



Follow these instructions to properly install an N1224 alternator:

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 hardware 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+ cables to corresponding alternator 14V and 28V terminals as shown in Figure 2. Install hardware in stacking order shown in Figure 3. Torque terminal bolts to 15 Nm/11 lb. ft.
7. Connect vehicle B- cable to alternator B- terminal. See Figure 2. Install cable hardware in stacking order shown in Figure 3. Torque B- terminal bolts to 15 Nm/11 lb. ft.
8. Install regulator according to instructions on page 2.

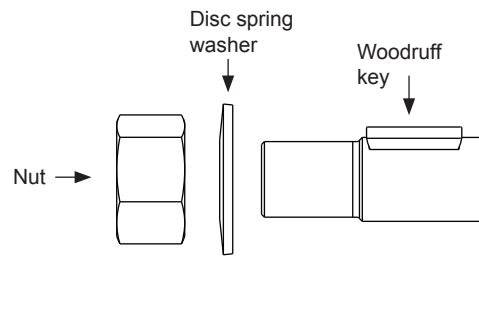


Figure 1: Pulley Installation

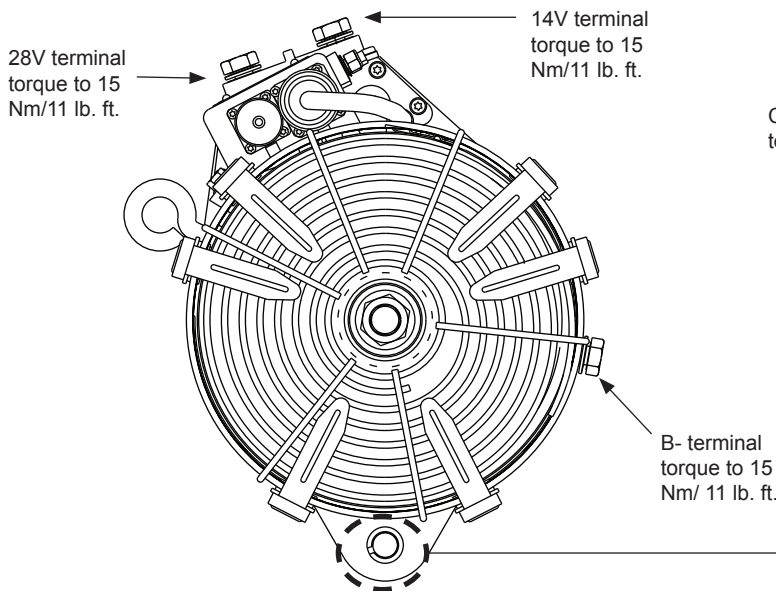


Figure 2: N1224 Alternator Installation

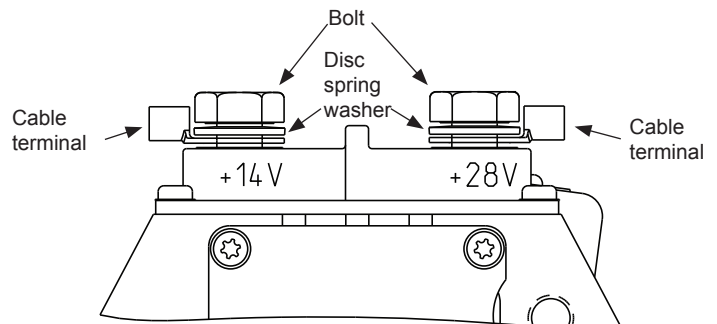
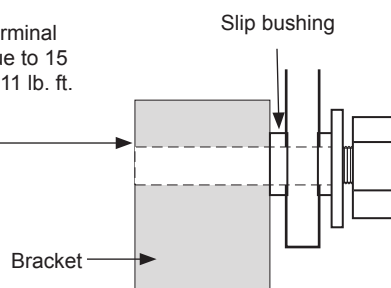


Figure 3: Terminal Stacking Order

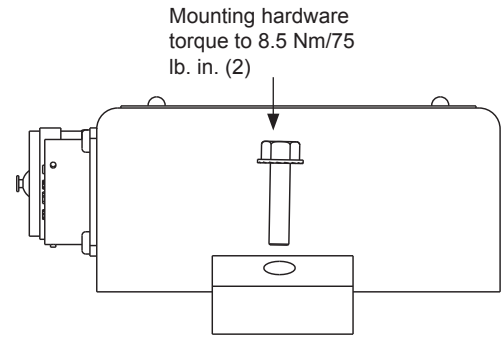


## Regulator Installation

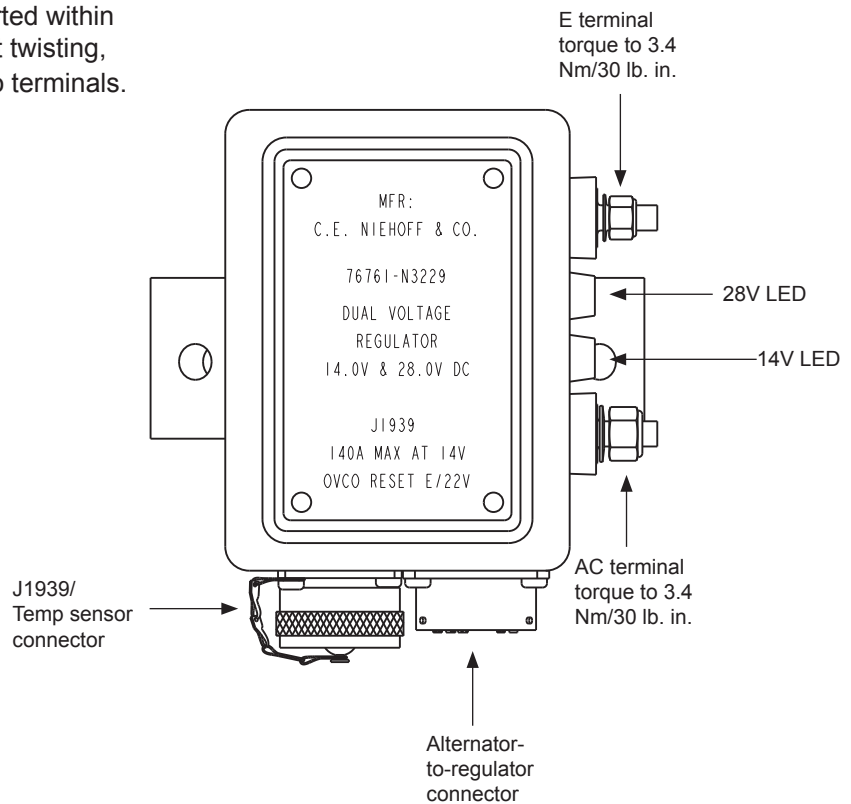
1. Align regulator tabs with screw holes on alternator shell and secure with mounting screws. Torque screws to 8.5 Nm/75 lb. in. See Figure 4.
2. Connect alternator-to-regulator harness to receptacle on regulator.
3. Connect temperature-voltage sense/J1939 harness to receptacle on regulator. Harness sold separately.
4. Connect wire leads to E terminal if required to energized regulator. Torque hardware to 3.4 Nm/ 30 lb. in. (Switches battery voltage)
5. Connect AC terminal wire leads. AC terminal taps AC voltage, typically half the charge voltage (3A maximum). Torque to 3.4 Nm/30 lb. in.

### CAUTION

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



**Figure 4: Mounting Regulator on N1224 Alternator**



**Figure 5: Regulator**

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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