

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: 134-6456-18 CDM Trigger 6 Cylinder

This item replaces the following P/N's: 96455A18 and 96455T18

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.

INSTALLATION

1. Disconnect the negative battery cable and remove the flywheel according to the service manual.
2. Disconnect the trigger lead from the TPM.
3. Disconnect the trigger linkage arm from the trigger.
4. Remove the bushing from the old trigger arm and install it in the new trigger arm.
5. Remove the stator bolts and lay the stator out of the way.
6. Remove the old trigger and install the new trigger and the stator according to the service manual.
7. Connect the trigger linkage to the bushing and then connect the trigger lead to the TPM.
8. Replace the flywheel according to the service manual and reconnect the negative battery cable.
9. Verify and adjust ignition timing as needed according to the service manual.

TROUBLESHOOTING

NO FIRE ON ANY CYLINDER:

1. Disconnect the CDM Modules one at a time and see if the spark returns. If so, replace the CDM Module you have disconnected. Remember, there can be more than one issue on the engine.
2. Using the 511-5702A 1 Test Harness, connected between one of the CDM Modules, disconnect the Black/Yellow Kill wire from the CDM Module and retest for spark. If Fire returns on that cylinder, the Kill circuit has a fault.

NO FIRE OR INTERMITTENT FIRE ON ONE OR MORE CYLINDERS:

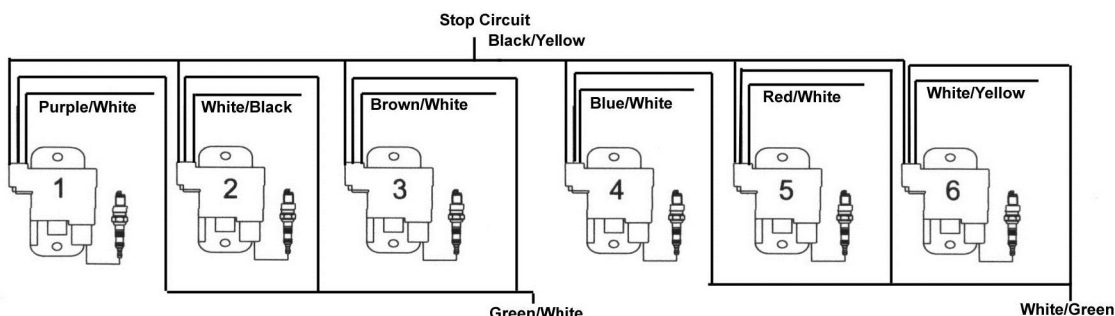
1. Disconnect the CDM Modules one at a time and see if the cylinders not firing start to fire. If so, replace the CDM Module you have disconnected. Remember, there can be more than one issue on the engine.
2. Locate the two ground terminal for the CDM Modules ground wires. Originally, there are 3 wires going into a single ring terminal. Clean the mounting plate and cut off the single ring terminal and install individual ring terminals on the wires. Do this for all 6 wires. We recommend adding a secondary ground wire (10-12 ga) from one of the ground points, routed around and connected with the Negative Battery cable on the engine.
3. Using a set of piercing probes, check the trigger Resistance and DVA output as given below:

Wire Color	Check to Wire Color	OEM Resistance	CDI Resistance	DVA Reading (Disconnected)
Purple wire	Blue	1100-1400	800-1050	4V or more
White wire	Red	1100-1400	800-1050	4V or more
Brown wire	Yellow	1100-1400	800-1050	4V or more

4. Using the 511-5207A 1 Test Harness, check the trigger voltage going to each CDM:

Wire Color	Check to Wire Color	OEM Resistance	CDI Resistance	DVA Reading
Purple wire	Engine GND	Open	Open	.25V or more
White wire	Engine GND	Open	Open	.25V or more
Brown wire	Engine GND	Open	Open	.25V or more
Blue wire	Engine GND	Open	Open	.25V or more
Red wire	Engine GND	Open	Open	.25V or more
Yellow wire	Engine GND	Open	Open	.25V or more

5. The connection guide below will assist you in locating areas where problems can occur. Remember a short in either #1, #2 or #3 can cause either # 4, #5 and #6 not to have spark.



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.**

HIGH SPEED MISS:

1. Disconnect the Yellow wires from the stator to the Regulator/Rectifiers one at a time and retest. If the miss clears, replace the Regulator/Rectifier.
2. 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 trigger or CDM module. Check the trigger DVA voltage (see NO SPARK OR INTERMITTENT SPARK ON ONE OR MORE CYLINDERS above).
3. 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.
4. Check the triggering and charge coil flywheel magnets for cracked, broken and loose magnets.
5. Index the flywheel and check the timing on ALL cylinders. On carbureted models, the control module rev limit function starts to retard timing in sequence (2, 3, 4, 5, 6, 1) at 5800-6000 RPM. The control module will retard the timing each cylinder up to 30 degrees (starting with #2) and then stop firing that cylinder if the RPM is still above the limit. It will continue to retard, then shut down each cylinder until the engine drops below the limit.
6. Check the stator resistance and DVA output as given below:

WIRE	READ TO	OEM RESISTANCE	CDI RESISTANCE	DVA (Connected)	DVA (Disconnected)
White/Green	Green/White	380-430	380-430	160-400 V	200-400 V (*)
White/Green	Engine GND	Open	Open	160-400 V	< 2 V
Green/White	Engine GND	Open	Open	160-400 V	< 2 V

(*) This reading can be used to determine if a stator or the CDM modules have a problem. For instance, if you have no spark on any cylinder and the stator's DVA reading is low – disconnect the stator wires and recheck the DVA output. If the reading stays low – the stator is bad. If the reading is now within spec – at least one of the CDM modules is bad.

ENGINE HAS ERRATIC TIMING OR ADVANCED TIMING:

1. Check the trigger magnet in the flywheel to see if it is loose or cracked.
2. On EFI engines, disconnect the 4 wire Detonation Controller and check the DVA voltage on the Black/White wire, reference to engine ground. You should read between 25 and 40 volts. If the voltage is low, replace the Engine Control Module.
3. Replace the Engine Control Module.

ENGINE DOUBLE FIRING:

1. If the engine is a EFI Engine, check the Bias DVA voltage on the Black/White wire, reference to engine ground. You should read between 25 and 40 volts. If the voltage is low, replace the TPM Control Module.
2. Swap the CDM that is double-firing with another CDM firing cleanly. If the problem moves, replace the defective CDM.
3. Locate the two ground terminal for the CDM Modules ground wires. Originally, there are 3 wires going into a single ring terminal. Clean the mounting plate and cut off the single ring terminal and install individual ring terminals on the wires. Do this for all 6 wires. We recommend adding a secondary ground wire (10-12 ga) from one of the ground points, routed around and connected with the Negative Battery cable on the engine.