Installation and Troubleshooting Guide

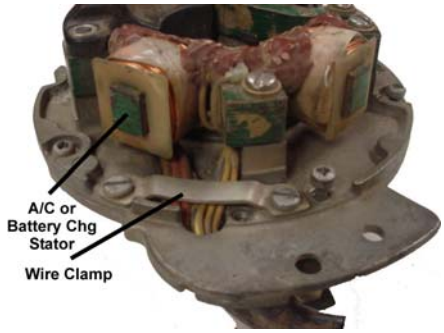
CDI P/N: 173-1670

This replacement coil fits P/N's: 581670, 584504, 584540, 585073 and 5000611

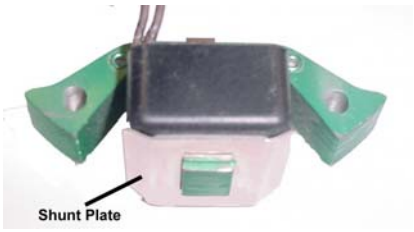
WARNING! This product is designed to be installed by a professional marine mechanic. CDI Electronics cannot be held liable for injury or damage resulting from improper installation, abuse, neglect or misuse of this product.

Installation

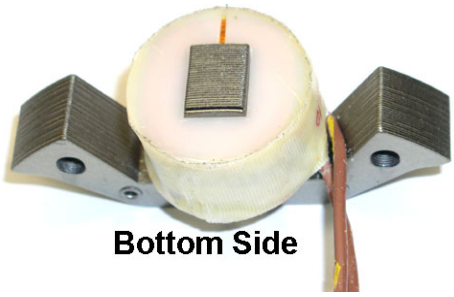
1. Remove the negative battery cable.
2. Remove the flywheel.
3. Disconnect the original stator wires from the power pack and rectifier (if equipped).
4. Remove the stator plate assembly (mark the location of the plate in relation to the engine block for reassembly).
5. Remove the wire clamp bracket on the top of the stator plate.
6. Remove the wire clamp bracket on the bottom of the stator plate.
7. Remove the A/C or battery charge stator (if equipped).



8. Using the 553-2698 and 553-2699 Pin removal tools, push the charge coil wire and pins out of the AMP connector.
9. Remove the Charge Coil frame from the stator plate and slide the wires back through the stator plate.
10. Mark the side of the stator frame on the side where the wires come out of the old coil.
11. Bend the locking tab up on the backside of the coil and remove the old coil from the frame.



12. Slide the new coil on the stator frame (NOTE: The wires will come out on the side of the coil – not the bottom). Fold the wires towards the outside and route them down and under the frame. If the old coil had shunt plates, you MUST use the new shunt plate provided with the new coil. **If the old coil did not use a shunt plate, do NOT install one.** Bend the top frame lamination up and the bottom lamination down to lock the coil on the frame.



13. Route the wires through the stator plate and sleeving. Then, using the 553-2697 insertion tool, install the pins in the AMP connector plug.
14. Using the 553-4994 Locator Ring and the original bolts, install the charge coil stator and the A/C or battery charge stator (if equipped) with a good thread-locker applied (CDI 989-3977 is recommended) to the bolts and tightened to the factory torque specifications.
15. Install the wire clamp bracket on the top of the stator plate.

16. Install the wire clamp bracket on the bottom of the stator plate.
17. Install the stator plate assembly (remember to align the mark on the plate to the mark on the engine block).
18. Connect the stator wires to the power pack and rectifier (if equipped).
19. Replace the flywheel according to the service manual.
20. Replace the battery cable.

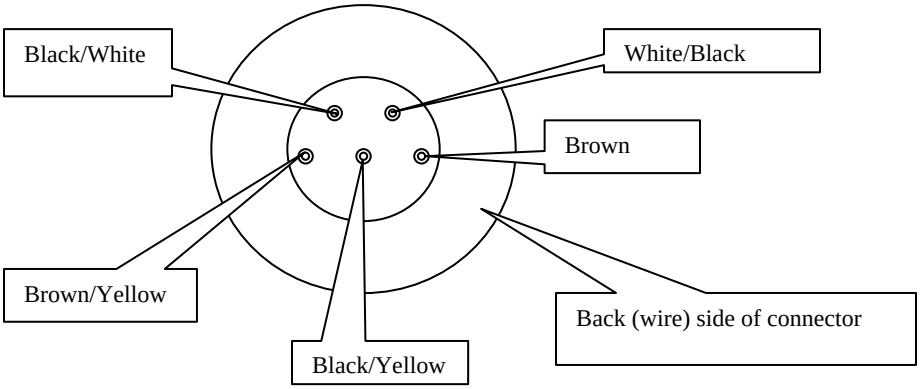
Troubleshooting the Stator

No fire at all:

1. Disconnect the Stop wire and retest. If the ignition now has spark, check the Stop circuit.
2. Check stator and trigger. See chart below:

Check from	Check to	Resistance	Minimum DVA at cranking speed
Brown	Brown/Yellow	450-600 ohms	200 V Disconnected
Brown	Brown/Yellow	450-600 ohms	150 V Connected
Brown	Engine Ground	Open	Less than 2 V Disconnected
Brown/Yellow	Engine Ground	Open	Less than 2 V Disconnected
Black/White	White/Black	35-45 ohms	1 V Connected

3. Inspect the flywheel magnets to see if they are loose or broken.
4. Check the wiring in the AMP connector as follows:



No Spark on One Cylinder:

1. Swap the Brown stator wire with the Brown/Yellow wire and see if the problem moves. If it does, one of the stator wires is likely arcing or shorted to engine ground.
2. Swap the Black/White trigger wire with the White/Black wire and see if the problem moves. If it does, one of the trigger wires is likely shorted to engine ground.
3. Check for broken flywheel magnets.
4. Check the power pack, stator and trigger. See chart below:

Check from	Check to	Resistance	Minimum DVA at cranking speed
Brown	Brown/Yellow	450-600 ohms	200 V Disconnected from the power pack
Brown	Brown/Yellow	450-600 ohms	150 V Connected to the power pack
Brown	Engine Ground	Open	Less than 2 V Disconnected
Brown/Yellow	Engine Ground	Open	Less than 2 V Disconnected
Black/White	White/Black	35-45 ohms	1 V Connected to the power pack
Orange/Blue	Engine Ground		130 V Connected to the ignition coil
Orange	Engine Ground		130 V Connected to the ignition coil

High speed miss or weak hole shot:

1. Connect a DVA meter between the brown and brown/yellow wires and do a running test. AT NO TIME SHOULD THE VOLTAGE EXCEED 400v. If it does, the regulator circuit in the power pack is bad. The voltage should show a smooth climb and stabilize, gradually falling off at high RPM (above 5000). If you see a sudden drop in voltage right before the miss becomes apparent, the problem is likely in the stator.
2. Connect a DVA meter from the Orange/Blue and Orange coil wires to engine ground and do a running test. If one of the wires drops voltage at high speed, swap the Orange/Blue with the Orange coil wire AND cross the spark plug wires. Then retest. If the low voltage stays on the same wire from the power pack and both the stator and trigger test good, the power pack is likely bad.

Thank you for using CDI Electronics. 11/18/2010