

## **Installation and Troubleshooting Guide**

CDI P/N: 174-9610K2

# This stator replaces the following 6 cylinder 40 Amp stators: 398-9610A3, A5, A6, A9, A14, A17, A19, A22 and A24.

Warning! 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.

If more than one battery charge post winding is burned, please replace the rectifier/regulators before installing the stator.

It is recommended that dielectric grease (i.e. CDI P/N: 991-9705) be used in the bullet nose connectors.

#### To Replace the 398-9610A3, A5, A6, A9 and A14 stators with two yellow leads:

- 1. Disconnect the stator wires from the switch box, engine ground and the rectifier/regulator.
- 2. Remove the flywheel.
- 3. Mark the position of the mounting screws in relation to where the stator wires come out of the old stator.
- 4. Remove the old stator.
- 5. Orient and install the new stator (using a good thread-locker applied to the bolts) in the same position as the old stator on the engine and install the flywheel, following the service manual instructions.
- Install the jumper leads included with the new stator to the stator leads, matching the color sets (Solid yellow and Yellow/Black Stripe).
- 7. Connect the Yellow stator leads to the rectifier/regulator.
- 8. Connect the stator black wire to engine ground.
- 9. Connect the Red and Blue wires to one switch box and the Red/White and Blue/White wires to the other switch box.

### To Replace the 398-9610A17, A19, A22 and A24 stators with four yellow leads:

- 1. Disconnect the stator wires from the switch box, engine ground and the rectifier/regulator.
- Remove the flywheel.
- 3. Mark the position of the mounting screws in relation to where the stator wires come out of the old stator.
- 4. Remove the old stator.
- 5. Orient and install the new stator (using a good thread-locker applied to the bolts) in the same position as the old stator on the engine and install the flywheel, following the service manual instructions.
- 6. Connect the stator leads to the rectifier/regulators, matching the short yellow stator wires to one regulator/rectifier and the long yellow stator wires to the other regulator/rectifier.
- 7. Connect the stator black wire to engine ground.
- 8. Connect the red, red/white, blue and blue/white wires to the switch boxes.

## Troubleshooting the stator

## Will not charge battery:

- 1. Check resistance between the yellow wires in each set, you should read approximately 0.3 ohms between the wires in each set.
- 2. Check the resistance from each yellow wire to engine ground, you should not read any resistance. Resistance to ground indicates a bad stator.

#### No fire at all:

- 1. Inspect the flywheel outer and trigger magnets to see if they are loose or broken.
- 2. Check resistance from the blue and blue/white stator wires to engine ground. OEM reads from 3350 4050 ohms (CDI stators will from 2100-2400 ohms). Check resistance from red and red/white to engine ground. It should be 90 140 on OEM stators, and 28-35 ohms on CDI's. DVA (peak voltage) test stator output. It should be 180v or more on the blue low speed coils and 25v or more on the red high-speed coils.
- 3. Disconnect the rectifier/regulator and retest. If the fire returns, replace the rectifier/regulator.
- 4. Disconnect red and red/white wires and retest. If DVA test above was OK, the switch box is usually bad.

#### No fire on one bank:

- 1. DVA test stator (see #1 under no fire at all above).
- 2. Swap the blue with the blue/white stator leads, and the red with the red/white stator leads to see if the no fire problem changes. If it does the stator is bad. If the problem remains on the same cylinder(s), the switch box or trigger is probably at fault.

#### High speed miss or weak hole shot:

- 1. Connect DVA meter to the blue wire and do a running test. The voltage should show a smooth climb and stabilize, gradually falling off at higher RPM's (above 3000). If you see a sudden drop in voltage right before the miss becomes apparent, the stator is likely at fault. Repeat the test for the blue/white, red and red/white wires. There should be a smooth climb in voltage with no drop at all up to wide open throttle.
- 2. Connect DVA meter to the red and red/white wires. The voltage should show a smooth climb throughout the RPM range, a sudden drop or decrease in voltage indicates a problem usually found in the stator, although a rectifier can cause the same symptom.
- Disconnect rectifier/regulators and retest. If the problem disappears, replace the rectifier/regulators and retest.
- 4. For a high speed electrical miss, rotate the stator one mounting hole and retest. If the miss is still present the stator may be bad.

Thank you for using CDI Electronics

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