

2008 Ford Mustang

2008 ELECTRICAL Generator & Regulator - Mustang

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Generator & Regulator - Mustang

SPECIFICATIONS

GENERAL SPECIFICATIONS

Item	Specification
Generator (4.0L)	
Generator pulley ratio	2.59:1
Rating	80/135 amp (max) @ 1,800-6,000 generator RPM, approximately 525-2,000 engine RPM
Voltage regulator type	Electronic internal with generator
Generator (4.6L, 5.4L)	
Generator pulley ratio	2.72:1
Rating	80/135 amp (max) @ 1,800-6,000 generator RPM, approximately 525-2,000 engine RPM
Voltage regulator type	Electronic internal with generator

TORQUE SPECIFICATIONS

Description	Nm	lb-ft	lb-in
Generator B+ terminal nut (4.0L and 4.6L)	8	-	71
Generator B+ terminal nut (5.4L)	12	9	-
Generator bolts (4.6L)	25	18	-
Generator bolts/stud nut (4.0L)	48	35	-
Generator bracket bolts (4.6L)	10	-	89
Lower generator stud nut (5.4L)	25	18	-
Stabilizer bar bracket nuts	70	52	-
Upper/lower generator bolts (5.4L)	48	35	-

DESCRIPTION AND OPERATION

GENERATOR

The charging system consists of the:

- generator.
- internal voltage regulator.

The generator has an internal voltage regulator that is not installed separately. A new generator and voltage regulator must be installed as an assembly.

Vehicles equipped with 4.6L 3V have a one-way clutch (OWC) in the generator pulley. The OWC pulley

temporarily disengages the generator rotor from the front end accessory drive (FEAD) system during high deceleration rates on the engine. This may decrease noise, vibration and harshness (NVH) (belt chirp) and may increase belt life. A new OWC pulley and generator/regulator must be installed as an assembly.

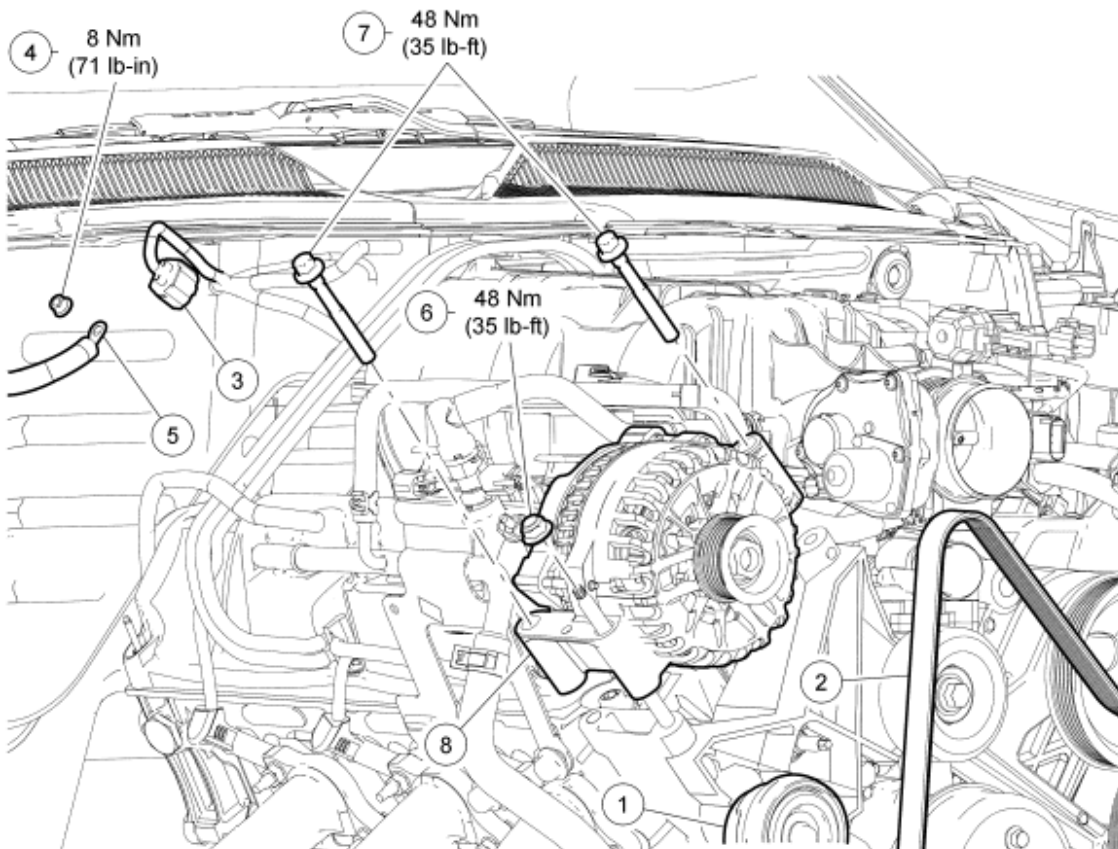
DIAGNOSTIC TESTS

GENERATOR

Refer to **CHARGING SYSTEM - GENERAL INFORMATION** article.

REMOVAL AND INSTALLATION

GENERATOR - 4.0L SOHC



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Courtesy of FORD MOTOR CO.

Item	Part Number	Description
1	6B209	Front end accessory drive (FEAD) belt tensioner
2	8620	FEAD belt
3	-	Generator electrical connector (part of 12B637)
4	W705790	Generator B+ terminal nut
5	-	Generator B+ terminal (part of 14B060)
6	W520414	Generator stud nut
7	W606068	Generator bolts (2 required)
8	10300	Generator

REMOVAL AND INSTALLATION

1. Disconnect the battery. For additional information, refer to **BATTERY, MOUNTING & CABLES** article.
2. Rotate the front end accessory drive (FEAD) belt tensioner counterclockwise and position the FEAD belt aside.
3. Disconnect the generator electrical connector.
4. Position the generator B+ protective boot aside, remove the nut and position the generator B+ terminal aside.
 - To install, tighten to 8 Nm (71 lb-in).
5. Remove the generator stud nut.
 - To install, tighten to 48 Nm (35 lb-ft).
6. Remove the 2 bolts and the generator.
 - To install, tighten to 48 Nm (35 lb-ft).
7. To install, reverse the removal procedure.

GENERATOR - 4.6L (3V)

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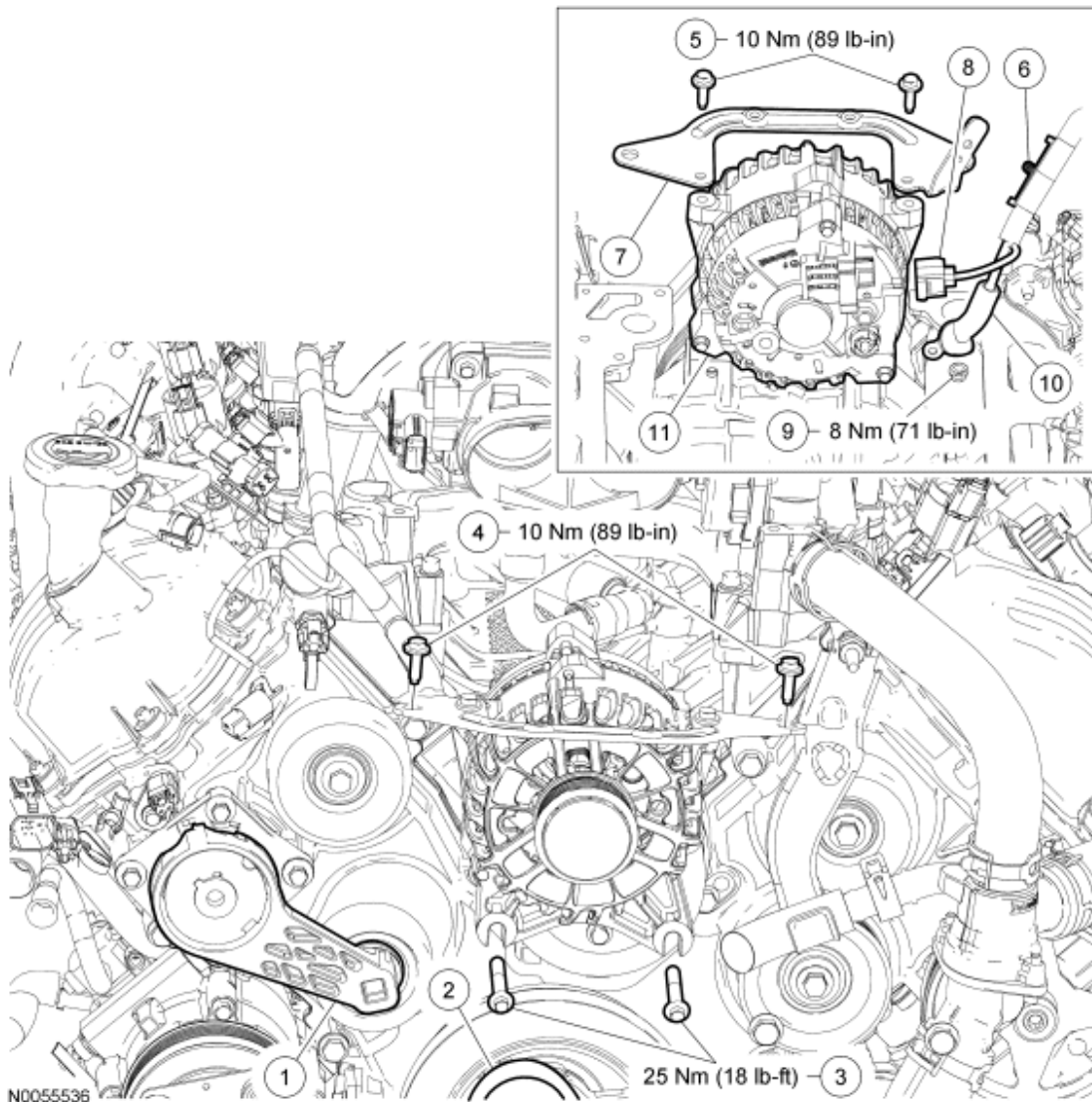


Fig. 2: Identifying Generator With Torque Specifications - 4.6L (3V)
Courtesy of FORD MOTOR CO.

Item	Part Number	Description
1	6B209	Front end accessory drive (FEAD) belt tensioner
2	8620	FEAD belt
3	-	Generator bolts (2 required)
4	N807309-S	Generator bracket bolts (outer) (2 required)
5	N807309-S	Generator bracket bolts (inner) (2 required)
6	-	Generator harness locator (part of 14305)
7	10153	Generator bracket

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8	-	Generator electrical connector (part of 14305)
9	W705790-S	Generator B+ terminal nut
10	-	Generator B+ terminal (part of 14305)
11	10300	Generator

REMOVAL AND INSTALLATION

1. Disconnect the battery. For additional information, refer to **BATTERY, MOUNTING AND CABLES** article.
2. Press the lock tab, remove the crankcase vent tube from the air cleaner outlet pipe and position it aside.
3. Loosen the clamps, remove the air cleaner outlet pipe from the throttle body and remove it from the vehicle.
4. Rotate the front end accessory drive (FEAD) belt tensioner clockwise and position the FEAD belt aside.
5. Remove the generator harness locator.
6. Remove the 2 generator nuts.
 - To install, tighten to 25 Nm (18 lb-ft).
7. Remove the 2 outer generator bracket bolts and position the generator aside.
 - To install, tighten to 10 Nm (89 lb-in).
8. Loosen the 2 inner generator bracket bolts.
 - Pull the generator outward.
 - Remove the generator bracket.
 - To install, tighten to 10 Nm (89 lb-in).
9. Disconnect the generator electrical connector.
10. Position the generator B+ protective boot aside, remove the nut and position the generator B+ terminal aside.
 - To install, tighten to 8 Nm (71 lb-in).
11. Remove the generator.
12. To install, reverse the removal procedure.

GENERATOR - 5.4L (4V)

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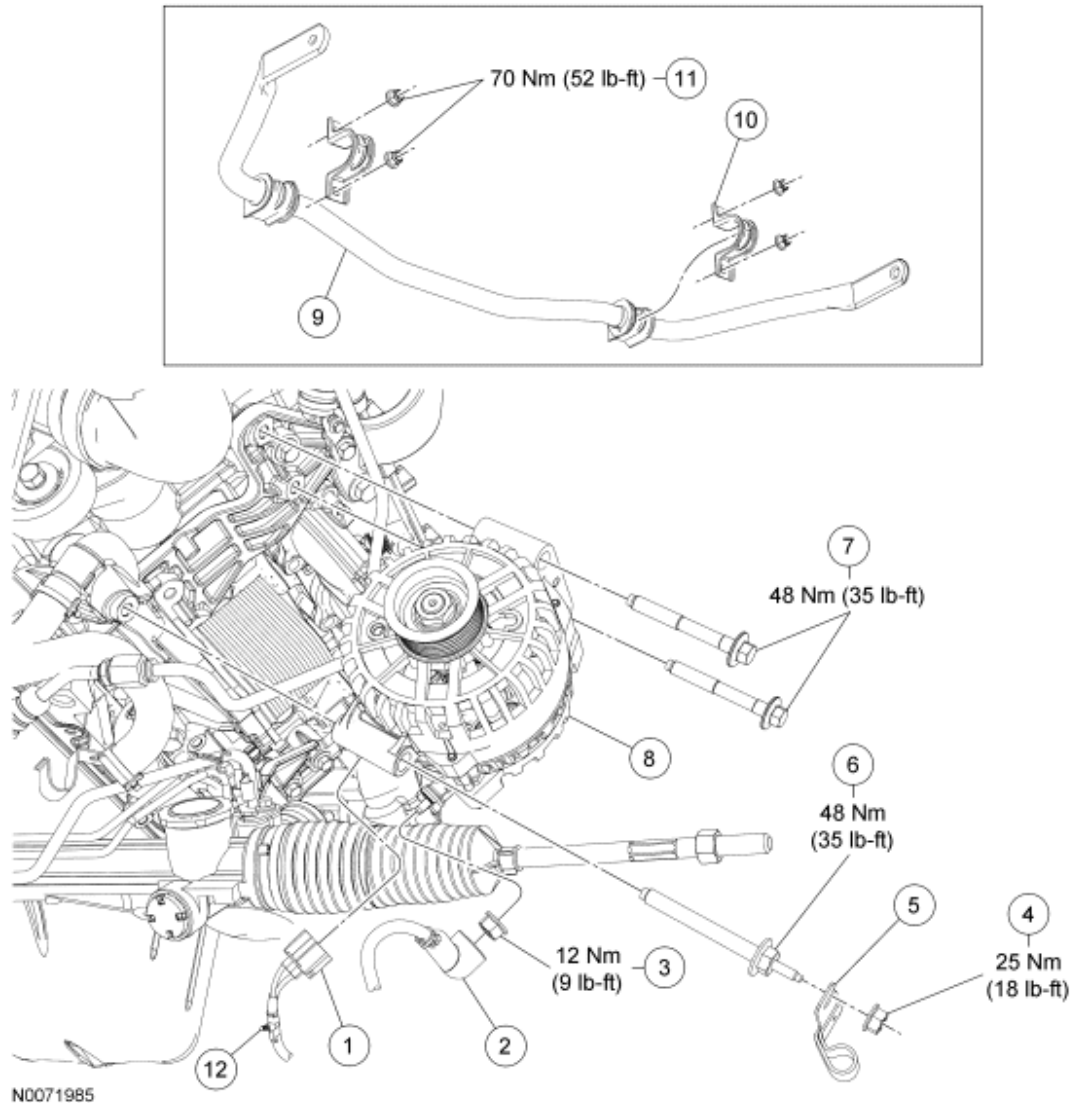


Fig. 3: Identifying Generator With Torque Specifications - 5.4L (4V)
Courtesy of FORD MOTOR CO.

Item	Part Number	Description
1	-	Generator electrical connector (part of 12B637)
2	-	Generator B+ terminal (part of 14B060)
3	W705790	Generator B+ terminal nut
4	W520111	Generator stud nut
5	-	Power steering fluid line bracket
6	W704893	Lower generator bolt
7	N805424	Upper generator bolts (2 required)
8	10300	Generator
9	5482	Stabilizer bar

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10	5486	Stabilizer bar bracket
11	W520213	Bracket nuts (4 required)
12	-	Wire harness retainer (part of 14305)

REMOVAL AND INSTALLATION

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING & LIFTING** article.
2. Disconnect the battery. For additional information, refer to **BATTERY, MOUNTING & CABLES** article.
3. Rotate the front end accessory drive belt (FEAD) tensioner clockwise and position the FEAD belt aside.
4. Remove the air cleaner assembly. For additional information, refer to **INTAKE AIR DISTRIBUTION & FILTERING** article.
5. Remove the 2 upper generator bolts.
 - To install, tighten to 48 Nm (35 lb-ft).
6. Remove the power steering tube bracket nut and position the bracket aside.
 - To install, tighten to 25 Nm (18 lb-ft).
7. Remove and discard the 4 stabilizer bracket nuts, then remove the stabilizer bar brackets and position the sway bar aside.
 - To install, tighten to 70 Nm (52 lb-ft).
8. Disconnect the generator electrical connector and remove the harness retainer pushpin from the rear of the generator.
 - Position the harness aside.
9. Position the generator B+ protective boot aside, remove the nut and position the generator B+ terminal aside.
 - To install, tighten to 12 Nm (9 lb-ft).
10. Remove the lower generator bolt.
 - To install, tighten to 48 Nm (35 lb-ft).
11. Remove the generator.
12. To install, reverse the removal procedure.