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: 139-0001 Pulsar Coil 2 Cylinder

Replaces P/N: 3G2060220M, 3G2-06022-0, 3G206-0220.

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 Blue bullet connector to the CD Unit.
2. Remove the flywheel. Remember, the flywheel nut may be Left hand thread.
3. Remove the old Pulsar Coil Assembly screws, keeping the original mounting screws.
4. Remove the channel bracket holding the wires exiting the stator plate assembly, saving the mounting screws.
5. Unwrap the support arm from the wire bundle with the Red, Blue, White and Yellow wires.
6. Tie a string around the Blue wire of the old Pulsar Coil Assembly close to the bullet connector.
7. Spray a little cooking oil up into the wire bundle with the Red, Blue, White and Yellow wires.
8. Pull the Blue wire out of the wire bundle with the Red, Blue, White and Yellow wires.
9. Remove the string from the Blue wire of the old Pulsar Coil and re-tie it on the new Pulsar Coil's Blue wire near the bullet connector. Then, use the string to pull the new Blue wire through the bundle.
10. Route the wires from the new Pulsar Coil Assembly the same as the old Pulsar Coil Assembly.
11. Mount the new Pulsar Coil Assembly to the plate, using the recommended thread-locker applied to the screws.
12. Route the wire bundle under the channel bracket to hold the wires exiting the stator plate assembly in place using the original screws.
13. Wrap the support arm around the wire bundle with the Red, Blue, White and Yellow wires.
14. Install the flywheel according to the service manual, using the correct torque specifications.
15. Connect the Blue wire from the new Pulsar Coil Assembly to the CD Unit.

TROUBLESHOOTING

NO FIRE ON ANY CYLINDER:

1. Disconnect Brown 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. Test the stator (exciter) and trigger (pulsar) stator coils as follows:

Red Lead	Black Lead	Function	Ohms	DVA Connected
Red	Component Gnd (Black)	Exciter Coil	232-348 Ω	110 V Minimum*
Blue	Component Gnd (Black)	Pulsar Coil	30-48 Ω	3 V Minimum**

* A low resistance or DVA reading indicates the exciter coil is defective and needs to be replaced.

** A low resistance or DVA reading indicates the pulsar coil is defective and needs to be replaced.

NO SPARK ON ONE CYLINDER:

If only one spark plug has spark, the internal ignition coil is defective. The CD Unit will need to be replaced.

ENGINE WILL NOT SHUT OFF:

Short the Brown stop wire (from CD) to engine ground, if the engine shuts down, check the stop switch and harness.

HIGH SPEED MISS-FIRE:

1. Verify the engine has the correct sparkplugs installed and gapped.
2. Test the stator (exciter) and trigger (pulsar) stator coils as follows:

Red Lead	Black Lead	Function	Ohms	DVA Connected
Red	Component Gnd (Black)	Exciter Coil	232-348 Ω	110 V Minimum
Blue	Component Gnd (Black)	Pulsar Coil	30-48 Ω	3 V Minimum

3. On a Dynometer or on the water, connect DVA meter to the Red Exciter lead and engine ground. Run the engine to the point the miss-fire is present and watch the DVA voltage. The voltage should show a smooth climb and stabilize around 300 volts DVA, 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. Switch to the Blue wire and repeat the test.
4. Make sure the engine is not hitting the RPM Limiter at approximately 6200 RPM.
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 connection to the sparkplugs and repeat the test. If the problem follows, replace the ignition coil.