



# MERCUISE SERVICE BULLETIN

Section: VI (Alternator System)  
Number: 363-05  
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## MerCruiser Alternator Brush Holder Assembly Change

Beaver Dam, Wis.  
U.S.A.

### MERCUISE ALTERNATOR BRUSH HOLDER ASSEMBLY CHANGE

A change has been made on the brush holder assembly of all alternators, Serial No. 1963419 and above, to incorporate square terminal recesses and thru terminal studs in order to prevent the terminal studs from rotating and pulling out of the brush housing. The change incorporates all new brush holder assembly components, none of which are interchangeable with earlier brush holder assemblies.

Parts for the early brush holder assemblies are no longer available. If replacement parts are required, we recommend that the later brush holder assembly, Part No. 34754, be installed on all alternators with Serial No. 1963419 and below.

The new brush holder assembly (34754) will be exchanged for the old assembly (Figure 1) on a no-charge basis up to December 1, 1964, after which there will be a charge for the new assembly.

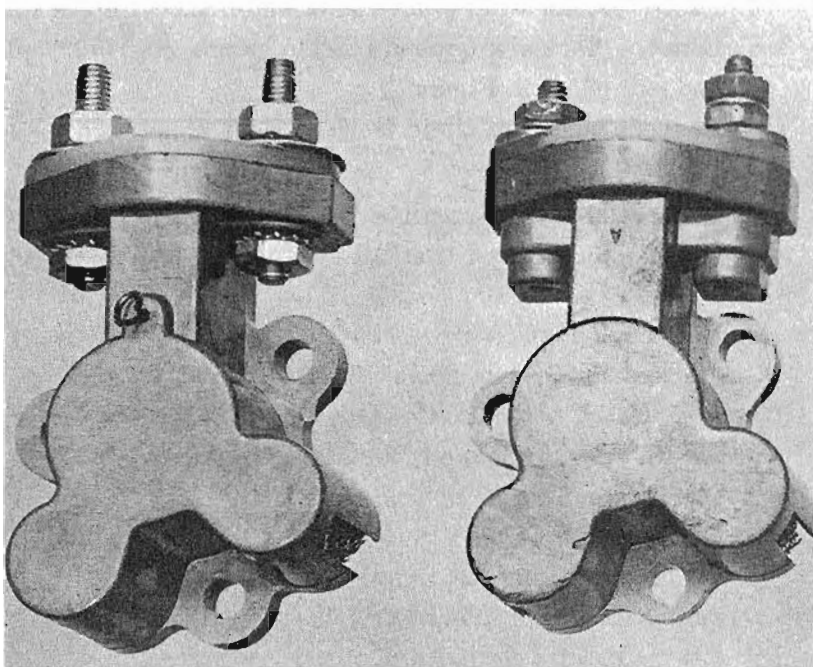


Figure 1. New (Left) and Old (Right) Type Brush Holder Assemblies

The new brush holder assembly (34754) should be installed:

1. When servicing the alternator or alternator system.
2. During the 20-hour free checkup.
3. At spring tune-up time.
4. When winterizing.
5. When any engine repair work is performed.

Refer to "Installation Instructions", following. Both the new and former type brush holder assemblies can be identified from Figure 1.

### INSTALLATION INSTRUCTIONS

#### Alternator Brush Holder Assembly (34754)

##### Removal

1. Disconnect heavy red positive (+) wire from battery.
2. Disconnect blue wire (field lead) from stud in brush holder. ("A" in Figure 2)

(OVER)

3. Disconnect black wire (ground lead) from ground stud in alternator frame and remove stud. ("B" in Figure 2)
4. Remove 3 pan head screws which fasten brush holder to alternator end frame ("C" in Figure 2) and remove brush holder and gasket from end frame.
5. Wipe slip rings thoroughly with a soft dry cloth to remove any oil and/or brush dust.

### Installation

*NOTE: Pin inserted thru new holder retains brushes in holder. Do not withdraw pin until after holder has been assembled onto end frame.*

1. Install new brush holder assembly, using new gasket and 3 pan head screws. ("C" in Figure 2) Always use correct brush holder screws and washers. If screws are too long, they will bottom against heat sink and ground out alternator.
2. Pull brush retaining pin out of brush holder.
3. Fasten ground strap to left brush holder stud with flat washer, wave washer and nut.
4. Fasten ground strap to alternator end frame with flat washer, lockwasher and stud.
5. Connect black wire (ground lead) to ground stud in ("Grd") in alternator frame with lockwasher and nut. ("B" in Figure 2)
6. Connect blue wire (field lead) to right brush holder stud with wave washer and nut. ("A" in Figure 2)
7. Connect heavy red positive (+) wire to battery ("Bat") stud.
8. Run engine and carry out "Alternator System Simplified Check", as outlined on P. 3 of Section VI (Alternator System) of your MerCruiser Service Manual, to be sure that charging output is being obtained.
9. Coat all metal surfaces of both terminals on brush holder, ground strap and ground stud with Liquid Neoprene (92-25711).
10. Seal brush retaining pin hole in brush holder with a very small amount of Liquid Neoprene. Do not use too much, as any excess which runs inside brush holder will cause brushes to stick.

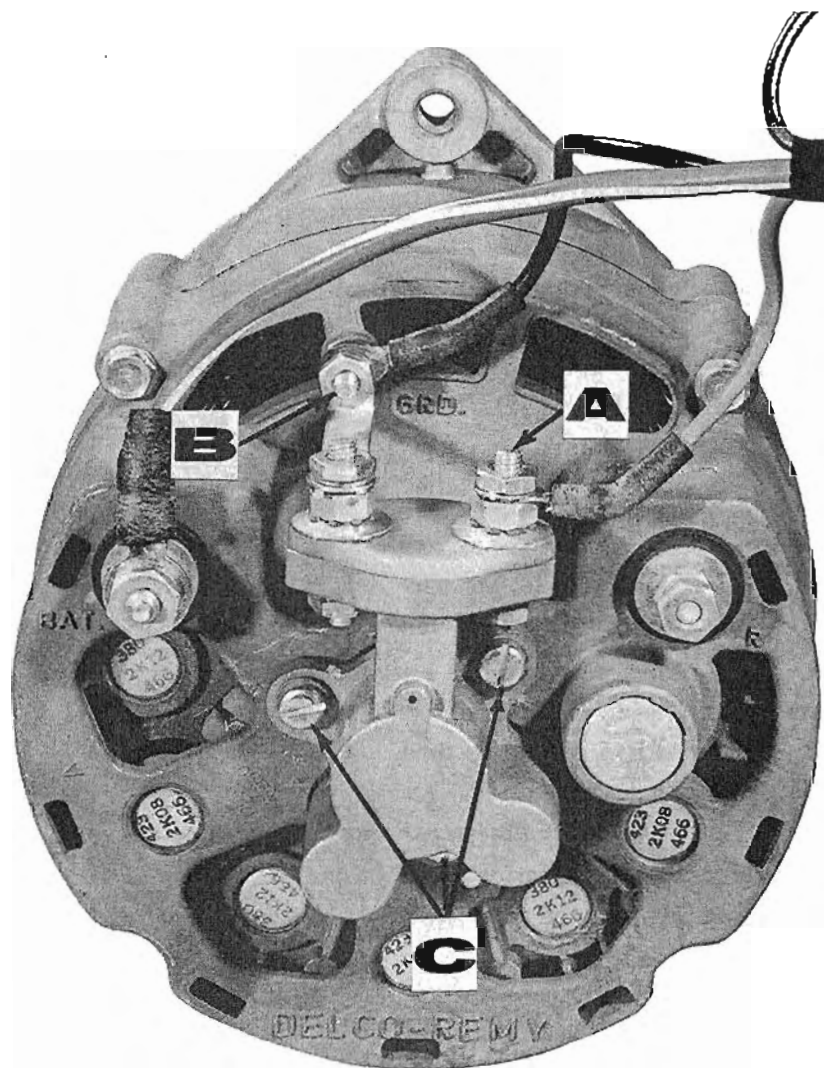


Figure 2. Brush Holder Assembly