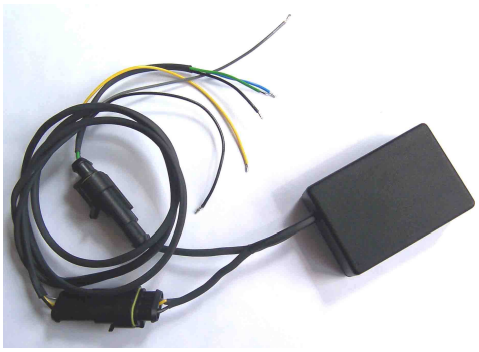
Power-jet controller system

Honda RS125 / Honda RS250



Overview

With higher compression fuels there is a requirement to lower the power-jet cut-off rpm point. This is not adjustable on the standard ignitions. The unit also includes a lower throttle roll-off point to reduce engine damage on slow rolling-off the throttle.

On the RS125 PJ controller system a single 16 position switch selects the RPM point.
On the RS250 PJ controller system 2 separate 16 position switches control each power-jet independently.

Two types are available... for normal power jet carburettor and for a non-power jet carburettor where the power jet has been retro fitted but no throttle sensor is fitted.

Operation

. The power-jet un-powered is adding fuel, on powering the power-jet this shuts off this fuel jet.

. Below the Low RPM level at 3000 RPM the jet is not powered to ease starting on generator.

. If the throttle is disconnected the jet is down powered to add fuel and ensure a safe fuel level.

. In normal operation as the throttle level is increased the jet opens (down powered) to add fuel, on decreasing (roll-off) the power jet stops adding fuel at a lower throttle level to reduce the leaning off (and subsequent detonation if fuel permits).

. With high throttle and increasing RPM the jet will cut-off at the RPM level set by the selector switch, if the RPM falls at this throttle then the jet will operate at 300RPM below the cut-off point selected, this reduces the jittering if the RPM is held around the cut-of point.

Wiring – power jet carburettor and Throttle Sensor

The unit connects to the Taco to obtain the power and the rpm signal, the unit also connects to the throttle signal to control the throttle points, the unit then powers the power jet directly. Mount the unit in the nose of the motorcycle The throttle must be connected to a CDi unit in this mode.

Connections

In the noise cone:

- Green to taco green
- Blue to taco blue
- Black to taco black

In the air-box:

- Yellow to yellow with blue at the throttle

Disconnect the 2 pin power-jet connection
Connect the black to power jet black (not connected to the loom)
Connect grey to power jet grey (not connected to the loom)

Wiring – non power jet carburettor

The unit connects to the Taco to obtain the power and the rpm signal, the unit then powers the power jet directly. Mount the unit in the nose of the motorcycle.

Switch throttle sensor The unit has two yellow wires to a throttle switch

Connections
In the noise cone:
Green to taco green
Blue to taco blue
Black to taco black

In the air-box:
Disconnect the 2 pin power-jet connection
Connect the black to power jet black (not connected to the loom)
Connect grey to power jet grey (not connected to the loom)

At the throttle:
Connect the two yellow wires to a micro switch; the switch needs to make contact when the throttle is over 60% to 70% towards being fully open.

Throttle Sensor version The unit has three wires for a throttle sensor, this sensor is NOT Connected to a CDi.

Connections
In the noise cone:
Green to taco green
Blue to taco blue
Black to taco black

In the air-box:
Connect the pink to the throttle sensor top connection (Honda Yellow/Red)
Connect the yellow to the throttle sensor signal connection (Honda Yellow/Blue)
Connect the green to throttle sensor bottom connection(Honda Green/Blue)

Connect the black to power jet black (not connected to the loom)
Connect grey to power jet grey (not connected to the loom)

If the throttle sensor is not used then connect the yellow and pink wires to action the full throttle operation.

RPM Ranges - Specify on ordering See additional sheet

Specifications:

Voltage range	9V to 18V
Input Current	5mA nominal
Drive current	3A maximum
Temperature range	-10degC to +130degC
Weight	Approx 50g
Low RPM level	3000 RPM
Throttle fail below	200mV
Operational throttle	2.9V throttle-on 1.9V throttle-off
Rpm Hysteresis	300RPM

Ian E Limited Disclaimer
All parts supplied by Ian E Limited are not for highway use. All parts supplied by Ian E Limited are not guaranteed when used in competition events. As such, it is a condition of our making all parts available that it is solely the decision of each individual, rider, team member or team whether they choose to use any part supplied and in doing so, absolve the manufacturer and Ian E Limited of any or all such, including damage to equipment and/or injury to personnel irrespective of how caused.
All parts remain property of Ian E Limited until paid for in full.
All 'special order' parts, that are ordered specially under the instruction of the customer, are non returnable and non refundable

Programmed RPM range

Other RPM ranges available please specify on order.

11,500- 13,750

Switch Position	Cut-off RPM
0	11,500
1	11,650
2	11,800
3	11,950
4	12,100
5	12,250
6	12,400
7	12,550
8	12,700
9	12,850
A	13,000
B	13,150
C	13,300
D	13,450
E	13,600
F	13,750