Installation and Troubleshooting Guide

CDI P/N: 114-6222

NOTE: This pack replaces the 18-5788, 18-5789, 339-5287, 339-6222A1, A4, A 8 and A10 CD modules.

This product is designed for installation by a professional marine mechanic. CDI cannot be held liable for injury or damage resulting from improper installation, abuse, neglect or misuse of this product.

SERVICE NOTE: These engines require the Orange, Red or Green Ignition coils. The Black or Blue ignition coils use a common ground connection internally for the primary and the secondary side of the coils. This system requires that the primary and the secondary side of the coils be separate as the pack drives the negative side of the coil to ground, causing the coil to generate spark on the secondary side.

WARNING!!! DISCONNECT THE ORANGE KILL WIRE FROM THE PACK AND CONNECT A DC VOLTMETER TO THE WIRE FROM THE HARNESS. TURN THE KEY SWITCH ON AND OFF SEVERAL TIMES. IF OVER 2 VOLTS OF DC VOLTAGE IS SHOWN ON THIS WIRE, THE PACK IS PROBABLY BLOWN AND THE KEY SWITCH OR HARNESS IS BAD.

To replace the 18-5788, 18-5789, 339-5287 and 339-6222 with the 114-6222:

1. Remove the old pack and clean all ground wires and mounting plate.
2. Check the trigger, stator and kill wires for breaks and broken insulation.
3. Check for DC voltage on the kill (stop) wires (usually Orange) 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. Install the new CD using the original bolts or bolts supplied with the unit.
5. Connect the Orange wire from the switch box to the stator terminal with the Yellow wire.
6. Connect the Brown and White trigger wires to the trigger. Note that some engines had 2 Brown wires and no White trigger wire. In this case, connect the Brown wire from the switch box to one of the Brown wires from the trigger and the White wire from the switch box to the other Brown wire from the trigger. If the engine backfires when you attempt to start the engine, swap the connection from the White wire to the other Brown wire from the trigger.
7. Connect the Green coil wire to the + terminal of the coil for # 1 Cylinder and the Green/White wire to the – terminal.
8. Connect the Blue coil wire to the + terminal of the coil for # 2 Cylinder and the Blue/White wire to the – terminal.

TROUBLESHOOTING

NO SPARK ON ANY CYLINDER:

1. Disconnect the Orange stop wire and retest. If the ignition system now has spark, the stop circuit has a problem.
2. Check the stator and trigger resistance and DVA output:

WIRE	Read To	RESISTANCE	DVA
Orange	Engine GND	1600-1800 (800-900 per coil)	180V or more
Brown	White*	140-160	0.5V or more

   Note: Some units had used a trigger that has 2 Brown wires instead of a Brown and White.
3. Inspect the ignition coils. You should have either a red, orange or green coil with a bare braided ground wire coming out of the backside of the coil. This bare braided ground wire MUST be connected to a clean engine ground. You cannot use a black or blue ignition coil.
4. Check the ignition coils as follows: Check resistance from + to – terminal reading should be 0.2-1.0 ohms and 800-1100 ohms from the high tension lead to engine ground. There should be no connection from the – terminal to engine ground.
5. Check the flywheel for broken magnets.

ENGINE HAS SPARK BUT WILL NOT RUN:

1. Index the flywheel and check the timing. If it is out by 180 degrees, swap the trigger wires to the switch box.
2. If the timing is off by any other degree, check the flywheel key.

NO SPARK OR INTERMITTENT ON ONE CYLINDER:

1. Check the DVA output between the Green wire and Green/Whites from the switch box, also between the Blue and Blue/White wires while they are 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 wires from the ignition coil for that cylinder and reconnect them to a load resistor. Retest. If the reading is now good, the ignition coil is likely bad. A continued low reading indicates a bad switch box.
2. Connect an inductive tachometer to each cylinder and compare the RPM readings at the RPM where the problem is occurring. If only one cylinder is dropping out, swap the ignition coil locations and retest. If the problem follows a coil, replace the coil. If it stays on the same spark plug, replace the switch box.
3. Disconnect the negative side of the ignition coils. Connect a jumper wire to the negative side of the coil and while the engine is turning over, tap the jumper wire to engine ground. If this causes the coil to fire, the coil is good and you will need to replace the pack.
4. Check the flywheel magnets to see if one has come loose and moved.

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