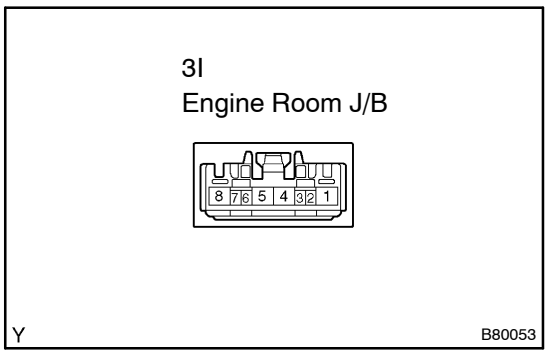
Standard:

Tester Connection	Specified Condition
3I–2 – P8–35 (IG2D)	Below 1 Ω
3I–3 – Body ground	Below 1 Ω

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

OK

8 CHECK ENGINE ROOM J/B



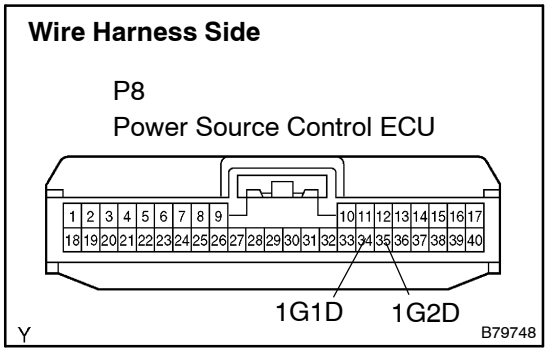
(a) Disconnect the 3I J/B connector.
(b) Measure the resistance engine room J/B
Standard:

Tester Connection	Specified Condition
3I–2 – 3I–3	Continuity

NG → **REPLACE ENGINE ROOM J/B**

OK

9 CHECK POWER SOURCE CONTROL ECU



(a) Measure the voltage when the power switch is pushed.
Standard:

Tester Connection	Switch Condition	Specified Condition
P8–34 (IG1D) – Body ground	ON (ACC)	0 V
P8–35 (IG2D) – Body ground	ON (ACC)	0 V
P8–34 (IG1D) – Body ground	ON (IG)	10 to 14 V
P8–35 (IG2D) – Body ground	ON (IG)	10 to 14 V

NG → **REPLACE POWER SOURCE CONTROL ECU**

OK

10 CHECK OPERATION OF POWER SOURCE CONTROL ECU

(a) After replacing the power source control ECU with a normally functioning ECU, check that the the power switch can be set to ON (IG).

Result	Proceed to
Power switch cannot be set to ON (IG) (w/ smart entry system).	A
Power switch cannot be set to ON (IG) (w/o smart entry system).	B

B → **Go to HYBRID CONTROL SYSTEM (See page 05–268)**

A

NORMAL (POWER SOURCE CONTROL ECU DEFECTIVE)