

About repairing, first precondition for success is healthy stator, ignition coils, fixed pulsers and spark advance stator etc.

Second precondition is elementary knowledge about resistors, rectifiers (diodes), capacitors and SCR (thyristors). You should have multi-meter which is able to measure resistance, capacity and with diode test.

Now.

What was wrong?

1) No spark in both channels - possible cause - interrupted D1,2, short circuit in D5,6,7,SCR.L, SCR.R or combination of causes which are in next point.

2) No spark in one channel - interrupted D3 (D4 for right) D8 (9), SCR.L (SCR.R) or bad connection to CL (CR), 2.2uF

3) Bad advance (backfire) - something is wrong with D12,13,C8 or C9

4) No advance - interrupted D10 (11) or short circuit in SCR.P (left channel).

5) Popping, misfire... - usually bad contact, typically capacitors. This is the worst case because defect can be anywhere and everything may seem OK during the test.

You can check CDI without multi-meter. Description is on site <http://www.hondacx500.nl/> (Techniek - Hulpmiddelen entips - Uitgebreide CDI beschrijving). At the bottom of the page are pictures with simple test circuit.

Unfortunately, this test circuit is able to show only which part of CDI is possibly bad.

But, if is everything OK in this test you will know that SCRs are good and problem are probably connection 2.2uF CL,CR (one or both channel without spark) or D12,13 and other capacitors (misfire, backfire, popping etc.).

The easiest thing you can do is to remove the covering material from the underside of the CDI unit. Then you can make measurements directly on the board. You can check D5,12,11,13 and CL,CR (2.2uF). Other components are connected by both leads to the circuit and you must keep in mind that measured values will be affected. When you will find a suspicious device, you can try to disconnect this device on board (interrupt the path on board). But watch out, board has connections on both sides. If is the device ok you can connect it back (easy by solder). When you find damaged device you can change it. You must remove covering material from other side or you can (in some cases) disconnect the device on board and bridge it with new component. This is possible only with small devices. According to my experience are the most problematic - rectifiers, 2.2uF capacitors and SCRs. There are two sort of rectifiers. D1-5 are V08G (1.1A,600V, trr 3us) and D6-13 are V06E (1.1A, 400V). I used BYT03-400 because I didn't have any information about V08G but I found V08G and V06E datasheet yesterday and I cant recommend BYT03-400 . They have been working in my CDI for four years without problems but original V08G are designed for higher voltage. If you change SCR.R or SCR.L don't forget adapt R27,26 or R24,25. The best way is change the SCR.R and SCR.L together (same type- similar parameters). Don't use electrolytic capacitors. They are small but MKP,MKS and similar are better. Pictures are from the Dutch site.

