



INSTALLATION MANUAL: OSCILLATOR IGNITION 12V-0-6-002 Ø20mm YAMAHA XS650

HPI – Kuilenstraat 97, 3960 Bree, Belgium
TEL: (0032) 089-46 74 39 | FAX: (0032) 089-47 33 28 | GSM: (0032) 0495-53 90 21
Email: hpi@hpi.be | Website: www.hpi.be

HPI wants to thank you for your confidence in its products.
Please read this manual carefully to ensure years of enjoyment of this specialised high end electronic device.
This manual shows you how to properly install the CDI-unit, wiring loom, rotor disk, pickup and HT-coil on your engine.

Pickup Installation (see picture):

- Place the pickup so the metal receiver is at a distance of **10.5 to 10.6 mm** from the axis centre line or at **0.5 to 0.6 mm** from the tooth of the rotor disk.
- Along the axis, the tooth's middle must be aligned with the middle of the metal receiver on the pickup.

Only with this setup, the pickup will guarantee a reliable signal to the CDI

Rotor disk installation:

The rotor disk has to be placed on an axis which rotates at the engines RPM (crankshaft).
The cylinders are at 180° so they require 2 pulses / crankshaft rotation. Since the rotor disk turns at the engines speed (crankshaft), it requires 2 teeth to generate 2 pulses / crankshaft rotation for both the cylinders. The ignition will generate a wasted spark each rotation on each cylinder.

- Make the necessary adjustments to the axis or the rotor disk to fit.
- Turn the cylinders in their Top Dead Centre. (Remove the spark plug and use a micrometer to make a correct measurement).
- Place the rotor on the axis and position it as shown in the picture.
The falling edge of the tooth should be aligned with the centre of the metal receiver of the pickup.
Since the rotor is mounted on the crankshaft, you can choose on which tooth you align the TDC.
- Tighten the rotor to the axis in this position.

This position corresponds with 0° in the TuneBox v4 software to program the CDI units.

Installing the CDI-unit:

Mount the CDI-unit to the frame.

- **power** red connect the red cable through the on/off switch to the 12V of the battery.
black connect the black ring to the mass (frame or battery ground)
- **Pickup** red/white connect to the cable of pickup.
blue/white
- **HT-coil** orange connect the HT-coil to the frame. To minimize electrical interference, try to keep all cables at
black ring a safe distance from the HT cable.
Connect the orange cable to the HT-coil,
connect the black cable with ring to the bracket of the HT-coil and to the mass
- **Kill switch** black/white connect the black-white to mass / ground for an emergency stop.
this **does not shut down** the CDI unit! Use the on/off switch under normal circumstances

Fasten all the cables to the frame and keep them clear from hot places and moving parts.

Please attend to the following remarks:

- the CDI-unit and cables must not be exposed to **mechanical stress**
- the CDI-unit must not be exposed to **excessive heat** (not behind the radiator, close to the cylinder or the exhaust)
- the CDI-unit must not be exposed to **electrical interferences** (not close to the ht-coil)
- the CDI-unit must not be directly exposed to **fluids** (water, gasoline, oil,...)
- **Do NOT** extend cables, this may cause interference and damage to the CDI or the engine.
-

ATTENTION

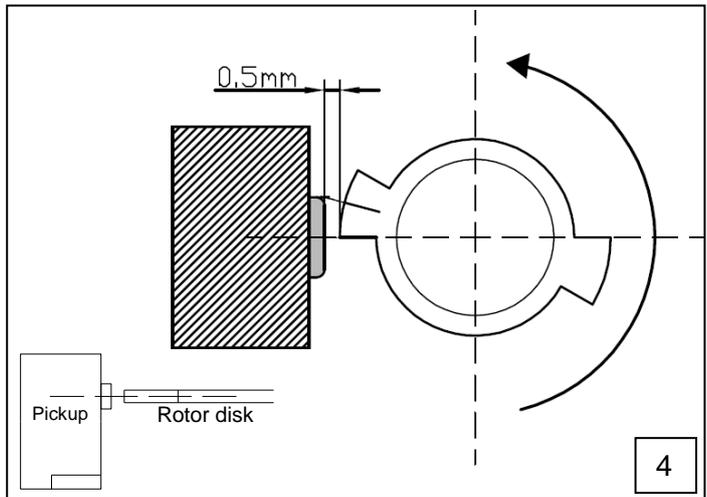
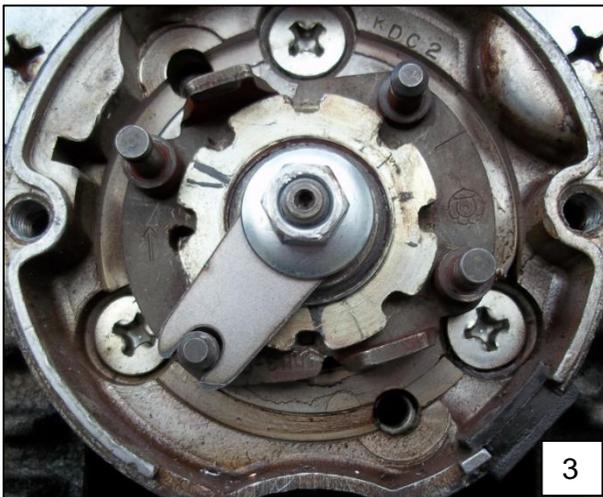
Use resistive spark plug with resistive spark plug cap (typically 5K)

INSTALLATION MANUAL: OSCILLATOR IGNITION 12V-0-6-002 Ø20mm YAMAHA XS650

HPI – Kuilenstraat 97, 3960 Bree, Belgium
TEL: (0032) 089-46 74 39 | FAX: (0032) 089-47 33 28 | GSM: (0032) 0495-53 90 21
Email: hpi@hpi.be | Website: www.hpi.be

Installing the set on your bike:

Following pictures will guide you through the steps you have to follow to install the set on your bike.



ATTENTION

Use resistive spark plug with resistive spark plug cap (typically 5K)



INSTALLATION MANUAL: OSCILLATOR IGNITION 12V-O-6-002 Ø20mm YAMAHA XS650

HPI – Kuilenstraat 97, 3960 Bree, Belgium
TEL: (0032) 089-46 74 39 | FAX: (0032) 089-47 33 28 | GSM: (0032) 0495-53 90 21
Email: hpi@hpi.be | Website: www.hpi.be

- 1. Align the marking of the rotor with the T - marking on the stator
See picture 1.**
- 2. Install the base plate with pickup on the bike and mount the rotor disk as shown in picture 2 & 4**
- 3. Fix the centrifugal part at the other side of the bike using the fixation plate delivered with this set. See picture 3**

Contents of the set:

The 12V-O-6-002 set is designed for the YAMAHA XS650 4 stroke 180° engines, crankshaft mounted.

- 1 CDI *Analogue CDI*
- 1 Rotor disk *Ø20 mm, 2 teeth of 30°*
- 1 fixation plate *plate to fixate the centrifugal system*
- 1 pickup *with connectors to the wire loom*
- 1 wire loom *with fitting connectors*
- 1 HT coil *with 2 exits and mounting bracket*

ATTENTION

Use resistive spark plug with resistive spark plug cap (typically 5K)