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: 183-2366

This unit replaces P/N's: 582106 and 582366.

WARNING! This product is designed to be installed 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.

Dropping the Ignition coil on a hard surface will likely cause severe internal damage that is not visible to the eye.

INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the spark plug wire coming from the old Ignition coil going to the spark plug.
3. Disconnect the Orange Primary wire from the Power Pack to the old Ignition coil.
4. Remove the old coil's Orange Primary wire from the connector joining the Power Pack to the Ignition coil.
5. Remove the old Ignition coil and save the mounting bolts.
6. Connect the Orange Primary wire furnished with the new Ignition coil to the new coil's screw tower.
7. Insert the new Orange Primary wire into the connector joining the Power Pack to the Ignition coil.
8. Bolt the new Ignition coil to the mounting bracket using the original mounting bolts and torque to 48-96 in lbs.

   OVER TIGHTENING THE MOUNTING BOLTS WILL CAUSE SEVERE INTERNAL DAMAGE THAT IS NOT VISIBLE TO THE EYE.

9. Install the spark plug wire on the large coil terminal (Secondary side) and the spark plug.
10. Connect the negative battery cable.

TROUBLESHOOTING

NO SPARK ON ONE OR MORE CYLINDERS:

1. Disconnect the Black/Yellow stop wire from the Power Pack 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 fires, replace the Regulator/Rectifier.
3. Check the cranking RPM. A cranking speed of less than 250 RPM 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. Check the Stator and Timer Base resistance and DVA according to the service manual for your engine.
5. Check the DVA on the Orange wires from the Power Pack while connected to the Ignition coils. You should have a reading of 150 V minimum.

   NOTE: If the Orange Primary DVA reading is low on one cylinder, disconnect the wire from the Ignition coil for that cylinder and reconnect it to a Pack Load resistor (CDI P/N 511-9775). Retest. If the reading is now within specification, the Ignition coil is likely defective. If it still measures low, this indicates a defective Power Pack If the Timer Base tests within specification.

6. Visually inspect the Ignition coils for burned, discolored areas, or cracks in the casing (indicating arching inside the coil itself).
7. Swap the Ignition coil with one that is sparking correctly.
8. Swap the Orange Primary coil wire of the cylinder not firing with one that does on the Power Pack and see if the spark moves from one Ignition coil to the other one by performing a cranking test. If it does, the Power Pack or Timer Base is likely bad. If the spark moves, swap the Timer Base wire for the non-firing cylinder with another one. If this moves the spark again, the Timer Base is likely bad. If the Spark stays on the same cylinder, the Power Pack is likely defective. If the spark does not move, the Ignition coil may be defective.

MISS AT ANY RPM:

1. Disconnect the Yellow wires from the Stator to the Regulator/Rectifier and retest. If the miss clears, replace the Regulator/Rectifier.
2. In the water or on a Dynamometer, check the DVA on the Orange wires from the Power Pack 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 Power Pack or Timer Base.
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 Power Pack or Ignition coil. Occasionally a Timer Base will cause this same problem. Check the Timer Base DVA according to the service manual for your engine.
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.
5. Check the Trigger and Charge coil flywheel magnets for cracked, broken, or loose magnets.

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ENGINE WILL NOT STOP (KILL):

1. Disconnect the Black/Yellow wire at the Power Pack. Connect a jumper wire to the stop wire from the Power Pack and short it to engine ground. If this stops the Power Pack from sparking, the stop circuit has a fault. Check the key switch, harness, and shift switch (if present).

POWER PACK OR TIMER BASE REPEATEDLY BLOWS ON SAME CYLINDER:

1. Check the Timer Base wires for shorts to engine ground as a shorted Timer Base wire can destroy a SCR inside the Power Pack.
2. In contrast, a shorted SCR inside the Power Pack can destroy a Timer Base coil. Check the Timer Base resistance and DVA according to the service manual for your engine.
3. Replace the Ignition coil on the cylinder dropping spark.