

# Installation and Troubleshooting Guide



NOTE: This installation is to be completed by an Authorized Dealer or Professional Service Technician. For questions regarding installation or warranty, call CDI Tech Support at 866-423-4832. Do not return to the Dealer or Distributor where the part was purchased. Contact CDI Electronics Directly for Return Materiel Authorization.

## CDI P/N: 423-2000 Electronic Shift Assist Adapter Harness

**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. Remove the harness connector from the distributor cap. It may be a single or dual terminal connector.
- 2. Connect the new connector to the distributor, making sure the connector is pushed up into the housing as far as it will go. Secure the wires from the adapter harness to the other wires from the distributor cap.



Purple/Violet Wires

Grey Wires

- 3. Cut the connector off of the existing wire(s) you disconnected from the distributor. Strip approximately 3/16" of insulation from the engine harasses Red power wire and the Tachometer wire if used.
- 4. Slide a plastic boot over the Red wire from the engine harness. Then, crimp & solder the Barrel terminal to the Red wire from the engine harness.
- 5. If the distributer had a Tachometer wire from the engine harness connected, slide a plastic boot over the Tachometer wire from the engine harness. Then, crimp & solder the Bullet terminal to the Tachometer wire from the harness (may or may not be present).
- 6. Connect the Purple wire from the adapter harness to the Red wire from the engine harness.
- 7. Connect the Grey wire from the adapter harness to the Tachometer wire from the harness, if present.
- 8. Connect the two pin connector to the ESA module.
- 9. Make sure the ESA module's Black ground wire is properly grounded.

### TROUBLESHOOTING

#### NO FIRE TO ANY CYLINDER:

- 1. If the distributor had good fire before you installed the adapter harness,
  - A) Disconnect the ESA from the adapter harness and check for fire from the distributor.
  - B) If the distributor still has no fire, unplug the adapter harness and verify the connectors on the adapter harness for a weak connection.
- 2. Verify the wiring between the ESA, Adapter harness and the engine harness. All wire colors should be continuous through the connectors.
- 3. Check for voltage on the Purple wire, you should show battery voltage between 12 and 15.6 volts with the ignition switch in the on position.
- 4. Check the voltage on the Grey wire, you should show approximately 400 Volts using a DVA meter/adapter. If the voltage is low, connect the grey wire to a pack load resistor and retest. If the voltage now shows correct, the ignition coil is defective. If the voltage remains low, the unit is likely defective as long as the volt into the unit.

Thank you for using CDI Electronics.