Installation and Troubleshooting Guide

CDI P/N: 113-3748

This unit replaces the following P/N's: 18-5766, 583786, 583748 and 878949.

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. Remove power pack mounting bolts and disconnect all of the wires going to the old power pack.
3. Connect the wires to the new power pack. Use a small amount of dielectric silicone grease in the bullet connector.
4. Mount the new power pack using the original bolts.
5. 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.
6. Connect the orange wires to the ignition coils (remember that the blue striped wires go up and the green striped wires go down).
7. Reconnect the battery cable.

Troubleshooting

NO SPARK ON ANY CYLINDER:

1. Disconnect the black yellow stop wire 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 stator resistance. Reading should be about 500 ohms from the brown wire to brown/yellow wire.
4. Check the DVA output from the stator. You should have a reading of at least 150V or more from the brown wire to the brown/yellow wire (while connected to the pack) and 12 Volts on the Orange to Orange/Black power coil wires.
5. Check the resistance and DVA output of the Timer Base:

Read from	Read to	Reading	DVA (connected to pack)
Blue Trigger wire	White	10-20 ohms	0.5 Volts Minimum
Purple Trigger wire	White	10-20 ohms	0.5 Volts Minimum
Green Trigger wire	White	10-20 ohms	0.5 Volts Minimum

6. Check the DVA voltage on the Black/Yellow wire to engine ground. You should have a reading of at least 150V or more (while connected to the pack). If the reading is low, disconnect the stator 5 pin connector from the pack. Using a meter set to diode scale, check from the Black/Yellow wire to the Brown (and Brown/Yellow) wires. You should show a high or no reading at all. If you show a normal diode reading, the kill (Stop) diode is shorted and the pack needs to be replaced.
7. Check the resistance of the power pack SCR's:

Read from	Read to	Reading
Blue Trigger wire	Orange/Blue	110 ohms*
Purple Trigger wire	Orange	110 ohms*
Green Trigger wire	Orange/Green	110 ohms*

*Readings will vary slightly depending upon your meter. Readings should be fairly consistent.

8. Check the kickback diodes connected to the power pack's SCR's, 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
Black Ground wire	Orange/Blue	0.500**
Black Ground wire	Orange or Orange /Violet	0.500**
Black Ground wire	Orange/Green	0.500**

** The actual reading will vary, depending upon your meter.

9. 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 Timer Base:

Read from	Read to	Reading	DVA (connected to pack)
Blue Trigger wire	White	10-20 ohms	0.5 Volts Minimum
Purple Trigger wire	White	10-20 ohms	0.5 Volts Minimum
Green Trigger wire	White	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 indicates a bad power pack or Timer Base (test per above).

Engine will not rev beyond 2500 RPM:

1. Use a temperature probe and verify that the engine is not overheating.
2. Disconnect the Tan temperature wire from the pack and retest. If the engine now performs properly, replace the temperature switch.
3. Make sure the Tan temperature switch wire is not located next to a spark plug wire.
4. If the engine will not rev above 2500 and the Tan wire is disconnected (and not near a spark plug wire), the pack is defective.

Thank you for using CDI Electronics.