



Installation and Troubleshooting Guide

CDI P/N : 314-9849A*
EFI ECU

This EFI ECU (Electronic Control Unit) replaces these P/N: 11350 A* and 849849 A*

(*) *This symbol represents the factory part number suffix, typically an "A" plus a number. We will need this suffix number when ordering a replacement ECU from CDI Electronics.*

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

1. Disconnect the positive battery cable.
2. Check and clean all battery terminals and engine grounds.
3. Unbolt and remove the old ECU (Electronic Control Unit), saving the original bolts and nuts. Use caution when disconnecting the ECU harness and transducer tube.
4. Install the new ECU using the original bolts and nuts. Connect the tube and ECU harness connector.
5. Remove the black ground strap that was on the old ECU place it on one of the mounts for the new ECU and connect to engine ground.
6. Reconnect the battery cable.
7. If the motor had an analog ECU / EFI, unplug the TPI and leave the connector open.
8. **The engine must use the resistor / suppressor type spark plugs.**

TROUBLESHOOTING THE EFI ECU (Electronic Control Unit)

The ECM is continually monitoring various engine conditions and climate conditions (induction air temperature, barometric pressure and altitude level) needed to calculate fuel delivery (pulse width length) of injectors. The pulse width is constantly adjusted (rich/lean conditions) to compensate for operating conditions(cranking, cold starting, climate conditions, altitude, acceleration and deceleration).

Ignition system failure (switch box, stator, trigger,etc.) can cause fuel delivery problems. Injectors are triggered in pairs by the ignition primary circuits:

- No. 2 Primary Triggers No. 3 & 4 Injectors
- No. 4 Primary Triggers No. 5 & 6 Injectors
- No. 6 Primary Triggers No. 1 & 2 Injectors

Failure in one or more of these primary circuits will cause no spark and no fuel to respective cylinders. Check spark and spark plugs on all cylinders before attempting EFI tests.

Low battery voltage can cause the EFI system to deliver fuel in an inconsistent manner.

Inspect battery connections and charging system of the engine. The EFI system requires a substantial amount of voltage to function properly. Operating engine at a low RPM for an extended period of time can cause low voltage problems.

The MAP sensor is a non-serviceable sensor mounted in the ECM box. The MAP sensor is used to sense changes in manifold absolute pressure and is connected to the intake plenum by the way of a vacuum hose. The MAP sensor is functioning through the full RPM range continually signaling manifold pressure readings to the ECM. The ECM in turn determines fuel flow as signals are received. Drawing a vacuum on the MAP sensor hose will create a lean condition. If no change occurs when drawing vacuum, the MAP sensor is not functioning properly.

Thank you for using CDI Electronics.

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