Installation and Troubleshooting Guide

CDI P/N: 194-5279R

This is a replacement regulator/rectifier for the 194-8736K 1 regulator/rectifier conversion kit.

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!!!

NEVER DISCONNECT THE BATTERY WHILE THE ENGINE IS RUNNING AS THIS MAY BURN OUT THE REGULATOR/RECTIFIERS. ***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, saving the mounting bolts and spacers.
5. Remove the old regulator/rectifier.
6. Clean the are where the old regulator/rectifier was mounted.
7. Connect the new regulator/rectifier to the stator, tachometer lead, and terminal strip.
   SERVICE NOTE: It is recommended that dielectric grease (i.e. CDI P/N 991-9705) be used in the bullet nose connectors to help prevent corrosion.
8. Apply Heat Sink Compound to the back of the new regulator/rectifier.
9. Using the old spacers and bolts, mount the new regulator/rectifier plate assembly with the coil plate. (Wires up).
10. Reconnect the wires to the ignition coils and the sparkplugs.

INSTALLATION NOTE: These regulator/rectifiers will cause a small spark when you reconnect the battery and will draw a very small amount of current from the battery (Less than 0.01 amp).

TROUBLESHOOTING

Tachometer

1. At 800-1000 RPM, check output on the gray 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 above 100K (100,000) ohms. Gray to red, and gray 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 wire connected 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 one of the regulator/rectifiers and the terminal strip. Retest. You should show about 20 Amps from each regulator/rectifier.
   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 45K (45,000) on one and a high reading on the other. Check the resistance from each of the yellow wires to case ground, you should get a reading of about 56K (56,000) on one and a high reading on the other. The red wire should read about 14K (14,000) ohms to ground.

Tachometer Circuit

Check the resistance between the gray wire and engine ground. You should read above 100K (100,000) ohms. Gray to red, and gray to the yellow wires should be a high reading, usually in the M range.