

Installation and Troubleshooting Guide



CDI P/N: 174-5255

This stator replaces the following P/N's: 398-4770, 398-4799, 398-5255 and 398-5256

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.

CDI replacement stators for Mercury have a built-in voltage controller on the low speed high voltage windings for enhanced durability.

Service Note: To reduce heat build-up inside the stator, this stator has open windings to increase the airflow around the stator poles.

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 (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 Yellow stator leads to the rectifier.
- 7. Connect the red and blue wire to the switch box.
- 8. Connect the Black wire to an engine ground.

TROUBLESHOOTING

NO FIRE ON ANY CYLINDER:

- 1. Disconnect the Black/Yellow (or Orange) kill wire. If the engine now has fire, the kill circuit has a short.
- 2. Check the stator and trigger resistance and DVA as follows:

WIRE	Read To	CDI Ohms	DVA Voltage	
Blue	Black (engine ground)	2200-2600	180 V or more	
Red	Black (engine ground)	45-55	25 V or more	
Brown	White	750-1200	4 V or more	

- Inspect the flywheel outer and trigger magnets to see if they are loose or broken.
- 4. Disconnect the rectifier and retest. If the ignition now has fire, replace the rectifier.

NO FIRE ON ONE CYLINDER:

1. Check the stator and trigger resistance and DVA as follows:

WIRE	Read To	CDI Ohms	DVA Voltage
Blue	Black (engine ground)	2200-2600	180 V or more
Red	Black (engine ground)	45-55	25 V or more
Brown	White	750-1200	4 V or more

- Swap the Brown and White trigger wires. If the problem remains on the same cylinder, the power pack is probably at fault. If it moves, replace the trigger.
- 3. Check the outer flywheel magnets.

HIGH SPEED MISS-FIRE OR WEAK HOLE SHOT:

- 1. Disconnect the rectifier and retest. If the engine performs normally, replace the rectifier.
- 2. Connect a DVA meter between the Blue wire and engine ground. Then 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.
- 3. Connect DVA meter to the Red wire and engine ground. 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.
- 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.