

INSTALLATION MANUAL:

HPI UNIVERSAL DIGITAL BATTERY IGNITION: 12V TRANSISTOR DC/DC

12VT3

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This manual explains how the CDI-unit, wiring loom, rotor, pick-up and ht-coil should be installed on the engine. Follow all these steps to ensure the correct functioning of the CDI-unit.

Installing the CDI-unit

Fix the CDI-unit to the frame.

Connections

Red (short)	Power	Connect cable through the on/off switch to the 12V of the battery.
Grey (short)	Powerjet	Connect this to the powerjet. Will switch to ground at programmed values. (optional)
Black (with ring)	Ground	Attach the HT-coil (together with this cable) to the frame for mass.
Red	HT-coil	Connect cable to the + of the HT-coil.
Yellow	HT-coil	Connect cable to the – of the HT-coil.
To minimize electrical interference, try to keep all cables at a safe distance from HT-cables.		
Black	Pick-up	Connect this 2-pole connector to the pick-up sensor.
White	Pick-up	

Fasten all the cables to the frame and keep them clear of hot places.

Please keep in mind the following items:

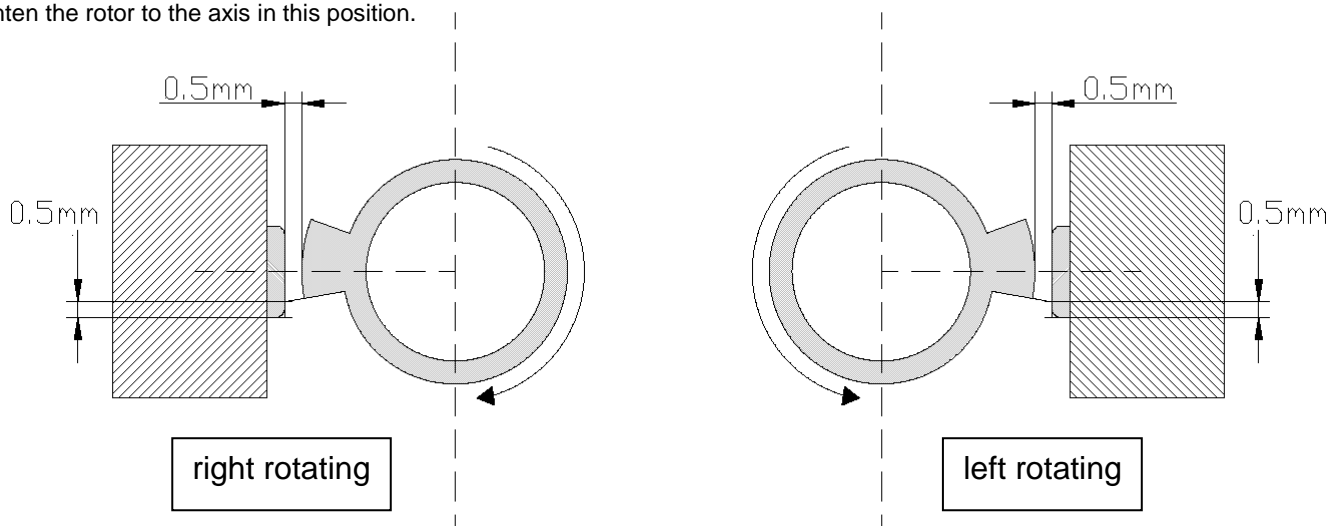
- the CDI-unit must not be exposed to **mechanical stress**
- the CDI-unit must not be exposed to **excessive heat** (not behind the radiator, close to the cylinder or the exhaust)
- the CDI-unit must not be exposed to **electrical interferences** (not close to the ht-coil)
- the CDI-unit must not be directly exposed to **fluids** (water, gasoline, oil,...)

Place the CDI-unit so the wiring loom from the **pick-up** can reach the CDI-unit's wiring loom.

Don't extend or shorten the cables.

Installing the rotor and the pick-up

The rotor needs to be placed on an axis which rotates at the half of the engine's RPM (camshaft). The pick-up needs to be placed at a distance of **0,5mm** from the tooth of the rotor. In this case there is a reliable signal transmitted to the CDI. Fix the pick-up to the engine block. Now put the engine in it's OT (remove spark plug and use a micrometer to make a correct measurement). Now place the rotor on the axis and position as it's shown on this drawing. Note that the end of the tooth is **0,5mm from the end of the pick-up**. Tighten the rotor to the axis in this position.



Programming the CDI-unit

All our digital CDI units are programmable using the *TuneBox* software and a *USB interface*. With this powerful software tool you are able to design your own ignition curves to obtain maximum performance of your engine. You can freely download *TuneBox* from our website www.hpi.be. In *TuneBox* you will notice a tooth of 60°, this is because the rotor turns at the half of the engine's speed. 30° on the camshaft corresponds to 60° on the crankshaft. **TuneBox always uses crankshaft rpm and angles.**

To avoid damaging your CDI and engine, stop the engine and switch off the power to the CDI during programming of the unit.

ATTENTION:
Use resistor spark plug type, with resistor spark plug cap!