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

1. Remove nut and disc spring washer from shaft, then remove and discard shaft collar.
2. Make sure Woodruff key is securely wedged in shaft slot.
3. 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.

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.

6. 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.

7. 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.

8. Install N3297 regulator according to instructions on page 2.

---

**Figure 1: N1627 Alternator Installation**

<table>
<thead>
<tr>
<th>Nut</th>
<th>Woodruff key</th>
<th>Pulley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disc spring washer</td>
<td>B+ terminal</td>
<td>30 Nm/22 lb. ft.</td>
</tr>
</tbody>
</table>

---

**Figure 2: Terminal Hardware Stacking Order**

<table>
<thead>
<tr>
<th>Bolt</th>
<th>Disc spring washer</th>
<th>Lock washer</th>
<th>Cable terminal</th>
</tr>
</thead>
</table>

---
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.

<table>
<thead>
<tr>
<th>Switch Setting</th>
<th>Temperature Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position 1</td>
<td>Hawker Battery in engine compartment</td>
</tr>
<tr>
<td>Position 2</td>
<td>Hawker Battery outside engine compartment</td>
</tr>
<tr>
<td>Position 3</td>
<td>6TMF Battery in engine compartment</td>
</tr>
<tr>
<td>Position 4</td>
<td>6TMF Battery outside engine compartment</td>
</tr>
</tbody>
</table>

2. 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 switchable ignition to IGN terminal if required to energized regulator.

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

   b. Connect tachometer to P terminal, if required. 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. Plug alternator-to-regulator into receptical on regulator and alternator. See Figure 3.

   d. If installing a smart regulator with a J1939/temperature-voltage sense harness, plug harness into receptical on regulator. Harness sold separately.

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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![Figure 3: N3297 Regulator](image-url)