Horse Power Ignition

INSTALLATION MANUAL:
HPI 068 2 cylinder 2 stroke
universal inner rotor ignition

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 stator, flywheel, CDIs and HT coils.

Flywheel - stator installation:

The flywheel has to be placed on the crankshaft or on an axis which rotates at the same speed.
The cylinder configuration should be 180°; one in top dead centre, the other in bottom dead centre.

- Remove the original ignition from your engine.
- Depending on the engine's setup, a mounting plate is included in this set.
  This mounting plate serves as an adaptor between your engine and the 068 ignition.
  Fit the mounting plate on your engine.
- Locate the cable exit on your engine and position the stator according to this hole.
  If necessary, remove the plug (see backside) and lead the cable through the hole.
- Centre the stator on the mounting plate (if present) or directly on your engine.
- Gently bolt the stator to your engine; do not tighten the bolts yet.
- Turn the shaft to position the cylinder 2mm before its Top Dead Centre (TDC). **Call this cylinder 1.**
- Place the flywheel on the shaft, aligning the mark on the flywheel with the mark on the stator cover with the black sleeved cable.
  Mind the position of the HPI logo; take the 2nd large marking, according the rotation direction. (See images below)
- This position corresponds with the set point in the advance curve. (see backside image)
- Fasten the flywheel to the shaft. If necessary, remove the stator to have a good grip on the flywheel.
- Remount the stator and recheck the position of the cylinder with a micrometer.
- Recheck the alignment of the markings; if necessary adjust by turning the stator plate.
- Also check the alignment of the markings with **cylinder 2** in TDC. (Markings on the stator cover with the red sleeved cable)
- Fasten the stator plate.
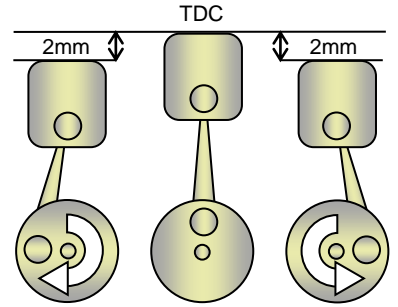
To gain performance, try to vary the cylinder position between 2 to 4mm before TDC, by turning the stator plate.
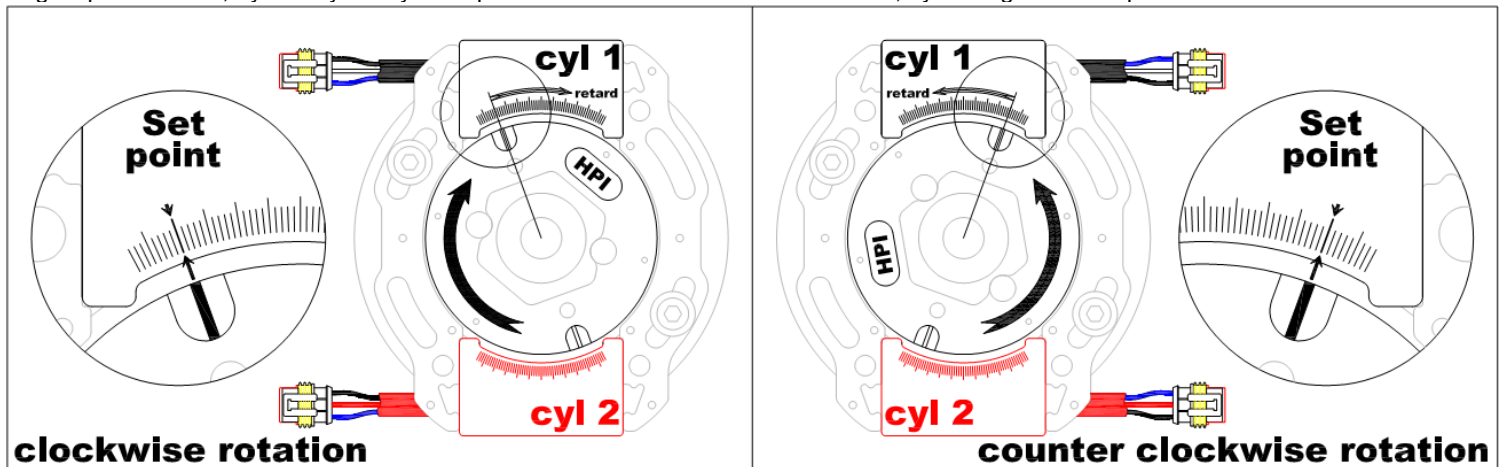
Wiring instructions:

- **Stator**   3-way plug   Plug the 3-way connector with **white cable and black sleeve** directly into the CDI of **cylinder 1**.
  Black   If you need to lead the cable through a narrow hole; see back side to remove the plug from the cable.

  Red   Plug the 3-way connector with **red cable and red sleeve** directly into the CDI of **cylinder 2**.

- **HT-coils**   orange   Connect the HT-coils to the frame. Plug the orange cables to the HT-coil,
  black ring   Connect the black cable with ring to the bracket of the HT-coil and to the frame.
  Make sure the HT coils go to the correct cylinder!

- **Kill**   black/white   Using the Y-branch, connect the KILL inputs from the CDIs with the frame/ground for an emergency stop.

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.

Optional Parts:

► *Flywheel puller – 068V262* ◄

To easily remove the rotor, HPI can provide you with a puller.
This is a widely applicable flywheel puller.

► *Curve switch – 068V064* ◄

For 2-curve CDI units (optional), the curve select button comes in handy.
It is easy mountable on your handle bar.
Makes or breaks the connection between the yellow and yellow blue cables.

► *Fan blade adaptor – 068V075* ◄

Mount different fan blades and water pump actuators to the 068 ignition.

► *Inertia disk – 068V101* ◄

If your engine requires a heavier flywheel, you can add an inertia disk to the 068 ignition. The inertia disk is a stainless steel disk of 95mm diameter, 300 grams, specially designed to centre-fit on the 068 rotor.

► *Twin exit HT-coil - 068V007* ◄

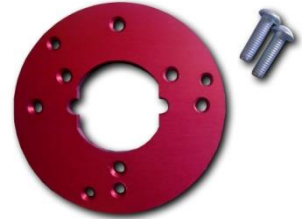Use a HT-coil with double exit for 4-cylinder engines. The settings are the same as for the 2-cylinder kits.
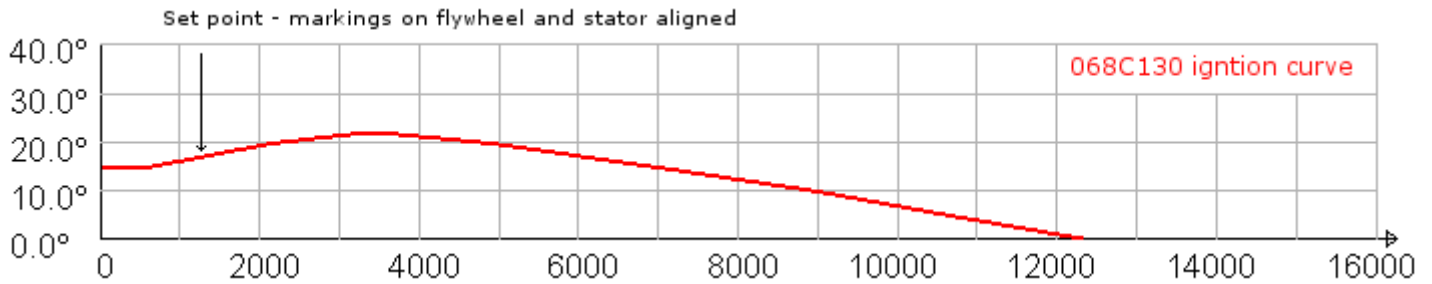
► *TuneBox software – 068V043* ◄

With a digital CDI (optional), the TuneBox software and interface, you will be able to get the maximum performance of your engine. Design your own ignition curves, set **rev limiters**, drive a **power jet** exit and set the optimum **quick shift** timing for your engine, it's all possible with TuneBox.
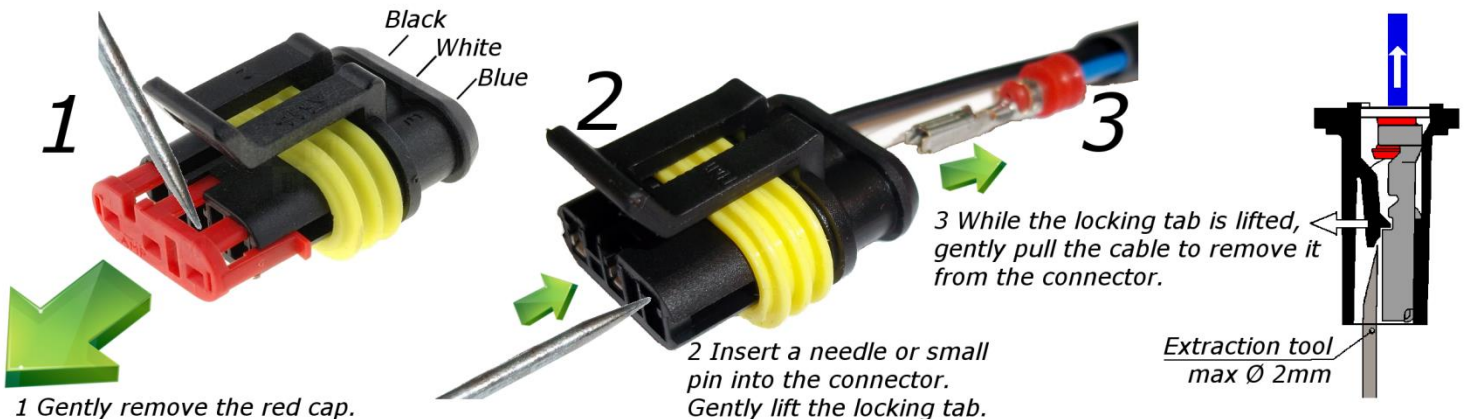
► *Tacho output* ◄

Connect the red cable of the CDI with the input of your tacho.

► *YPVS output* ◄

Connect the yellow-black output of both CDIs to the input of the YPVS steering box and the tacho using the Y-branch.

► *AETC* ◄

Connect the white-blue output of both CDIs with the input of the AETC steering box using the Y-branch.

Igntion curve:

Set point - markings on flywheel and stator aligned

068C130 igntion curve

Connector removal:

Black / White / Blue

1

1 Gently remove the red cap.

2

2 Insert a needle or small pin into the connector. Gently lift the locking tab.

3

3 While the locking tab is lifted, gently pull the cable to remove it from the connector.

Extraction tool max Ø 2mm

To reassemble the plug, insert the terminals back in place till the locking tab clicks in and put back the red cap.