



# Installation and Troubleshooting Guide

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**CDI P/N: 113-2453**

**This unit replaces the following P/N's: 18-5758, 581649, 581924, 581926, 581927, 582452, 582453, 583380 and 583453.**

**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.

## Installation

1. Disconnect the negative battery cable.
2. Disconnect all of the wires going to the old power pack.
3. Remove power pack mounting bolts.
4. Check for DC voltage on the kill (stop) wire (usually Black/Yellow) 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.
5. Connect the wires from the new power pack to the stator, trigger and ignition coils.
6. Mount the new power pack using the original bolts.
7. Reconnect the battery cable.

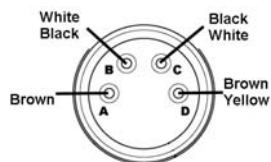
## Troubleshooting

### NO SPARK ON ANY CYLINDER:

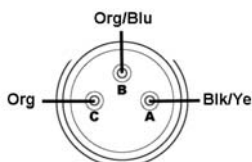
1. Disconnect the black yellow stop wire from the power pack and retest. If the engine's ignition has spark, the stop circuit has a fault-check the key switch, harness and shift switch.
2. Disconnect the yellow wires from the rectifier and retest. If the engine now sparks, replace the rectifier.
3. Check the resistance and DVA output of the Stator and Timer Base:

| Read from                | Read to                  | Reading             | DVA (connected to pack) |
|--------------------------|--------------------------|---------------------|-------------------------|
| Brown                    | Brown/Yellow             | 450-550 ohms        | 150V Minimum            |
| Brown                    | Eng Ground               | Open (disconnected) | 150V Minimum connected  |
| Brown/Yellow             | Eng Ground               | Open (disconnected) | 150V Minimum connected  |
| Black/White Trigger wire | White/Black Trigger wire | 10-20 ohms          | 0.5 Volts Minimum       |

4. Check wire pin-out as follows:



**BACK SIDE VIEW**



**BACK SIDE VIEW**

5. Check the stator input diodes connected inside the power pack using a meter set to diode scale. If the readings show a short or open, replace the power pack.

| Red meter lead    | Black meter lead  | Reading                                                          |
|-------------------|-------------------|------------------------------------------------------------------|
| Brown wire        | Black wire        | 0.500 (The actual reading will vary, depending upon your meter.) |
| Brown/Yellow wire | Black wire        | 0.500 (The actual reading will vary, depending upon your meter.) |
| Black/Yellow wire | Brown wire        | 0.500 (The actual reading will vary, depending upon your meter.) |
| Black/Yellow wire | Brown/Yellow wire | 0.500 (The actual reading will vary, depending upon your meter.) |

6. Check the cranking RPM. A cranking speed of less than 250-RPM will not allow the system to fire properly.

### NO SPARK OR INTERMITTENT ON ONE OR MORE CYLINDERS:

1. Check the resistance and DVA output of the stator and Timer Base:

| Read from                | Read to                  | Reading             | DVA (connected to pack) |
|--------------------------|--------------------------|---------------------|-------------------------|
| Brown                    | Brown/Yellow             | 450-550 ohms        | 150V Minimum            |
| Brown                    | Eng Ground               | Open (disconnected) | 150V Minimum connected  |
| Brown/Yellow             | Eng Ground               | Open (disconnected) | 150V Minimum connected  |
| Black/White Trigger wire | White/Black Trigger wire | 10-20 ohms          | 0.5 Volts Minimum       |

2. Check the DVA output on the orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V or more. If the reading is low on one cylinder, disconnect the orange wire from the ignition coil for that cylinder and reconnect it to a load resistor. Retest. If the reading is now good, the ignition coil is likely bad. A continued low reading usually indicates a bad power pack.

Thank you for using CDI Electronics.