



CDI P/N: 173-4287

# Installation and Troubleshooting Guide

All rights reserved. Reproduction or use of content, in any manner, without express written permission by CDI Electronics, Inc., is prohibited.

This stator replaces P/N's: 583415 and 584287.

**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.

1. Remove the negative battery cable.
2. Remove the flywheel.
3. Disconnect the original stator wires.
4. Remove the original stator, saving the original bolts.
5. 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.
6. Connect the new stator to the power pack.
7. 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).
8. Replace the flywheel according to the service manual.
9. Clean all battery cable connections, both on the battery and the engine.
10. Replace the battery cable.

## Troubleshooting the stator

### No spark on any cylinder:

1. Disconnect the stop (kill) Black/Yellow wires and retest. If you now have spark, the problem is in the stop circuit.
2. Check resistance between the 2 sets of brown wires. Brown to brown/yellow should read approximately 950 ohms for each set. DVA (peak voltage) should be 150v or more.
3. Orange to orange/black should read about 50 or 100 ohms depending on the actual part number of the original. DVA should be 12V or more.
4. Inspect the flywheel outer and trigger magnets to see if they are loose or broken.
5. Disconnect the rectifier/regulator and retest. If the fire returns, replace the rectifier/regulator.

### No spark on one bank:

Swap sides with the stator leads to see if the no spark problem follows one side of the stator. If it does, the stator is bad. If the problem remains on the same bank, the power pack is probably bad.

### High speed miss or weak hole shot:

1. Connect DVA meter to each set of 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, swap stator leads to see if the problem is in the stator or power pack.
2. Disconnect the rectifier/regulator and retest. If the problem disappears, replace the rectifier/regulator and retest.

### Quick Start Does Not Work:

1. Check the resistance from the Orange to the Orange/Black wires. You should read about 50-100 ohms.
2. Check DVA voltage from the Orange to the Orange/Black wires while connected to the power pack. The reading should be between 8 and 24V. A reading above 24V indicates a problem in the power pack while a reading below 8 volts usually indicates a problem in the stator.

Thank you for using CDI Electronics.

7/21/2009