Installation and Troubleshooting Guide

CDI P/N: 113-4028

This unit replaces the following P/N: 583773, 584027 and 584028.

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 and trigger.
6. Connect the Orange/Blue coil lead to the #1 ignition coil and the Orange/Green coil lead to the #3 ignition coil. Connect the Orange/Purple to #2 ignition coil and the Orange to the #4 ignition coil.
7. Mount the new power pack using the original bolts.
8. Reconnect the battery cable.

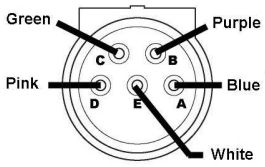
TROUBLESHOOTING

NO FIRE ON ANY CYLINDER:

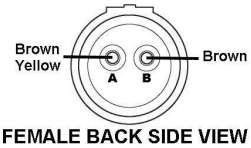
1. Disconnect the black yellow stop wire from the power pack and retest. If the engine's ignition now has spark, the stop circuit has a fault-check the key switch OR harness.
2. Disconnect the yellow wires from the rectifier and retest. If the engine now sparks, replace the rectifier.
3. Check the resistance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

Read from	Read to	Reading	DVA (connected to pack)
Brown	Brown/Yellow	450-650 ohms	150V Minimum
Brown	Eng Ground	Open (disconnected)	150V Minimum connected
Brown/Yellow	Eng Ground	Open (disconnected)	150V Minimum connected
White Trigger wire	Blue Trigger wire	35-52 ohms	0.35 Volts Minimum
White Trigger wire	Purple Trigger wire	35-52 ohms	0.35 Volts Minimum
White Trigger wire	Green Trigger wire	35-52 ohms	0.35 Volts Minimum
White Trigger wire	Pink Trigger wire	35-52 ohms	0.35 Volts Minimum

4. Check wire pin-out as follows:



WIRE SIDE MALE



FEMALE 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 ground wire	0.500 (The actual reading will vary, depending upon your meter.)
Brown/Yellow wire	Black ground 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 FIRE 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)
White	Blue	30-52 ohms (disconnected)	0.35V Minimum
White Trigger wire	Purple Trigger wire	30-52 ohms	0.35 Volts Minimum
White Trigger wire	Green Trigger wire	30-52 ohms	0.35 Volts Minimum
White Trigger wire	Pink Trigger wire	30-52 ohms	0.35 Volts Minimum
Brown	Eng Ground	Open (disconnected)	150V Minimum connected
Brown/Yellow	Eng Ground	Open (disconnected)	150V Minimum connected

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.

3. Check the power pack resistance given below:

Wire Color	(CYL)	Check to Wire Color	Resistance
Orange/Blue	(#1)	Blue	110 (a)
Orange/Green	(#3)	Green	110 (a)
Orange/Violet	(#2)	Purple	110 (a)
Orange	(#4)	Pink	110 (a)
White		Black (Engine Ground)	Shorted
Brown		Black (Engine Ground)	Open or M range
Brown/Yellow		Black (Engine Ground)	Open or M range

(a) Use a comparison reading as different brands of meters will give different readings. The typical range is 90 to 150 ohms for the Orange wires. You should have approximately the same ohm reading on all six tests with the Orange wires. If one of the SCR's inside the power pack is shorted or open, the readings will be quite a bit different.

ENGINE WILL NOT KILL:

Disconnect the Black/Yellow kill wire from the power pack and jumper it to engine ground. If the engine loses fire, the kill circuit has a fault. Possibly the keyswitch.