



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: 136-6029-3 Trigger 3 Cyl.

Replaces P/N : 616029, F616029, 819017, 300-888795.

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 stator and trigger wires from the terminal strip, making sure the remaining wires on the terminal strip are labeled.
2. Remove the flywheel.
3. Remove the stator – Use extra care handling the stator, due to it being very fragile. The coating on the charge winding is very easy to break (Like an eggshell). Once the coating on the charge windings is broken, the stator will have to be replaced.
4. Disconnect the trigger linkage and remove the trigger.
5. Install the new trigger and reconnect the linkage.
6. Using extreme care, reinstall the stator.
7. Connect the trigger wires according to the numbers and wire color.
8. Connect the black wire to engine ground.
9. Reconnect the stator wires.
10. Install the flywheel according to the service manual.

Connections

Pack #1 (Firing #1 and #2 cylinders)

Trigger:	Orange (2) Green (1) Orange (3) Green (4)	Pack:	Orange Green White/Green Stripe Red
Stator:	Yellow Blue	Pack:	Brown/Yellow stripe or Yellow Brown/Blue stripe or Blue
Coil #1:	White	Pack:	Orange/Blue stripe or Blue/Orange stripe
Coil #2:	White	Pack:	Blue/Red stripe or Red

Pack #2 (Firing #3 cylinder)

Trigger:	No Connection (1) No Connection (2) Red (4) White/Green Stripe (3)	Pack:	Orange Green Red (4) White/Green Stripe (3)
Stator:	Yellow Blue (If an original OEM stator is used, connect to the Blue or Brown/Blue Stripe on pack 1)	Pack:	Blue or Brown/Blue Stripe
Coil #3:	White	Pack:	Blue/Red stripe

NOTE: If the stator is manufactured by CDI Electronics, the Blue (or Brown/Blue) and the Brown/Yellow stripe or Yellow stator wires will be connected to the pack firing #3 cylinder.

NOTICE: The color codes listed above may appear on the packs, stators or triggers. Some packs have solid colors and some triggers have striped wires. If you need further assistance, please call our technical support department.

TROUBLESHOOTING

1. DVA readings should always be taken with everything hooked up.
2. Disconnect the rectifier. If spark returns, replace the rectifier and check the stator's battery charge windings for over heating.
3. Check for broken wires and terminals, especially inside the terminals.
4. Check the flywheel for broken or loose magnets.
5. Disconnect the kill wires from the CD and connect a DC voltmeter between the kill wires and engine ground, turn the ignition switch on and off several times. If, at any time, you see voltage over 2 volts appearing on the meter, there is a problem in the harness or ignition switch. **At NO TIME SHOULD YOU SEE BATTERY VOLTAGE ON A KILL CIRCUIT.**
6. Visually inspect stator for burned or discolored areas. If found, replace the stator. Burned areas on the battery charge windings indicate a possible problem with the rectifier.

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NO SPARK ON ANY CYLINDER:

1. Disconnect and separate the White kill wire(s) AT THE PACK. If spark comes back, touch the White kill wires together and check for spark. If no spark, replace the packs. If you still have spark with the White wires touching together, there is a problem in the harness, key switch or the other ignition pack.
2. Check for broken or bare wires on the unit, stator and trigger.
3. Check the resistance (Ohms) and DVA of the stator.

Read From	Read To	OEM Ohms	CDI Ohms	DVA (connected)	DVA (disconnected)
Blue	Yellow	680-900	250-450	180V or more	180V or more
Yellow	Engine ground	OPEN	OPEN	180 V or more	2V or less
Blue	Engine ground	OPEN	OPEN	180 V or more	2V or less

NOTE: If the DVA is low, check the flywheel magnet to see if it has come loose from the flywheel.

NO SPARK ON ONE CYLINDER:

1. Disconnect and separate the kill wires. If spark returns to the dead cylinder, replace the pack that was firing correctly as it likely has a problem in the blocking diode.
2. Check resistance of the Trigger wires as follows:

Read from	Read to	Ohms	DVA	Cylinder #
Green (Pin 1)	Orange (Pin 2)	46-56	0.5 V	1
Green (Pin 3)	Orange (Pin 4)	46-56	0.5 V	2
White/Green (Pin 3)	Red (Pin 4)	46-56	0.5 V	3

3. Check resistance of the Stator wire sets as follows:

Read from	Read to	Ohms (OEM)	Ohms CDI	DVA (connected)	DVA (disconnected)
Yellow	Blue	680-900	250-450	180 V or more	180 V or more
Yellow	Engine ground	OPEN	OPEN	180 V or more	2V or less
Blue	Engine ground	OPEN	OPEN	180 V or more	2V or less

NOTE: If the voltage is correct between the wires, but exceeds 10% different to engine ground, swap the Yellow wire leads with the Blue wires to see if the problem moves. If it does, replace the stator.

4. Swap the trigger wires for the cylinder not firing with another cylinder. If the problem moves, replace the trigger. If the problem stays on the same cylinder, swap ALL connections between the two packs. If the problem moves, replace the defective pack. If the problem stays on the same cylinder, replace the ignition coil.

NO SPARK ON TWO CYLINDERS:

1. If two cylinders from the same ignition pack will not fire, the problem is usually in the stator. Test per above.
2. If the #1 and #3 cylinders are not firing, disconnect the Brown/Yellow wire from the #1 pack and retest. If you now get fire on #3, replace the #1 pack. If still no fire on #3, disconnect the Brown/Yellow wire from the #2 pack and retest. If you now get fire on #1, replace the #2 pack.

MIS-FIRING AT ANY RPM:

1. Try using Champion QL77JC4 sparkplugs gapped at 0.030.
2. Check the flywheel outer magnet for cracks or breaks.
3. Use an inductive tachometer and isolate the problem cylinder. Swap coils and see if problem moves. If it does, replace the coil. If no change, test trigger and stator per above.

ENGINE WILL NOT STOP RUNNING:

1. Disconnect the kill wires (normally White or Black/Yellow Stripe) from pack and short them to engine ground. If the engine loses all spark, there is a problem in the harness, Stop switch or key switch. If only one pack stops firing, replace the one that continued to fire.

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