

## N1460 Alternator

# **Installation Instructions**

### N1460 Alternator Installation

The CEN N1460 alternator is a dual output 28 V, 550 A alternator. When used with a remote mounted CEN N3280 regulator, N1460 alternators are capable of operating in a leaderfollower configuration. Follow these instructions to properly install an N1460 alternator:

**CAUTION** Ensure spines on alternator shaft are properly engaged with splines on vehicle shaft before tightening mounting hardware.

- 1. Mount alternator on vehicle according to vehicle manufacturer's instructions, with anti-drive end facing out.
- 2. Torque alternator mounting bolts to 88 Nm/65 lb. ft., or to vehicle manufacturer's specifications.
- 3. Connect vehicle B+ wires to alternator B+ terminals. Install hardware in stacking order shown in Figure 2 and torque to 20 Nm/15 lb ft.

**CAUTION** All cables and wires must be supported within 305 mm (12 in.) to prevent twisting, loosening, and damage to terminals.

- 4. Connect battery B- wire to alternator B- terminal. Install hardware in stacking order shown in Figure 2 and torque to 20 Nm/15 lb ft.
- 5. If installing alternators in a leader-follower configuration, refer to Figure 4 on page 2.

### **Remote Regulator Installation**

The N3280 regulator is a smart regulator that ensures neither battery pack 1 or battery pack 2 exceeds 30.0 volts during normal operation. Regulated voltage is negative temperature compensated. If used with a temperature-voltage sense/J1939 harness, it automatically optimizes charge voltage for battery type, based on temperature. Harness sold separately.

- Install regulator mounting bracket in remote location.
  Torque bracket screws to 8.5 Nm/75 lb. in.
- 2. Install regulator on remote mounting bracket by aligning holes in regulator tabs with holes on mounting bracket. Install 3 screws and torque to 8.5 Nm/75 lb. in.
- 3. Using a CEN N7548 harness, connect alternator to J1 receptacle on regulator. See Figure 3.
- If used, connect vehicle J1939/temperature-voltage sense harness to J2 receptacle on regulator. See Figure 3. Harness sold separately.

**NOTICE** If J1939 harness is not used, J2 receptacle must be kept covered with attached cap.

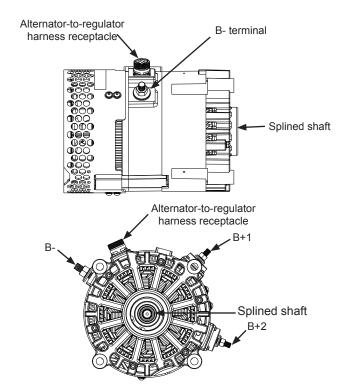


Figure 1: N1460 Alternator Connections

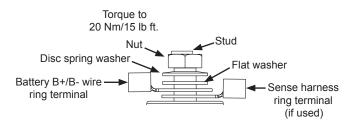


Figure 2: B+/B- Terminal Hardware Stacking Order

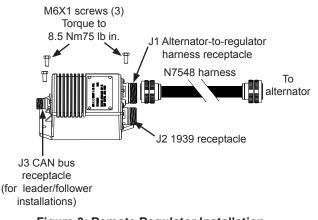


Figure 3: Remote Regulator Installation

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Page 1 of 2

#### Leader-Follower Alternator Installation

Follow these instructions to install dual N1460 alternators in a leader-follower configuration:

1. Mount alternators according to vehicle manufacturer's instructions, with anti-drive end facing out.

**CAUTION** Make sure splines on each alternator shaft are properly engaged with splines on vehicle shaft before tightening mounting hardware.

- 2. Connect each alternator to J1 connector on a N3280 regulator, using a CEN N7548 harness. See Figure 4.
- Connect first battery bank B+ wire to lead B+ 1 (primary) terminal on leader alternator. Secure with hardware in stacking order shown in Figure 2 on page 1. Torque to 20 Nm/15 lb. ft.

**CAUTION** All cables and wires must be supported within 305 mm (12 in.) to prevent twisting, loosening, and damage to terminals.

- Connect second battery bank B+ wire to B+ 2 (secondary) terminal on leader alternator. See Figure 4. Secure with hardware in stacking order shown in Figure 2 on page 1. Torque to 20 Nm/15 lb. ft.
- Connect battery B- wire to B- terminal on leader alternator. See Figure 4. Secure with hardware in stacking order shown in Figure 2 on page 1. Torque to 20 Nm/15 lb. ft.

**NOTICE** If J1939 harness is not used, J2 receptacle on regulator must be covered with attached cap or equivalent connector on regulator for lead alternator.

6. Connect vehicle J1939 harness (if used) to J2 Link regulators by plugging a 3-pin CAN bus harness into J3 connectors, as shown in Figure 4.

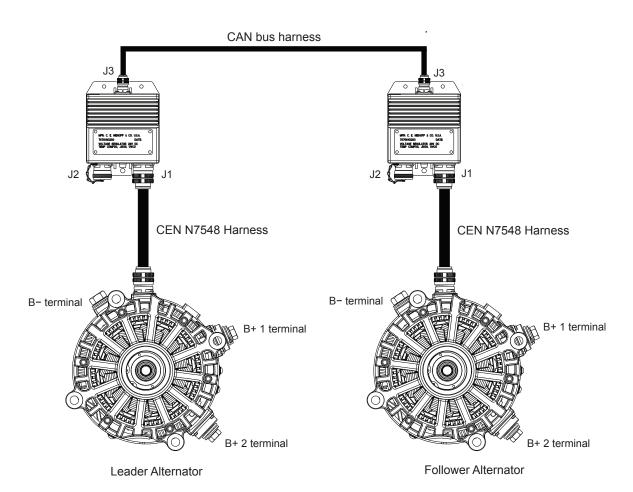


Figure 4: N1460 Leader-Follower Alternator Connections

If you have questions about your alternator or these instructions, or if you need to locate a Factory Authorized Service Distributor, please contact us at: C. E. Niehoff & Co. • 2021 Lee Street • Evanston, IL 60202 USA

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Page 2 of 2