



# Installation and Troubleshooting Guide

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## CDI P/N: 134-9021-2

This item replaces the following P/N's: 99021A 2, 99021A 6, 99021K 2.

Warning! 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.

### INSTALLATION

1. Disconnect the negative battery cable and remove the flywheel according to the service manual.
2. Label and disconnect the trigger leads from the switch box.
3. Remove the stator bolts and lay the stator out of the way.
4. Disconnect the trigger linkage arm from the trigger (if present).
5. Remove the old trigger and install the new trigger, making sure the locator notch (in the bottom of the trigger housing) is seated on the locator pin in the engine block.
6. Connect the trigger linkage to the trigger (if present).
7. Install the stator according to the service manual.
8. Connect the trigger leads to the switch box.
9. Replace the flywheel according to the service manual and reconnect the negative battery cable.
10. Verify ignition timing as needed.

### TROUBLESHOOTING

#### NO FIRE EITHER CYLINDER:

1. Disconnect the Black/Yellow kill wire and retest. If you now have fire, the kill circuit has a problem (check the Emergency Stop switch, key-switch and harness).
2. Test the stator and trigger as follows:

Red Lead	Black Lead	Ohms	DVA @ cranking	DVA Disconnected
Green/White	Green	400-700	180 V min connected	240 V +
Green/White	Eng Gnd	open	180 V min connected	Less than 5 V.
Green	Eng Gnd	open	20 V min connected	Less than 5 V.
White	White/Black	900-1430	4 V min	6 V +

3. Check for broken or bare wires on the unit, stator and trigger.
4. Check for DC voltage on the kill (stop) wires (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 CDMs can occur.
5. Check the DVA voltage on the Green/White wires going to the CDM modules. You should have at least 160 volts on each wire.
6. Using a CDM Test harness, break the Kill circuit between the CDM modules. If you have fire now, one of the CDM modules is shorted.
7. Disconnect the rectifier. If the engine fires, replace the rectifier.

#### ENGINE WILL NOT KILL:

Check kill circuit in the pack by using a jumper wire connected to the black/yellow wire coming out of the pack and shorting it to ground. If this kills the engine, the kill circuit in the harness or on the boat is bad, possibly the ignition switch.

#### HIGH SPEED MISS:

1. Disconnect the rectifier and retest. If miss is gone, the rectifier is usually at fault.
2. Check the DVA voltage between the Green and Green/White wires at high speed. **NOTICE:** Use caution when doing this and do not exceed the rated voltage range of your meter. The reading should show a smooth climb in voltage. If there is a sudden or fast drop in voltage right before the miss becomes apparent, the stator is usually at fault. If there is no indication of the problem, it could be mechanical problem.
3. Replace both CDM modules at the same time. If the miss is gone, put one CDM back on at a time and retest until you determine which original CDM caused the problem. If the miss is still present and the stator is ok, replace the TPM.

CDI Electronics • 353 James Record Road SW • Huntsville, AL 35824

Web Support: [www.cdielelectronics.com](http://www.cdielelectronics.com) • Tech Support: 1-866-423-4832 • Order Parts: 1-800-467-3371

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## **BOTH CYLINDERS FIRE BUT THE ENGINE WILL NOT RUN:**

Index the flywheel and check timing on both cylinders. If the timing varies, replace the TPM.

## **ONE CYLINDER HAS WEAK OR NO FIRE ON 1 CYLINDER:**

1. Check trigger and stator voltage to the CDM.
2. Replace CDM module.

## **TIMING WILL NOT ADVANCE ON BOTH CYLINDERS:**

Replace the TPM.

## **TIMING WILL NOT ADVANCE ON 1 CYLINDER:**

Check the wiring between the TPM and the CDM module. If ok, replace the CDM.

## **ENGINE HARD TO START WHEN COLD:**

1. Check fuel enrichment valve.
2. Replace TPM.

## **ENGINE HARD TO START WHEN HOT:**

1. Check stator and trigger.
2. Replace TPM.

## **ENGINE WILL NOT RUN OVER 2500:**

1. Disconnect Tan wire from TPM. If engine now performs normally, replace Temperature sensor.
2. Replace TPM.

## **ENGINE TIMING FLUCTUATES:** (NOTE- Timing can vary by 2-3 degrees at idle).

1. Check the Temperature sensor.
2. Replace TPM.

## **ENGINE MISFIRES OCCASIONALLY:**

Check spark plugs – must be inductive type.