

TECHNICAL SERVICE BULLETIN

Vehicle Applications for Remy Part 92570

F-250 Super Duty

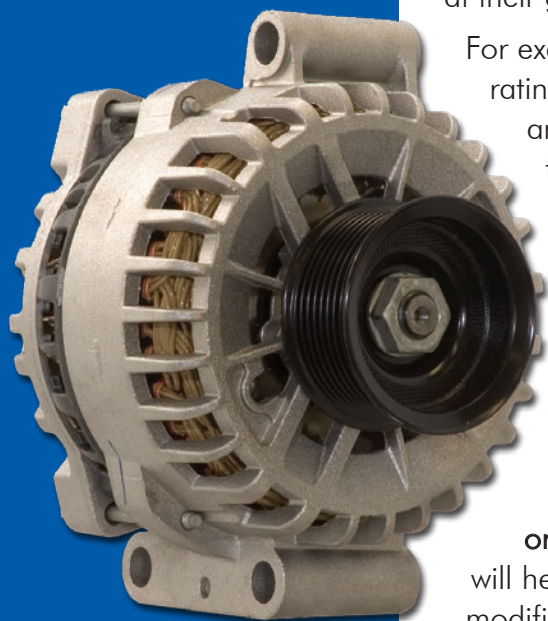
- 2007 6.0 Liter V8 - 363 CID
- 2006 6.0 Liter V8 - 363 CID
- 2005 6.0 Liter V8 - 363 CID
- 2004 6.0 Liter V8 - 363 CID

F-350 Super Duty

- 2007 6.0 Liter V8 - 363 CID
- 2006 6.0 Liter V8 - 363 CID
- 2005 6.0 Liter V8 - 363 CID

F-450 Super Duty / F-550 Super Duty

- 2007 6.0 Liter V8 - 363 CID
- 2006 6.0 Liter V8 - 363 CID
- 2005 6.0 Liter V8 - 363 CID
- 2004 6.0 Liter V8 - 363 CID



Remy Upgrade Helps Solve 6.0L Ford Low Voltage Concerns

Ford 6.0L diesel trucks often experience low voltage for several minutes after start-up. As a result, many believe the unit is not charging. What's actually occurring, however, is the amperage demands of the vehicle are exceeding the capabilities of the alternator, which is supplying the vehicle's electrical demands. A simple upgrade to the Remy 92570 alternator can reduce or eliminate low voltage concerns and solve your problem.

Why Low Voltage?

The originally installed alternator on the Ford 6.0L with a single alternator appears to have a low voltage reading in the 11-12 range after startup. However, when you measure amperage from the unit, it is generally in the 80-90 range at idle.

So why the low voltage?

Alternators are about wattage, which is the product of voltage and amperage.

$$\text{volts} \times \text{amps} = \text{wattage}$$

The regulator often masks the relationship between voltage and amperage because it holds voltage to a fixed range. But when amperage demands are at their greatest, voltage begins to decline.

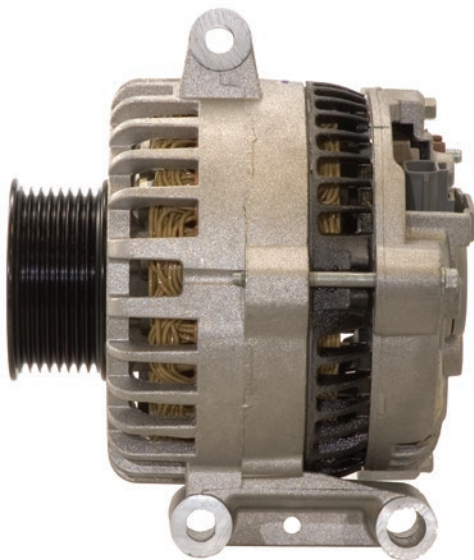
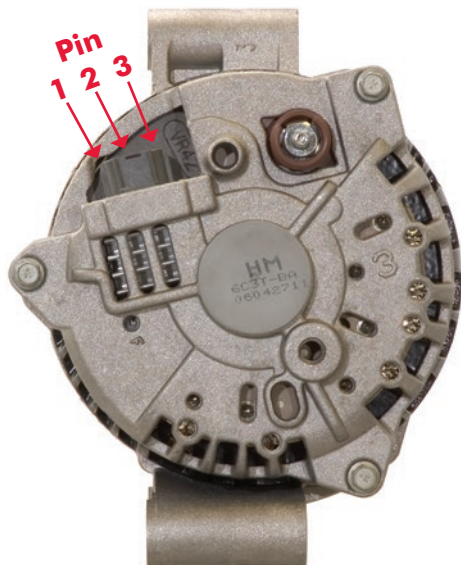
For example, an alternator that makes 14 volts at 100 amps has a wattage rating of 1400 watts. But if the amperage demands increase to 120 amps, then voltage falls to 11.67 as the alternator attempts to support the demand. A voltmeter would indicate that the unit is not charging, when it is actually operating at full capacity. Essentially, the original alternator just can't keep up.

The Remy Solution

There is a simple replacement solution that will help the vehicle with no additional modifications required. **Remy 92570 alternator produces 140 amps and is interchangeable with the original unit.** Replacing the original 110-amp unit with the 92570 will help support vehicle demands without requiring bracket or wiring modifications. *(Note: Increasing amperage much beyond 140 amps would require a larger gauge B+ wire to safely support the additional current flow.)*

After the upgrade, you may still notice low voltage on a cold start, however, recovery time will be drastically reduced, and the batteries will also recover more quickly. Additionally, glow plugs and the fuel injection control module (FICM) will have a greater voltage supply when they are under the highest demand.

A simple upgrade to the Remy 92570 alternator can reduce or eliminate low voltage concerns.



Pre-upgrade Diagnosis

Before upgrading your 6.0L Ford, make sure there are no other issues that could be temporarily masked by the upgrade and eventually cause repeat alternator replacement.

- **Check batteries.** Both batteries must be fully charged and individually pass load and/or capacity testing. If one or both batteries are weak or failing, the vehicle demands will continue to exceed the alternator's capabilities and cause premature failure.
- **Measure voltage.** Voltage drop through the fusible links is a common concern for all Ford vehicles, and the 6.0L diesel is very likely to have these concerns. With the vehicle running and the alternator charging under heavy load, measure the voltage at both batteries, the B+ post on the alternator, and on the sense wire of the alternator (pin 3 - reference image to your left). All four readings **MUST** be within 0.5 volts of each other. (Call Remy tech support for assistance if you have questions during this step.)

Vehicle Demands that Cause Heavy Load

The Ford 6.0L has several high current demands that place the alternator under heavy load, particularly right after start-up.

Primary causes of the high current draw include:

- Glow plugs
- FICM and injectors
- Fuel pump

Other high current accessories may include:

- Blower motor
- A/C compressor
- Windshield wipers
- Heated seats
- Add-on equipment

Note: Diesel glow plugs and the glow plug lamp are independent from each other, and the glow plugs may remain on for several minutes after the glow plug light turns off. The glow plugs alone draw more amperage than the alternator can produce, and by design the batteries help carry that load.