

# 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 Material Authorization.

CDI P/N: 137-0003 Pulsar Coil 2 Cylinder

Replaces P/N: 66T-85580-00-00

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.

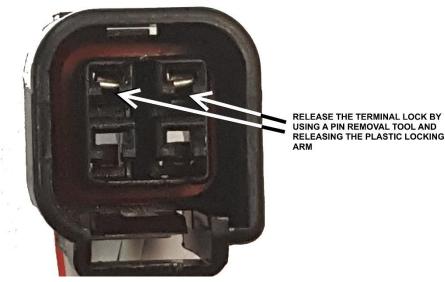
#### **INSTALLATION**

- Disconnect the 4 Pin connector to the CD Unit.
- 2. Remove the Yellow Locking Wedge by gently prying up on the removal tab.



REMOVE LOCKING WEDGE BY GENTLY PRYING UP ON THE TAB AS SHOWN

3. Note the location of the White/Red and White/Black wires. Release the plastic locking arm for each pin and pull the wires out of the connector.



- 4. Remove the flywheel.
- 5. Remove the locking tabs holding the Pulsar Coil Assembly in place.
- 6. Remove the old Pulsar Coil Assembly, noting the routing of the wires.
- 7. Lubricate the inside bottom and bottom of the new Pulsar Coil Assembly with a good quality marine assembly grease.

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Web Support: www.cdielectronics.com • Tech Support: 1-866-423-4832 • Order Parts: 1-800-467-3371
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- 8. Route the wires from the new Pulsar Coil Assembly the same as the old Pulsar Coil Assembly.
- 9. Install the locking tabs holding the Pulsar Coil Assembly in place using the recommended thread-locker applied to the screws.
- 10. Install the flywheel according to the service manual, using the correct torque specifications.
- 11. Insert the White/Red and White/Black wires into the 4 pin connector as follows:



- 12. Re-install the Yellow Wedge Lock into the 4 pin connector.
- 13. Connect the 4 pin connector to the CD Unit.

### **TROUBLESHOOTING**

### NO FIRE ON ANY CYLINDER:

- 1. Disconnect White Stop wire and retest. If fire returns, there is a problem with the Stop circuit.
- 2. Check ground connections of CD Unit and Ignition Coils.
- 3. Check the Stator and Trigger resistance and DVA as follows:

WIRE	Read To	Ohms	DVA Connected DVA Disconnected	
Blue	Brown	600-900 Ω	190V	330V
Blue	Engine Ground	OPEN	-	2V or less
Brown	Engine Ground	OPEN	-	2V or less
White/Red	White/Black	300-425 Ω	4V	7V

Disconnect White Stop wire and retest. If fire returns, there is a problem with the Stop circuit.

#### **NO FIRE ON 1 CYLINDER:**

- 1. Swap the Ignition coils. If the fire follows the Ignition Coil, replace it.
- 2. Swap the Trigger inputs to the CD Switch Box. See the installation portion for terminal removal and insertion.
- 3. If the problem remains on the same cylinder, replace the Switch Box.
- 4. If the problem moves to the other cylinder, replace the Trigger.
- 5. Check the resistance of the coils and DVA output from the CD Unit to the ignition coils as follows:

WIRE	Read To	Ohms	DVA Connected
Black/Orange (Pack)	Black (Engine Ground)		180V
Black/White (Pack)	Black (Engine Ground)		180V
White #1 (Coil)	Black	0.32-0.44 Ω	
Black #1 (Coil)	Hi Tension Lead	5.4K-7.8K Ω	(Resistor Boots Removed if present)
White #2 (Coil)	Black	0.32-0.44 Ω	
Black #2 (Coil)	Hi Tension Lead	5.4K-7.8K Ω	(Resistor Boots Removed if present)

Check the Resistor boots from the input to the sparkplug terminal (if present). You should read between 4K and 6K ohms. If outside this range, replace the Resistor boot.

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#### HIGH SPEED MISS-FIRE OR WEAK HOLE SHOT:

- 1. Verify the engine has the correct sparkplugs installed and gapped.
- Connect DVA meter to the Blue and Brown wires and do a running test. The voltage should show a smooth climb and stabilize, gradually falling off at higher RPM's. If you see a sudden drop in voltage right before the miss becomes apparent, the stator is likely at fault.
- 3. Make sure the engine is not hitting the RPM Limiter.
- 4. Check the Stator and Pulsar Coil DVA readings from Idle to WOT as follows.

WIRE	Read To	@1500 RPM	@3500 RPM
Blue	Brown	190 V	190 V
White/Red	Black	10 V	17 V
White/Black	Black	10 V	17 V

- 5. Run the engine at the RPM where the miss is occurring and perform a high speed engine shutdown (do not change the throttle setting). Remove and inspect the sparkplug porcelain insulator at the sparkplug gap. A Black plug indicates either a weak fire or a rich fuel/air mix. If the tang electrode has a whitish look to it, that cylinder may be too lean.
- 6. Swap the ignition coils location and repeat the test. If the problem follows, replace the ignition coil.