



# 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: 114-7452K 1 Switch Box 2 Cylinder

NOTE: This unit replaces the 18-5777, 18-5778, 339-7452A1, A7, A8, A9, A10, A11, A13, A14, A15, A18, A19 and A21 switch boxes.

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

SERVICE NOTE: Check for DC voltage on the kill (stop) wires (usually Black/Yellow) with the key-switch in the on and off position. At no time should you see over 2 volts DC on this wire as severe damage to the power pack can occur.

### To replace a 339-7452 with wires

1. Disconnect and clean all engine and battery ground wires.
2. Disconnect all wires connected to the switch box and remove the green coil wires from the coils.
3. Unbolt and remove the old 339-7452 switch box.
4. Bolt the new switch box on, using the new bolts supplied.
5. It is recommended that dielectric grease (i.e. CDI 991-9705) be used in the bullet nose connectors to help prevent corrosion.
6. Reconnect the wires. (If the wires are too long, fold up the excess and secure with a cable tie).

### To replace a 339-7452 with stud terminals:

1. Disconnect and clean all engine and battery ground wires.
2. Disconnect all wires connected to the switch box and remove the green coil wires from the coils.
3. Unbolt and remove the old 339-7452 switch box.
4. Bolt the new switch box on, using the new bolts supplied.
5. Cut the ring terminals off of the stator, trigger and kill wire.
6. Strip off approximately 3/16 inch of insulation from the Black/Yellow (2), Black/White, Brown/Yellow and Brown/White wires.
7. Crimp and solder the bullet connectors and shields on the wires to match the wires on the pack.
8. Reconnect all wires to the pack. It is recommended that dielectric grease (i.e. CDI 991-9705) be used in the bullet nose connectors to help prevent corrosion.

## TROUBLESHOOTING

### NO SPARK ON EITHER CYLINDER:

1. Visually inspect the stator for cracks or varnish leakage. If found, replace the stator.
2. Disconnect the Black/Yellow kill wire FROM THE SWITCHBOX (remember to leave the Black/Yellow from the stator connected to the switchbox). Check for broken or bare wires on the unit, stator and trigger.
3. DVA test the stator and trigger as follows:

Read from	Read to	OEM Ohms	CDI Ohms	DVA
Black/White Stator High Spd	Eng Gnd	150-250	200-250	25 V or more
Black/Yellow Stator Low Spd	Eng Gnd	3250-3650	2300-2750	180 V or more
Brown/White	Brown/Yellow	650-850	650-850	4 V or more
Brown/White	Eng Gnd	OPEN	OPEN	< 1 volt

### NO SPARK OR INTERMITTANT SPARK ON ONE CYLINDER:

1. Inspect the flywheel to see if one of the magnets has broken loose and shifted around to where it is touching the other magnet.
2. Connect a spark tester to the ignition coils and swap the Green wires on the switchbox to the ignition coils. If the problem moves, check the Green wire for continuity. If OK, replace the switchbox. If the problem did not move, replace the ignition coil.

### ENGINE WILL NOT SHUT OFF:

Check the kill circuit in the pack by using a jumper wire connected to the Black/Yellow stud (remember to leave the Black/Yellow from the stator connected to the switchbox) coming out of the pack and shorting it to ground. If this kills the engine, the kill circuit in the harness or on the boat is bad, possibly the ignition switch.

### HIGH SPEED MISS:

Check the DVA voltage of the stator while running the engine. It should show a smooth climb on the black/white wire. NOTICE: Use caution when doing this and do not exceed the rated voltage range of your meter. The readings should show a smooth climb in voltage. If there is a sudden or fast drop in voltage right before the miss becomes apparent, the stator is usually at fault. If there is no indication of the problem, it could be a small water leak in one or both cylinders.

### BOTH CYLINDERS HAVE SPARK BUT THE ENGINE WILL NOT RUN:

1. Check the flywheel shear key.
2. Index the flywheel and check timing on both cylinders. If the timing is off, check the trigger and flywheel. If no other fault is found, replace the switch box.