



# 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 Material Authorization.**

## CDI P/N: 173-4821 Stator 2 & 3 Cylinder

This stator replaces P/N: 584548, 584821 and 763761.

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

**SERVICE NOTE:** Discoloration of ALL the battery windings is an indication of a problem in the rectifier/regulator. Discoloration of only one post of the battery windings indicates a problem in the stator.

### INSTALLATION

1. Remove the negative battery cable.
2. Remove the flywheel nut.
3. Using the correct flywheel puller, remove the flywheel.
4. Disconnect the stator lead from the power pack and regulator/rectifier.
5. Remove the original stator, saving the original bolts.
6. Install the new stator using the original bolts with a good thread-locker applied (CDI 989-3977 is recommended) to the bolts and tightened to the factory torque specifications.
7. Connect the new stator to the power pack.
8. Connect the new stator to the regulator/rectifier (ignore any stripes on the rectifier as the new stator does not require the Yellow wires to be connected to a particular rectifier wire).
9. Replace the flywheel according to the service manual.
10. Replace the battery cable.

### TROUBLESHOOTING

#### NO FIRE ON EITHER CYLINDER:

1. Disconnect the 3 wire connector (containing the Black/Yellow wire) from the power pack, if the engine now fires – the kill circuit or harness is likely bad.
2. Check stator resistance and DVA Voltage:
 

Read from	Read to	Ohms	DVA
Pin A (Brown)	Pin D (Brown/Yellow)	650-900	150V connected/250V disconnected
Pin B (Orange)	Pin C (Orange/Black)	45-62	12V connected/50V disconnected
Orange wire to coil	Engine ground	200-400	100V Cranking/240V idling
3. Disconnect the Orange wire to the ignition coil and connect it to a pack load resistor. If DVA reading are now correct. The coil is likely defective.
4. Inspect the flywheel outer magnets to see if they are loose or broken.
5. Disconnect the rectifier/regulator and retest. If the fire returns, replace the rectifier/regulator.

#### MISFIRING AT IDLE:

1. Disconnect the spark plug wires and connect them to a spark gap tester set to 3/8" air gap.
2. If only one wire has spark, replace the coil.
3. If both spark plug wires have spark, replace the spark plugs with the recommended spark plug and re-test. If the engine still has a miss, see "NO FIRE ON EITHER CYLINDER" above.

#### HIGH SPEED MISS:

1. Connect DVA meter to between the brown wires and do a running test. AT NO TIME SHOULD THE VOLTAGE EXCEED 400V. If it does, the regulator circuit in the power pack is bad. The voltage should show a smooth climb and stabilize, gradually falling off at high RPM (above 5000). If you see a sudden drop in voltage right before the miss becomes apparent, the problem is likely in the stator.
2. Disconnect rectifier/regulator and retest. If the problem disappears, replace the rectifier/regulator and retest.

#### ENGINE WILL NOT REV ABOVE 2000 RPM:

1. Verify the engine is not over-heating (less than 240 degrees).
2. Check the oil pressure (20 PSI minimum @2000 RPM and 35-40 PSI @4200-5200 RPM). Engine must have 20 PSI minimum within 10 seconds after starting and run at 2000 RPM.
3. Disconnect the Tan wire from the pack and re-test. If the engine now runs normally, the temperature switch or oil pressure switch may be defective.