



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: 136-4029-2 Trigger 2 Cyl.

Replaces P/N's: 684029-1, 300F684029-1 300-888798, F684029, and F684029-1

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 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.
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. Reconnect the stator wires.
9. Install the flywheel according to the service manual.

Connections

Trigger:	White/Orange stripe	Pack: White/Orange stripe
	White/Yellow stripe	White/Yellow stripe
	White/Red stripe	White/Red stripe
	White/Green stripe	White/Green stripe
Stator:	Yellow	Pack: Brown/Yellow stripe
	Blue	Brown/Blue stripe
Coil #1:	White	Pack: Blue/Orange stripe
Coil #2:	White	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

Color Code Cross Reference

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

TROUBLESHOOTING

NO SPARK ON ANY CYLINDER:

1. Disconnect the stop wire AT THE POWER PACK.
2. Disconnect the rectifier. If the engine sparks, replace the rectifier.
3. Check for broken or bare wires on the unit, stator and trigger.
4. Check the stator and trigger resistance and DVA voltage as follows:

WIRE	READ TO	OEM RESISTANCE	CDI RESISTANCE	DVA
Brown/Blue (or Blue)	Brown/Yellow (or Yellow)	680-900	250-350	180-400 V Connected
Brown/Blue (or Blue)	Engine GND	Open	Open	< 2 V Disconnected
Brown/Yellow (or Yellow)	Engine GND	Open	Open	< 2 V Disconnected
White/Orange (or Orange)	White/Yellow (or Green)	45-55	45-55	0.5 V + Connected
White/Red (or Red)	White/Green	45-55	45-55	0.5 V + Connected

NO SPARK OR INTERMITTENT SPARK ON ONE CYLINDER:

1. Check the stator and trigger resistance and DVA voltage (see NO SPARK ON ANY CYLINDER above).
2. If readings are good, disconnect stop wire from the pack. If the dead cylinder starts sparking, the problem is likely the blocking diode in the pack.

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POWER PACK OR TRIGGER REPEATEDLY BLOWS ON SAME CYLINDER:

1. Check the trigger wires for shorts to engine ground as a shorted trigger wire can destroy a SCR inside the power pack.
2. In contrast, a shorted SCR inside the power pack can destroy a trigger coil. Check the trigger resistance and DVA output (see NO SPARK ON ANY CYLINDER above).
3. Replace the ignition coil on the cylinder dropping spark.

ENGINE WILL NOT SHUT OFF:

Disconnect all stop wires at the power pack. Connect a jumper wire to the stop wire from the pack and short it to engine ground. If this stops the pack from sparking, the stop circuit has a fault. Check the key switch, harness and shift switch. If this does not stop the pack from sparking, replace the power pack. Repeat test as necessary for additional packs.

COILS ONLY HAVE SPARK WITH SPARK PLUGS OUT:

Check for dragging starter or low battery causing slow cranking speed. DVA test stator and trigger.

MISS AT ANY RPM:

1. Disconnect the rectifier from the stator and retest. If the miss clears, replace the rectifier.
2. In the water or on a Dynameters, check the DVA output from the power pack outputs while connected to the ignition coils. You should have a reading of at least 150V DVA or more, increasing with engine RPM until it reaches 300-400V DVA maximum. A sharp drop in DVA right before the miss becomes apparent on all cylinders will normally be caused by a bad stator. A sharp drop in DVA on less than all cylinders will normally be the switch box or trigger.
3. Connect an inductive tachometer to each cylinder in turn and try to isolate the problem. A high variance in RPM on one cylinder usually indicates a problem in the power pack or ignition coil. Occasionally a trigger will cause this same problem. Check the trigger DVA voltage (see NO SPARK ON ANY CYLINDER above).
4. Perform a high-speed shutdown and read the spark plugs. Check for water. A crack in the block can cause a miss at high speed when the water pressure gets high, but a normal shutdown will mask the problem.
5. Check the triggering and charge coil flywheel magnets for cracked, broken and loose magnets.
6. Rotate the stator one bolt hole in either direction and retest.