

**Delco  
Remy**

# SOLUTIONS



## NEW REMOTE SENSE ALTERNATORS FROM DELCO REMY® FIGHT WINTER PERFORMANCE ISSUES

### 'The Cold Weather Alternator'

The onset of winter means falling temperatures, a condition that can drain both batteries and budgets. Unfortunately, many fleets are forced to spend an increasing amount of time and money on unnecessary electrical system maintenance, either in the service bay or, worse, on the road.

Delco Remy has solved this problem through **Remote Sense alternators** – an enhancement that maintains the desired voltage during the coldest weather conditions.

While the battery is the source of a vehicle's electrical power, the alternator is its true lifeline – the heart that keeps the power available at a constant rate.

The alternator voltage regulator needs a connection or reference point to monitor system voltage. This allows the regulator to "see" or "sense" voltage and either increase or decrease the field current to the alternator rotor in an attempt to maintain appropriate system voltage. Conventional alternators use a connection inside the alternator as a "sense" point.



## HERE'S WHY REMOTE SENSE MAKES SENSE

### Feature Ideal for New Applications, Aftermarket Retrofitment

Unlike conventional alternators, the Delco Remy Remote Sense alternator utilizes a special terminal that allows for a wire connection directly to the vehicle's batteries. This design moves the regulator's reference (or "sense") point from inside the alternator to the batteries.

Delco Remy Remote Sense alternators are available from most major vehicle manufacturers. Vehicles also can easily be retrofitted with this innovative feature. For more information, contact your Delco Remy representative toll-free at **1-800-372-0222**.

**Technical Toll-Free Hotline: 1-800-372-0222** [www.delcoremy.com](http://www.delcoremy.com)

# BEAT VOLTAGE DROP

## Another Case for Remote Sense

Non-remote sense alternators – which utilize an internal sensor – attempt to keep alternator voltage at the required level.

Appropriate for vehicles with little or no load, non-remote sense alternators use cables that have

inherent voltage “loss” or “drop,” thereby reducing the amount of voltage seen at the battery terminal.

Therefore, an alternator set at 14.2 volts and charging the batteries through cables may, if exhibiting a loss of .5 volts, deliver only 13.7 volts at the battery terminals under full output. When a remote sense alternator

is used in the same example, the regulator automatically adjusts output voltage to compensate for voltage “drop.”

In the Remote Sense example, you would see 14.2 volts at the battery and 14.7 volts at the alternator output terminals, a significantly improved operating condition.

A Delco Remy Remote Sense alternator (Figure A.) features a fourth terminal that senses voltage level at the batteries and adjusts alternator output accordingly.

As seen in Figure B., the remote sense feature provides a direct circuit from the alternator to the vehicle's batteries, ensuring highly accurate voltage readings and enhanced electrical system reliability.

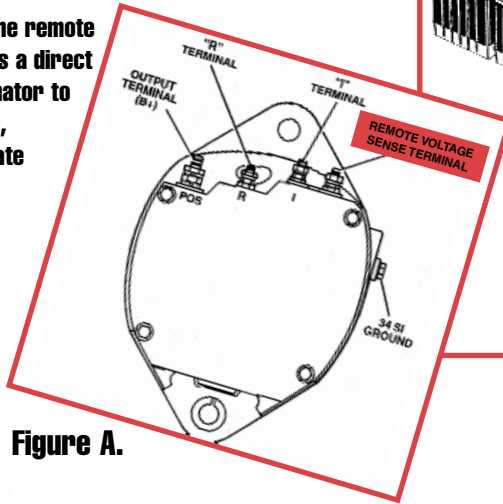


Figure A.

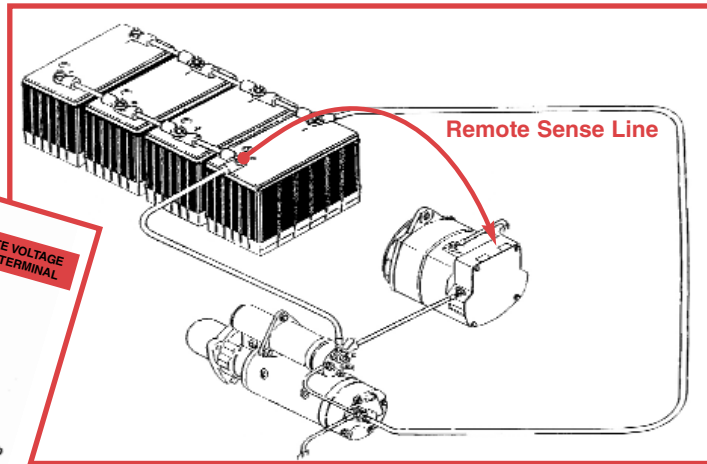
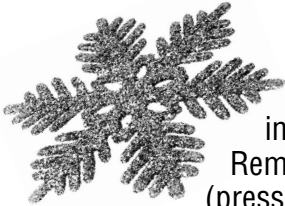


Figure B.

## FIGHTING THE COLD-WEATHER CHILL



Because a battery is a chemical mechanism, it is affected greatly by cold. As the internal temperature of the battery drops, its resistance to charge increases. With a Remote Sense alternator, which senses voltage at the battery, desired voltage output (pressure) is maintained even in the coldest conditions.

## Delco Remy Alternators with Remote Sense Feature

OE Number	Reman Number	Description	Voltage	Amps	Battery Term	R Term	I Term
19011200	10459450	33SI	12	135	1/4	#10	#10
19011179	10459287	34SI	12	135	1/4	#10	#10
19011201	10459451	34SI Road Gang	12	135	1/4	#10	#10
19011202	10459449	34SI QuaDRAmount Road Gang	12	135	1/4	#10	#10
19011187	10459288	34SI QuaDRAmount	12	135	1/4	#10	#10