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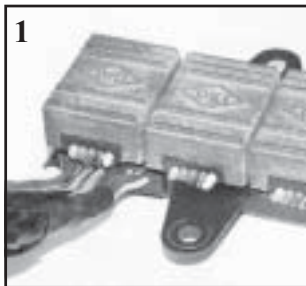
Spark Unit Repair

by Dennis Lodge #5699

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Spark Unit failure is one of the more common problems which can be encountered on machines which are now in many cases 25 years old.

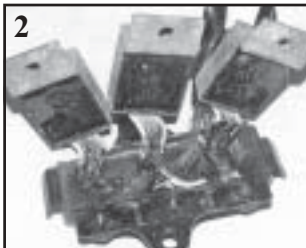
The unit on the "Z" is to be found underneath the battery compartment and as such is subject to all the elements nature provides.



Picture 1 shows the original unit which consists of 3 individual spark units assembled as one.

Each unit is attached with a single 6 mm cross head to the tray however the wiring from each unit is combined so as to provide the 3 separate connector block feeds.

Picture 2 shows the 3 units unscrewed and pulled away from the tray.



The wiring within the tray is encapsulated to provide weather resistance. The main compound used is a hard epoxy type material, on top of which is a layer of sticky tar like substance.

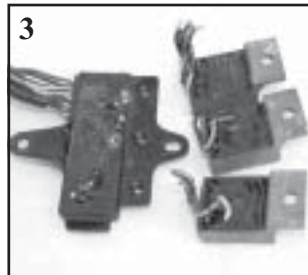
Each Spark Unit has five separate wires emerging from it. These are colored: YELLOW, GREEN, BLUE, BLACK / WHITE and WHITE.

Emerging from the tray are the following wires YELLOW x 3, WHITE x 3, BLUE x 3, GREEN x 1 and finally BLACK / WHITE x 2.

Therefore within the potted wiring (epoxy area) the 3 GREENS are combined to form a single exit GREEN wire and the three BLACK / WHITE wires are combined to form 2 exit wires.

The original method of joining the wires within the epoxy is quite simple, the wires are bared and sandwiched in small FOLDED pieces of brass sheet.

Picture 3 shows the separate spark units cut off close to the tray.



The same type of spark units are used on other HONDA models around the same period including the CBX Pro-Link. However these models use separate Spark units which have separate connector blocks. Therefore on the other bikes each Spark Units connect directly into the bikes wiring without the complexity of the encapsulated tray as on the "Z".

So these separate spark units can provide a replacement source whether replacing one or all three. However you may/will need to visit some breakers etc.

I used a Dremel and small carbide burr to remove the epoxy. However you need to remove it carefully so as not to damage the wiring.

Also the long grommet which holds the wires as they exit the tray needs to be preserved.

I soldered the new joints in the wiring between the new units and the old wires also the junctions for the GREEN and BLACK/WHITE wires, (remember to refit the grommet before commencing to solder the wires. All the soldered joints were sealed using heat shrink tubing. The wiring was replaced in the tray using a combination of 5 minute epoxy to hold and finally silicone rubber to seal the assembly.

Picture 4 - connectors.



It is essential that all the wires are connected correctly. Do not for instance mix up the YELLOWS etc. mark each end as you go.

I found numbering the spark units 1, 2 & 3 left to right helped. Although replacing a single unit is possible it would involve almost as much work as all 3. Also you may wish to simplify the whole set up and place the units somewhere less vulnerable on the bike. I hope you have found this of interest, obviously it is intended as an insight rather than a complete procedure.