Pazon Ignitions

Electronic Ignition Systems For Classic Road & Racing Applications

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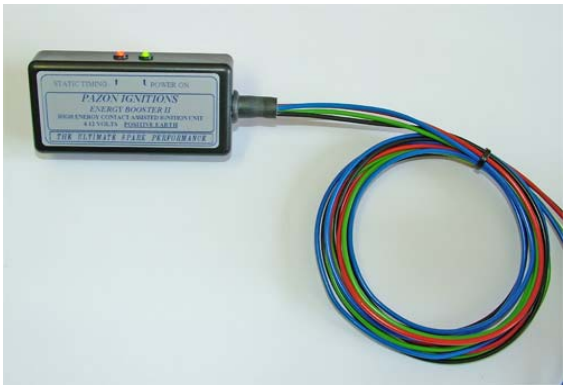
ENERGY BOOSTER II

POSITIVE EARTH



FEATURES

- HIGH-POWER ELECTRONIC IGNITION MODULE
- COMPATIBLE WITH 6 OR 12 VOLT ELECTRICS
- AVAILABLE FOR POSITIVE & NEGATIVE EARTH ELECTRICS
- COIL & CONTACT-BREAKER IGNITION SYSTEMS ONLY
- NO MORE BURNING OF CONTACT-BREAKER POINTS
- CONDENSOR NOT REQUIRED
- LESS MAINTENANCE
- BETTER STARTING
- SMOOTHER RUNNING ENGINE
- IMPROVED COMBUSTION
- IMPROVED FUEL ECONOMY & LOWER EMISSIONS
- EASY TO FIT, ONLY FOUR WIRES TO CONNECT
- ORIGINAL CONNECTIONS CAN BE EASILY RESTORED
- STATIC TIMING & POWER LIGHTS INCLUDED
- MOISTURE & DUST RESISTANT
- COVERED BY MANUFACTURER'S FIVE-YEAR WARRANTY
- SIZE(mm): 80 LONG x 40 WIDE x 20 DEEP, WEIGHT: 110g (INC. WIRES)

APPLICATIONS

- ANY PETROL ENGINE WITH COIL & CONTACT-BREAKER
- ENGINES WITH NO DISTRIBUTOR, BUT NOTE THAT ONE UNIT PER CONTACT-BREAKER IS REQUIRED (APPLIES TO MOST MOTORCYCLES)

POSITIVE EARTH ENERGY BOOSTER KIT COMPRISES:

- ONE IGNITION MODULE (BLACK ABS IMPACT-RESISTANT CASE)
- ADHESIVE CABLE-TIE MOUNTING BASE
- SIX CRIMP TERMINAL CONNECTORS:
  1 RING, 1 PIGGYBACK, 2 MALE SPADE & 2 FEMALE SPADE
- FIVE CRIMP TERMINAL INSULATORS
- RED EARTHING WIRE
- FOUR SMALL BLACK TIE-STRAPS
- TWO LARGE BLACK TIE-STRAPS

POSITIVE EARTH

INSTALLATION INSTRUCTIONS:

BEFORE FITTING, PLEASE ENSURE THAT YOU HAVE THE CORRECT POLARITY IGNITION MODULE FOR YOUR VEHICLE'S ELECTRICS.
FAILURE OF A MODULE CONNECTED TO REVERSE POLARITY CANNOT BE GUARANTEED.

The easiest way to check the polarity is to examine the battery to find out which terminal connects to the chassis:

If it is the + (or red) terminal then the polarity is positive earth.
The positive earth module has a green wire.
If it is the — (or black) terminal then the polarity is negative earth.
The negative earth module has a yellow wire.

1. Find a suitable place to mount the ignition module, near to the ignition coil but away from the direct heat of the exhaust system or radiator pipes. Do not strap directly to the ignition coil.
2. Secure the ignition module to the chassis/frame using one or more large cable ties. An adhesive mounting base is provided; this can be affixed to one side of the module and the cable tie passed through and around the module and frame. If necessary drill two 5mm holes (on on each side of the module) and pass the tie-strap through and around the module case. Alternatively, strong double-sided tape or Velcro can be used.
   Do not completely wrap the module in foam rubber.

Wiring instructions:

1. Remove the connector from the + OR CB terminal of the ignition coil. This should be the wire coming from the contact-breaker. Reconnect this to the GREEN wire from the ignition module. With some automatic and overdrive vehicles, a wire from the kick-down control may also be connected to the + OR CB terminal. This should also be connected to the GREEN wire from the ignition module.
2. Remove the connector from the — OR SW terminal of the ignition coil. This should be the feed from the ignition switch. Reconnect this to the *BLACK* wire from the ignition module. If there are other wires connected to the — OR SW terminal of the ignition coil, they should all be removed and also connected to the *BLACK* wire on the ignition module. This would include a radio suppression capacitor, if fitted.
3. Connect the BLUE wire from the ignition module to the — OR SW terminal of the ignition coil.
4. Connect the RED wire from the ignition module to the + OR CB terminal of the ignition coil.
5. Using the RED earthing wire and connectors, connect the + OR CB terminal of the ignition coil to a good earth point on the frame or chassis. This can be directly to the battery + terminal.
6. Remove the distributor cap & disconnect the condensor from across the contact-breaker. Replace the distributor cap. The condensor may be left in place but it is not required, and the function of the module may be improved by its disconnection.
7. The installation is now complete. Secure & protect the wires using sleeving, insulating tape and tie-straps, as required.

CIRCUIT DIAGRAMS *POSITIVE EARTH*

FIG. 1 IGNITION CONFIGURATION FOR STANDARD SYSTEM

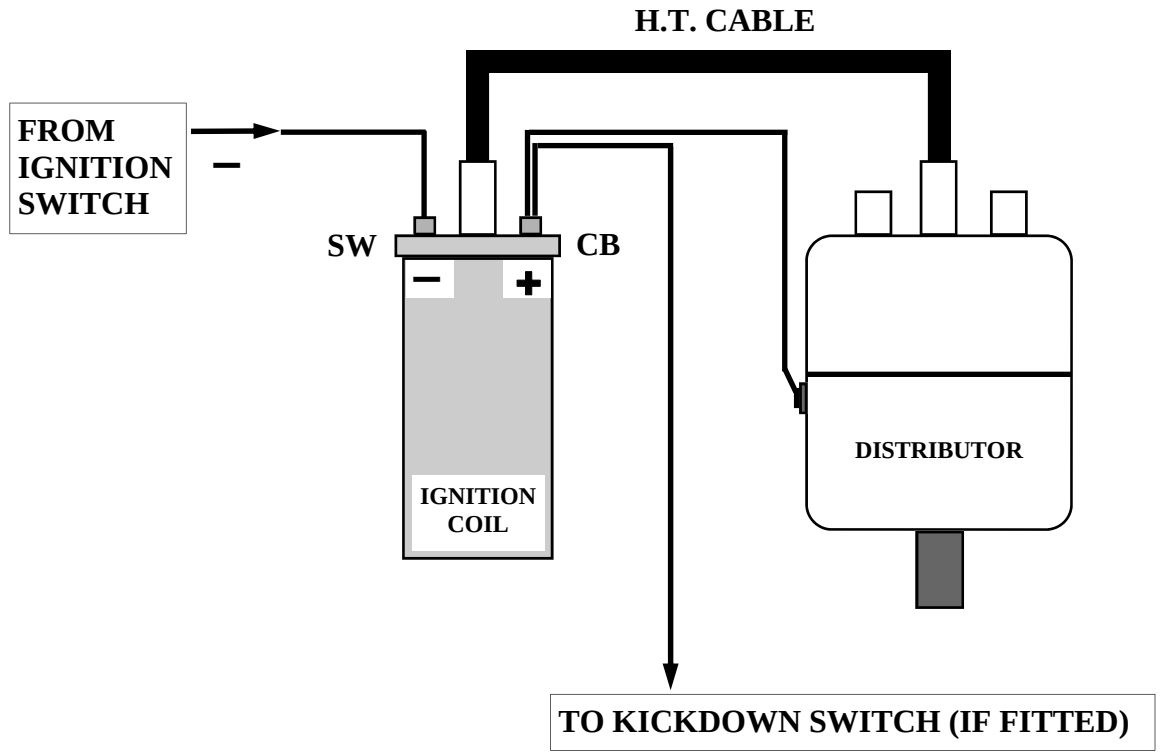
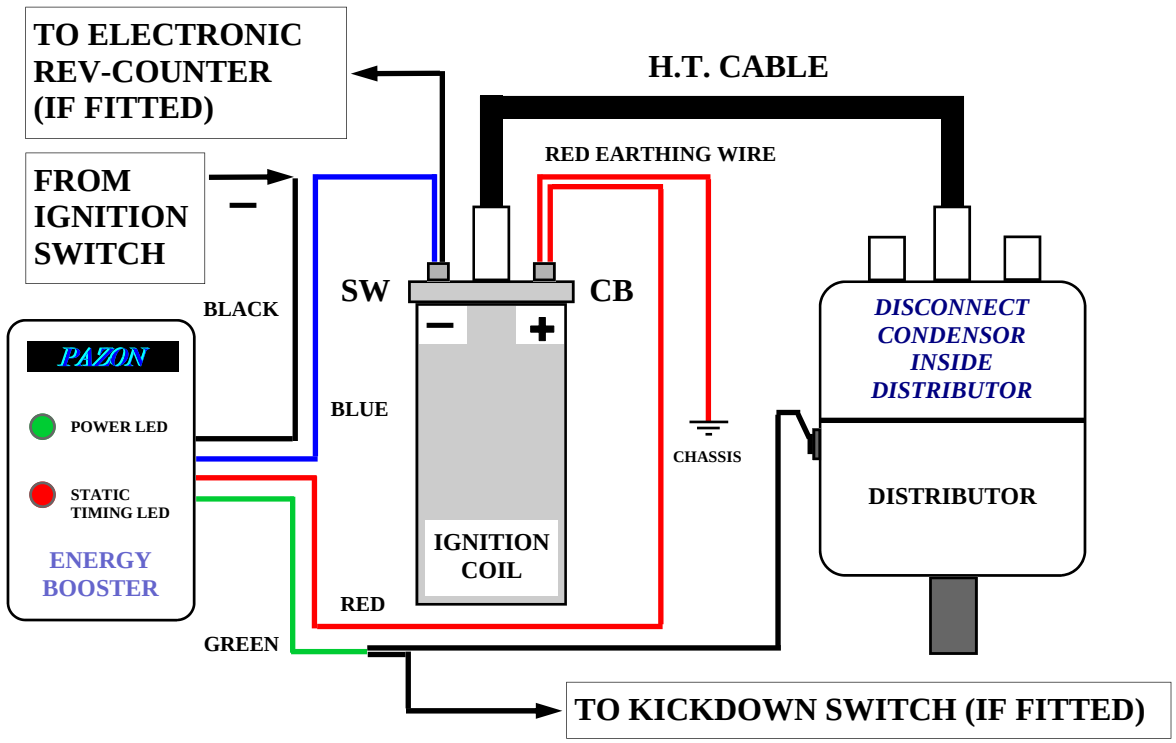


FIG. 2 IGNITION CONFIGURATION WITH IGNITION MODULE



GREEN LED "ON" INDICATES POWER TO THE MODULE (IGNITION "ON")

RED LED "ON" INDICATES CONTACTS OPEN, "OFF" INDICATES CONTACTS CLOSED

PAZON ENERGY BOOSTER - SUPPLEMENTARY NOTES *(POSITIVE EARTH)*

WIRE FUNCTIONS

● BLACK WIRE — 6 OR 12 VOLT NEGATIVE FEED FROM THE IGNITION SWITCH. THIS SHOULD BECOME LIVE WHEN THE IGNITION IS SWITCHED ON.

● RED WIRE — EARTH WIRE FOR THE MODULE. ALONG WITH THE ✚ OR CB TERMINAL OF THE IGNITION COIL, THIS SHOULD BE CONNECTED TO A GOOD POSITIVE EARTH POINT. THIS CAN BE THE BATTERY POSITIVE TERMINAL.

● BLUE WIRE — IGNITION COIL LOW-TENSION SWITCHING OUTPUT. CARRIES THE IGNITION COIL CURRENT AND CONNECTS TO THE ▬ OR SW TERMINAL OF THE COIL.

● GREEN WIRE — CARRIES A SMALL CURRENT TO ONE SIDE OF THE CONTACT-BREAKER. THE OTHER SIDE OF THE CONTACT-BREAKER CONNECTS TO EARTH INSIDE THE DISTRIBUTOR. THE CLOSING & OPENING OF THE CONTACTS SIGNALS TO THE IGNITION MODULE TO SWITCH THE IGNITION COIL ON & OFF.

IGNITION TIMING

The *Pazon* Energy Booster module does not affect the ignition advance/retard. Therefore there is no need to alter the timing. However, a regular check on the timing will help your engine to perform better & enable you to get the best out of the ignition module. All normal methods of timing can still be used, but the ignition module features a red static timing l.e.d. (light emitting diode) which makes timing very easy. Refer to your workshop or owner's manual for the correct contact- breaker gap and static timing figure. Remove the distributor cap & check the contact-breaker gap with the heel on the peak of one of the lobes of the distributor shaft, using feeler gauges. If necessary, adjust to the correct gap (for example: 0.015").
With the ignition module fitted, the gap has little affect on the spark energy, smaller gaps can be used on high revving engines, to help reduce contact bounce.

The spark plug gaps should be set as standard; no improvement will be found by opening them up. A small increase in tickover may occur due to improved combustion. This may affect automatic transmission vehicles. If necessary, this can be reduced by adjusting the carburettor idle speed screw.

Next, position the engine to the correct static timing figure (for example: 10° btdc). Slacken off the distributor pinch bolt. Turn the ignition switch to "on" - the green l.e.d. on the ignition module should be on. Rotate the distributor body slowly until the contact-breaker points are just beginning to open. The exact point will be indicated as soon as the red l.e.d. on the ignition module turns on. Tighten the distributor pinch bolt.
Turn the ignition switch off & replace the distributor cap. With the ignition module fitted there will be no burning of the contact-breaker points. New contact-breakers should be checked & adjusted after 500 miles to compensate for bedding in of the heel. New contact-breakers should last 30,000 miles or more.

Vehicles fitted with electronic tachometer/rev-counter

Many vehicles have the tachometer connected into the wire from the contact-breaker & the ignition coil. With the ignition module fitted, the signal will be too small to trigger the tachometer. The feed to this must be connected to the new ignition coil low-tension circuit, i.e. from the ▬ or SW terminal of the ignition coil (see fig. 2).

Radio suppression

Standard radio suppression components can be used with this unit.
Typically, *with standard ignition*, a 1 microfarad coil suppression capacitor may be connected to the ✚ or CB terminal of the ignition coil. *With the ignition module* fitted, this should now be connected to the black wire/ignition switch feed circuit.

Fault finding

Check that the earth/chassis connection is good and clean. A bad earth will produce misfiring. Good quality connections must be made, twisted wires are unsatisfactory. Good terminal joints are required, using crimped or soldered connectors. Check the green led is on when the ignition is on. If it is off or dim, this could be due to a bad ignition supply (check connections, battery, earth & switch).
With the ignition on, cranking the engine should make the red l.e.d. flash on & off.
If not, check the connection between the distributor & the green wire.
Also, check that the points have not completely closed up.

You can test the ignition module by touching the green wire on & off the earth,
The red l.e.d. should flash off & on. It should also produce a spark from the coil.