





SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

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QVM Bulletin Q-91

Date: September 5, 2003

F-Series Super Duty With 6.0L Diesel Dual to Single Alternator Conversions

Models Affected: F-Series Super Duty (F-250/350/450/550) with 6.0L Diesel Engine

Purpose:

This bulletin is intended to address the need to remove an alternator from 2003 MY and beyond F-Series Super Duty (F-250/350/450/550) trucks equipped with the 6.0L Diesel engine and dual alternators.

Background:

The 6.0L Diesel engine Powertrain Control Module (PCM) will randomly select only one of the alternators to be active when the glow plugs are active. There is no way to tell the PCM that one of the alternators has been removed, so the removed alternator may be selected by the PCM. The lack of a working alternator during glow plug activation would result in discharged batteries.

Procedure:

To eliminate the possibility of this occurring, the dual alternators wiring must be altered to take the PCM out of the circuit.

- 1) Disconnect the ground cables to the batteries.
- 2) Find Circuit 904 (LG/RD) at Pin 12 of the end connector (C220b) on the instrument cluster (Attachment #1). Cut this circuit leaving sufficient wire to connect to cluster section. The other section of the circuit will not be needed, but it should be shrink-wrapped to prevent damage to the PCM.
- 3) Connect the cluster side of circuit 904 (from Step #2) to any one of the unused pass-thru wires located near the parking brake pedal. Use 18-gauge wire.
- 4) Find Circuit 904 (LG/RD) at Pin 1 of the three-pin connector (C102a) on the primary alternator (Attachment #2). Cut this circuit leaving sufficient wire to connect to the alternator section. The other section of the circuit should be handled as the unused section in Step #1.
- 5) Connect the engine compartment side of the selected pass-thru wire (Step #3) to alternator section of circuit 904 (LG/RD) (Step #4). Use 18-gauge wire.
- 6) Remove the secondary alternator. Protect the wiring harness attached (3pin connector) and the power cable. The single alternator power cable may be purchased at your local Ford dealer.
- 7) Reconnect the ground cables to the batteries.

The wiring will now function as a single alternator system. If you have any questions about this procedure, please contact the Ford Truck Body Builders Advisory Service at 877-840-4338 or e-mail to bbasqa@ford.com.

Electrically yours, (Signed)

Robert Bradley Ford Truck Body Builders Advisory Service - Electrical

BULLETIN Q-91 ATTACHMENT I

7.3L Diesel, With dual generators



BULLETIN Q-91 ATTACHMENT II

12-3 Charging System

7.3L Diesel, With dual generators

