Installation and Troubleshooting Guide

NOTE: This installation is to be completed by an Authorized Dealer or Professional Service Technician. For questions regarding installation or warranty, call CDI Tech Support at 866-423-4832. **Do not return to the Dealer or Distributor where the part was purchased. Contact CDI Electronics Directly for Return Materiel Authorization**.

CDI P/N: 194-1873 Voltage Regulator 6 Cylinder 40 Amp.

This kit will replace all of the 18736 series regulator/rectifiers.

WARNINGS:

This product is designed for installation by a professional marine mechanic. CDI cannot be held liable for injury or damage resulting from improper installation, abuse, neglect or misuse of this product.

DO NOT USE A MAINTAINENCE FREE, AGM OR DRY CELL BATTERY WITH THIS TYPE REGULATOR/RECTIFIER AS THIS WILL VOID THE WARRANTY !!!

NEVER DISCONNECT THE BATTERY WHILE THE ENGINE IS RUNNING AS THIS MAY BURN OUT THE REGULATOR/RECTIFIER. ***If the boat is equipped with a battery switch, make sure that it is a "Make Before Break type.***

INSTALLATION

1. Disconnect the battery negative post.
2. Disconnect the green wires from the ignition coils and the high tension leads from the spark plugs.
3. Disconnect the old regulator/rectifier.
4. Remove the coil plate covering the regulator/rectifier.
5. Remove the old regulator/rectifier.
6. Clean the gasket area where the o-ring sealed the old regulator/rectifier.
7. Connect the Black ground wire from the new regulator/rectifier to the engine block. This is a safety ground wire to ensure a clean ground connection for the regulator/rectifier.
8. Using the new spacers and bolts, mount the new regulator/rectifier plate assembly with the coil plate. (Wires up).
9. Connect the new regulator/rectifier to the stator, tachometer lead, and terminal strip.
10. Reconnect the wires to the ignition coils.

TROUBLESHOOTING

Tachometer

1. At 800-1000 RPM, check output on the grey wire, reading should be at least 8 volts with a DVA meter. A low reading usually indicates a bad regulator if the system is charging the battery.
2. Check the resistance between the gray wire and engine ground. You should read approximately 9.8K ohms. Grey to red, and grey to the yellow wires should be a high reading, usually in the M range.

Maximum Output Test

1. Install an ammeter capable of reading at least 40 amps in-line on the red jumper wire connected from the terminal strip to the starter solenoid.
2. Connect a load bank to the battery.
3. In the water or on a Dynometer, start the engine and bring the RPM up to approximately 4500 in gear.
4. Turn on the load bank switches to increase the battery load to equal 40 Amps.
5. Check the ammeter.
6. If the amperage is low,
   A) Check the load bank for battery draw.
   B) Reconnect the ammeter between the red wires from the regulator/rectifier and the terminal strip. Retest. You should show about 40 Amps.
   C) If the output is still low, check and clean all connections between the battery and the regulator/rectifier plate.
7. If the amperage is correct, but the battery voltage remains low, replace the battery.

Bench Test

Diode plate check:

Test the forward diodes between the two yellow wires and the red wire. You should get a reading of about 7.5K (7,500). Check the resistance from each of the yellow wires to case ground. You should be a high reading, usually in the M range. The red wire should be a high reading, usually in the M range.

Tachometer Circuit:

Check the resistance between the gray wire and engine ground. You should read approximately 9.8K ohms. Grey to red, and grey to the yellow wires should be a high reading, usually in the M range.