



Installation and Troubleshooting Guide

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CDI P/N: 117-TIA02-12

This unit replaces the following P/N's: 663-85540-14-00, 663-85540-15-00, 83030M, 83030T, TIA02-10 and TIA02-12.

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 connectors.
4. Mount the new power pack using the original bolts.
5. Connect the wires as follows:

CDI Pack	Mariner Engine	Yamaha Engine	Connects to
White/Red	White/Red	White/Red	Trigger
White/Black	White/Black	White/Black	Trigger
Blue	Blue	Blue	Stator (Charge Coil)
Brown	Brown	Brown	Stator (Charge Coil)
Yellow	Yellow	Yellow	Blanker Coil
Black/White	Black/White	White	Kill circuit
Grey	Grey	Black/White	Ignition Coil # 1
Orange	Orange	Black/White	Ignition Coil # 2
Black	Black	Black	Engine Ground

6. Reconnect the battery cable.

Troubleshooting

NO SPARK ON ANY CYLINDER:

1. Disconnect the White 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 wire from the pack and retest. If the engine now sparks, the Blanker coil is likely bad.
3. Check the stator resistance.

Read from	Read to	Reading	DVA (connected to pack)
Brown	Blue	225-245 ohms	150 Volts Minimum (while connected to the pack).

4. Check the resistance and DVA output of the Triggers:

Read from	Read to	Reading	DVA (connected to pack)
White/Red Trigger wire	Engine ground	75-85 ohms	4 Volts Minimum
White/Black Trigger wire	Engine ground	75-85 ohms	4 Volts Minimum
Yellow	Engine ground	25-35 ohms	10 Volts Minimum

5. If the Exciter coil and the Blanker coil (mounted below the Exciter coil) are replaced or the stator plate has been replaced and there is no spark: Dismount the Exciter coil and the Blanker coil, rotate the Blanker coil 180 degrees (turn it upside down) and re-install both coils. Make sure the wires are clear of interference and anchored correctly. If the engine now performs ok, leave the coils as they are.
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 plate assembly:

Read from	Read to	Reading	DVA (connected to pack)
White/Red Trigger wire	Engine ground	75-85 ohms	4 Volts Minimum
White/Black Trigger wire	Engine ground	75-85 ohms	4 Volts Minimum
Yellow	Engine ground	25-35 ohms	10 Volts Minimum

2. Check the DVA output on the Orange and Grey wires (Yamaha engines will use Black/White wires) from the power pack while connected to the ignition coils. You should have a reading of at least 130V or more. If the reading is low on one cylinder, disconnect the 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 trigger (test per above).

Thank you for using CDI Electronics.

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