Alternator Remote Sense Wiring

FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy COE Cargo Columbia 122SD and Coronado > Business Class M2 Cascadia
> 108SD/114SD New Cascadia Freightliner Service Bulletin

General Information

On EPA10 vehicles, and later, the remote sense wire and the indicator light wire may be on the wrong alternator posts. Vehicles with reversed wires may not start if the vehicle is parked and the engine is shut down for extended periods of time, due to parasitic battery drain.

Inspect the alternator to ensure that the wires are properly installed. Use the instructions in this bulletin to inspect the alternator, along with Fig. 1, Fig. 2, or Fig. 3, depending on the type of alternator installed on the vehicle.

Work Instructions

- 1. Park the vehicle, shut down the engine, and apply the parking brakes. Chock the tires.
- 2. Turn the ignition to the OFF position.
- 3. Open the hood.

NOTE: There should be battery voltage at the remote sense terminal, and no voltage at the indicator light terminal.

4. Check the voltage at the indicator light terminal on the alternator. See Fig. 1, Fig. 2, or Fig. 3.

Is there voltage?

YES \rightarrow The remote sense and indicator light wires are reversed. Continue with step 5.

 $\textbf{NO} \rightarrow \text{Go} \text{ to step 7.}$

NOTICE -

Some vehicles are equipped with a cab-load disconnect switch (CLDS). The CLDS does not disconnect power to the alternator and starter, so a short-circuit hazard still exists when working on the vehicle. The batteries must be disconnected to remove the short-circuit hazard when working on the charging system.

- 5. Disconnect the negative battery cables at the main battery pack.
- 6. Swap the remote sense and indicator light wires. Verify the repair, then continue with step 9.
- 7. Check the voltage at the remote sense terminal.

Is there battery voltage?

 $\textbf{YES} \rightarrow \text{Go} \text{ to step 9}.$

 $NO \rightarrow$ Check the remote sense fuse at the powernet distribution box (PNDB), and make sure the fuse is not blown. If the fuse is blown, replace the fuse, then continue with step 8.

- 8. Check the remote sense wire from the alternator to the PNDB for shorts or opens. Repair as necessary, then continue with step 9.
- 9. Document in the "Warranty Notes" if the wire connections were reversed and required repair, or if the connections were OK.

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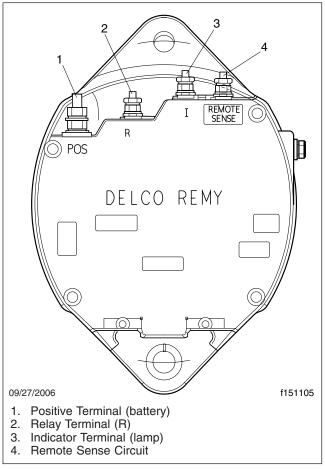


Fig. 1, Delco Remy 36SI

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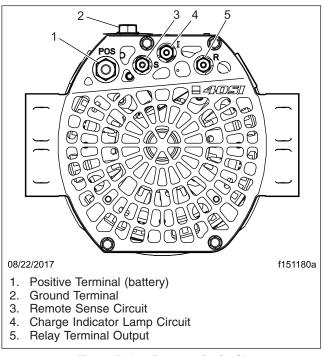


Fig. 2, Delco Remy 38/40/55SI

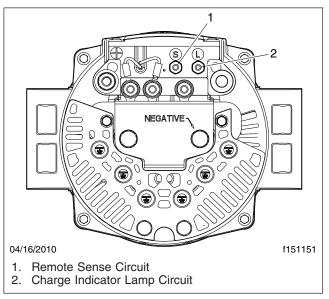


Fig. 3, Leece-Neville 12V 270 AMP 4967PGH Alternator

- 10. Connect the batteries, if applicable.
- 11. Close and latch the hood.



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Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply.

Normal warranty applies. See **Table 1** for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the *Service Bulletin #* field.

OWL VMRS Codes and Labor Allowance					
Primary Failed Part	Component Code	Cause Code	SRT Code	Description	Time: Hours
Alternator Wiring	031-001-060	77	124-5010A	Wiring Remote Sense and Indicator, Rewire	0.3

Table 1, OWL VMRS Codes and Labor Allowance