

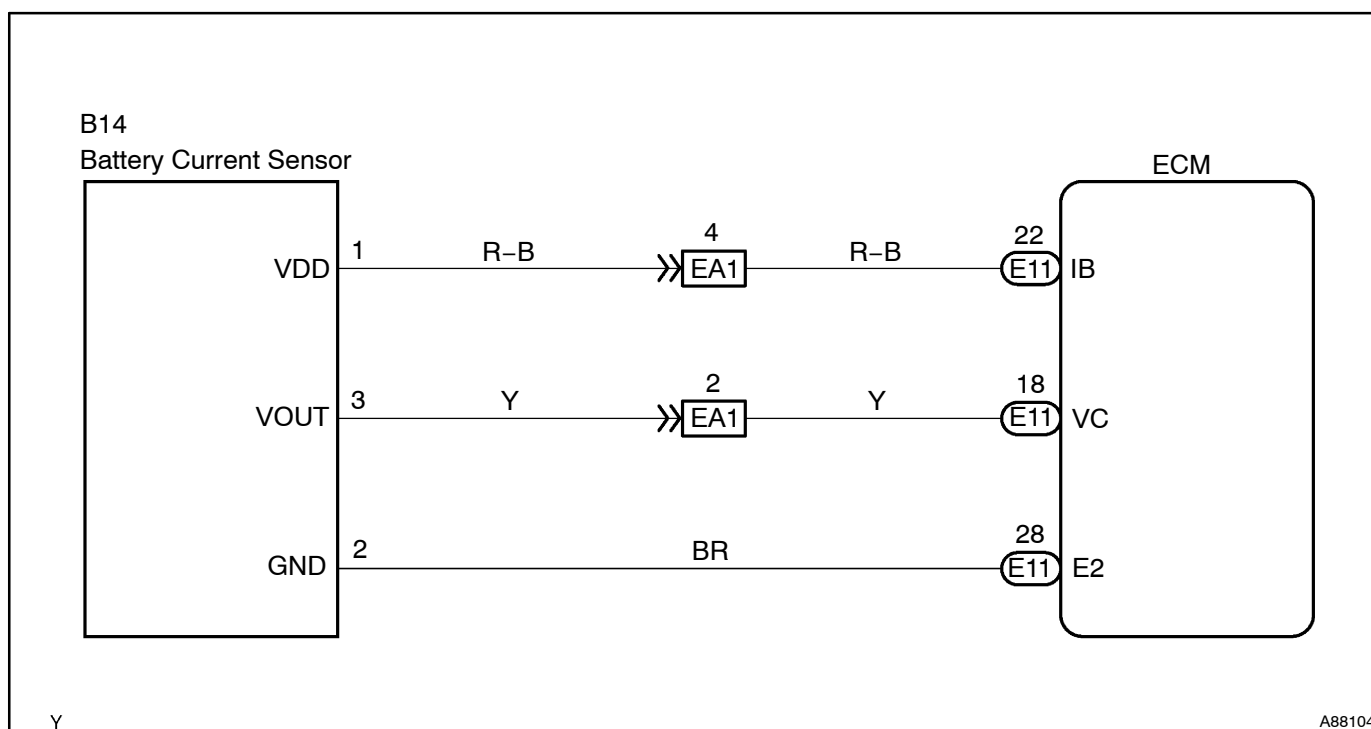
DTC	P1550	BATTERY CURRENT SENSOR CIRCUIT
DTC	P1551	BATTERY CURRENT SENSOR CIRCUIT LOW
DTC	P1552	BATTERY CURRENT SENSOR CIRCUIT HIGH

CIRCUIT DESCRIPTION

The battery current sensor detects an alternator power generation current, and transmits it to the ECM after the conversion of current into voltage. The ECM then regulates the power generation voltage from the alternator based on the sensor output voltage.

DTC No.	DTC Detection Condition	Trouble Area
P1550	Difference between the maximum and minimum battery currents is below 1A for more than 10 seconds when the ignition switch is in the ON position (1 trip detection logic)	<ul style="list-style-type: none"> • Battery current sensor circuit • Battery current sensor • ECM
P1551	Output voltage of the sensor is below 0.2 V for more than 0.5 second when the ignition switch is in the ON position (1 trip detection logic)	<ul style="list-style-type: none"> • Battery current sensor circuit • Battery current sensor • ECM
P1552	Output voltage of the sensor is above 4.8 V for more than 0.5 second when the ignition switch is in the ON position (1 trip detection logic)	<ul style="list-style-type: none"> • Battery current sensor circuit • Battery current sensor • ECM

WIRING DIAGRAM

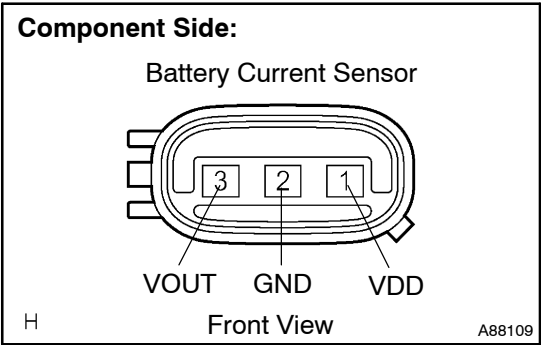


INSPECTION PROCEDURE

HINT:

- If different DTCs related to different systems that have terminal E2 as the ground terminal are output simultaneously, terminal E2 may have an open circuit.
- Read freeze frame data using the intelligent tester II. Freeze frame data record the engine condition when malfunctions are detected. When troubleshooting, freeze frame data can help determine if the vehicle was moving or stationary, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.

1 INSPECT BATTERY CURRENT SENSOR ASSY



- (a) Disconnect the B14 battery current sensor connector.
- (b) Measure the resistance between the terminal of the battery current sensor connector.

Tester Connection	Specified Condition
1 – 2	1.91 to 2.05 kΩ at 24 to 26°C (75.2 to 78.8°F)

Tester Connection Tester (+) – Tester (–)	Specified Condition
3 (VOUT) – 2 (GND)	3 to 6 kΩ
2 (GND) – 3 (VOUT)	0.7 to 8 kΩ
3 (VOUT) – 1 (VDD)	0.2 to 0.3 kΩ
1 (VDD) – 3 (VOUT)	0.2 to 3 kΩ
2 (GND) – 1 (VDD)	1.5 to 8 kΩ
1 (VDD) – 2 (GND)	3 to 6 kΩ

- (c) Reconnect the battery current sensor connector.

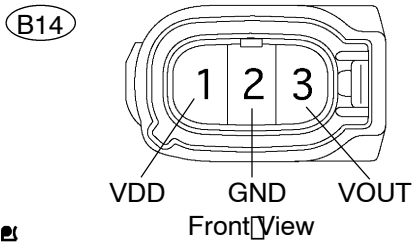
NG REPLACE BATTERY CURRENT SENSOR ASSY

OK

2 CHECK HARNESS AND CONNECTOR (BATTERY CURRENT SENSOR - ECM)

Wire Harness Side:

Battery Current Sensor Connector



- (a) Disconnect the B14 battery current sensor connector.
- (b) Disconnect the E11 ECM connectors.
- (c) Check the resistance.

Standard (Check for open):

Tester Connection	Specified Condition
VDD (B14-1) - B (E11-22)	Below 1 Ω
VOUT (B14-3) - VC (E11-18)	Below 1 Ω
GND (B14-2) - E2 (E11-28)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
VDD (B14-1) or B (E11-22) - Body ground	10 kΩ or higher
VOUT (B14-3) or VC (E11-18) - Body ground	10 kΩ or higher

- (d) Reconnect the battery current sensor connector.
- (e) Reconnect the ECM connector.

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REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE ECM (See page 10-30)