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Service Letter No. SL-AG-102  
17 August, 1993

### STARTER WIRING IMPROVEMENT

**MODELS AFFECTED:** S2R-G5, S/N G5-101 and subsequent  
S2R-G6, S/N G6-101 and subsequent  
S2R-G10 S/N G10-101 and subsequent

**REASON FOR PUBLICATION:** To decrease starting time for Garrett TRE331 engines.

**COMPLIANCE Time:** Optional

**BY WHOM WORK WILL BE ACCOMPLISHED:** A & P mechanic or equivalent.

**APPROVAL:** FAA DER approved.

**ESTIMATED MAN HOURS:** TWO (2) hours.

**PARTS DATA:** Parts required to comply with this Service Letter are available from the nearest dealer and consist of the following:

<u>QTY.</u>	<u>Part No.</u>	<u>Description</u>
1	300SG119Q*	Starter-Generator
1	MS24185-D1**	Relay
2	21752-35	Generator Cooling Cap (Replaces 21752-19)
2	G-6381-C	Battery
1	19043-471-18***	Wire
1	19043-472-00	Wire
1	19043-473-00	Wire
1	19043-474-00	Wire
1	19043-475-00	Wire
1	19043-485-00	Wire
1	21715E Sheet	Drawing describes wire position changes

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**Notes:** \* Optional equivalent 23079-005, 23079-009

\*\* Same as Eaton 6041H217 or AN3380-2

\*\*\* New. Replaces diode at master relay. Wires -472 thru -475, -485 are new wires with larger terminals on one end to fit new relay stud. Optional to use existing wires on battery plate by drilling out terminal to fit the relay stud.

**SPECIAL TOOLS:** None

**ACCOMPLISHMENT  
INSTRUCTIONS:**

1. Disconnect the two (2) battery plugs and remove the batteries.
2. Remove the wires and the diode assy from the starter relay at the aft R/H section of the battery plate assy and remove the starter relay P/N MS24171D2.
3. Place the new relay P/N MS24181D1 on the battery plate assy with the front hole as an index, and mark the aft hole location. Drill a 1/4" dia hole and mount the relay.
4. Remove all the wires and diode assys (3) from the master relay studs. Discard two of the diode assys.
5. Reinstall the wires and diode assys per view on Dwg 21715E sheet 2 of 2 by using new wires as shown in view and list of matls. An optional method is to use the existing wire assys by drilling the terminal ends to 1/2" dia as reqd to fit the new relay.
6. Remove the existing starter-generator and Q.D kit. Install the new starter-generator, wired same as before, except for the new 19043-485-00 ground wire. Connect to the nearest stud at the aft side of the gearbox. Install cooling cap.
7. Install new batteries after charging and connect the plugs.
8. Functionally test the starter-generator electrical system
9. Secure wiring with ty-raps, safety as reqd.

**ELECTRICAL LOAD:** No Change

**WEIGHT AND BALANCE:** No change.

**RECORD OF COMPLIANCE:**

Make appropriate entry in the aircraft maintenance records as follows:

Service Letter SL-AG-102 dated 8/17/93 entitled "Starter Wiring Improvement" accomplished  
(date) \_\_\_\_\_ by \_\_\_\_\_.