

CDI Electronics®

Four Cylinder Engines

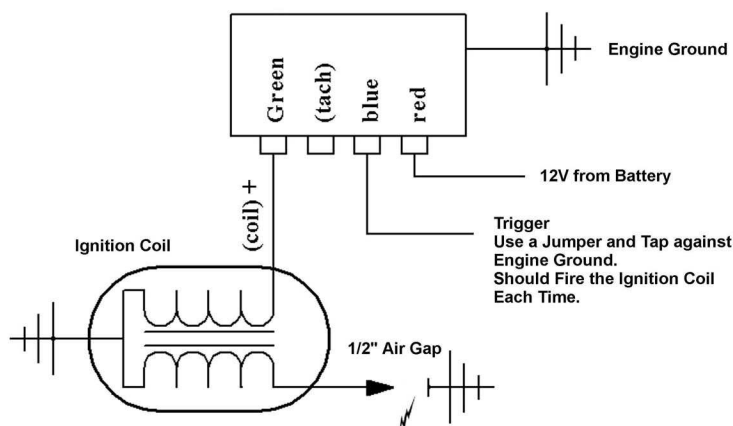
1970-1971 Engines (With 337-4406/337-4411 Switch Box)

WARNING: Check the battery voltage at approximately 3500 RPM, MAXIMUM allowable reading is 16 volts and minimum is 12V. Running below 12V or over 16 volts will damage the ignition. Check for loose connections or a bad battery. Maintenance free batteries are NOT recommended for this application.

(SERVICE NOTE) Due to problems associated with this system, it is recommended that the system be converted over to a 332-2986/393-3736 type system. (CDI Electronics offers a conversion kit, P/N – 114-2986K1)

Engine Wiring Connection for Testing Ignition 337-4411 Module

4 Cylinder Battery Ignition



GENERAL:

1. Clean all battery connections and engine grounds.
2. Disconnect the mercury tilt switch and retest. If the ignition works properly, replace or discard the mercury tilt switch.
3. Connect a spark gap tester to the spark plug wires and check for spark on *all cylinders*. If some cylinders spark and not others, the problem is likely in the distributor cap, rotor button or spark plug wires.
4. Perform a voltage drop test after the engine is repaired to see if there is a problem with the voltage going to the CD module. At cranking and while the engine is running, use a DC voltmeter and put the Black meter lead on the battery POS (+) *post* and the Red meter lead on the positive battery cable at the starter solenoid. Keep the Black lead on the battery post and shift the Red meter lead to the positive post of the rectifier, then to the Red and White terminals on the switch box. If you find a reading above 0.6V, there is a problem at the point where the voltage jumped up. For instance, if the meter reads 0.4V until you get to the White terminal and then jumps to 2.3V on the White terminal – this indicates a problem in the key switch, or harness. Repeat the test for the negative battery post by putting the Black meter lead on the battery NEG (-) *post* and the Red meter lead on the negative battery cable terminal, then shifting to the engine block, rectifier base and case ground of the CD module.

NO SPARK ON ANY CYLINDER:

1. If a mercury tilt switch is connected to the switch box, disconnect it and retest. If you now have spark, replace or discard the mercury tilt switch.
2. Connect a spark gap tester to the high-tension lead coming from the ignition coil and set it to approximately 7/16". When you crank the engine over, if it sparks while the spark gap tester is connected to the coil and does not spark through the spark plug wires – there is a problem in the distributor cap, rotor button or spark plug wires.
3. Check the DC voltage present on the White trigger wire and the Red terminal of the switch box while cranking. It **MUST** be at least 9.5 volts. If not, there is a problem in the harness, key switch, starter, battery cables or battery.
4. Check DVA voltage between the Blue terminal and engine ground while cranking (The trigger wire must be connected to the switch box). You should read at least 9V. A low reading indicates a bad switch box.
5. Disconnect the wire from the Blue terminal of the switch box and connect a jumper wire to the terminal. Strike the other end of the jumper wire against engine ground. The switch box should spark each time. Failure to spark usually indicates a bad CD module.
6. Check DVA voltage on the Green wire going to the coil, it should be over 100 volts at cranking.

NO SPARK OR INTERMITTENT SPARK ON ONE CYLINDER:

1. Connect a spark gap tester to the spark plug wires coming from the distributor cap and set the air gap to approximately 7/16".
2. Align the rotor with #1 spark plug wire. Disconnect the wire from the Blue terminal of the switch box and connect a jumper wire to the terminal. Strike the other end of the jumper wire against engine ground. Only the #1 spark plug wire should spark. If any other spark plug wire has spark, there is a problem in the distributor cap.
3. Repeat the test for the other cylinders.

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NOTICE: The 4 cylinder engines using the 332-3213 ignition module and belt driven ignition driver DO NOT USE BATTERY VOLTAGE. Connecting 12V to the Red terminal will destroy the module.

