



# Installation and Troubleshooting Guide



NOTE: This installation is to be completed by an Authorized Dealer or Professional Service Technician. For questions regarding installation or warranty, call CDI Tech Support at 866-423-4832. **Do not return to the Dealer or Distributor where the part was purchased. Contact CDI Electronics Directly for Return Material Authorization.**

## CDI P/N: 174-8778K 1 Stator 2, 3 and 4 Cylinder

This stator replaces the following 2, 3 and 4 cylinder stators

P/N's: 398-818535A 3, 5, 8, 9,10,13,14, 15 and 31

398-8778A6, 10, 16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28, 29 and F749095

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.

It is recommended that dielectric grease (i.e. CDI 991-9705) be used in the bullet nose connectors to help prevent corrosion.

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.

To replace stators with ring terminals, use the bullet to ring adapters enclosed with this stator.

If this stator is to be used as a replacement for the "red" Mercury stator series, connect all wires as they were originally from the factory. See note below for 3 cylinder engines.

**If this stator is to be used on a three cylinder engine, connect the red/white and blue/white striped wires to engine ground.**

### INSTALLATION

1. Disconnect the stator wires from the switch box, engine ground and the rectifier or 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 and remove the old stator.
4. 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.
5. Connect the Yellow wires from the stator to the Rectifier.
6. Connect the stator leads as follows.

<u>New Stator</u>	<u>2 Cylinder Switch Box</u>	<u>3 Cylinder Switch Box</u>	<u>4 Cylinder Switch Box</u>
Red	Red	Red	Red
Blue	Blue	Blue	Blue
Red/White Stripe	Red/White Stripe	Engine Ground	Red/White Stripe
Blue/White Stripe	Blue/White Stripe	Engine Ground	Blue/White Stripe

7. Replace the flywheel according to the service manual.

### TROUBLESHOOTING

#### NO FIRE ON ANY CYLINDER:

1. Check the Stator and Trigger resistance and DVA as follows:

<u>WIRE</u>	<u>Read To (2 Cyl)</u>	<u>Read To (3 Cyl)</u>	<u>Read To (4 Cyl)</u>	<u>Ohms</u>	<u>DVA</u>
Blue	Blue/White	Blue/White	Blue/White	500-700	180V or more
Red	Red/White	Red/White	Red/White	28-32	25V or more
Purple (Violet)	White	White/Black	White	800-1400	4V or more
White		White/Black	Brown	800-1400	4V or more
Brown		White/Black	White/Black	800-1400	4V or more

2. Inspect the flywheel outer and trigger magnets to see if they are loose or broken. Disconnect the rectifier/regulator and retest. If the fire returns, replace the rectifier/regulator.
3. Disconnect red and red/white wires and retest. If DVA test above was OK, the pack is usually bad.

#### NO FIRE ON 2 CYLINDERS (4 CYLINDER ENGINE):

1. DVA test stator (see #1 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-FIRE 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, the stator may be bad.

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Web Support: [www.cdielectronics.com](http://www.cdielectronics.com) • Tech Support: 1-866-423-4832 • Order Parts: 1-800-467-3371

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