



N1622 Alternator Installation

The N1622 alternator is a 28 volt, 525 amp alternator. Follow these instructions to ensure proper installation.

1. If alternator does not include a factory-installed pulley, remove nut, disc spring washer, and shaft collar. Discard shaft collar. Make sure Woodruff key is securely wedged in shaft channel.
 2. Install pulley on shaft and secure with disc spring washer and flange nut. Torque nut to 163 Nm/120 lb ft.
- CAUTION** Do not hammer pulley when installing it on shaft. Damage to alternator may occur. Slip-fit pulley over shaft to prevent shaft from moving out of place.
3. Install alternator on mounting bracket according to vehicle manufacturer's specifications. Use hardened flat washers between mounting surfaces and bolt heads or lockwashers. Mounting bolts should be Grade 5 or better.

4. Tension belt to vehicle manufacturer's recommendation.

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

5. Connect vehicle B+ cable to alternator B+ terminal. Install mounting hardware in stacking order shown in Figure 2. Torque hardware to 30 Nm/22 lb ft.
6. Connect vehicle B- cable to alternator B- terminal. Install mounting hardware in stacking order shown in Figure 3. Torque hardware to 15 Nm/11 lb ft.
7. If regulator was supplied separately, or if replacing regulator, install regulator according to instructions on page 2.

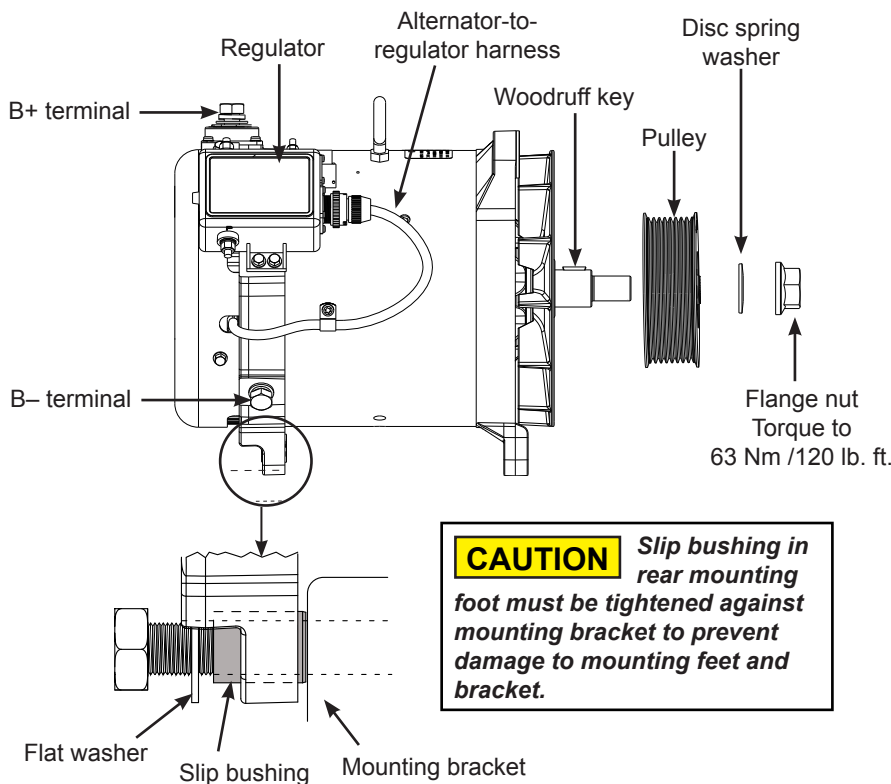


Figure 1: N1622 Alternator Installation

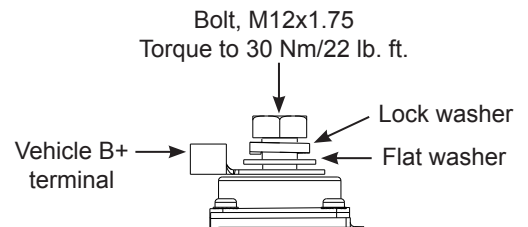


Figure 2: B+ Terminal Hardware Stacking Order

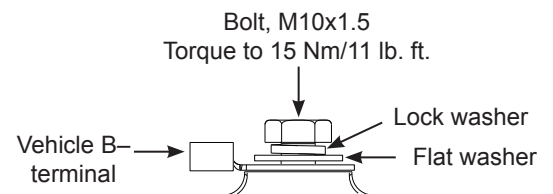


Figure 3: B- Terminal Hardware Stacking Order

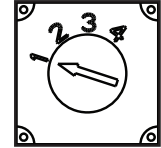
N3284 Regulator Installation

The N3284 is a smart regulator that automatically optimizes charge voltage for battery type, based on temperature if connected to a J1939/temperature-voltage sense harness.

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

- Before installing regulator, turn it over and make sure voltage setting switch on back of regulator is appropriate for type of battery used. If necessary, change switch setting. See column 2 in Table 1 for voltage set point options. Factory setting is position 1.

Switch Setting	Voltage (Remote Sensing Not Connected)	Battery Type (Remote Sensing Connected)
Position 1	27.5V	Maintenance (8D)
Position 2	28.0V	Maintenance-Free (Group 31)
Position 3	28.5V	AGM
Position 4	29.0V	



Voltage Selection Switch
(Factory setting is 1)

- Connect alternator-to-regulator harness to connector 1 on regulator. See Figure 5.
- Mount regulator on alternator and secure with 4 flange lock screws. Torque screws to 8.5 Nm/75 lb. in. .
- Connect regulator to vehicle charging system as follows:
 - Connect switchable ignition to IGN terminal.

NOTICE

Ignition 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.

- Connect vehicle D+ wire to regulator D+ terminal, if required (DC charge voltage source, 5A maximum).
- Connect tachometer to regulator P terminal, if required. 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.

- Plug alternator-to-regulator harness into regulator receptacle.
- If used, plug vehicle J1939/temperature-voltage sense harness into regulator receptacle. Harness sold separately.

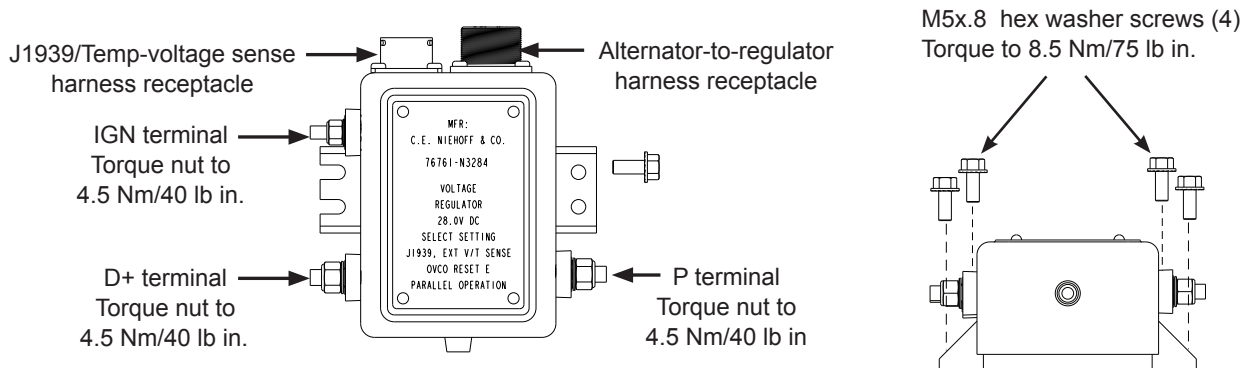


Figure 4: N3284 Regulator

Parallel Operation Installation

For vehicles using two N1622 alternators in parallel-operation configuration, the following guidelines must be adhered to in order to ensure stability of charging system voltage.

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

1. Vehicle battery positive cable must be connected directly to leader alternator B+ terminal.
2. Follower alternator B+ terminal must be connected to leader alternator B+ terminal with cable gauge size equivalent to vehicle B+ cable. Install mounting hardware in stacking order shown in Figure 6. Torque hardware to 30 Nm/22 lb ft.
3. Vehicle battery negative cable must be connected directly to leader alternator B- terminal.
4. Follower alternator B- terminal must be connected to leader alternator B- terminal with cable gauge size equivalent to vehicle B- cable. Install mounting hardware in stacking order shown in Figure 7. Torque hardware to 15 Nm/11 lb ft.
5. Install N7652 or similar J1939 interconnect harness between both regulators, making sure the connector labeled "follower" is connected to the regulator on the follower alternator as shown in Figure 5.

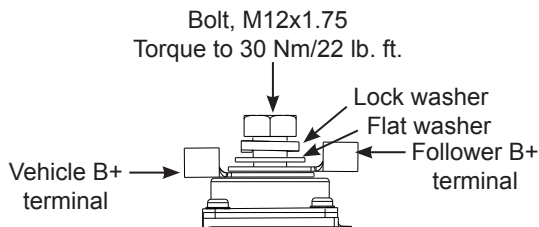
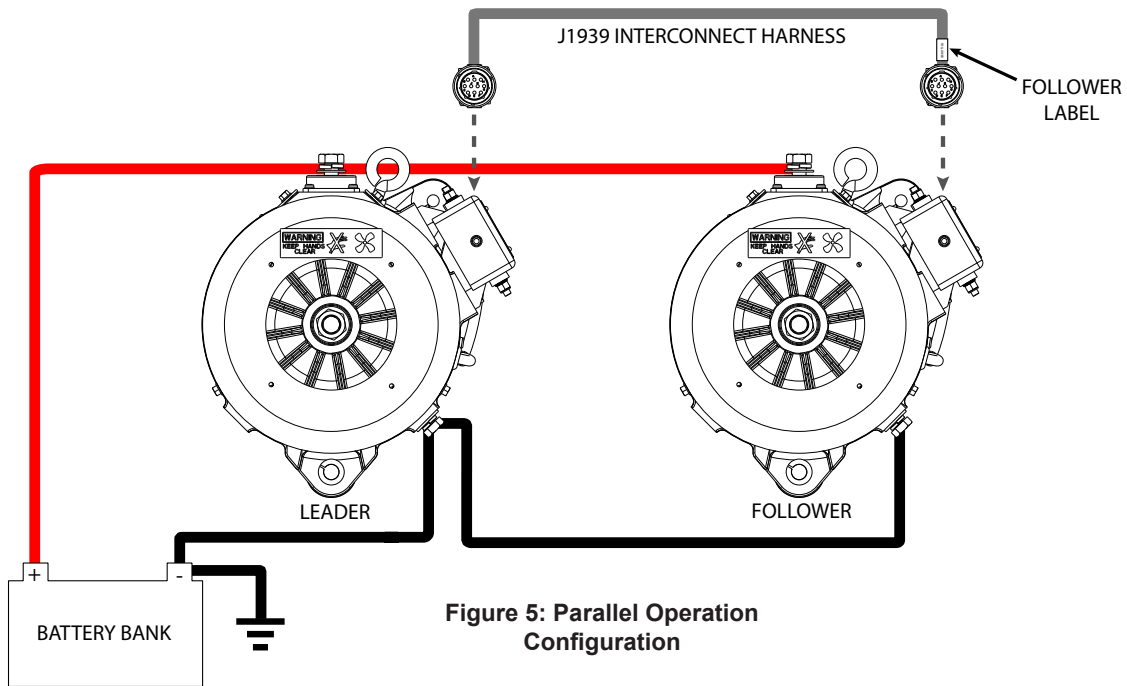


Figure 6: Leader Alternator B+ Terminal Hardware Stacking Order

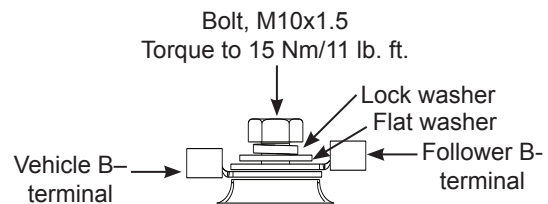


Figure 7: Leader Alternator B- Terminal Hardware Stacking Order

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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