



# 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: 114-5713 Ignition Pack 2 Cyl.

Replaces: 855713A 3, 855713A 4 Switch Boxes.

### INSTALLATION

1. Remove the old pack and clean all ground wires and mounting plate.
2. Check the trigger, stator and kill wire for breaks, corrosion and broken insulation.
3. Check for DC voltage on the Black/Yellow kill (stop) wires with the key-switch in the on and off position. At no time should you see over 2 volts DC on this wire as severe damage to the power pack can occur.
4. Connect the Green/Yellow wire to the #1 (Top) Cylinder's ignition coil, the Green wire to the #2 (Bottom) Cylinder's ignition coil and the Black wire to engine ground and the ignition coils negative side.
5. Connect the Green/White and Green/White Stator wires.
6. Connect the Brown/White and Brown/Yellow wires to the Brown/White and Brown/Yellow trigger wires.
7. Connect the Black/Yellow Kill (Stop) wire to the Black/Yellow wire from the engine harness.
8. Install the new CD using the original bolts or bolts supplied with the unit.

### TROUBLESHOOTING

#### NO SPARK ON ONE OR BOTH CYLINDERS:

1. Disconnect the Black/Yellow kill wire AT THE PACK. If spark returns, there is a problem in the engine harness or possibly the key switch.
2. Check for broken or bare wires on the CD, stator and trigger.
3. Check the triggering and charge coil flywheel magnets for cracked, broken and loose magnets.
4. Check the ignition system resistance and DVA output as given below:

| WIRE                     | READ TO          | OEM Ohms  | CDI OHMS  | DVA (Connected) | DVA (Disconnected) |
|--------------------------|------------------|-----------|-----------|-----------------|--------------------|
| Green/White Stator       | White/Green      | 370-445 Ω | 306-420 Ω | 150V @ cranking | 200-400 V (a)      |
| White/Green Stator       | Engine GND       | OPEN      | OPEN      | 125-400 V       | 2V or less         |
| Green/White Stator       | Engine GND       | OPEN      | OPEN      | 125-100 V       | 2V or less         |
| Brown/White Trigger      | Brown/Yellow     | 650-850 Ω | 650-850 Ω | 4V or more      | 4V or more         |
| Green Coil Wire          | Engine GND       |           |           | 150V or more    | 120V or more (b)   |
| Green/Yellow Coil Wire   | Engine GND       |           |           | 150V or more    | 120V or more (b)   |
| Coil POS (+) Terminal    | NEG (-) Terminal | 0.02-0.04 |           |                 |                    |
| Spark Plug Wire Terminal | NEG (-) Terminal | 800-1100  |           |                 |                    |

- (a) This reading can be used to determine if a stator or pack has a problem. For instance, if you have no spark on any cylinder and the stator's DVA reading is low – disconnect the stator wires and recheck the DVA output. If the reading stays low – the stator is likely defective. If the reading is now within spec – the pack is likely defective.
  - (b) Use a pack load resistor like the 511-9775 connected between the Green wire and engine ground. Do not engage the starter with the primary coil wires disconnected.
5. Swap the Green/White and White/Green leads. If the problem moves, replace the stator with a 174-5721.
  6. Using a set of jumper wires, cross connect the Brown/White and Brown/Yellow leads (so you have a Brown/white connected to a Brown/Yellow). Also, cross connect the Green and Green/Yellow wires. If the problem moves, replace the Switch Box,

#### ENGINE WILL NOT STOP:

Check the kill circuit in the pack by using a jumper wire connected to the Black/Yellow wire coming out of the pack, and shorting it to ground. If this kills the engine, the kill circuit in the harness or on the boat is bad, possibly the ignition switch.

#### HIGH SPEED MISS:

Connect a DVA meter to the Green/White and Green/White Stator wires and run the engine up to where the problem occurs. If there is a sudden or fast drop in voltage right before the miss becomes apparent, the stator is usually at fault. If there is no indicator of the problem, it could be a small water leak in one of two cylinders.

#### INTERMITTANT FIRING ON THE TOP OR BOTOM CYLINDER:

1. Disconnect the ignition coils and test as follows:

| READ FROM                | READ TO          | OHMS      |
|--------------------------|------------------|-----------|
| POS (+) Terminal         | NEG (-) Terminal | 0.02-0.04 |
| Spark Plug Wire Terminal | NEG (-) Terminal | 800-1100  |

2. Switch the ignition coils location and see if the problem follows the coil. If so, replace the coil.
3. Swap the Brown/White and Brown/Yellow trigger wires. Also swap the Green/Yellow and Green wires. If the problem moves, replace the ignition pack. If no change, replace the trigger.