**Ignition Diagnosis for CB/CM 400/450 Automatic Trans 1978-1983  
Original document by Jim O’Brien. Updated by Frank Sapone.**

If all these tests are good then the CDI is at fault. Before replacing a CDI all these components have to test good.  
Use a Multi-Meter, VOM or Volt-Ohm-Meter, with a new battery and set it to measure electrical resistance in Ohms.  
Separate the three connectors from the stator to the CDI for the stator tests, use the stator side connections.   
The fuel tank has to be removed to test the coil and run/kill switch. The Black w/White wire pigtail is at the CDI.   
  
**Coil Test:**

* **Primary Side**. Measure the resistance between the Yellow and Green wires.  
  The Yellow and Green wires being measured will be coming out of the spark plug coil.  
  The resistance should be less than 1 Ohm. Spec is 0.35 to 0.55 Ohms
* **Secondary Side:** Measure the resistance of the spark plug wires with the plug end caps removed, they unscrew. Insert a probe into each wire. Spec is 7.2K Ohms to 8.8K Ohms for the stock Honda coil, other coils will have different specs.
* **Plug End Caps:** Measure the resistance of the plug end caps. Spec is 5K Ohms. Replacement part number is NGK XD05F.

**Stator Tests:**  
The connectors used are found under the left side cover.

* Measure the resistance of the Pink and Green wires in the large 6 pin connector. This is the advance pickup coil.   
  The resistance should be between 10 to 30 Ohms.
* Measure the resistance of the White and Blue wires in the 2 pin connector. This is the power to the CDI.  
  The resistance should be between 4 to 7 Ohms.
* Measure the resistance of the White wire in the 2 pin connector and Green wire in the large 6 pin connector.  
  The resistance should be between 200 to 500 Ohms.
* Measure the resistance of the Brown and Orange wires in the large 6 pin connector.  
  This is the primary pickup coil.  
  The resistance should be between 100 to 200 Ohms.
* The stator ohm readings listed can exceed the old spec by no more than 1 Ohm, more than that will have a negative effect on the timing advance. If unsure after measurement, you should verify with a timing light. At idle in Neutral the timing marks should align to the ‘N’ mark. In 1 or 2 the timing marks should align to the ‘F’ mark. Around ~4000 RPM the timing marks should align somewhere between the double line ‘| |’ marks.

**Change Relay Test:**

Set your DVM to Volts. Connect the red probe to the Green w/ Red tracer in the 2 pin connector. Connect the black probe to the Green wire in the 3 pin connector. Put the bike on the centerstand and place the bike in Neutral. Turn the key to the “Run” position.

* In Neutral the voltage should be about 0.7V.
* In 1 and 2 the voltage should be 11-13V (should be the same as your battery voltage).

**Run/Kill and Ignition switch Tests:**

Connect one probe to the Black w/White tracer pigtail wire coming out of the main wiring harness that connects to the CDI unit. Connect the other probe to the negative battery terminal. The results should be:

* Ignition switch on, Run/Kill switch in Run position: Infinite Ohms reading meaning an open circuit.
* Ignition switch on, Run/Kill switch in Off position: 0 Ohms or close to that showing the circuit is closed/completed to ground.
* Ignition switch OFF, Run/Kill in any position: 0 Ohms or close to that showing the circuit is closed/completed to ground.

**Alternator Tests:** Use the connector with 3 Yellow wires.

Select/connect to one Yellow wire with a probe. Connect the other probe to one of the remaining 2 Yellow wires, resistance should be below 1 Ohm.

Repeat twice using a different wire each time.

If the readings are good then test each of the Yellow wires with one probe connected to ground. There should be an Infinite Ohms reading meaning none of the charging coils is shorted to ground.