

## N1627 Alternator with N3297 Regulator

**Installation Instructions** 

Follow these instructions to properly install an N1627 alternator fitted with an N3297 regulator:

- Remove nut and disc spring washer from shaft, then remove and discard shaft collar.
- Make sure Woodruff key is securely wedged in shaft slot.
- Install pulley, disc spring washer, and nut on shaft in that order. See Figure 1. Torque pulley nut to 163 Nm/120 lb. ft.

CAUTION

Do not hammer pulley when installing pulley on shaft. Carefully slip-fit pulley over shaft to prevent shaft from moving out of place.

4. Mount alternator on engine and torque mounting bolts to 88 Nm/65 lb. ft., or to engine manufacturer's specifications.

CAUTION

Failure to tighten slip bushing in rear mounting foot against mounting bracket can result in broken mounting feet or broken bracket.

N3297

5. Install belt on pulley and tension belt to engine manufacturer's recommendation (typically 80-120 lbs).

## CAUTION

All cables must be supported within 300 mm (12 in.) to prevent twisting, loosening, and damage to terminals.

- Connect vehicle B+ cable to alternator B+ terminal as shown in Figure 1. Install hardware in stacking order shown in Figure 2. Torque B+ terminal bolts to 30 Nm/22 lb. ft.
- Connect vehicle B- cable to alternator B- terminal.
   See Figure 1. Install cable hardware in stacking order shown in Figure 2. Torque B- terminal bolts to 15 Nm/11 lb. ft.
- Install N3297 regulator according to instructions on page 2.

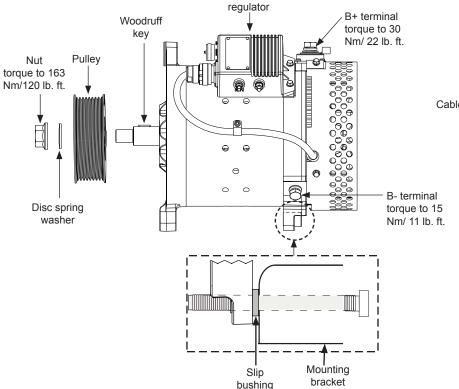


Figure 1: N1627 Alternator Installation

Lock washer

Cable terminal

Disc spring washer

Figure 2: Terminal Hardware Stacking Order

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## N3297 Regulator Installation

CAUTION

All cables must be supported within 300 mm (12 in.) to prevent twisting, loosening, and damage to terminals.

1. Before installing regulator, turn it over and make sure setpoint of switch on bottom of regulator is appropriate for type of battery used. If necessary, change switch setpoint. See Table below for setpoint options.

Switch Setting	Temperature Compensation
Position 1	Hawker Battery in engine compartment
Position 2	Hawker Battery outside engine compartment
Position 3	6TMF Battery in engine compartment
Position 4	6TMF Battery outside engine compartment



Voltage Selection Switch (Factory setpoint is position 4)

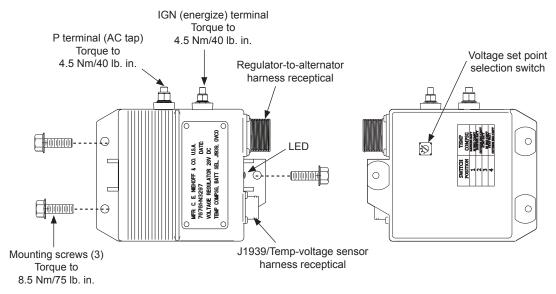
- Remote mount regulator with 3 flange lock screws. Torque to 8.5 Nm/75 lb. in. or to engine manufacturer's recommendation.
- 3. Refer to Figure 3 and connect regulator to charging system as follows:
  - a. Connect vehicle ignition to IGN terminal (required to energize regulator).

Voltage should be present at regulator IGN terminal when vehicle ignition is on or when engine is running. No voltage should be present at regulator IGN terminal when ignition is off or when engine is not running.

b. If using a tachometer or other AC device, connect it to P terminal on regulator. P terminal taps AC voltage, typically half the charge voltage (3A maximum).

NOTICE If using a controller, controller relay coil must be diode-protected and properly rated.

- c. Connect alternator-to-regulator harness to matching receptical on regulator. See Figure 3.
- d. If connecting a smart regulator to a J1939/temperature-voltage sense harness, plug J1939/temperature-voltage



**Figure 3: Regulator Connections** 

If you have questions about your alternator or these instructions, or if you need to locate a Factory Authorized Service Dealer, please contact us at:

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