



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: 136-4029-4 Trigger 4 Cyl.

Replaces P/N's: 654029-1, 300F654029-1 and 300-888797

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.

NOTICE: This trigger has been redesigned to use only five wires as opposed to the 8 wires used on the original design. This allows the use of heavier gage wire, resulting in better durability. Connect the black wire to engine ground.

Installation

1. Disconnect the trigger and stator wires.
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. NOTE: At this time it would be a good idea to check the outer flywheel magnet to make sure it still tightly bonded.
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.
8. Connect the Black wire to engine ground.
9. Reconnect the stator wires.
10. Install the flywheel according to the service manual.

4 Cylinder Connections:

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

Trigger: White/Orange	Pack: Orange or White/Orange Stripe
No Connection	White/Yellow Stripe
No Connection	White/Red stripe
White/Green Stripe	White/Green Stripe
Stator: Yellow or Brown/Yellow Stripe	Pack: Yellow or Brown/Yellow Stripe
Blue or Brown/Blue Stripe	Pack: Blue or Brown/Blue Stripe
Coil #1: White or Orange/Blue Stripe	Pack: Orange/Blue Stripe
Coil #2: White or Orange/Blue Stripe	Pack: Blue/Red stripe

Pack #2 (Firing #3 and #4 cylinders)

Trigger: White/Orange	Pack: Orange or White/Orange Stripe
No Connection	White/Yellow Stripe
No Connection	White/Red stripe
White/Green Stripe	White/Green Stripe
Stator: Yellow or Brown/Yellow Stripe	Pack: Yellow or Brown/Yellow Stripe
Blue or Brown/Blue Stripe	Pack: Blue or Brown/Blue Stripe
Coil #3: White or Orange/Blue Stripe	Pack: Orange/Blue Stripe
Coil #4: White or Orange/Blue Stripe	Pack: Blue/Red stripe

Color Code Cross Reference

FUNCTION	OLD	NEW
Trigger	Orange	White/Orange Stripe
Trigger	Green	White/Yellow Stripe
Trigger	Red	White/Red Stripe
Trigger	White/Green Stripe	White/Green Stripe
Stator	Blue	Brown/Blue Stripe
Stator	Yellow	Brown/Yellow Stripe
Ignition Coil	White	Orange/Blue
Stop (Kill) Circuit	White (Brown)	Black/Yellow

Troubleshooting

CDI Electronics, LLC • 353 James Record Road SW • Huntsville, AL 35824 USA
Web Support: www.cdielectronics.com • Tech Support: 1-866-423-4832 • Order Parts: 1-800-467-3371
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1. DVA readings should always be taken with everything hooked up.
2. Check for broken wires and terminals, especially inside the terminals.
3. Check the flywheel for broken or loose magnets.
4. 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.**
5. 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.

NO SPARK ON ANY CYLINDER:

1. Disconnect the White or Black/Yellow kill wire AT THE PACK. If spark comes back, there is a problem in the harness, key switch or the other ignition pack.
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 or bare wires on the unit, stator and trigger.
4. Check the resistance (Ohms) and DVA of the stator and trigger.

Read From	Read To	OEM Ohms	CDI Ohms	DVA (connected)	DVA (disconnected)
Brown/Blue (or Blue)	Brown/Yellow (or Yellow)	680-900	250-450	180V or more*	180V or more
Brown/Blue (or Blue)	Engine Gnd			180V or more*	2V or less
Brown/Yellow (or Yellow)	Engine Gnd			180V or more*	2V or less
White/Orange	Black	45-55	45-55	0.5V or more	
White/Green	Black	45-55	45-55	0.5V or more	

*Read each set going to one ignition pack. NEVER cross the wires pack to pack on an OEM stator as this will blow the packs.
NOTE: If the DVA is low, check the flywheel magnet to see if it has come loose from the flywheel.

5. Disconnect the rectifier and retest. If the engine fires, replace the rectifier.

NO SPARK OR INTERMITTENT SPARK ON ONE CYLINDER:

1. Disconnect kill wire from one pack. If the dead cylinder starts firing, the problem is likely the blocking diode in the other pack.
2. Check the resistance (Ohms) and DVA of the stator and trigger.

Read From	Read To	OEM Ohms	CDI Ohms	DVA (connected)
Brown/Blue (or Blue)	Brown/Yellow (or Yellow)	680-850	250-450	180V or more*
Brown/Blue (or Blue)	Engine Gnd	Open	Open	180V or more*
Brown/Yellow (or Yellow)	Engine Gnd	Open	Open	180V or more*
White/Orange	Black	45-55	45-55	0.5V or more
White/Green	Black	45-55	45-55	0.5V or more

* Read each set going to one ignition pack. NEVER cross the wires pack to pack on an OEM stator as this will blow the packs.

NO FIRE 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. If the #2 and #4 cylinders are not firing, disconnect the Brown/Blue wire from the pack #1 and retest. If you now get fire on #4, replace the #1 pack. If still no fire on #4, disconnect the Brown/Blue wire from the pack #2 and retest. If you now get fire on #2, replace the #2 pack.

ENGINE WILL NOT STOP RUNNING:

Check stop/kill circuit in the ignition pack by using a jumper wire connected to the White or Black/Yellow kill wire coming out of the each pack and shorting it to ground. If this kills the pack, the kill circuit in the harness or on the boat is bad, possibly the ignition switch. If the engine continues to run, replace the ignition pack.

COILS ONLY FIRE WITH THE SPARK PLUGS OUT:

1. Check for dragging starter or low battery causing slow cranking speed. DVA test stator and trigger.
2. Check compression with all spark plugs out. In rare cases, a blown cylinder head gasket can cause ignition problems.

HIGH SPEED MISS:

1. Using a digital multimeter with the 511-9773NL peak reading adapter and 511-9770 piercing probes, DVA check stator voltage to each pack at high speed. If it exceeds 400 volts, replace the pack.
2. Disconnect the rectifier and retest. If the miss is gone replace the rectifier.
3. Try using Champion QL77JC4 sparkplugs gapped at 0.030.
4. Check the flywheel outer magnet for cracks or breaks.
5. 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.

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