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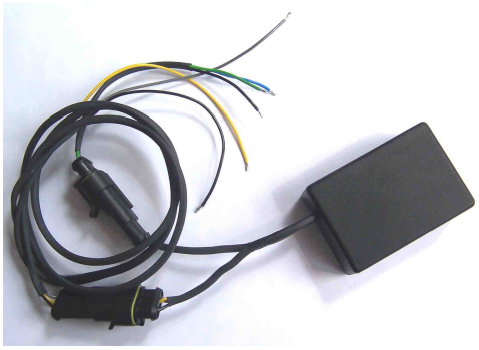
Power-jet controller system

Honda RS125 / Honda RS250 - For CDi units with or without PJ control



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.

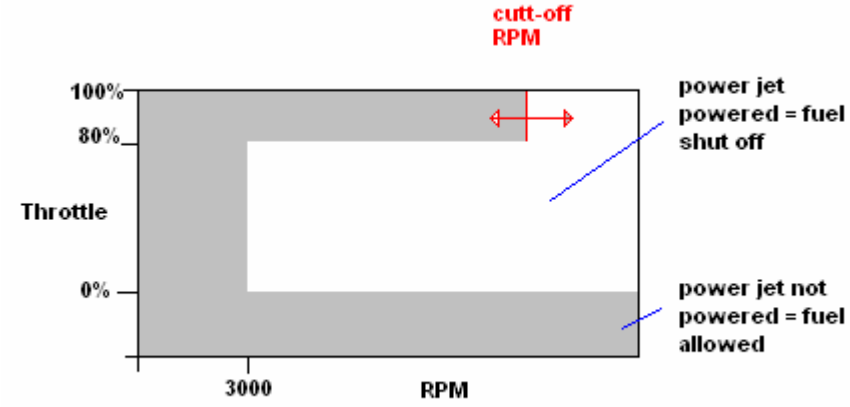
Operation

. 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 – Existing CDi has Power Jet wiring

The unit connects to the Tachometer connection to obtain the power and the rpm signal, the unit also connects to the throttle signal. The throttle yellow/blue must be connected as normal to the loom and also to this module.
The existing loom connection to the Power jet is cut, the module then powers the power jet directly. Mount the unit in the nose of the motorcycle

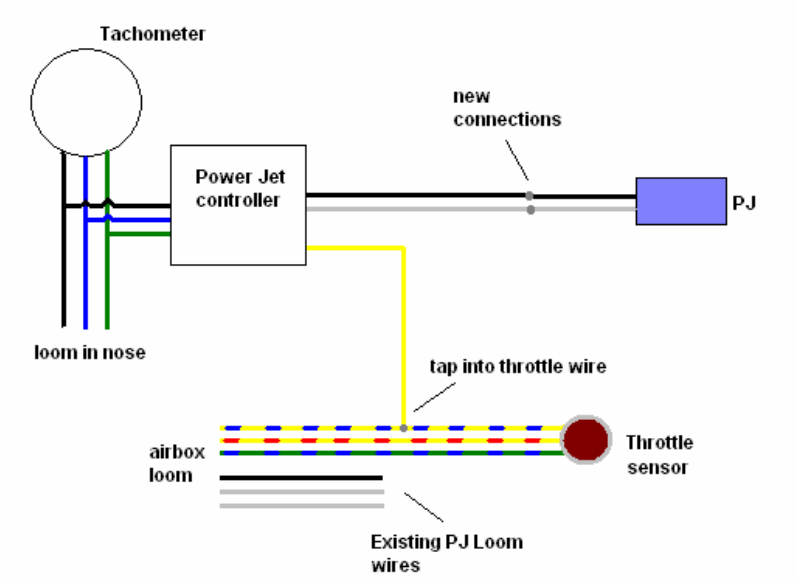
In the noise cone:

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

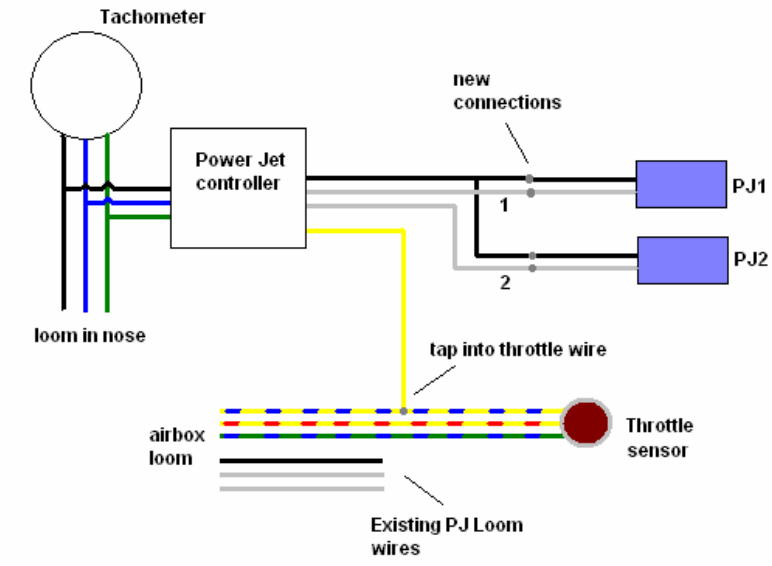
In the air-box:

- Splice in Yellow to 'yellow with blue' at the throttle
- Disconnect the 2 pin power-jet loom connection
  - Connect the black to power jet black
  - Connect grey to power jet grey
- On the RS250 unit repeat for the second power jet
  - Connect the black to power jet No2 black
  - Connect grey to power jet No2 grey

RS125 Wiring



RS250 Wiring



Wiring – non power jet Cdi

The unit connects to the Tachometer 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.

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

Connections

In the noise cone:

Green to tachometer green
Blue to tachometer blue
Black to tachometer black

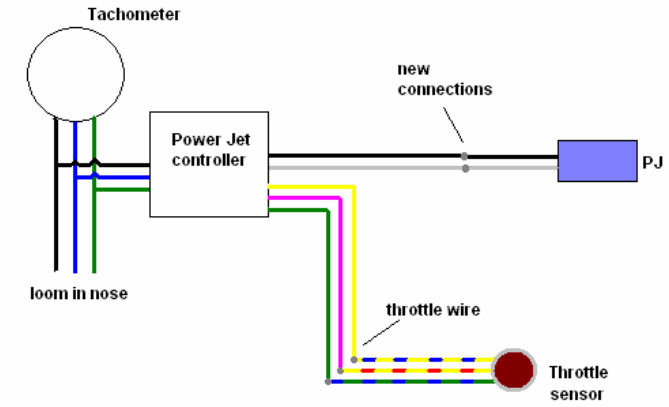
In the air-box:

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)

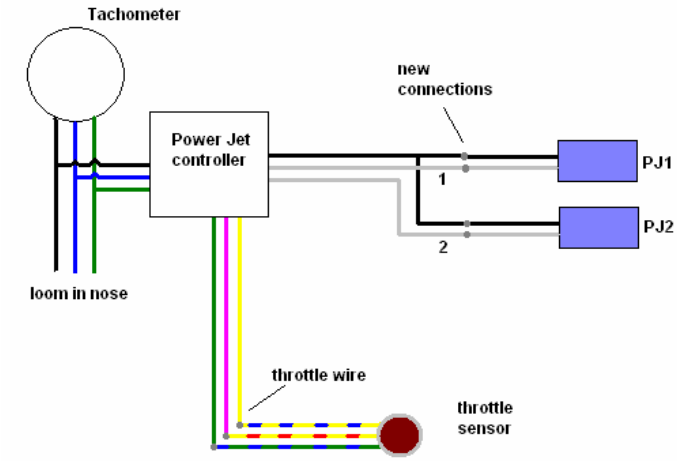
Connect the black to power jet black
Connect grey to power jet grey

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

RS125:



RS250:



RPM Ranges - Specify on ordering **See additional sheet**

Typical RS125 range 12,500 – 14,000 RPM
Typical RS250 range 11,500 – 13,000 RPM

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

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