



Installation and Troubleshooting Guide

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CDI P/N: 174-5456-16

This stator replaces the following P/N's:

398-5454A11, A15, A16, A30, A31, A32, A34, A35, A36, A64 and A66.

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.

Service Note: CDI replacement stators for Mercury and Mariner have a built-in voltage regulator on the low speed windings for enhanced durability. To reduce heat build-up inside the stator, this stator has open windings to increase the airflow around the stator poles.

NOTE: Any sign of leakage out of the high voltage coils or bubbling around the battery charge windings indicate a bad stator. Check for burned marks on each pole. If a problem is found on the battery windings, we recommend the rectifier/regulator be closely checked.

Installation

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 in the same position as the old stator on the engine and install the flywheel, following the service manual instructions.
6. Connect the new stator to the regulator/rectifier (ignore any stripes on the rectifier/regulator as the new stator does not require the Yellow wires to be connected to a particular rectifier/regulator wire).
7. Connect the stator black wire to engine ground.
8. Connect the red and blue wire to one switch box and connect the red/white and blue/white wires to the other switch box.

Troubleshooting

No fire at all:

1. Check resistance from blue and blue/white to engine ground, OEM is approximately 6000 ohms (CDI stators will read approximately 2250 ohms). Check resistance from red and red/white to engine ground. It should be approximately 60 to 150 on OEM stators, and 50 on CDI's.
2. 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. Inspect the flywheel outer and trigger magnets to see if they are loose or broken.
4. Disconnect the rectifier/regulator and retest. If the fire returns, replace the rectifier/regulator.
5. Disconnect the red wires from the packs and retest. If the problem is eliminated, and the DVA test above is ok, the pack is usually bad.

No fire on one bank:

1. DVA test stator (see #1 above).
2. Swap both stator leads from one pack to the other pack to see if the no fire 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 at fault.

High speed miss or weak hole shot:

1. DVA check the blue and blue/white wires to engine ground 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.
2. DVA test the red and red/white wires to engine ground at high speed. The voltage should show a smooth climb throughout the RPM range. A sudden drop or decline in voltage indicates a problem usually found in the stator, although a rectifier can cause the same symptom.
3. Disconnect rectifier/regulator and retest. If the problem disappears, replace the rectifier/regulator 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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