



C180-1 Alternator w/ A8-206 Rectifier-Regulator
C180-2 Alternator w/ A8-207 Rectifier-Regulator
C181-1 Alternator w/ A8-208 Rectifier-Regulator
C180/C181 Alternators
Installation Instructions

1. Install alternator with cover oriented in a position that allows best vertical air flow through fins on anti-drive end. See Figure 1 and 2:
 - a. C180-1, C180-2, and C181-1 units are shipped with pulley/fan, flat washer, and nut installed.
 - b. C180 and C181 units are shipped with shaft collar, flat washer, and nut. Remove and discard shaft collar. Install pulley/fan and furnished flat washer. Torque furnished nut to 68 Nm/50 lb. ft.
 - c. Use Grade 5 flange bolt and locking type flange nuts to mount alternator. Self-locking type screw is required to clamp up belt adjusting bracket. Tighten the adjusting bracket before tightening alternator mounting bolts. Torque 12mm x 1.75 mounting bolts to 50 Nm/ 37 lb. ft.
 - d. Follow vehicle manufacturer's recommendations for belt tension.
2. Connect alternator and rectifier/regulator:
 - C180-1—see page 2
 - C180-2—see page 3
 - C181-1—see page 4
 - C180 and C181 alternators are replacements for their corresponding dashed numbered alternators. Follow appropriate instructions listed above.

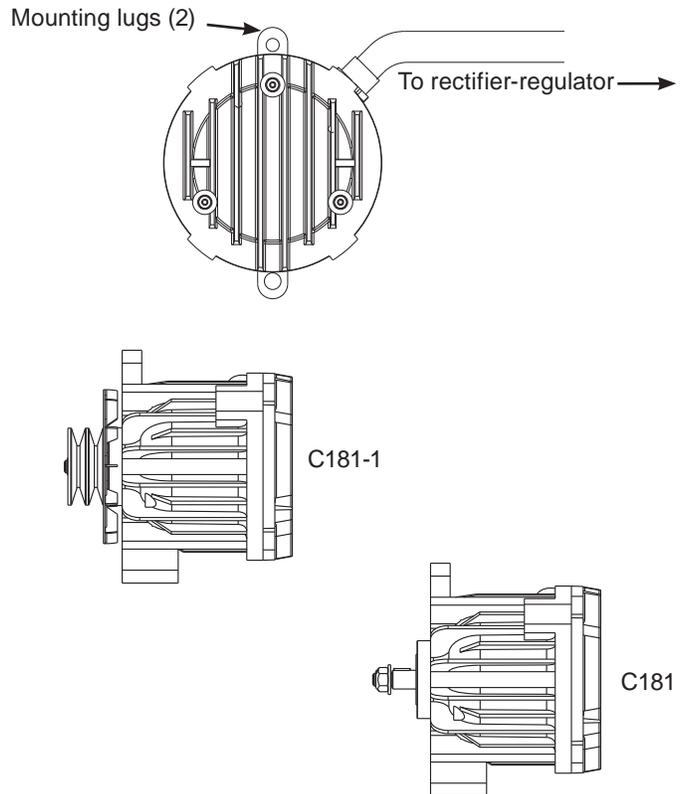


Figure 1 - C181-1/C181 Alternator Details

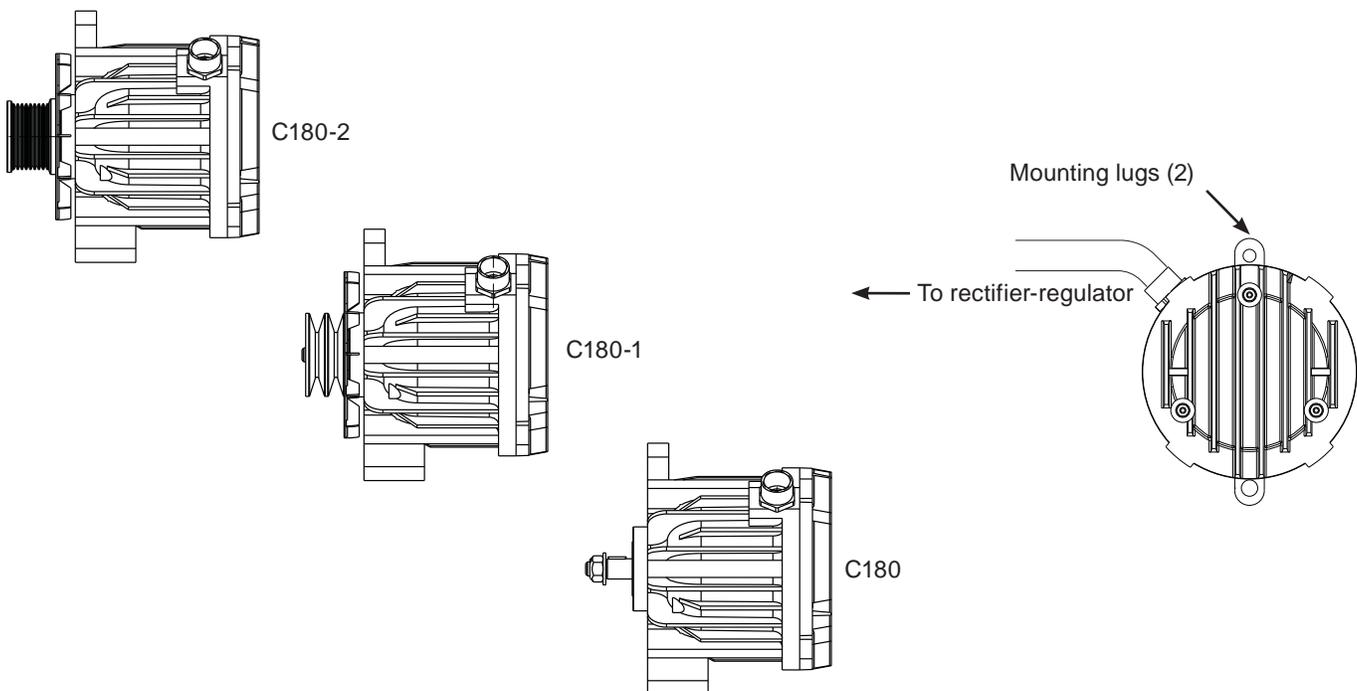


Figure 2 - C180-2/C180-1/C180 Alternator Details

C180-1 Alternator w/ A8-206 Rectifier-Regulator

1. Install rectifier-regulator assembly in location determined by customer, using hardware and torque specified by customer.
2. Remove shipping spacers from both sides of rectifier-regulator.
3. Connect rectifier-regulator to alternator with wiring conduit shown in Figure 3 and 4.
4. Output conduit supplied by customer connects rectifier-regulator with customer circuit and consists of B+ and B- output leads plus R terminal lead if used.
5. R circuit current: 3 A max
Square wave signal: 0-30 V
Alternator speed formula: $RPM=f(Hz) \cdot 10$
6. Alternator is configured for self-energization. Regulator brown wire is connected to R circuit. If external energize is required, remove brown wire between R terminal and module terminal A. Connect energize signal, which must open when alternator shaft is not rotating.

7. Series connected isolation diode in the B+ circuit is not permissible.
8. When wiring inside rectifier-regulator cover is complete, re-install cover and torque hardware to 5.4 Nm/48 lb. in.

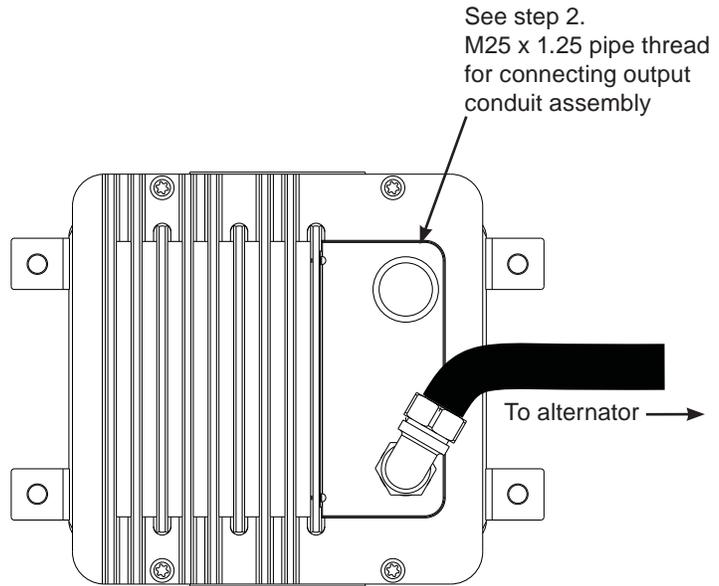


Figure 3 - A8-206 Rectifier-Regulator Cover Connections

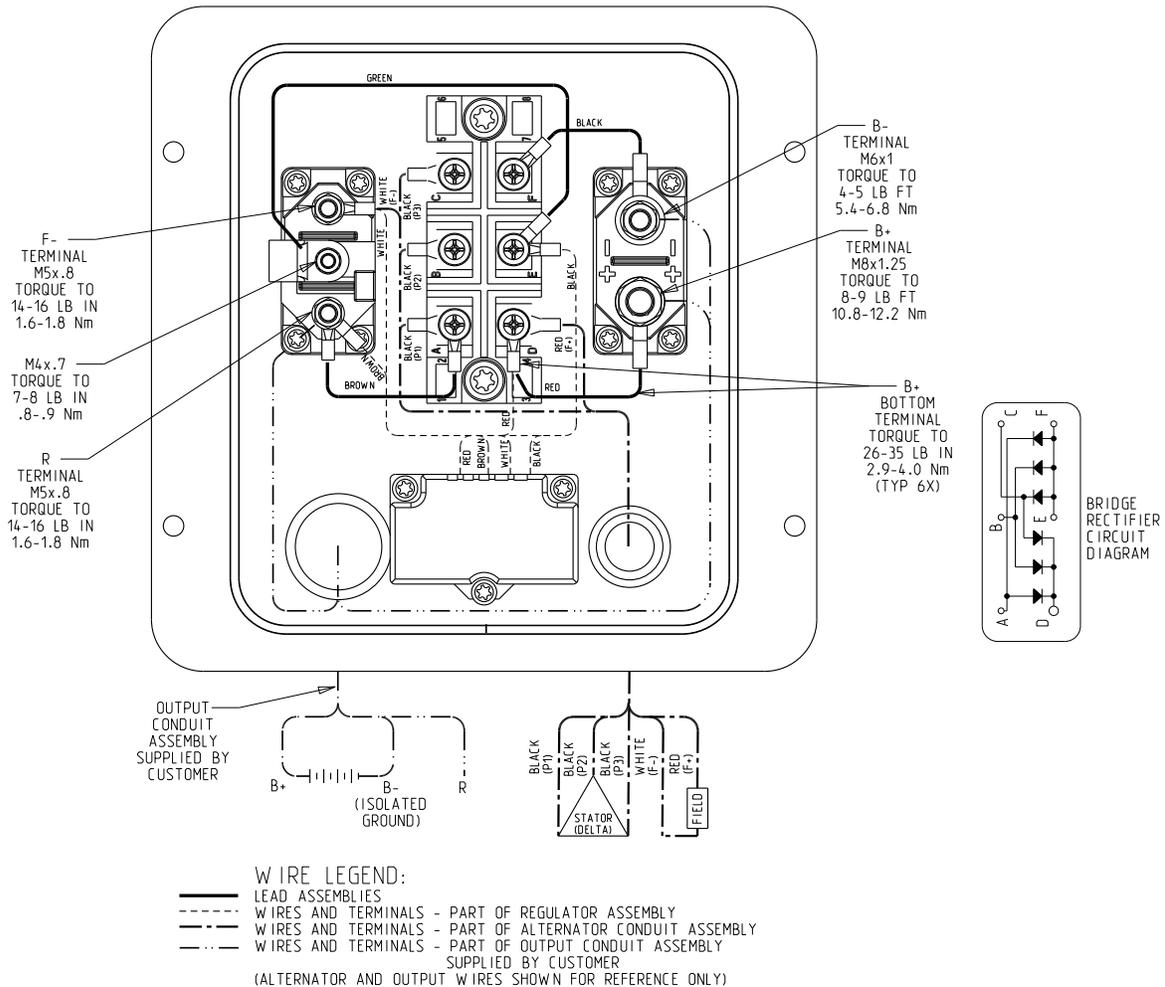


Figure 4 - C180-1/A8-206 Component Interconnect Diagram

C180-2 Alternator w/ A8-207 Rectifier-Regulator

1. Install rectifier-regulator assembly in location determined by customer, using hardware and torque specified by customer.
2. Remove shipping spacers from both sides of rectifier-regulator.
3. Connect rectifier-regulator to alternator with wiring conduit shown in Figure 5 and 6.
4. Output conduit supplied by customer connects rectifier-regulator with customer circuit and consists of B+ and B- output leads plus R and D+ terminal leads if used.
5. R circuit current: 3 A max
Square wave signal: 0-30 V
Alternator speed formula: $RPM=f(Hz)\cdot 10$
6. Alternator is configured for self-energization.
7. D+ terminal is the charge warning lamp (CWL) connection.
8. Series connected isolation diode in the B+ circuit is not permissible.
9. When wiring inside rectifier-regulator cover is complete, re-install cover and torque hardware to 5.4 Nm/48 lb. in.

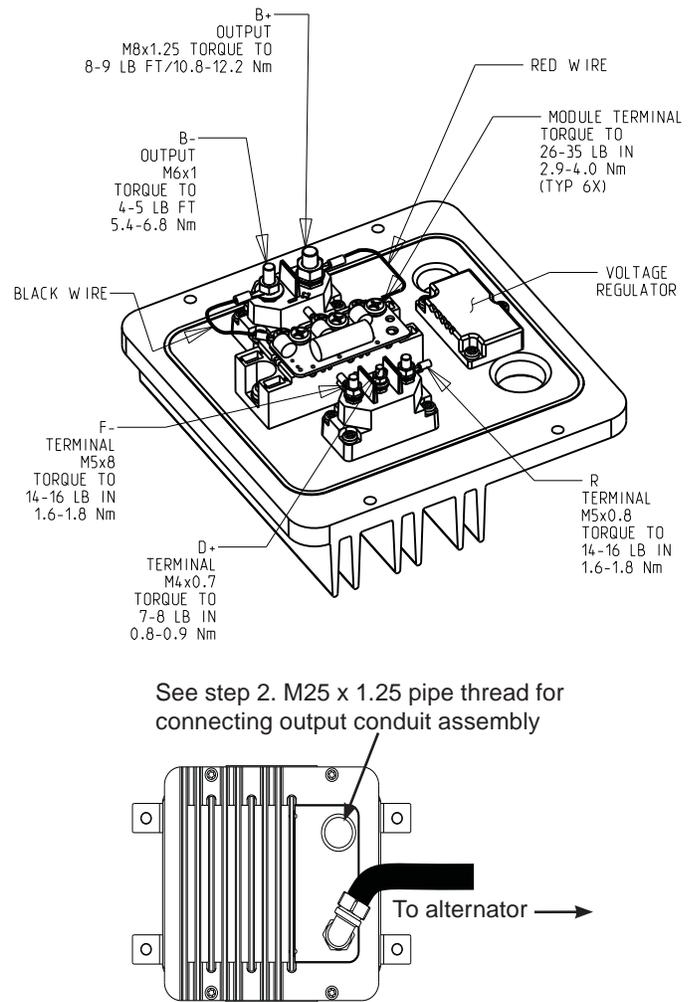


Figure 5 - A8-207 Rectifier-Regulator Cover Connections

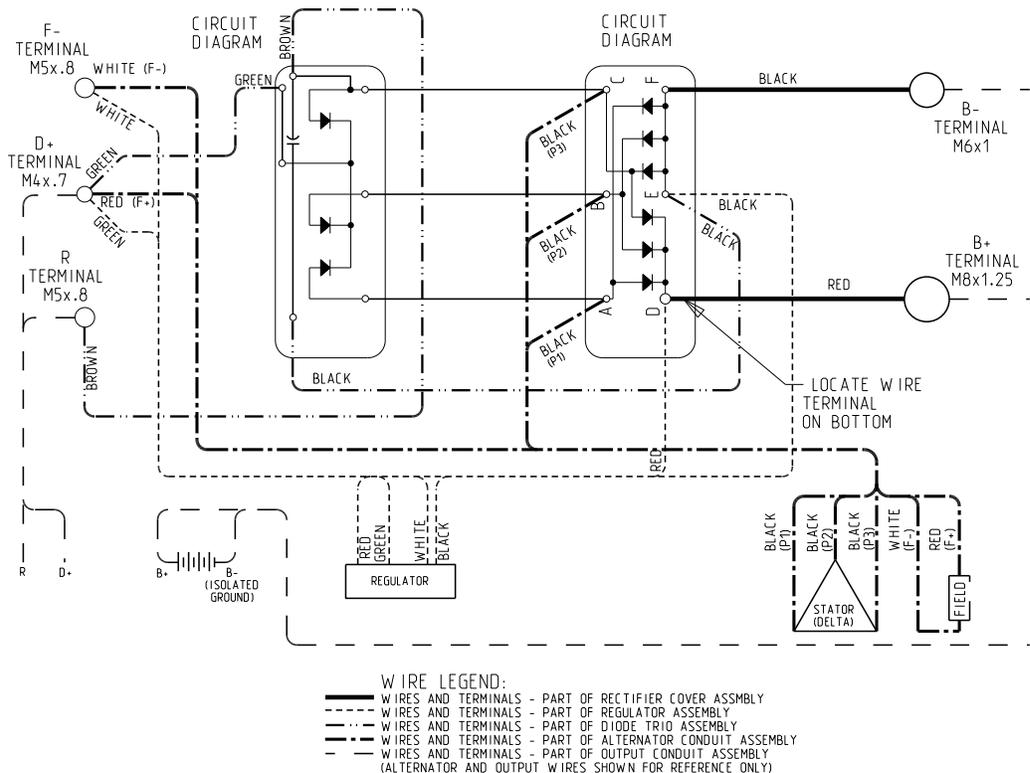
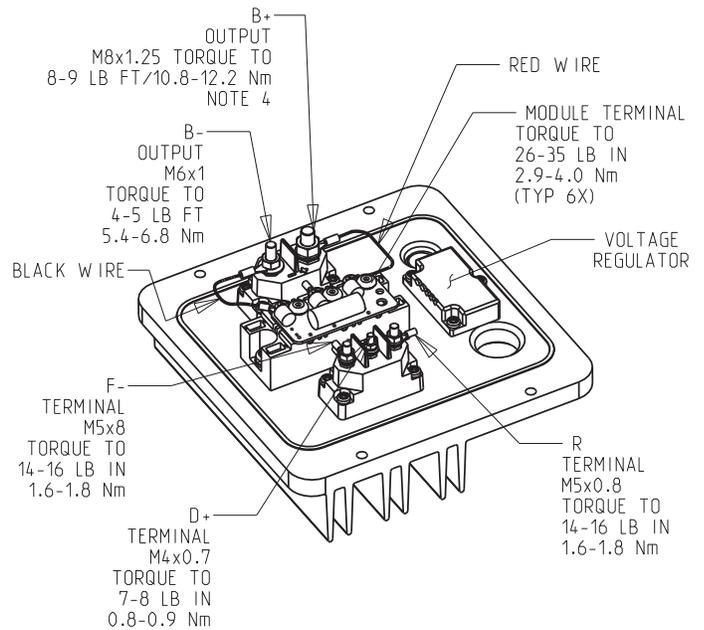


Figure 6 - C180-2/A2-207 Component Interconnection Diagram

C181-1 Alternator w/ A8-208 Rectifier-Regulator

1. Install rectifier-regulator assembly in location determined by customer, using hardware and torque specified by customer.
2. Remove shipping spacers from both sides of rectifier-regulator.
3. Connect rectifier-regulator to alternator with wiring conduit shown in Figure 7 and 8.
4. Output conduit supplied by customer connects rectifier-regulator with customer circuit and consists of B+ and B- output leads plus R and D+ terminal leads if used.
5. R circuit current: 3 A max
Square wave signal: 0-30 V
Alternator speed formula: $RPM=f(Hz) \cdot 10$
6. Alternator is configured for self-energization.
7. D+ terminal is the charge warning lamp (CWL) connection.
8. Series connected isolation diode in the B+ circuit is not permissible.
9. When wiring inside rectifier-regulator cover is complete, re-install cover and torque hardware to 5.4 Nm/48 lb. in.



See step 2. M25 x 1.25 pipe thread for connecting output conduit assembly

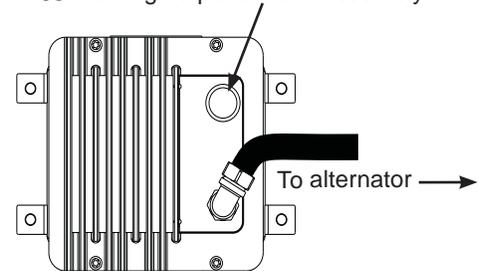


Figure 7 - A8-208 Rectifier-Regulator Cover Connections

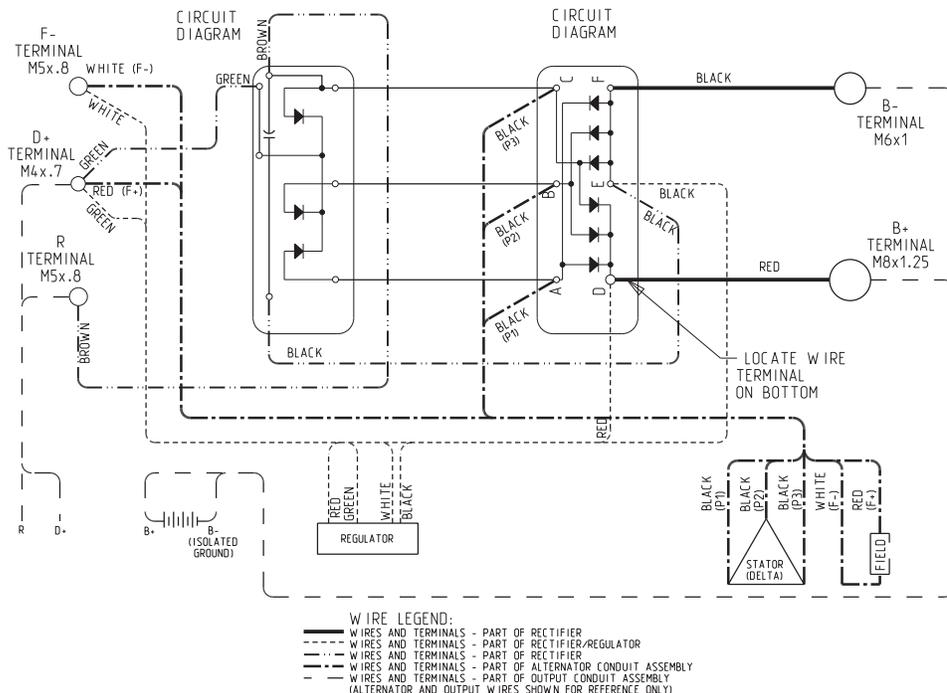


Figure 8 - C181-1/A2-208 Component Interconnection Diagram