

# CDI Electronics®

## Mercury

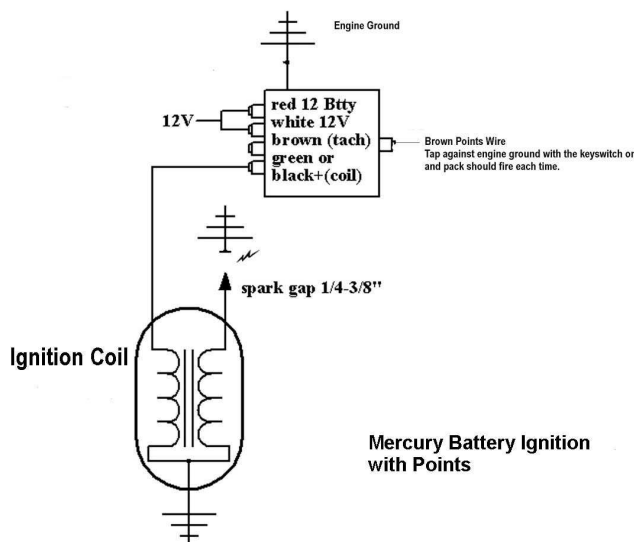
### Battery CD Ignitions with Points

#### 1966-1967 Models 950 and 1100 (With 114-2803/332-2803 Switch Box)

(SERVICE NOTE) Check the battery voltage at approximately 3500-RPM. The MAXIMUM reading allowable is 16 volts. Over 16 volts will damage the ignition. Check for loose connections or a bad battery.. **Maintenance free batteries are NOT recommended for this application.** A CD Tester (CDI Electronics P/N: 511-9701) can be used to test the CD module, distributor cap, rotor button and spark plug wires on the engine.

Technical Information: The points set at 0.005 on each set as a preliminary setting. Dwell must be set at 55 degrees with a dwell meter.

#### Engine Wiring Connection for Testing Ignition Module



1. Clean all battery connections and engine grounds.
2. Disconnect the mercury tilt switch and retest. If the ignition works properly, replace the mercury 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. 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.
5. Check voltage present on the White and Red terminals (White wire on the 114-2803) while at 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.
6. Check DVA voltage on the Green wire going to the coil, it should be over 100 volts at cranking.
7. Disconnect the Brown points wires. Turn the ignition switch on and strike one of the Brown points wire against engine ground. The unit should spark each time. If the coil does spark, this means the CD module is usually good and the points, points plate and grounding wire for the points plate should be checked.
8. Connect a spark gap tester to the high-tension leads coming from the distributor cap and set the gap to approximately 7/16". Align the rotor with #1 spark plug wire. Turn the ignition switch on and strike the Brown points wire against engine ground (Or use a CD Tester). Only the #1 spark plug wire should spark. If any other spark plug wire now has spark, there is a problem in the distributor cap. Repeat the test for the other cylinders.
9. 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 example, 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.