

# 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: 133-3387 Timer base Sensor 2 Cyl.

This kit will replace the following P/N's: 583387, 584716.

**WARNING!** This product is designed for installation 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. Clean all battery cable connections and engine grounds.
- 3. Remove the flywheel.
- 4. Disconnect the trigger sensor/stator connector from the power pack.
- 5. Remove the trigger sensor/stator base assembly from the engine. Make a note of the location of the mounting screws connecting the plate to the base section.
- 6. Using the Insertion and Removal Tools, remove Black/White and White/Black sensor leads from trigger sensor/stator connector going TO the power pack.
- 7. Remove the wire clamp on top of the sensor/stator base assembly holding the wires in place.
- 8. Turn the trigger sensor/stator base assembly over and remove the wire clamp holding the wires in place.
- 9. Remove the old trigger sensor from the timer base plate and save the mounting bolts.
- 10. Slide the wires from the old trigger sensor out of the sensor/stator base assembly.
- 11. Slide the wires from the new trigger sensor through of the sensor/stator base assembly and sleeving, following the same path the old wires came out of.
- 12. Install the new trigger sensor on the sensor/stator base assembly, leaving the mounting screws slightly loose.
- 13. Set the air gap according to the service manual, using PN: 553-4994 Locator Ring.
  - A) Place the 553-4994 Locator Ring over the outside of the sensor and stator assemblies, seating it over the mounting bosses in the armature plate.
  - B) Slide the sensor and stator assemblies out against the Locator Ring and hold them in place.
  - C) Tighten the screws to 15-22 inch pounds and slide the Locator Ring off of the sensor and stator assemblies.
- 14. Install the clamp on top of the armature plate to position and secure the charge coil and sensor coil leads.
- 15. Slide the sleeving up to the armature plate to protect the wiring and install the cover on the bottom of the plate (align the notch in the cover with the notch in the plate).
- 16. Install the timer base assembly and connect the linkage.
- 17. Re-install the flywheel according to the service manual.
- 18. Insert the sensor wires into the 5 pin connector, matching the wire color pin locations to the power pack connector.
- 19. Check for DC voltage on the kill (stop) wire (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 power pack can occur.
- 20. Re-connect the battery cable,
- 21. Reset ignition timing according to the service manual.

### **TROUBLESHOOTING**

#### NO FIRE ON EITHER CYLINDER:

- 1. Check the cranking speed, the engine should be turning 250 RPM or more. (Check the battery and starter).
- 2. Check the stator resistance (450-850 ohms) and DVA output voltage while the stator is connected to the power pack. You should read 150V or more from the Brown wire to the Brown/Yellow wire while they are connected to the pack. If low, disconnect the Brown and Brown/Yellow wires from the pack and retest. If the voltage jumps to over 225V the pack is likely bad. A reading that remains below 175V usually indicates a bad stator.
- Check the trigger resistance and output. From the Black/White trigger wire to the White/Black should read 38-43 ohms. The DVA
  output should read 0.5V or more from the Black/White to the White/Black trigger wire, (Connected to the pack) while cranking the
  engine.

#### NO FIRE ON ONE CYLINDER:

- 1. Swap the orange coil wire of the cylinder not firing with the one that does on the pack and see if the fire moves from one coil to the other one. If it does, the pack is likely bad. If the fire stays on the same cylinder, the ignition coil is probably bad.
- 2. Swap the Black/White trigger wire with the White/Black trigger wire and retest. If the fire moves from one cylinder to the other, replace the trigger. If it does not move, the pack is likely bad.
- 3. Swap the Brown stator wire with the Brown/Yellow stator wire and retest. If the fire moves from one cylinder to the other, replace the stator.