MERCRUISER
SERVICE
BULLETIN

Section: VI (Alternator System)
Number: 63-03
Date : 3/28/63

Beaver Dam, Wis.
U.S.A.

A. Alternator System Voltage Regulators and Alternator Connections
B. Installation of Voltage Regulator and Mounting Bracket
C. MerCruiser I and II Stern Drive Unit Tilt Switch Connections

A. ALTERNATOR SYSTEM VOLTAGE REGULATORS AND ALTERNATOR CONNECTIONS

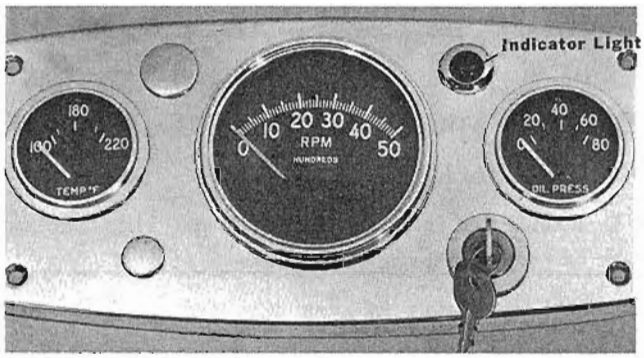

Figure 1

When servicing alternator system on MerCruiser Marine Engines, it is very important to comply with the following:

1. Instrument panels, which have a charging indicator light mounted in panel (Figure 1) must use Voltage Regulator No. 32702. This regulator can be identified by number "506" in regulator base. The engine wiring harness is connected to regulator, shown in Fig. 2, and harness must be connected to alternator, shown in Fig. 3.

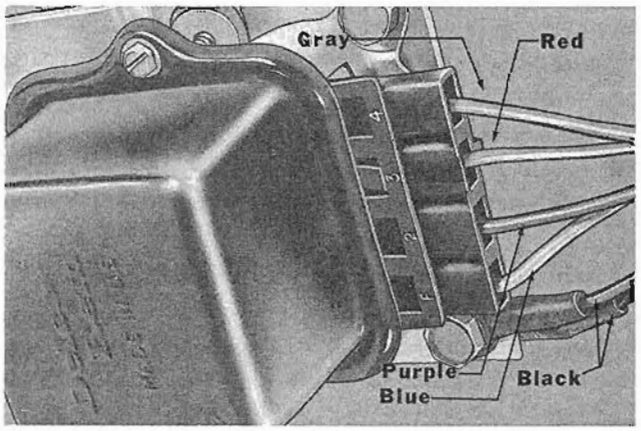

Figure 2

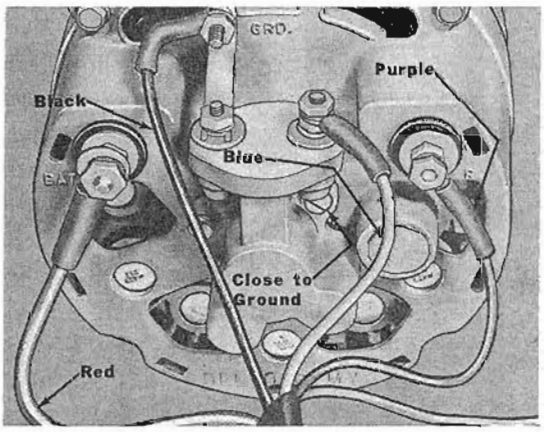

Figure 3

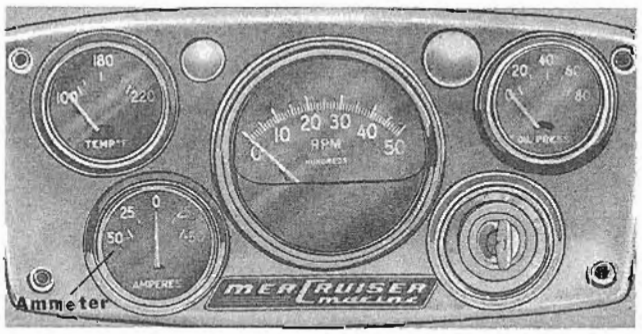

Figure 4

2. Instrument panels, which have an ammeter mounted in panel (Figure 4), must use Voltage Regulator No. 34141. This regulator is identified by a number "507" in regulator base

   Engine wiring harness is different than harness used with indicator light system and is connected to regulator as shown in Figure 5. Harness must be connected to alternator as shown in Figure 6.

When ordering replacement parts, be sure to order parts which correspond with type of system that is being serviced, since some parts are not interchangeable.

Always use correct brush holder screws and washers. If screws are too long, they will bottom against heat sink and ground out alternator.

Failure to comply with the foregoing will result in damage to alternator system and/or cause system not to function properly.

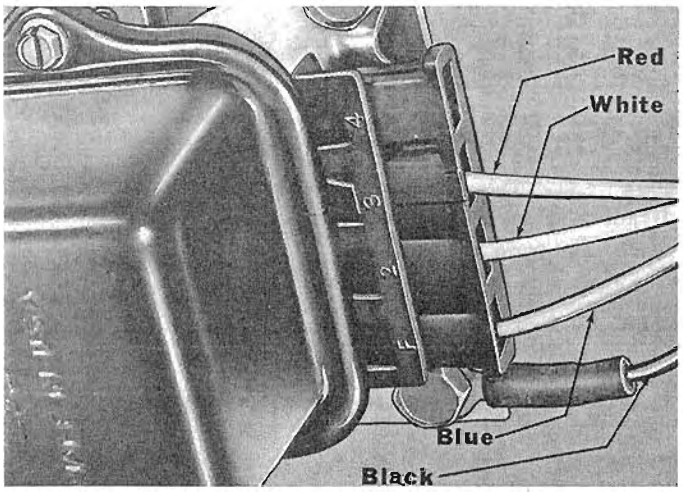

Figure 5

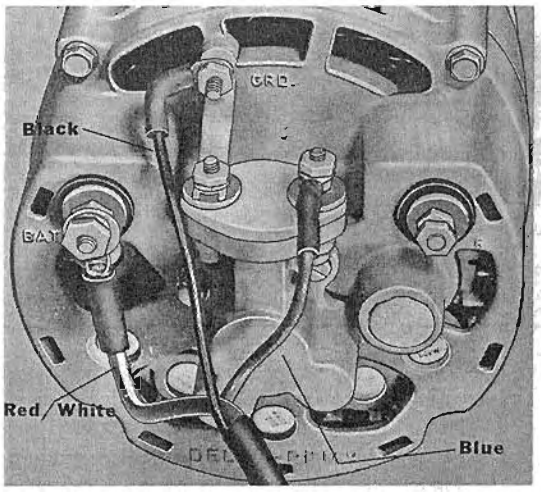

Figure 6

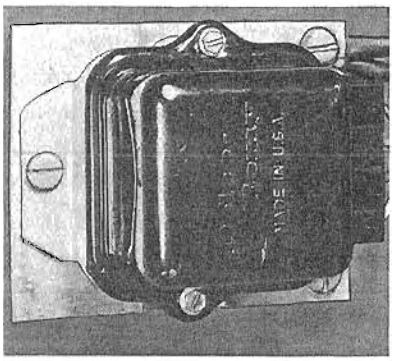

Figure 7

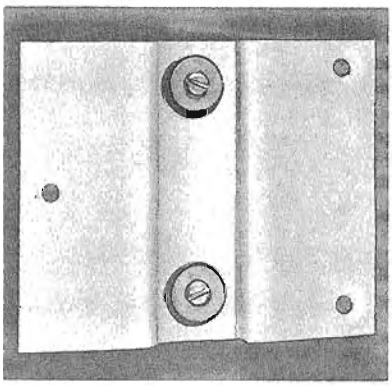

Figure 8

B. INSTALLATION OF VOLTAGE REGULATOR AND MOUNTING BRACKET

It is very important that voltage regulator and vibration dampener mounting plate be correctly installed on transom of boat.

1. Plug connector on wiring harness into voltage regulator while matching terminals on both parts.
2. Position regulator and vibration dampening mounting bracket on transom so that harness leads to regulator are not drawn tight.
3. Mark location of regulator mounting bracket on transom.
4. Remove 3 screws which fasten regulator to mounting bracket and remove regulator. (Figure 7)
5. Remove 2 wood screws which pass thru rubber grommets and re-insert with points in opposite direction. Be sure that washers and bushings are in same positions in which they were before turning screws around.
6. Fasten mounting bracket to transom with 2 wood screws. (Figure 8) Be sure 2 mounting screws are in vertical position.
7. Place terminal of black harness lead on one regulator attaching screw and fasten regulator to mounting bracket with 3 screws. (Figure 7)
8. Secure engine harness to transom with clip so that wire between clip and regulator is not drawn tight. Regulator and mounting bracket must move freely.
9. We recommend that all voltage regulators be mounted on a voltage regulator mount (33614A1) (vibration dampner) as used on later production. This will prevent transom vibration in certain boats from causing the regulator points to bounce, which results in uncontrolled output from the generator. No changes in wiring are required.

C. MERCRUISER I AND II STERN DRIVE UNIT TILT SWITCH CONNECTIONS

When installing MerCruiser I and II Stern Drive Units, it is very important that tilt switch leads be connected into the engine wiring circuit as outlined in Installation and Service Manual. If switch is not connected, and drive unit hits a submerged object, engine RPM will increase an excessive amount when propeller emerges from the water. Upon re-entering water, the force, which is applied to drive unit by propeller, will cause drive unit to slam into transom plates with such force that severe damage may result to drive unit and its components. This also applies to operation of unit with tilt latch in disengaged position. Be sure tilt latch release is in locked position.

STERN DRIVE UNIT AND ENGINE WARRANTY WILL BE VOID IF TILT SWITCH IS NOT CONNECTED INTO WIRING CIRCUIT OR IF UNIT IS OPERATED WITH TILT LOCK IN UNLOCKED POSITION.