



HONDA

CB650/750F/900F/1100F/GL1100

SPARK UNIT SET

**Replacements for
OKI MPS-200 Spark Units**



SYSTEM TYPE: HONDACB

APPLICATIONS:

HONDA CB650/CB750F/CB900F/CB1100F 4 CYLINDER

CONTENTS:

- TWO SPARK UNIT MODULES
- TWO CABLE TIE ADHESIVE MOUNTING BASES
- FOUR LARGE CABLE TIES

These units are replacements for the OKI MPS-200 Spark Units, or equivalent make (e.g. NEC). They are intended to work with the original pulse generators, mechanical advance and ignition coils.

These units do not incorporate advance/retard.

WARNING: RISK OF ELECTRIC SHOCK
ALWAYS TURN OFF BEFORE WORKING ON THE SYSTEM

BEFORE FITTING, PLEASE READ THESE INSTRUCTIONS CAREFULLY, INCLUDING THE NOTICE ON PAGE 8.

Good quality resistor plug caps should be fitted to the h.t. leads (e.g. NGK/DENSO 5K resistor type); these are standard equipment on most machines. Alternatively, resistor spark plugs can be used. Attempting to run the system without resistor type caps and/or plugs will result in excessive radio frequency interference (r.f.i.), which may cause bad running, misfiring and loss of ignition. Carbon fibre leads may be used, but for reliability we recommend copper or steel cored h.t. lead.

INSTALLATION INSTRUCTIONS:

1. All connections must be of the highest quality, use crimped or soldered connections; twisted wires will not give a satisfactory operation.
2. Remove the seat and/or petrol tank to gain access to the original spark units (if fitted); these are normally fitted under the seat between the top frame tubing. Each of these units consists of a small alloy metal box with sleeved wires terminated by a small connector (coupler). They also have a mounting tab with a single fixing hole.
3. On four cylinder machines there will be two units, normally mounted back to back; one for cylinders 1&4 and one for cylinders 2&3.
4. For safety, disconnect the battery.
5. Unplug the couplers from each of the units. Undo the fixings and remove the units.
6. Fit the new spark units in the place of the old ones or find a suitable alternative, close to the connectors. Secure the units to the frame or mounting platform using the supplied tie-straps and adhesive mounting base (if required). If required, a thin sheet of rubber or double-sided tape can be used to keep the units in position. Do not completely wrap the units in foam rubber.
7. Push the wiring harness plugs into the new spark unit socket connectors; they will only fit one way. Reconnect the battery.
8. If you are rewiring the machine or do not have the standard wiring harness, the spark unit wire colours & functions are as follows:

GREEN	⇒	GROUND (0 VOLTS)
BLACK/WHITE	⇒	IGNITION SUPPLY (+12 VOLTS) VIA ENGINE STOP SWITCH
YELLOW	⇒	IGNITION COIL OUTPUT (TO COIL —)
WHITE	⇒	PULSE GENERATOR (WHITE RING)
BLUE	⇒	PULSE GENERATOR (UNMARKED)

There are two pulse generators, one for cylinders 1&4 and one for cylinders 2&3. The left hand one is normally for cylinders 1&4 (see fig.1). There are two wires of the same colour coming from each pulse generator, one of these wires is normally marked with a white band. The pulse generator wire with the white band connects to the white wire from the corresponding spark unit, the other pulse generator wire connects to the blue wire on the corresponding spark unit. If the white band is missing, this is normally the upper wire coming from the pulse generator.

9. Refit the seat and tank (if removed earlier).
10. Fitting is now complete, although for best results you may wish to verify the ignition timing, see the following guide.

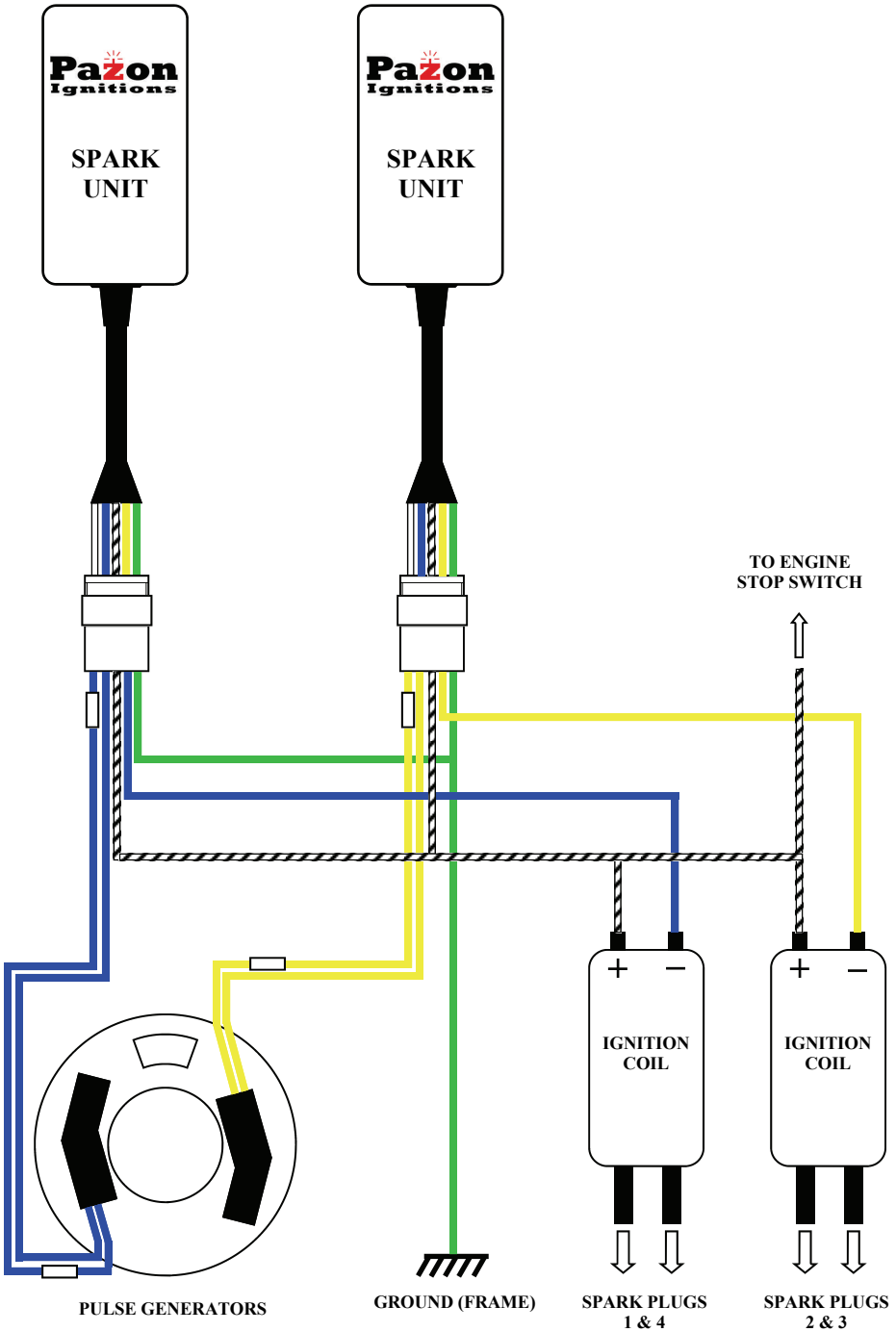
- Strobe timing is best carried out using a plain white light strobe and separate (slave) battery
- Remove the pulse generator cover, start the engine and warm up
- Check the timing as per your workshop manual
- As a guide, the typical timing figures are 10° BTDC at idle, full advance 38.5° BTDC @3500 RPM
- The mechanical advancer unit normally has two sets of timing marks on the outer edge, as follows:

1. T TOP DEAD CENTRE
2. F LOW SPEED / IDLE
3. FULL ADVANCE

One set is marked 1.4 and the other 2.3

- Attach the strobe pickup to #1 or #4 cylinder and point the strobe through the inspection window in the pulse generator assembly.
- Verify that the full advance mark aligns with the reference point with the engine running at 3500 RPM, or the recommended figure for your engine.
- Stop the engine. To adjust the timing, loosen the two base plate screws and move the plate slightly. To advance the timing, turn the plate in the opposite direction to the mechanical advancer unit. Retighten the two screws. Restart the engine and recheck the timing as above.

Fig. 1



TECHNICAL DATA

Ignitor Module (Part# IGNITORH1)

Module Type:	Transistorised Ignition, replacement for OKI MPS-200 Spark Unit
Advance/Retard Timing:	Fixed (no advance)
Input Trigger:	Pulse Generator (Magnetic)
Minimum Supply Voltage:	6 Volts DC
Maximum Supply Voltage:	28 Volts DC
Reverse Battery Voltage:	-14 Volts DC
Load Dump Overvoltage Protection:	100 Volts
Maximum Ignition Coil Peak Primary Voltage:	450 Volts (Regulated)
Maximum Ignition Coil Secondary Voltage:	Ignition Coil Dependent
Current Draw (Static):	0.03 Amps Max. (Ignition Coils Off)
Current Draw (Dynamic):	Typically 1 Amp (Coil Dependent)
Maximum Ignition Coil Current Draw:	5 Amps
Ignition Coil Turn Off (Engine Static):	70mS. (Typical)
Minimum Cranking Speed:	30rpm (Typical)

MOTORCYCLE APPLICATIONS INCLUDE:

HONDA CB750F/CB900F/CB1100F
HONDA CBX1000
HONDA GL1100
HONDA CB650 CUSTOM (1980)

IGNITION TEST MEASUREMENTS (TYPICAL VALUES)

Ignition coil primary winding (input):	2.8 ohms (Ω)
Ignition coil secondary winding (plug caps fitted):	21-28 Kohms ($\Omega * 1000$)
Ignition coil secondary winding (plug caps removed):	13.6-15.5 Kohms ($\Omega * 1000$)
Pulse generator coil resistance @ 20° C:	530 ohms (Ω) \pm 50Ω

Terms & Conditions and Warranty

- Use of this product indicates your acceptance of this notice.
- The product design & literature is Copyright © PAZON IGNITIONS LTD. 2005-2010, and is protected under international copyright, trademark & treaty provisions.
- To provide the best ignition systems possible, PAZON IGNITIONS reserves the right to alter and improve the specifications of its products without prior notice.

Ignition Systems

- Pazon warrants to the original purchaser that the Pazon Ignition System be free from defects in workmanship & parts under normal use for a period of 7½ years from date of purchase.

Ignition Spares

- Spares are defined as item(s) not purchased as part of a complete ignition system. Pazon Ignitions warrants to the original purchaser that these item(s) be free from defects in workmanship & parts under normal use for a period of one year from date of purchase.
- Ignition coils will only be covered by the warranty if it can be proved that the fault is due to a manufacturing fault within the coil.

Limitation of Liability

- In no event shall Pazon Ignitions liability related to the product exceed the purchase price actually paid for the product.
- Neither Pazon Ignitions nor its suppliers shall in any event be liable for any damages whatsoever arising out of or related to the use or inability to use the product, including but not limited to the direct, indirect, special, incidental or consequential damages, or other pecuniary loss.
- This warranty will be void if the product or parts have been altered, damaged, abused or installed incorrectly.
- This warranty will be void if parts supplied by Pazon Ignitions are used with other makes of ignition. Your statutory rights are not affected.

Warranty Claims

- To make a claim under warranty, the product must be returned to PAZON IGNITIONS or its authorized representative, with a copy of your receipt (or evidence of date & place of purchase), within the warranty period.
- Include a detailed description of the problem and why you believe there is a fault within the ignition system.
- The system must be returned postage paid. Proof of posting is not proof or receipt, therefore we recommend using a recorded mail service.
- Upon receipt we will thoroughly test the returned items and repair or replace any items found to be faulty and covered by the warranty.
- Please allow seven working days from receipt of the returned parts before contacting us, to allow sufficient time for a thorough test and evaluation.
- PLEASE CONTACT PAZON IGNITIONS FOR RETURN INSTRUCTIONS.

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