



CAUTION

This symbol is used to indicate presence of hazards that can cause minor property damage.

C510 Alternator

1. Mounting lug width on alternator complies with SAE J180 (May 1987) standards.
2. Units are shipped with shaft collar, hardened washer and locknut. Remove and discard shaft collar. Install pulley and furnished hardened washer. Torque locknut to 163 Nm/ 120 lb. ft.
3. Use hardened washers between aluminum surfaces and bolt heads and nuts. Torque mounting bolts to 88 Nm/65 lb. ft.

CAUTION

Slip bushing in lower rear mounting lug must be securely tightened against mounting bracket on engine. Failure to do so can result in broken mounting lugs or broken upper mounting bracket.

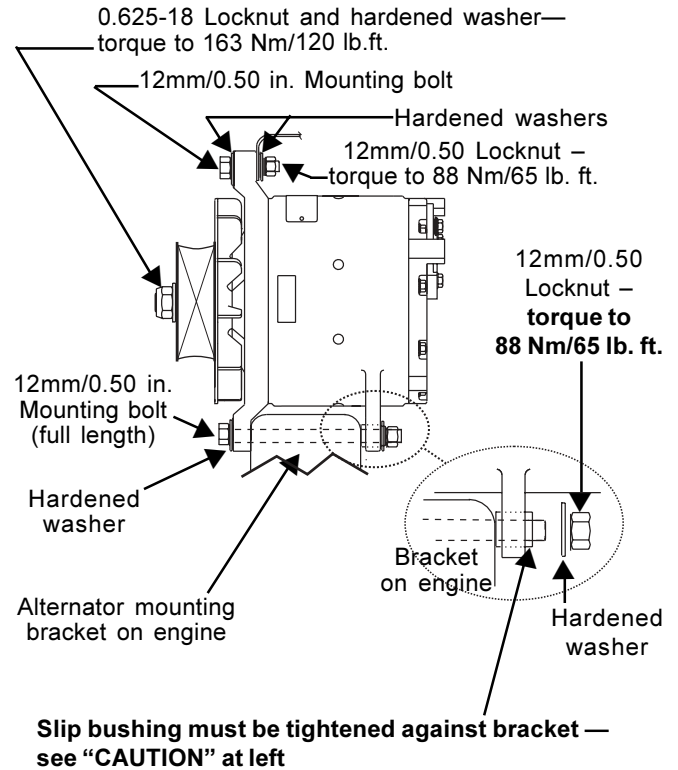


Figure 1 - C510 Alternator Installation

External Rectifier and Bracket

1. Mounting location of rectifier and bracket should provide proper cooling and protect rectifier from direct water, road debris, or chemicals.
 Rectifier can be mounted up to 12 feet away from alternator. Harnesses are available in 3, 4, 6, 8, or 12 ft. lengths. Harnesses cannot be strung together to create different lengths.
2. Use hardened washers between aluminum surfaces and bolt heads and nuts. Bracket mounting bolts must have minimum .50 in. thread engagement. See Figure 2 for torque values.
3. Use a suitable adhesive such as Loctite® 222 or equivalent on screws. Follow manufacturer’s instructions.

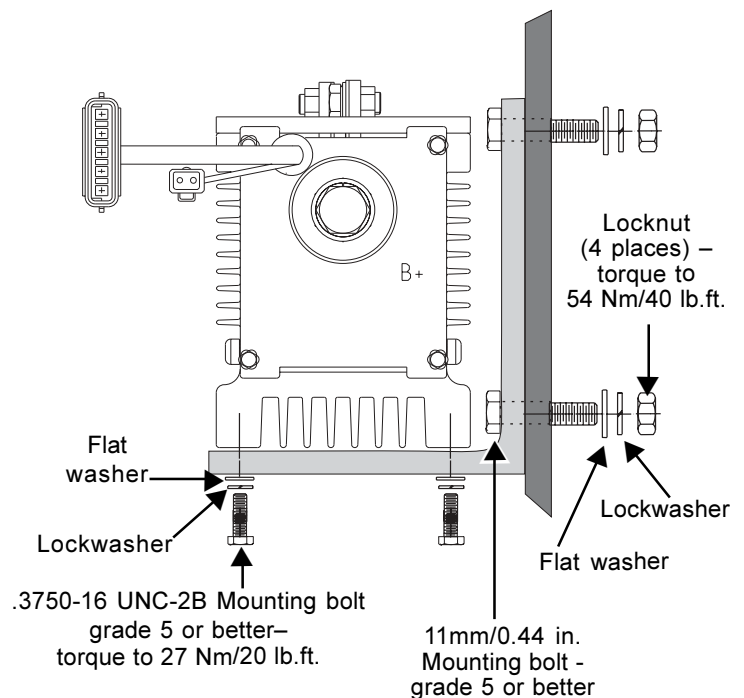


Figure 2 - Rectifier and Bracket Installation

Regulator

1. Mounting location of regulator must provide protection from water, road debris, or chemicals.

Regulator can be located up to 18 inches away from the rectifier. If extension harness CEN A9-448 is added, the regulator can be moved an additional 43 in. away.

2. See Figure 3 for torque values.
#10-32 x .62 flange lock screw (4 places) - torque to 8.5 Nm/75 lb. in.

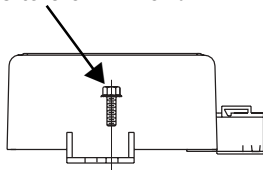


Figure 3 - Regulator Installation

Wiring Connections

1. Connect harnesses between components as shown in Figure 4. Use torque values shown. When operating with a battery isolator, field positive (F+) must be connected to battery positive (B+).

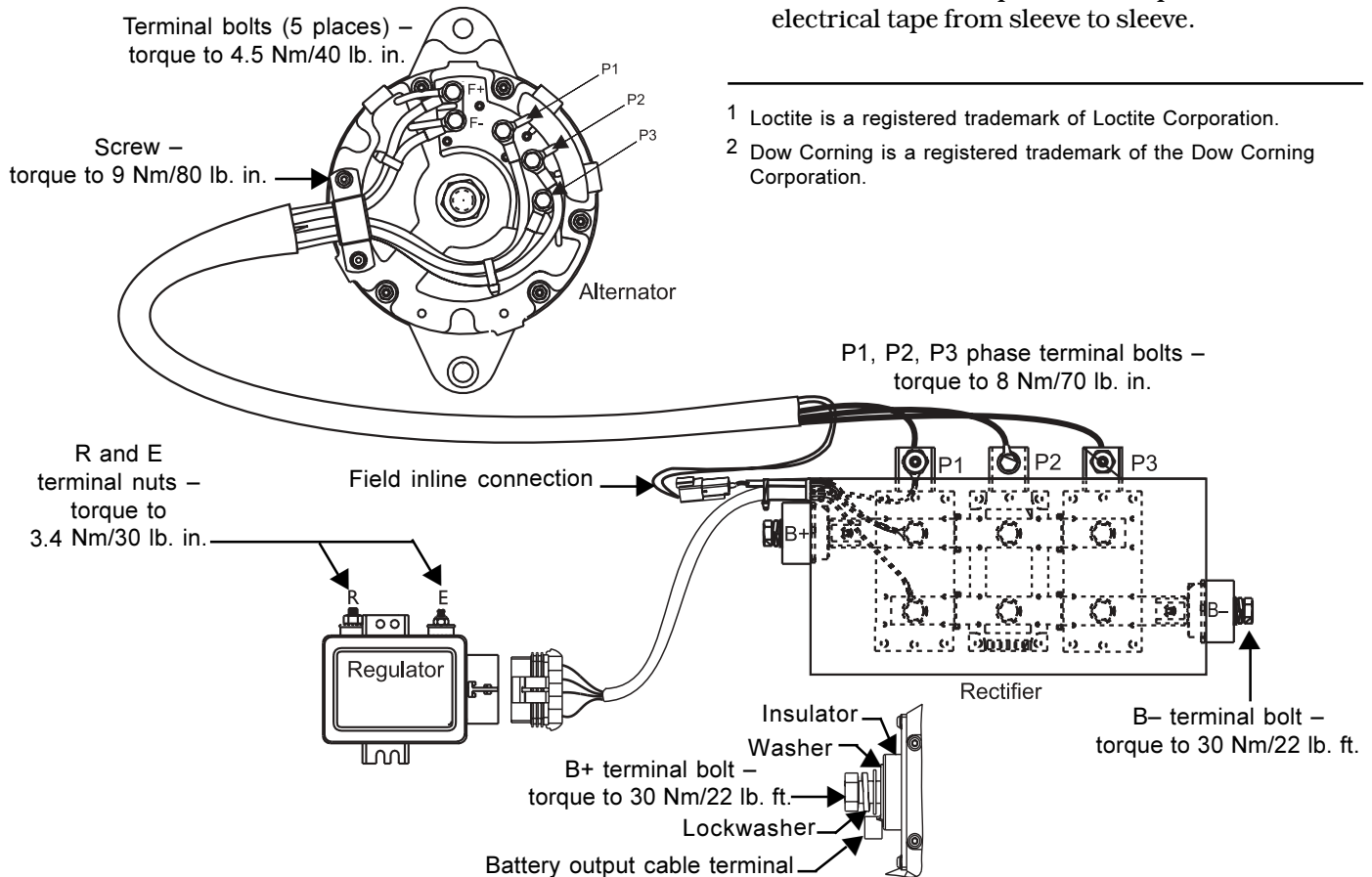


Figure 4 - Electrical Connections

2. Choose wire gauge for B+ and B- cables capable of handling maximum alternator output with minimum voltage drop.
3. All output leads must be supported within 305 mm/12 in. of termination and cabling, wiring or conduit run supported at 406.0mm/16 in maximum intervals. Strain relief must be provided and cable ties used.
4. Connect E terminal on regulator to ignition source through oil pressure switch, using #10 ring terminal. Torque #10-32 terminal nut to 3.4 Nm/30 lb. in.
5. Connect R terminal to tachometer or relay, using 1/4 in. ring terminal. Torque terminal nut to 3.4 Nm/30 lb.in.

Sealing Wiring Connections

1. On ALL metallic electrical connections to rectifier (including B+ and B- connections), alternator, regulator, and their harness connectors, apply Dow Corning^{®2} 1-2577 Low VOC RTV coating or equivalent. Do not use coating containing acetic acid (vinegar smell) on electrical components.
2. At regulator harness connections, apply coating as described in step 1, then wrap connection in electrical tape from sleeve to sleeve.

1 Loctite is a registered trademark of Loctite Corporation.

2 Dow Corning is a registered trademark of the Dow Corning Corporation.