

TOP FOUR STROKE ENGINES

2-STOKE OPERATING INSTRUCTIONS





Operating instructions

THANK YOU FOR CHOOSING OUR PRODUCT Two-stroke engine Produced in the czech republic.





Introduction

You have purchased a new two-stroke petrol engine that requires the first few important steps to successfully start your RC plane model .

The engine has already been tested and started by the manufacturer, everything is fine and it works as it should!

Safety instructions

- Always be very careful when handling the engine.
- The engine can start even when the propeller rotates very slowly and injure you!
- Whenever you start the engine, make sure that you have the model secured so that there is no movement of the model and possible injury!
- Do not drive the plane with the engine running in between spectators and colleagues at the airport!
- Do not touch the engine after the flight, it is hot and there is a risk of burns!
- You have one body, take care of it and enjoy ROTO engines.



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

- We check if the ignition is off, close the choke and turn the propeller to suck gasoline into the carburetor. After saturating the engine with gasoline, turn on the ignition and start the engine. If the engine stops, we turn off the choke and start the engine again
- 2. Adjust the nozzle marked H so that the supply of the mixture is richer and let the engine run at high idle for about 20 minutes.
- 3. With this, the engine should be basically run in and we can proceed to fine-tuning the maximum power and the transition of revolutions. We set full throttle on the transmitter and by turning the nozzle marked H we set the engine to maximum power. By rotating the nozzle labeled L, we set the idle speed and speed transitions. This should set the engine.





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

Advace 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 diode indicates if the ignition unit is switched on or switched off.

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 sdjustments 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 antena 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 systém 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.



Warranty card

Name of a product:	
Туре:	
Serial number:	
Date of purchase:	
Dealer's name, address:	
Stamp:	



This product has been tested, inspected and inspected for sale for 24 months from the date of sale.

The warranty covers defects that occurred during the warranty period due to an error in the production or materials used.

In the event of a defect, please report the product together with the sales document and this, completed and confirmed, warranty card either to the seller or send the product to the manufacturer.

Attach a description of the defect or how it occurred to the warranty claim.

The right to a free warranty repair expires in the following cases:

- the warranty does not cover defects caused by incorrect installation (eg incorrect installation, insufficient cooling, etc.)
- ▶ if the data on the warranty card and sales document differ
- the product has been used for purposes other than those for which it was intended.
- the warranty does not cover normal wear and tear or unauthorized intervention
- damage caused by dirt or when electronic or otherwise sensitive parts of the engine come into contact with water or chemicals (eg paint, cleaning agents, etc.)
- with regard to a defect caused by mechanical damage to the product (eg model accident, engine disassembly, etc.)

In the event of an unjustified complaint, the customer will be charged for all costs associated with this complaint, including any repairs.

The costs associated with the transport of goods to the service are borne by the customer $% \left({{{\mathbf{x}}_{i}}} \right)$

The costs associated with the transport of repaired goods under warranty are borne by the manufacturer. Warranty repairs are performed only by the manufacturer

ROTOmotor accepts no liability for injuries, damage to health or property, when using the engine in violation of the operating instructions manual, the use of common safety principles for the use of the combustion engine and its accessories.

DEVELOPED IN THE CZECH REPUBLIC









ROTO engines Ltd. Zbecnik 259 Hronov 549 31 Czech Republic

