

INSTALLATION/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: 213-6667K 1 High Performance Ignition Kit 6 Cyl.

The 213-6667 Power Pack requires the 233-4586D Digital Timer Base. These parts cannot be used with the factory ignition power pack or timer base.
This kit will work on 1988 through 2001 Johnson & Evinrude 185, 200 and 225 HP carbureted two stroke engines.
The Power Pack has a 8500 RPM Rev Limiter.

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.
NOTE: THIS IGNITION REQUIRES THE FACTORY RECOMMENDED QL77JC4 SPARK PLUGS.

Installation

1. Disconnect the battery cables.
2. Remove power pack mounting bolts and disconnect all of the wires going to the old power pack.
3. Disconnect the yellow wires going to the regulator/rectifier.
4. Remove the flywheel and remove the stator.
5. As this system does not need it, remove and save the power coil (it can be identified by the Orange wires coming from it) from the stator. Be careful not to damage the battery charge windings.
6. Remove the original Timer Base.
7. Remove the linkage retainer from the old Timer Base and install it in the new Timer Base.
8. Lubricate the inside bearing area of the 233-4586 Timer Base and install it on the engine.
9. Connect the timing linkage to the 233-4586 Timer Base.
10. Install the stator and connect the Yellow wires to the regulator/rectifier (remember to anchor the connector to the bracket).
11. Disconnect the Purple wire going to the regulator/rectifier (if the purple wire is in a Deutsch connector instead of having a bullet connector, cut the Purple wire and crimp a female bullet on the end from the harness and a male terminal on the end from the regulator/rectifier). Connect the male & female bullet terminals from the 213-6665 power pack to the male & female bullet terminals on the Purple wire going to the regulator/rectifier. Use a small amount of dielectric silicone grease in the bullet connectors. If the Purple wire is on a terminal strip, use the adapter in the female bullet connector to connect the Purple wire to the same screw as the Purple wires on the terminal strip. Tape off the remaining Purple wire so it will not short to engine ground.
12. Connect the Timer Base's 4 and 5 pin connectors to the 4 and 5 pin connectors from the new power pack. Use a small amount of dielectric silicone grease on the male connectors.
13. Connect the stator charge coils (Brown wire sets) to the new power pack.
14. 1993-2001 engines: Connect the kill wires in the 2 pin connector to the 2 pin connector from the harness.
15. 1988-1992 engines: Using the original power pack as a guide, crimp and solder the new Amphenol sockets on the two Black/Yellow wires from the new power pack. The original pack may have a Black/Yellow and Black/Orange wires where the new pack has two Black/Yellow wires. Remove and re-use the two 1 pin Amphenol connectors off of the old pack.
16. Connect the Tan and White/Black wires to their respective wire colors.
17. Position the stator wire connectors in the lower slot provided in the electrical bracket.
18. Position the timer base wire connectors in the slot above the stator wire connectors in the electrical bracket.
19. Tape off the Yellow/Red wire from the harness, as it is not needed for this application.

All rights reserved. Reproduction or use of content, in any manner, without express written permission by CDI Electronics, LLC., is prohibited.



20. Mount the new power pack using the original bolts, grounding the Black wire to engine ground.
21. Connect the orange wires to the ignition coils (remember that the blue striped wires go up and the green striped wires go down).
22. Reconnect the battery cables.
23. Disconnect the spark plug high-tension leads from the spark plugs.
24. Connect a spark tester to the spark plug high-tension leads.
25. Connect a timing light to # 1 spark plug high-tension lead and set the ignition timing according to the service manual. Timing MUST be verified at 5000 RPM.

SERVICE NOTE: This ignition system uses battery voltage to operate. Please do not use maintenance free batteries with this engine because of a tendency to over charge in this application. This system will compensate for slow cranking speed caused by a dragging starter. Low voltage (below 10 volts) at cranking or high voltage (above 15.8 volts) at high speed may cause problems.

Troubleshooting

No Spark at All:

1. Disconnect the black/yellow engine stop wires AT THE PACK and retest. If the engine's ignition now has spark, the stop circuit has a fault-possibly the key switch, harness or shift switch.
2. Disconnect the yellow wires from the stator to the regulator/rectifier and retest. If the engine now has spark, replace the regulator/rectifier.
3. Check the stator resistance. You should read approximately 1000 ohms from the Brown wire to the Brown/Yellow wire.
4. Check the DVA output from the stator to the pack while connected to the power pack. You should have a reading of at least 150V or more from the brown wire to the brown/yellow wire (while connected to the pack) on each bank.
5. Check to make sure the Purple wire going to the power pack has at least 10 volts on it at cranking.
6. Check to make sure the Purple wire going to the timer base has at least 10 volts on it at cranking (if the reading is low her but ok on the Purple wire to the power pack, the power pack is faulty).
7. Check the cranking RPM. A cranking speed of less than 125-RPM will not allow the system to fire the spark plugs properly.

No Spark or Intermittent Spark on One Cylinder:

Check the DVA output on the orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V or more. If the reading is low on one cylinder, disconnect the orange wire from the ignition coil for that cylinder and reconnect it to a pack load resistor. Retest. If the reading is now good, the ignition coil is likely bad. A continued low reading usually indicates a bad power pack.

No Spark or Intermittent Spark on One Bank:

1. Disconnect the Kill (Stop) wires AT THE POWER PACK and retest. If you now have fire on all cylinders, there is a problem in the Kill (Stop) circuit.
2. Check the stator resistance. You should read approximately 1000 ohms from the brown wire to the brown/yellow wires.
3. Swap the Brown & Brown/Yellow wires sets from one connector to the other connector going to the stator.
4. Check the DVA output from the stator. You should have a reading of at least 150V or more from the brown wire to the brown/yellow wire (while connected to the pack) on each bank.
5. Check the DVA output on the orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V or more. If the reading is low on one bank, disconnect the orange wires from the ignition coils for that bank and reconnect them to load resistors. Retest. If the readings are now good, one or more of the ignition coils are likely bad. A continued low reading indicates a bad power pack.
6. Disconnect the shift interrupter and retest. If all cylinders now have spark, replace the shift interrupter.

All rights reserved. Reproduction or use of content, in any manner, without express written permission by CDI Electronics, LLC., is prohibited.



Engine will not rev beyond 2500 RPM:

1. Use a temperature probe and verify that the engine is not overheating.
2. Disconnect the tan temperature wire from the pack and retest. If the engine now performs properly, replace the temperature switch.
3. Make sure the tan temperature switch wire is not located next to a spark plug wire.

Thank You for Purchasing CDI Electronics

All rights reserved. Reproduction or use of content, in any manner, without express written permission by CDI Electronics, LLC., is prohibited.