Installation and Troubleshooting Guide

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.
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 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
Blue	Switchbox Blue Post
Red	Switchbox Red Post
Blue/White	Switchbox Blue/White Post
Red/White	Switchbox Red/White Post
Yellow	Rectifier
Yellow	Rectifier

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

2. 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

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

2. 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.
3. 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).