



# Installation and Troubleshooting Guide

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**CDI P/N: 119-2402**

NOTE: This unit replaces P/N's: Replaces: 346062601M, 3A1062402M, 3A1062600M, 3A1062402M.

**NOTICE!** 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. DO NOT USE A MAINTAINENCE FREE BATTERY FOR THIS APPLICATION!

**WARNING!!! NEVER DISCONNECT THE SPARK PLUG WIRES WHILE THE ENGINE IS RUNNING AS THIS WILL DAMAGE THE INTERNAL IGNITION COIL. DO NOT ATTEMPT TO START THE ENGINE WITH THE SPARK PLUG WIRES NOT CONNECTED EITHER TO THE SPARK PLUGS OR A SPARK TESTER.**

## INSTALLATION

1. Disconnect the battery.
2. Disconnect all wires from the old power pack and remove it from the engine.
3. Thoroughly clean all ground connections and power pack area.
4. Install the new power pack using the original bolts. It will be necessary to mount the new power pack on an angle using only two bolts.
5. Trim spark plug wires to length as needed (you may also have to trim the sleeving on the spark plug wire in order to allow room for the resistor spark plug boot to be installed).
6. Apply a small amount of dielectric grease to the spark plug wire and slide the grommet onto the wire, small end first.
7. Recoat the spark plug wires and screw a resistor spark plug boot onto each spark plug wire and slide the grommet onto the resistor spark plug boot.
8. Connect the spark plug wires to the spark plugs. It does not matter which spark plug wire goes to which spark plug as the internal ignition coil fires both spark plugs at the same time.
9. Connect the Red, Black and Blue wires from the power pack to the charge (exciter) coil (Red), plate ground (Black) and trigger (pulsar) coil (Blue). If the original power pack used a three pin connector between the stator plate and the power pack, cut the three pin connector off of the stator plate assembly close to the connector. Strip approximately 3/16th inch of insulation from the Black, Blue and Red wires. Slide the shields on the wires before you crimp and solder the connectors on the Red, Black and Blue wires from under the flywheel. Use the wires on the new power pack as a guide for the correct terminal to use.
10. Connect the Black wire to engine ground. NOTE: Some of the older engines used a Brown ground wire while the newer engines use a Black wire.
11. Connect the Brown and Black stop (kill) wires to the engine harness or stop circuit.
12. Reconnect the battery.

## TROUBLESHOOTING

Recommended tools:

CDI 60 OR 33 multimeter with DVA adapter (CDI 511-9773)

Piercing probes (CDI 511-9770)

### NO FIRE ON EITHER CYLINDER:

1. Disconnect the Black and Brown stop wires and retest. If you now have spark, the stop circuit has a fault.
2. Test the stator (exciter) and trigger (pulsar) stator coils as follows:

| Red Lead | Black Lead | Resistance | DVA       |
|----------|------------|------------|-----------|
| Red      | Black      | 200-300    | 110 V min |
| Blue     | Black      | 30-46      | 4 V min   |

### No Fire on One Cylinder:

If only one spark plug has fire, the internal ignition coil is defective. The power pack will need to be replaced.

### High Speed Miss:

1. If the boat is equipped with a Hummingbird I.D. depth finder, disconnect the power to it and retest. If the miss is gone, switch to a different depth finder. See Tohatsu Service Bulletin # 1200, dated 9/14/1990.
2. Check fuel lines/tank for restrictions, leaks or loose connections.
3. Check fuel pump diaphragms for holes, allowing extra fuel at high RPM's.
4. Verify correct spark plugs are installed and are not fouled.
5. Disconnect the stop switch and retest. If the engine performs properly, the stop circuit has a fault.