

# Two-stroke gasoline engine

**ROTO**  
motor



## **Instruction for usage of two-stroke gasoline engine ROTO**

Before the expedition each engine is tested and basically turned up. Before the first start of the engine it is necessary to dispose the engine to the used propeller and exhaust.

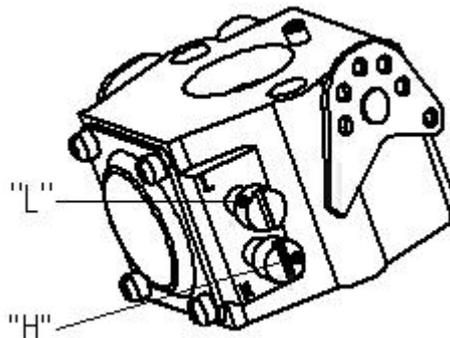
### **Foundations of the safe manipulation with the engine**

1. Before any manipulation with the engine ROTO check the condition (do up-turn off).
2. The slowly rotation of the propeller can cause the ignition of the engine an consequential starting of the engine.
3. The model (prototype) must be fastened by the starting of the engine, because after the starting the model could move or the propeller could be hurt.
4. Be careful with the temperature of the engine. At the maximal performance each piece can achieve the temperature over 300°C. Be careful of the burn with the touch.

**Fuel:** for the ROTO engines we recommend the fuel called Natural 95 mixed with the oil Motul 710 at the rate 1:50. We recommend to filter the mix before the use.

### **Correction and runing – in of the engine**

1. Check, if the ignition is turned off, close the choke and with the rotating with the propeller intake the fuel into the carburettor. After the saturation of the engine do up the ignition and start the engine. If the engine stops, turn off the choke and start the engine again.
2. Set the nozzel with label **H** to the position, to be the feeding more plentiful and let the engine run at the raised freewheel cca 20 nim.
3. After this process the engine should be basicly runned and you could approach to the mild blending af the maximal performance and turns. Set the full gas (highest performance) at the transmitter and with the rotating with nozzel with label **H** set the engine at the maximal performance. With the rotating of the nozzle with label **L** set the freewheel and the turns.



## **ROTO electronic ignition instructions**

The ROTO ignition is a microprocessor controlled ignition with automatic spark timing advance for use on model airplane gas fueled engines.

**Weight:** 100 grams, (3,5 Oz.)

**Supply Voltage:** 4-9V

**Input current:** 50mA – 500mA

**Advance range:** up to 30 degrees advance

The ignition is equipped with a novel feature, a LED indicator mounted on wire lead external to the ignition. The LED will blink when the ignition is first turn on indicating that the ignition is functional. After the engine is started the LED will blink at the RPM rate. Stopping the engine (with the choke or throttle) and keeping the ignition turned on will extinguish the and after this short interval the LED will blink at a rate of ½ of the maximum RPM attained during the recent ignition operation. This data may be read from the LED with a optical tachometer (you may need to shield the Tach's sensor from other lights). This RPM info will help you gather information on how your engine/prop combinaton is performing in the air!

### **Instalation of the ignition**

The ignition needs to be located and mounted in such a manner that it is isolated from extreme temperature and shock. The power input connector is JR/Hitec compatible. The spark plug lead should be secured so it does not rub against engine or airframe components.

Mount the ignition as far as practicable from the radio control equipment in the model.

The hall sensor mounts on the crankcase of the engine. There are NO user adjustments required or needed.

**When the magnet on the hub of the engine passes the hall sensor (and the ignition is turned on) a high voltage pulse is supplied to the spark plug. BE CAREFUL!  
The spark pulse is in excess of 20 thousand volts!**

Test your model for proper radio operation before flying, turn on the radio system (transmitter antenna fully collapsed), start the engine (while being hold by second person) and walk away 100 feet while moving the sticks and observing the control surfaces. Any random movement of the surfaces indicates a problem with the radio system which must be investigated... do not fly the model!

**The igniton has two years warranty.** Do not attempt to service the ignition module. There are no user serviceable parts. Return it for repair or replacemen. The warranty does not cover crash damage or abuse.

## **WARANTY REGISTRATION CARD**

<b>Product name:</b>	
<b>Type:</b>	
<b>Product serial number:</b>	
<b>Date of purchase:</b>	
<b>Signature:</b>	
<b>Dealer's name, address:</b>	
<b>Stamp:</b>	

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