



CAUTION

C621 alternator has a special splice connecting the Y leads between the ADE and DE stators which must be handled carefully for the stators to function properly after replacement.

The steps in this instruction sheet replace the corresponding steps in the CEN 600 Series Service Manual SM6.

NOTICE

Before replacing stator, verify that the correct replacement stator is used. See additional instructions provided with stator.

NOTICE

If replacing DE stator, only DE stator should be removed.
If replacing ADE stator, both stators should be removed.

Section E in CEN 600 Series Service Manual SM6:

14. Remove ADE and DE Stators (See Figure E-7)

- a. Ensure scribe marks are visible on DE and ADE edges of shell where tabs are missing on DE and ADE stators.
- b. Remove long nuts securing through-studs. Remove through-studs.
- c. Cut the middle of interconnect splice holding Y leads to separate the stator connections.
- d. Arrange CEN A10-132 field coil/stator tool.
- e. Press DE stator out of shell.

CAUTION

Do not damage phase leads when removing stators from shell.

- f. If replacing ADE stator, rearrange tool and press ADE stator from shell.

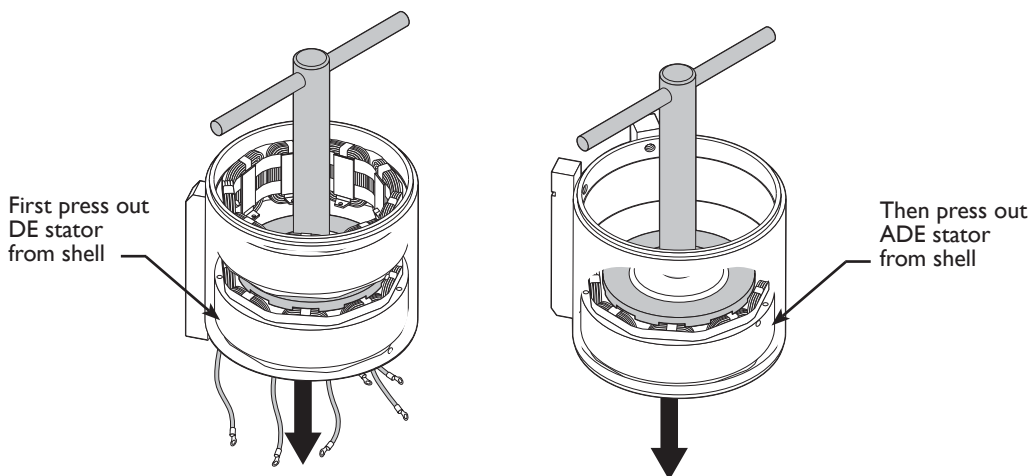
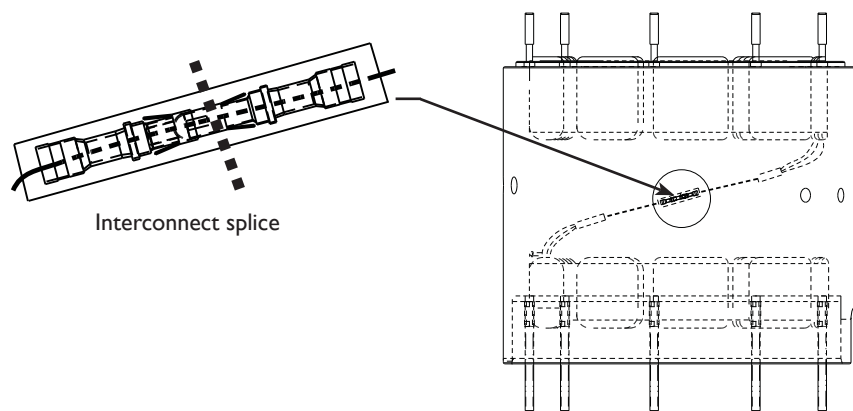


Figure E-7 Removing Stators

Section F in CEN 600 Series Service Manual SM6:

NOTICE

If replacing ADE stator or both stators, start with step 2a.
If replacing DE stator only, start with step 2d.

2. Install new ADE Stator or both new ADE/DE Stators

CAUTION

Do not damage phase leads when inserting stators in shell.

- a. Set new ADE stator (longer phase leads face down) on ADE edge of shell. Align scribe mark on shell where tab is missing on ADE stator. Arrange CEN A10-136 stator insertion tool on stator. See Figure F-1a.
- b. Press new ADE stator into position using a spray lubricant if necessary. Make sure the stator stops on the ledge inside the shell. See Figure F-1a.
- c. From the anti-drive end, insert 6 insertion studs provided with CEN A10-136 stator insertion tool into new ADE stator. See Figure F-1b.

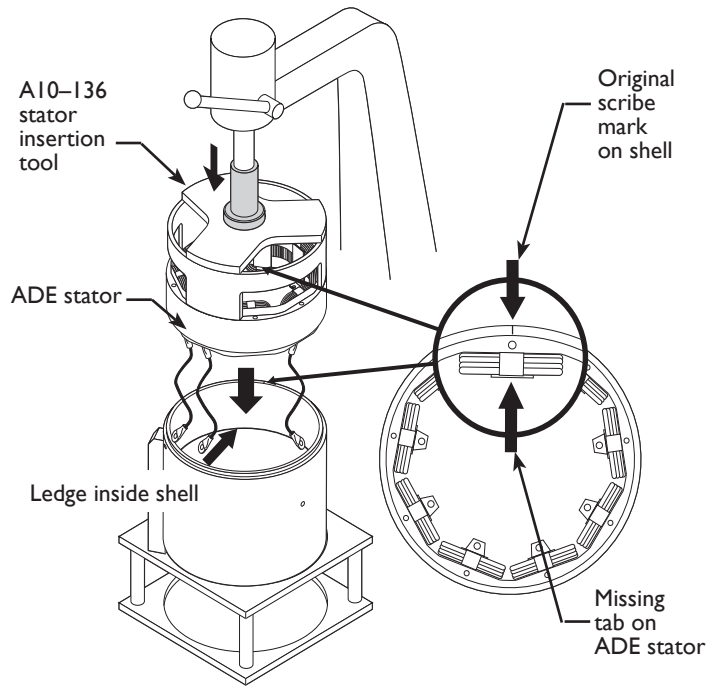


Figure F-1a ADE Stator Assembly

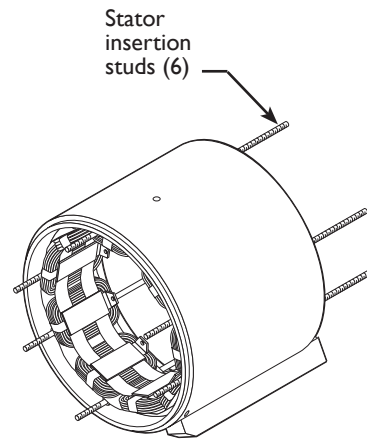


Figure F-1b Stator Insertion Studs

- d. Turn shell so drive end is up. To properly position DE stator inside shell (see Figure F-1c):
 - 1) Coil longer ADE stator leads inside ADE stator.
 - 2) Align scribe mark on shell with missing tab on DE stator. Align 6 insertion studs with holes in DE stator.
 - 3) Arrange CEN A10-136 stator insertion tool on DE stator.
- e. Press DE stator in place. Insertion studs should enter holes in DE stator. Make sure DE stator stops on ledge inside shell. See Figure F-1c. Remove 6 insertion studs.

CAUTION

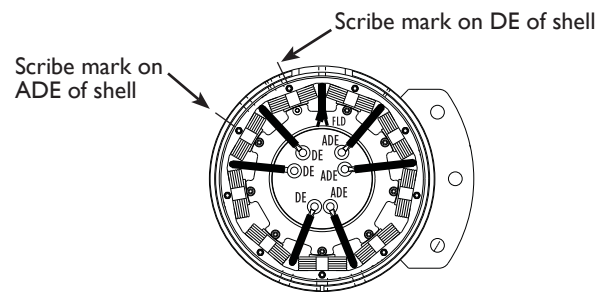
Do not use insertion studs in place of through-studs in final assembly.

- f. On DE stator, remove stator wedges from openings where ADE stator leads and field coil leads will pass between DE stator windings. See Figure F-1c for locations of DE stator phase leads and ADE stator phase leads as arranged in stator windings.
- g. Insert ADE stator phase leads between openings in DE stator.

CAUTION

Do not damage phase leads when threading leads through openings.

- h. Insert through-studs from anti-drive end. See Figure F-1d.
- i. Use locknuts to secure through-studs on drive end of shell. See Figure F-1d. Hex flat on screw-head must be parallel to winding. Use a suitable adhesive such as Loctite® 222 on threads. Follow manufacturer's instructions. Torque nuts on drive end to 4.5 Nm/40 lb. in.



Phase Lead and Field Coil Lead Orientation—C621

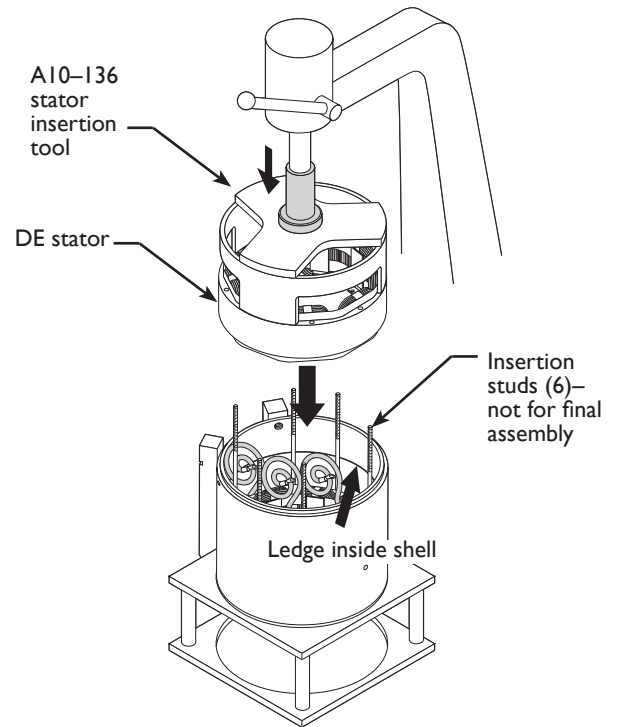


Figure F-1c DE Stator Assembly

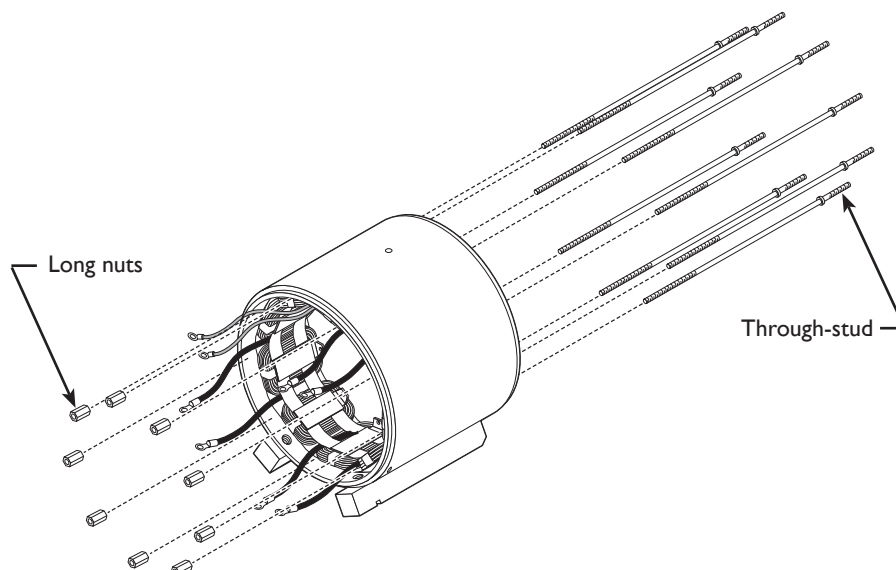


Figure F-1d Through-stud Assembly

- j. Reconnect stators with interconnect splice:
- 1) Slide new sleeve over end of DE or ADE lead.
 - 2) Crimp new connector socket on the DE stator Y lead. Crimp new connector pin on the ADE stator Y lead. Securely mate the connectors.
 - 3) Apply hi-temp solder over mated connection.
 - 4) Completely cover mated connection with Dow Corning® SE 9186L RTV coating or equivalent—wait until coating has hardened to ensure waterproofness.
 - 5) Position new sleeve over sealed connection.
 - 6) Position spliced Y leads against wall of shell so that field coil can fit into space between stators without damaging interconnect splice or Y leads.

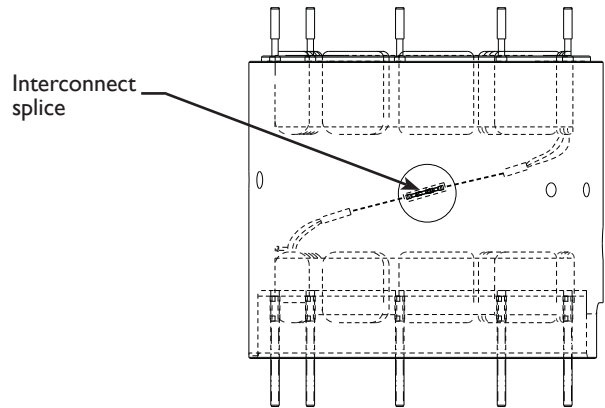
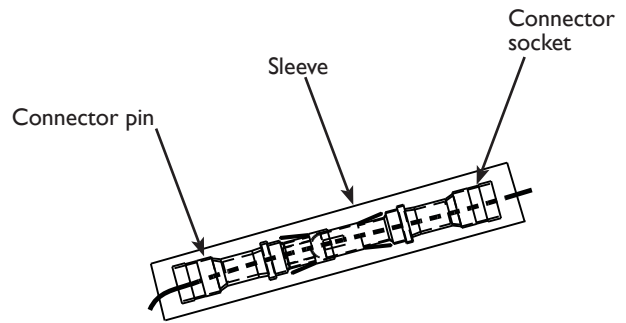


Figure F-1e Interconnect Splice Assembly

**Return to CEN 600 Series Service Manual SM6
to finish C621 alternator assembly**

If you have questions about your alternator or any of these instructions, or if you need to locate a Factory Authorized Service Dealer, please contact us at:

C. E. Niehoff & Co. • 2021 Lee Street • Evanston, IL 60202 USA

TEL: 800.643.4633 USA and Canada • TEL: 847.866.6030 outside USA and Canada • FAX: 847.492.1242