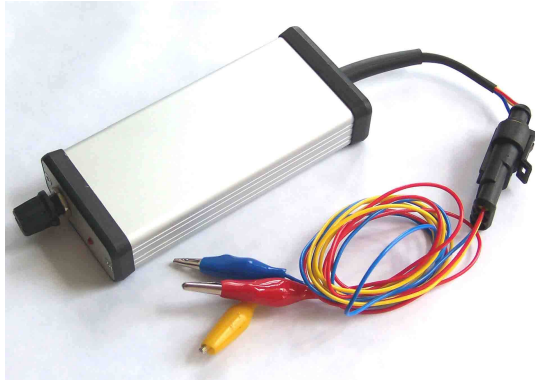




## **RS125 – Ignition Pulse Simulator**

Run your engines electronics without running the engine



This unit generates the pulse waveform of a running RS125 engine and is freely adjustable between 4,000 and 14,000 RPM. The CDi and engine electronics will think that the engine is running and respond accordingly.

Test the operation of:

- CDi units
- Tachometers
- Ignition coils
- Power jet action
- Throttle potentiometer action
- Power valve movement and position

It also can be used to map or check ignition advance and spark voltage

### **Powering up the motorcycle**

The safest place to connect a power source is into the loom at the connector to the regulator unit. Disconnect the regulator unit as it will drain power. The connector is a four pin clear connector. Red/green/yellow/yellow

The operational voltage range of the RS125 is 12V to 15V below this voltage the tachometer will drop in RPM and the power jet will be slow. The current supply is 1A to 2.5A depending on RPM and power-jet action. Use a 12V-15V 4Ah battery or greater capacity

Turn off the kill switch

Connect battery negative to the green Wire

Connect battery positive to the red wire

Caution: the black wire is switched by the kill switch do not connect to this wire

### **Connecting the simulator**

Disconnect the grey square two pin connector of the pick-up pulse sensor, connect:

Yellow crock clip to the yellow/white wire connection

Blue crock clip to the blue/white wire connection

Connect the Red crock clip to the battery positive. The red indicator will flash.  
Turn on the kill switch the ignition coil will buzz

**Caution:**

Care must be taken as 'burning off' of fuel in the cylinder can cause a pop on first powering up! Do not have any rags or loose items in the inlet port as these could be sucked in.

## **Testing bike systems**

### CDi

Check for constant spark noise over the RPM range, look at the clarity of the spark if the plug is removed ( take care on correct connection to the chassis of plug earth)

### Tachometer

Check the tachometer runs freely as the RPM is increased and does not stick at any location, changing the RPM over the full range rapidly does not make the tachometer jolt or overshoot.

### Power jet

Below 4000RPM the power jet will be down powered (fuel on position)

Going up to 6000RPM with the throttle off the power jet will be powered (listen for the tink noise after 4000RPM)

Bring the throttle on and listen for the power jet action around  $\frac{3}{4}$  throttle (a tonk noise)

Flick the throttle around this area and listen to the power-jet response time.

Bring the RPM to up around 12,000RPM to 13,000RPM on full throttle; the power jet will shut off.

### Catch tank solenoid

Set the rpm above 4000RPM bring the throttle off the bottom stop, blow through the pipe to check that the solenoid blocks the flow on throttle off and lets air through on throttle.

### QuickShifter

Set a high RPM around 12,000 operate the shifter and listen for the skip in the spark tone, with retarding shifters the sound is quieter but can be heard as a slight tone change.

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