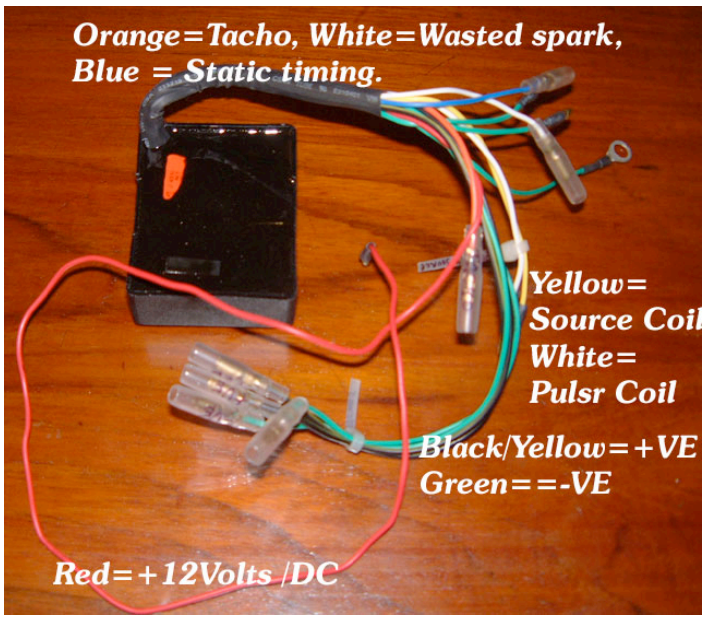
Digital CDI II (Aug 2005)

The wires are subdivided based on length. Starting with the longest wire working towards the shorter wires

- *Long Red wire: CPU Power +12 Volts. Connect to Brown wire on harness*
- *Two Black yellow female = +VE on HT coils.*
- *Two Green female = - VE on HT Coil*
- *Male Yellow to Brass coil plate*
- *Male white to Brass coil plate.*
- *Orange Female = Pulsed 12V/DC for tacho*
- *White Female = Wasted Spark off when shorted to green*
- *Blue Female = Static timing when shorted to green.*



Rectifier & Regulator:

Yellow+White:	A/C power for Head light.
White+Red:	A/C in off coil plate
Red:	DC out 13.5-14.5 Volts. Do not load without a batt. Hooked up.
Black or B&W	Earth.

We have labeled the complete harness. Simply read and plug in required component.

FAQ

Kits where both CDI systems have been supplied. Which do I use.

We recommend you use the newer Digital II CDI.

Danger of blowing up CDI.

The CDI will be damaged if

a. You use your stock Ign s/w and not the one supplied with the bike.
b. DC Voltage of any kind comes in contact with the CDI harness or CDI
c. The HT Coils are not grounded to the frame of the bike. They need to be grounded firmly metal to metal with a Nut.
d. The HT coil lead is help too far away from the engine preventing a spark from forming.
e. HT Coils used with a CDI are totally different from HT coils that are designed to work with a Battery based system. Using performance coils designed to work with the Bat i.e. DC voltage will damage the CDI.

Trouble Shooting:

Note: No matter how sure you are that there is something wrong with the kit. don't panic. The kit has been sold around the world there are tons of people running the kit with no problems what so ever. Yes the first five kits did have some problems which where sorted out. Every now and then when the kit was installed on a new model some issues would crop up which required revisions to the kit. But by the time your reading this the kit has already sold to over 1000 RD owners. So it is highly unlikely that the problem your facing is a Bug in the system. I have noted some of the common problems and questions people run into while installing the kit. This by no means can cover all the possible issues so feel free to mail in your questions. Just don't go "There is something drastically wrong with the kit it cant be installed properly on a RD. Mail in your questions / problems and we will try our best to sort them out.

I followed your recommendations of hooking up just the Basic kit and 2 Y cables I'm not getting a Spark.

Take a Multi Meter and check the readings between the White/Green wire and Ground. Take the reading at the connection just before you plug it into the HT Coil White wire. You should get a reading of 82 Ω. If you get no reading then there is a loose contact between the point where you are checking and the Pulsar. If you get a shorted reading that means that the wire is touching ground somewhere. Likewise you need to check the readings for the Red Y cable which is connected to the red and black on the Source coil. You should get a reading of of 280 Ω. Same issues here a short means the wire is shorted to ground no reading means a loose contact. Look for the loose contact at the various connectors. And check the wiring and Y cable separately with a multi meter. If you cant locate the problem you will need to pull out the Coil plate from the bike and check the wires.
Another reason why you are not getting a spark could be if the Red Female bullet connector is grounded or connected to the Harness with the Black/White Y cable and this is being grounded either by the kill switch or the Ignition switch. Which is why we don't recommend hooking up this wire till after initial testing. Ok so now we know there is no short and that the coils are ok. We now need to chk if the coils are touching the magnet or too far away from the magnet. For this we switch the mm to measure a/c current. With the plugs out give the bike a few swift kicks. You should see +12 Volts from the source coil and +2 Volts from the pulsar.

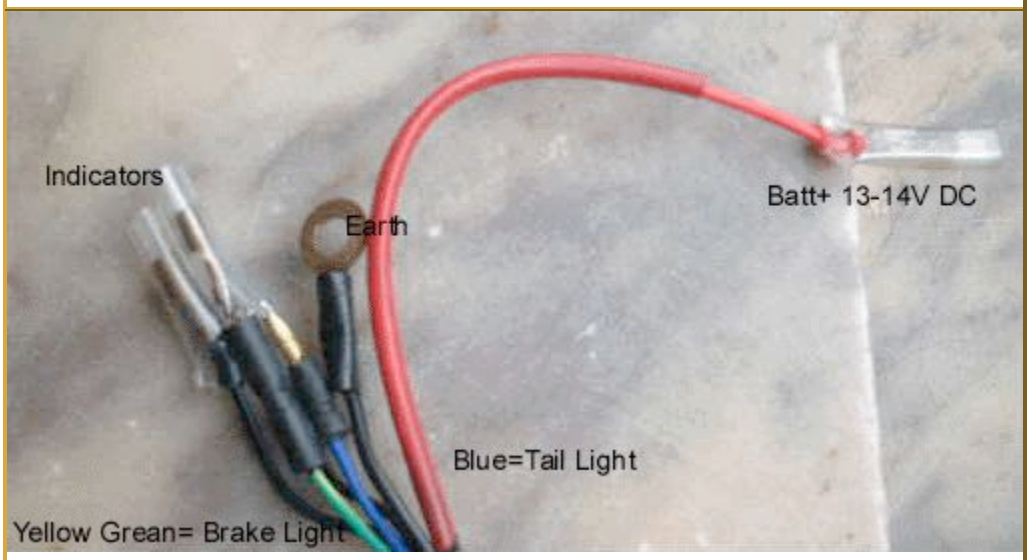
Only one engine is running.
If one engine is running then it means the source coil is producing power all right, And the pulsar is also working because its sending a fire signal. The only issue could be that there is a loose contact with one of the Y cables. Or that the HT coil is not working. Use a multi meter to check for a loose connection or shorted wire.

My head light is not working.
If you see the picture above showing the reverse of the coil plate. You will see that a single red wire from the lighting coils is connected to the Yellow and white wire. This sometime comes loose. We have designed it in such a way that it comes loose if pulled. Better the wire separates here than braking the wire from the lighting coil and ruining the coils. Check the White and yellow wires on the coil harness and ground to see for an open or short. If this is OK you will need to chk for power in various other points i.e. at the switch cluster.

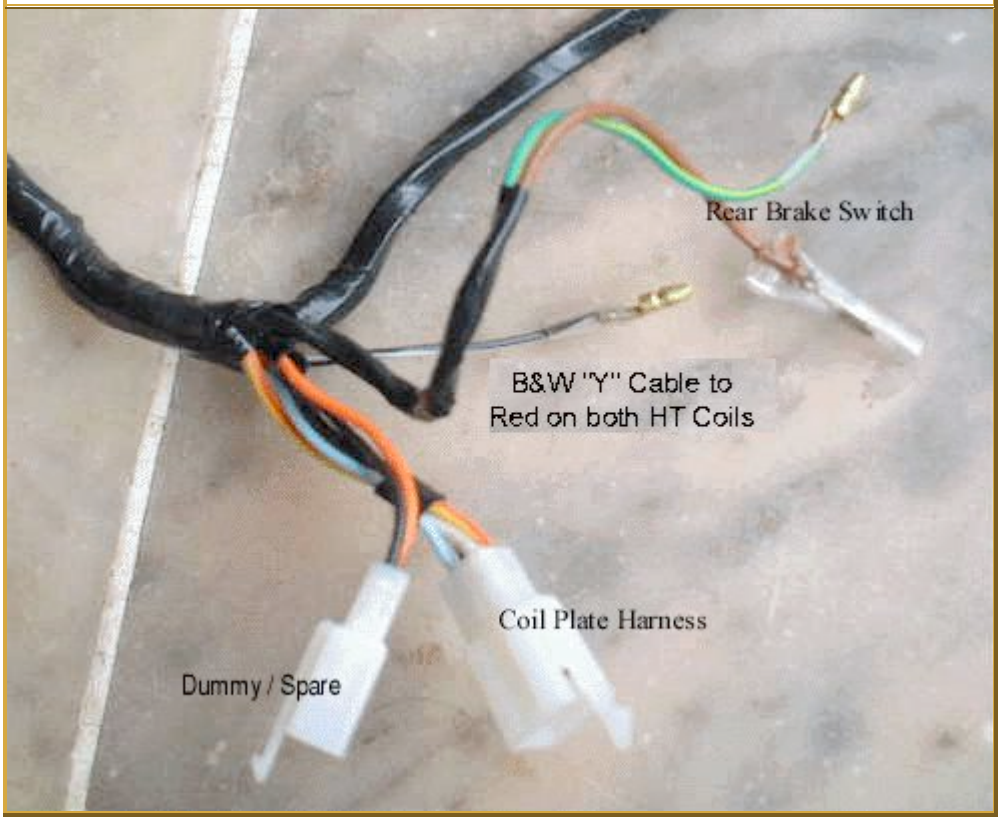
I'm not getting a spark and when I turn the magnet with my hand the long source coil is touching the magnetic drum. I need a new brass plate. (reported by only one customer)
The only reason we use the mush more costly Brass for the plates is because no matter where in the world you are its easy to work with. The solution to your problem is easy. Simply loosen the the screws holding down the long source coil and move the coil to the right or left as needed and tighten down. You may need to file the legs the long source coils sit on. Reinstall and your problem should be sorted.
The wires are getting pinched. And the plate is not sitting flat. You have to get the wires routed exactly as shown in the pictures above if you do it will work fine.
I cant get the magnetic drum onto the crank end. Do I need to file my Lock
First check that the key lock unit is standard size and slides freely in the slot / keyway of the mag drum. Some people find it easier to install the drum if the half moon lock is stuck into the crank end with super glue. Some find it easy to do without sticking the half moon lock to the crank end. NO you dont need to file your lock. Because the Drum will ride up the crank end based on the way the neck is machined and has very little to do with your lock or the keyway.
I'm getting very low voltage at the Horn and indicators.
The kit outputs a/c. This a/c is good to power your HT Coils with a nice strong spark. And even your headlights. It is not intended to power you D/c applications like Horn / Indicators etc. for this you need a standard batt. Or you need to get an a/c horn and a/c flasher and reroute a/c to these options.

Understanding the Harness.

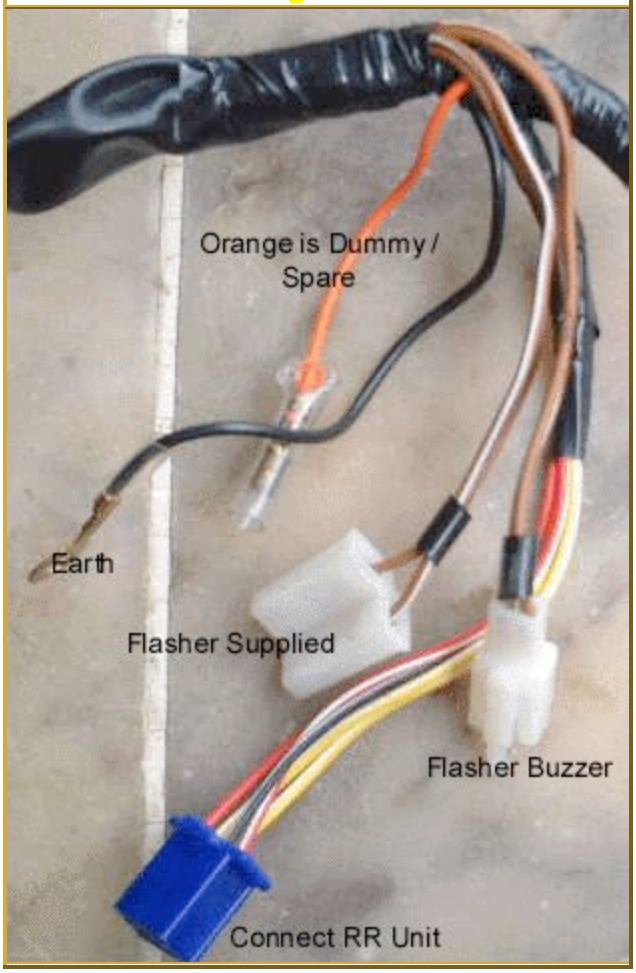
Tail Section



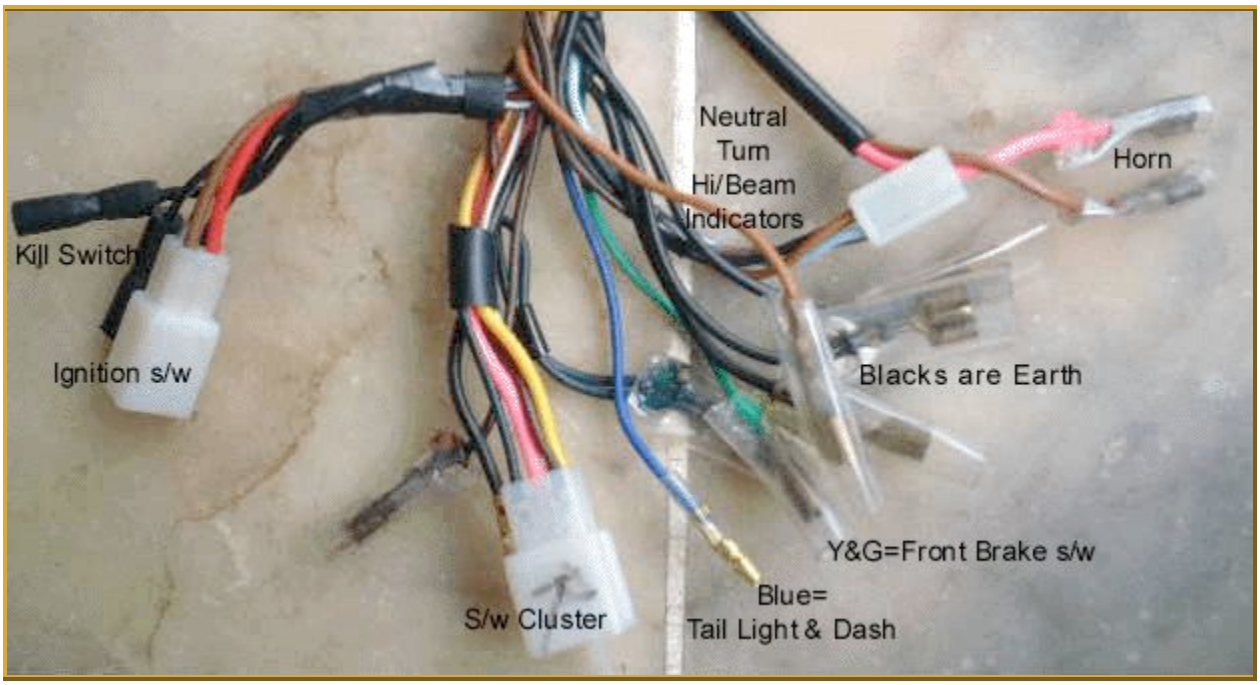
Coil Plate Section



Rectifier Regulator Section



Head Section


Neutral
Turn
Hi/Beam
Indicators
Horn
Kill Switch
Ignition s/w
Blacks are Earth
Y&G=Front Brake s/w
Blue=
Tail Light & Dash
S/w Cluster