

- PCM
- Wiring, terminals or connectors

Visual Inspection and Diagnostic Pre-checks

- Inspect for abnormal ignition-off current drain(s).
- Inspect the high current BJB for loose or corroded connections.

DIAGNOSIS AND TESTING > CHARGING SYSTEM - 2.3L ECOBOOST (201KW 273PS) > PINPOINT TESTS (2.3L) > PINPOINT TEST G : DTC P0625, P0626 > PINPOINT TEST G : DTC P0625, P0626

G1 CHECK THE BATTERY CONDITION

Check the battery condition and state of charge. REFER to: BATTERY, MOUNTING AND CABLES .

Does the battery pass the condition test?

Yes	GO to G2
No	CHARGE or INSTALL a new battery as necessary. REFER to: Battery .

G2 CHECK THE GENERATOR CONNECTIONS

Ignition OFF.

Disconnect all of the generator connectors and inspect for:

corrosion (install new connector or terminals - clean module pins)

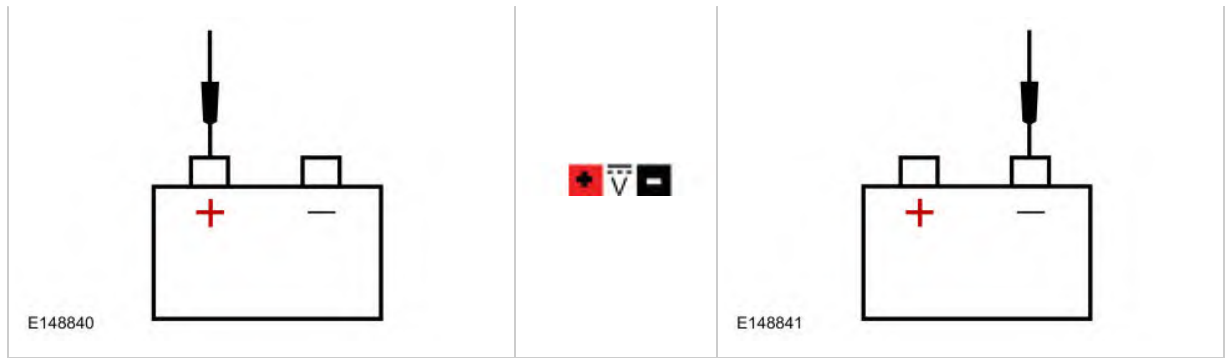
damaged or bent pins - install new terminals/pins

pushed-out pins - install new pins as necessary

Reconnect the generator connectors. Make sure they seat and latch correctly.

Measure and record:

Positive Lead	Measurement / Action	Negative Lead
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Measure:

Positive Lead	Measurement / Action	Negative Lead
C102B-1		Ground

Is the voltage within 0.5 volt of the recorded battery voltage?

Yes	GO to G3
No	TIGHTEN or INSTALL a new generator B+ nut as needed. REFER to: Generator - 2.3L EcoBoost (201kW/273PS) . VERIFY high current BJB MEGA fuse (275A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the OEM ELECTRICAL WIRING DIAGRAM INTRODUCTION to identify the possible causes of the circuit short.

G3 CHECK THE VOLTAGE DROP IN THE GENERATOR B+ CIRCUIT

Start the engine.

With the engine running at idle, headlamps on and blower on high, measure:

Positive Lead	Measurement / Action	Negative Lead
C102A-1		

Perform a wiggle test of the generator wiring and connections while measuring voltage drop.

Is the voltage drop less than 0.5 volt?

Yes	For DTC P0625, GO to G4 For DTC P0626, GO to G5
No	INSPECT and REPAIR any corrosion in the generator B+ circuit or positive battery cable connections.

NOTE: This step puts a load on the "A" sense circuit. If there are corroded or loose connections, loading the circuit may help show the fault. A 250-350 mA incandescent 12-volt test lamp is required for this step. This circuit cannot be loaded correctly using an LED-style test lamp.

 **NOTE:** The following step uses a test light to simulate normal circuit loads. Use only the test light recommended in the Special Tools table at the beginning of this article. To avoid connector terminal damage, use the Flex Probe Kit for the test light probe connection to the vehicle. Do not use the test light probe directly on any connector.

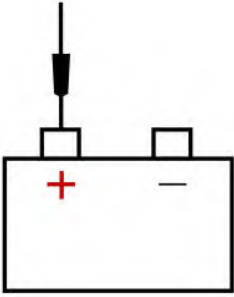
G4 "A" SENSE CIRCUIT LOAD TEST

Ignition OFF.

Disconnect Generator C102B .

Ignition ON.

Measure and record:

Positive Lead	Measurement / Action	Negative Lead
 E148840	 E148841	

Install a test lamp between:

Positive Lead	Measurement / Action	Negative Lead
C102B-3		Ground

Perform a wiggle test on the generator wiring and measure:

Positive Lead	Measurement / Action	Negative Lead
C102B-3		Ground

Is the "A" sense voltage within ± 0.5 volt of the recorded battery voltage?

Yes	GO to G5
No	VERIFY the BJB fuse 36 (10A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the OEM ELECTRICAL WIRING DIAGRAM INTRODUCTION to identify the possible causes of the circuit short.

G5 CHECK THE GENERATOR MONITOR CIRCUIT FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect PCM C1551B .

Ignition ON.

Perform a wiggle test on the generator wiring and measure:

Positive Lead	Measurement / Action	Negative Lead
C102B-1		Ground

Is any voltage present?

Yes	REPAIR the circuit.
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No	GO to G6
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G6 CHECK THE GENERATOR MONITOR CIRCUIT FOR A SHORT TO GROUND

Ignition OFF.

Perform a wiggle test on the generator wiring and measure:

Positive Lead	Measurement / Action	Negative Lead
C102B-1	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to G7
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No	REPAIR the circuit.
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G7 CHECK THE GENERATOR MONITOR CIRCUIT FOR AN OPEN

Perform a wiggle test on the generator wiring and measure:

Positive Lead	Measurement / Action	Negative Lead
C1551B-26	Ω	C102B-1

Is the resistance less than 3 ohms?

Yes	GO to G8
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No	REPAIR the circuit.
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G8 CHECK THE GENERATOR B+ INTERNAL RESISTANCE

Disconnect Generator C102B .

Disconnect Generator C102A .

Measure:

Positive Lead	Measurement / Action	Negative Lead
Generator B+ Terminal	Ω	Generator case

Is the resistance greater than 25K ohms?

Yes	GO to G9
No	INSTALL a new generator. REFER to: Generator - 2.3L EcoBoost (201kW/273PS) .

G9 CHECK THE RESISTANCE OF THE VOLTAGE REGULATOR INTERNAL CIRCUITS

Measure:

Positive Lead	Measurement / Action	Negative Lead
Generator pin 1 (Component Side)	Ω	Generator case
Generator pin 2 (Component Side)	Ω	Generator case
Generator pin 3 (Component Side)	Ω	Generator case

Are the resistances greater than 10, 000 ohms?

Yes	GO to G10
No	INSTALL a new generator. REFER to: Generator - 2.3L EcoBoost (201kW/273PS) .

G10 COMPARE THE GENMON PID (PARAMETER IDENTIFICATION) AND THE GENCMD PID (PARAMETER IDENTIFICATION)

Connect PCM C1551B .

Connect a fused jumper wire:

Positive Lead	Measurement / Action	Negative Lead
C102B-1		C102B-2

Start the engine.

Using a diagnostic scan tool, view PCM Parameter Identifications (PIDs).

Using the active command, set the PID GENVDSD to 14 volts.

Monitor the PCM Parameter Identifications (PIDs) GENMON and GENCMD.