



Retrofit/Upgrade Installation Instructions

When replacing an existing A1-704, C711, or C712 alternator, several modifications to existing installation are required, including replacing the pulley and regulator. READ AND FOLLOW ALL INSTRUCTIONS BELOW CAREFULLY.

CAUTION

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

NOTICE

This symbol indicates special instructions on installation, operation or maintenance that are important but not related to personal injury hazards.

- 1. Install alternator as shown in Figure 1:

CAUTION

Slip bushing located in rear mounting foot must be securely tightened against alternator mounting bracket on engine. Failure to do so can result in broken mounting feet or broken upper mounting bracket.

NOTICE

On some applications, when replacing C712 or similar unit with C714, the installation may require some modifications to existing mounting to accommodate new C714 alternator.

- a. Use hardened washers between aluminum surfaces and bolt heads and nuts.
- b. Units are shipped with shaft collar, Belleville washer, and nut installed. Remove and discard shaft collar.
 - When replacing C714: Install existing pulley and furnished Belleville washer. Torque furnished hardware to 163 Nm/120 lb. ft.
 - When replacing A1-704, C711, or C712: Replace existing pulley with one sized appropriately for C714 shaft and application. Contact CEN Aftermarket Sales Department for pulley sizing.

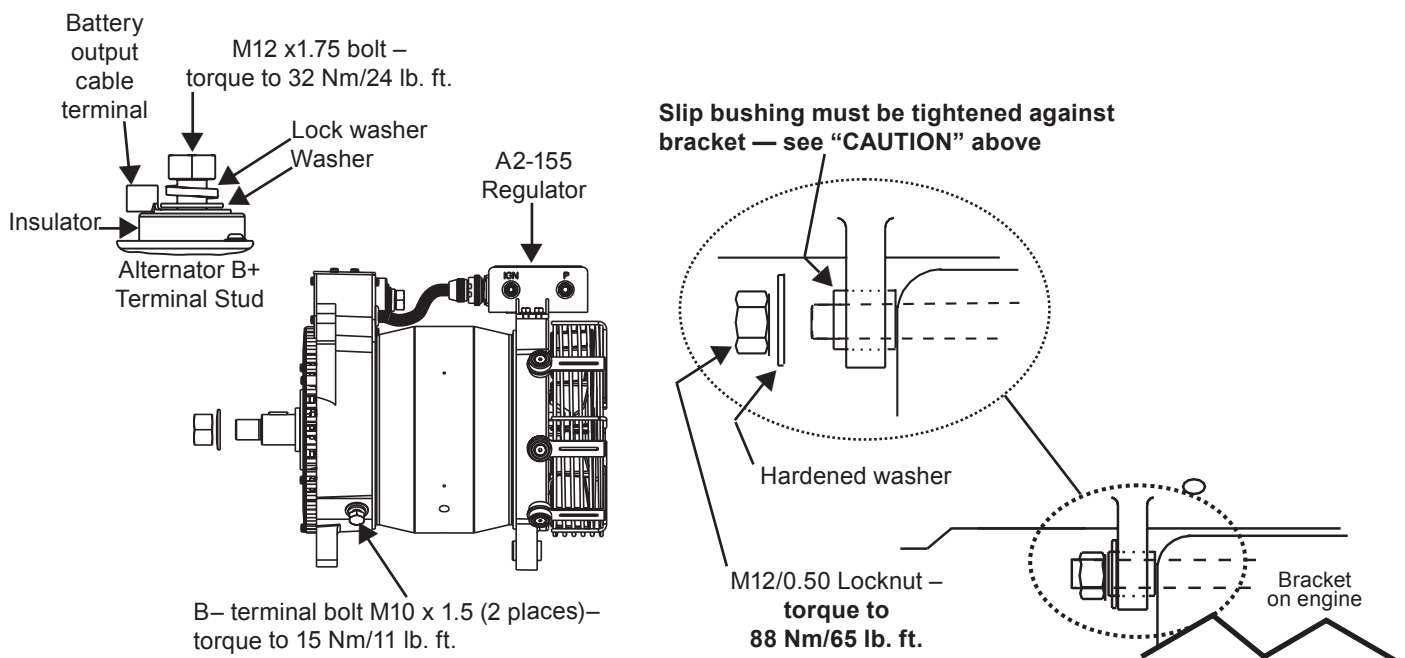


Figure 1—C714 Alternator Installation Details

Table 1 – Voltage Select Switch Position		
4 Voltage Setpoints (Fig. 2)		Battery Type
Position 1	14.0 V	Maintenance (D Category)
Position 2	14.4 V	Maintenance-Free (Group 31)*
Position 3	14.8 V	Maintenance-Free (Group 31)*
Position 4	15.5 V	Battery Isolator setpoint

*Group 31 batteries: If boiling or excessive gassing occurs with higher voltage setpoint (position 3), change to lower voltage setpoint (position 2).

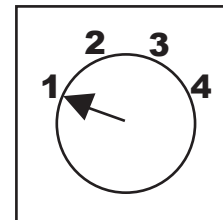


Figure 2—4 Voltage Setpoints

- A2-155 regulator is supplied separately on request with aftermarket units. Regulator is flat-temperature compensated and is factory-set at lowest setting to accommodate maintenance (8D) batteries. For other batteries, change voltage selector switch position on bottom of regulator. See Table 1.

CAUTION

When replacing A1-704, C711, or C712 alternator, the existing regulator must be replaced with A2-155 regulator. Failure to do so will result in improper operation of unit. Neither regulator nor alternator can be modified to accommodate older model regulators.

- Install regulator on anti-drive end housing. Torque mounting screws to 8.5 Nm/75 lb. in.
- A2-155 regulator connections:
 - Plug alternator-to-regulator harness into regulator.
 - Connect IGN terminal to ignition source through existing switch. Torque M5 terminal nut on regulator to 4.5 Nm/40 lb. in.
 - Connect P terminal to tachometer or relay. P terminal taps AC voltage, typically half the charge voltage. Torque M6 terminal nut on regulator to 4.5 Nm/40 lb. in.
- When replacing C711 or C712 alternators, the F+ sense wire is no longer needed for the new C714 alternator. Remove F+ sense wiring from vehicle.
- All cabling, wiring or conduit must be supported within 305 mm/12 in. of termination on alternator.
- Choose wire gauge capable of handling maximum alternator output with no more than 0.2 V drop on each leg from alternator to battery.
- Follow vehicle manufacturer's recommendations for belt tension.