



Installation and Troubleshooting Guide



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: 184-0001

Replaces P/N: 338-4995A 2, 339-7370A 2, 339-7370A 6, 339-7370A 8, 339-7370A13, 339-7370A16, 339-7370A17, 339-7370A19, 339-7370A23, 339-832757A 4, 339-832757B 4, and 339-832757A 3.

Warning! This product is designed for installation by a professional marine mechanic. CDI Electronics cannot be held liable for injury or damage resulting from improper installation, abuse, neglect, or misuse of this product.

NOTE: IF THE COIL REQUIRES A BOLT TO MOUNT THE UNIT, YOU NEED CDI ELECTRONICS P/N 184-0006.

INSTALLATION

1. Make sure you pay attention to which Green wire goes to which ignition coil. Improper replacement of the Green wires to the wrong coil will cause the engine to fire out of time.
2. Disconnect the negative Black Ground wire from the old Ignition Coil.
3. Tug on the terminal on the Black Ground wire and make sure it is not broken internally.
4. Disconnect and remove the Green wire from the old Ignition Coil.
5. Using a Multi Meter, check the resistance of the Green wire from the Switchbox to the Ignition Coil. You should show a dead short. If not, replace the Green wire.
6. Remove the sparkplug wire from the old Ignition Coil.
7. Inspect the terminals of the sparkplug wire for corrosion. Clean/replace as needed.
8. Unbolt the retainer mounting the old coil.
9. Remove the old coil from the retainer.
10. Carefully insert the new coil into the retainer. Avoid getting the Ignition Coil in a bind. It should easily slide into the retainer.
11. Install the new Ignition Coil using the original mounting bolts.
12. Connect the Black wire to the Negative (-) post of the new Ignition Coil.
13. Connect the Green wire to the Positive (+) post of the new Ignition Coil.
14. Connect the sparkplug wire.

TROUBLESHOOTING

NO SPARK ON ANY CYLINDER:

1. Disconnect the Black/Yellow (or Orange) stop wire AT THE SWITCHBOX and retest. If the engine's Ignition now has spark, the stop circuit has a fault. Check the key switch, harness, and shift switch (if present).
2. Disconnect the Yellow wires from the Stator to the Regulator/Rectifier and retest. If the engine has spark, replace the Regulator/Rectifier.
3. Check the cranking RPM. A low cranking speed may not allow the system to spark properly. This can be caused by a weak battery, dragging starter, bad battery cables, or a mechanical problem inside the engine.
4. Inspect and clean all engine and Ignition ground connections.
5. Check Stator and Trigger DVA and Resistance according to your engine's specifications.

NO FIRE ON ONE CYLINDER:

1. Check Stator and Trigger DVA and Resistance according to your engine's specifications.
2. Clean/Replace the ground wire from engine ground to the Ignition coil.
3. Clean/Replace the Green Primary wire from Switchbox to the Ignition coil.
4. Check the DVA on the Green wires from the Switchbox while connected to the Ignition coils. Check the reading on the Switchbox terminal AND on the Ignition coil terminal. You should have a reading of at least 150 DVA or more at both terminals. If the reading is low on one cylinder, disconnect the Green wire from the Ignition coil for that cylinder and reconnect it to a Pack Load Resistor. Retest. If the reading is now good, the Ignition coil is likely bad. A continued low reading symptom indicates a bad Switchbox.
5. Check the resistance of the new Ignition Coil as follows:

Read from	Read to	Disconnected
Positive (+) post	Negative (-) post	Less than 1.0 Ω (a)
Negative (-) post	Coil Output Socket	1.31K-1.45K Ω

- (a) Touch your meter leads together to see what they measure before performing test. Subtract that reading from your test performed. This will give you the most accurate measurement.

Note: When checking for ignition spark, we recommend using a sealed spark tester set to the OEM specification of 0.4 in or 9mm air gap. Failure to fire this gap means the spark is too weak to ignite the fuel/air mixture under compression. The sealed design greatly Reduces the likelihood of the tester igniting any gas vapors present. A CDI 511-9766 Spark Tester is recommended.

CDI Electronics, LLC • 353 James Record Road SW • Huntsville, AL 35824 USA

Web Support: www.cdielelectronics.com • Tech Support: 1-866-423-4832 • Order Parts: 1-800-467-3371

All rights reserved. Reproduction or use of content, in any manner, without express written permission by CDI Electronics, LLC., is prohibited.



Installation and Troubleshooting Guide



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.

ENGINE WILL NOT STOP (KILL):

1. Disconnect the Black/Yellow (or Orange) wire(s) at the Switchbox. Connect a jumper wire to the stop wire from the Switchbox and short it to engine ground. If this stops the Switchbox from sparking, the stop circuit has a fault. Check the key switch, harness, and shift switch (if present). If this does not stop the Switchbox from sparking, replace the Switchbox. Repeat the test as necessary for any additional Switchboxes.

WILL NOT ACCELERATE BEYOND 3000-4000 RPM:

1. Disconnect the Yellow wires from the Stator to the Regulator/Rectifier and retest. If the engine now has good spark, replace the Regulator/Rectifier.
2. Connect a DVA meter between the Stator's Blue wire and engine ground. Run the engine up to the RPM where the problem is occurring. The DVA should increase with RPM. A sharp drop in DVA right before the problem occurs usually indicates a bad Stator. (Read from Blue wire out of the Adapter Module to engine ground if the engine has a Red Stator kit installed).
3. Connect a DVA meter between the Stator's Red wire and engine ground. The DVA should show a smooth climb in voltage and remain high through the RPM range. A reading lower than on the Blue wire reading indicates a bad Stator.
4. Connect an inductive tachometer to each cylinder in turn and try to isolate the problem. A single cylinder dropping spark will likely be a bad Switchbox or Ignition coil. All cylinders not sparking properly usually indicates a bad Stator.
5. Perform a high-speed shutdown and read the spark plugs. Check for water. A crack in the block can cause a miss at high speed when the water pressure gets high, but a normal shutdown will mask the problem because the water will evaporate off the spark plug before you can identify it.
6. Check the Trigger and Stator coil flywheel magnets for cracked, broken, or loose magnets.

MISS AT ANY RPM:

1. Disconnect the Yellow wires from the Stator to the Regulator/Rectifier and retest. If the miss clears up, replace the Regulator/Rectifier.
2. In the water or on a Dynamometer, check the DVA on the Green wires from the Switchbox while connected to the Ignition coils. You should have a reading of at least 150 DVA or more, increasing with engine RPM until it reaches 300-400 DVA maximum. A sharp drop in DVA right before the miss becomes apparent on all cylinders will normally be caused by a bad Stator. A sharp drop in DVA on less than all cylinders will normally be the Switchbox or Trigger.
3. Connect an inductive tachometer to each cylinder in turn and try to isolate the problem. A high variance in RPM on one cylinder usually indicates a problem in the Switchbox or Ignition coil. Occasionally, a Trigger will cause this same problem. Check the Trigger DVA.
4. Perform a high-speed shutdown and read the spark plugs. Check for water. A crack in the block can cause a miss at high speed when the water pressure gets high, but a normal shutdown will mask the problem because the water will evaporate off the spark plug before you can identify it.
5. Check the Trigger and Stator coil flywheel magnets for cracked, broken, or loose magnets.
6. Rotate the Stator one bolt hole in either direction and re-test. If the miss is gone, leave the Stator as is. If the miss is worse, rotate the Stator back where it was.

SWITCHBOX OR TRIGGER REPEATEDLY BLOWS ON SAME CYLINDER:

1. Check the Trigger wires for shorts to engine ground as a shorted Trigger wire can destroy a SCR inside the Switchbox.
2. In contrast, a shorted SCR inside the Switchbox can destroy a Trigger coil. Check the Trigger resistance and DVA.
3. Replace the Ignition coil on the cylinder dropping spark.