

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

CDI P/N: 174-5454K1

This stator replaces P/N's:

398-5454A21, 22, 24,25, 26,41,56,62 and 63 series (4 cylinder)

398-5919A2, 3, 6, 7, 8 and 10 (4 cylinder)

398-5704A2, 4 and 7 (3 cylinder)

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. **DO NOT USE WITH THE FLYWHEEL CONTAINING GLUED-IN MAGNETS (1988 and newer)!!**

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.

If this stator is to be used on a three cylinder engine, connect the Red/White and Blue/White striped wires to engine ground.

If this stator is to be used as a replacement for the Mercury "Red Stator" conversion kit, connect all wires as they were originally from the factory. The adapter is not needed.

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.
- 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 Yellow stator leads to the rectifier/regulator.
- 7. Connect the stator as follows:

THREE CYLINDER CONNECTIONS

WIRE	Connect To	WIRE	Connect To
Blue	Switchbox	Blue/White	Engine Ground
Red	Switchbox	Red/White	Engine Ground
Yellow	Rectifier	Yellow	Rectifier

FOUR CYLINDER CONNECTIONS

WIRE	Connect To	WIRE	Connect To
Blue	Switchbox Blue Post	Yellow	Rectifier
Red	Switchbox Red Post	Yellow	Rectifier
Rlue/Mhite	Switchhox Blue/White Post	Switchhox Red/Mhite	Switchhox Red/White Post

TROUBLESHOOTING

NO SPARK ANY CYLINDER:

1. Check the stator resistance and DVA as follows:

WIRE	Read To	OEM Ohms	CDI Ohms	DVA
Blue	Blue/White	-	2200-2400	180V or more
Red	Red/White	-	45-55	25V or more
Purple (Violet)	White	700-900	800-1000	4V or more
Brown	White/Black	700-900	800-1000	4V or more

- Disconnect the Black/Yellow kill wire AT THE PACK and retest. If the engine's ignition now has spark, the kill circuit has a fault-possibly the key switch or harness.
- 3. Disconnect the yellow wires from the stator to the rectifier and retest. If the engine now has spark, replace the rectifier.
- 4. Check the cranking RPM. A cranking speed less than 250-RPM will not allow the system to fire properly.
- 5. Inspect the flywheel outer and trigger magnets to see if they are loose or broken.
- 6. Disconnect Red and Red/White wires and retest. If DVA test above was OK, the pack is usually bad



Installation and Troubleshooting Guide



NO SPARK ON 2 CYLINDERS:

1. Check resistance and DVA of trigger:

WIRE	Read To	OEM Ohms	CDI Ohms	DVA
Purple (Violet)	White	700-900	800-1000	4V or more
Brown	White/Black	700-900	800-1000	4V or more

- Swap the stator's Red and Blue wire with the Red/White and Blue/White wires 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 2 cylinders, the power pack or trigger is probably at fault.
- FOR CRANKING TEST ONLY- Swap the trigger Purple wire with the Brown wire, and White wire with the White/Black (Black) wire. NOTE Some OEM triggers used a Black wire instead of a White/Black wire.

High speed miss or weak hole shot:

- 1. Connect DVA meter to the Blue and Blue/White wires 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. 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 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, there may be a problem in the stator or possibly a mechanical problem (perform a cylinder leak down test).