RCAME Automatic Ignition for Gasoline Engines User Manual

IG-1 Single Cylinder Ignition System

WARNING: RCAME ignition system are designed for R/C MODEL only.

Do not use on any Manned Vehicle.

Features

·> Wide Input Voltage 4-15V, 2S/3S LIPO, 4.8V-12V NIMH/NICD batteries Compatible
·> The size of the ignition is smaller than average also.
·> The weight of the ignition is lighter than any before. The ignition alone only 61g.
·> All components are fit to Industrial temperature range–40°C to 85°C
·> Nickel Plated Stainless steel case, better Electromagnetic shielding performance
·> It features easy start, smooth running and long life.
We offer one-year warranty. (The warranty doesn't cover misuse or mishandling of the products)

Specification

Nominal Power Supply Voltage	4.8-12V
Max Power Supply Voltage	4.0-15V
Engine Rotate Speed	0-16000RPM
Working Current At 9000Rpm	600mA@4.8V
	420mA@7.4V
	280mA@11.1V
Standby Current	10mA
Output High Voltage	10-16KV
Operating Ambient Temperature	−40°C to +85°C
Size	50mmX30mmX21mm
Ignition weight(Without Sensor)	61g
Sensor kit Weight	9g
Case Material	Nickel Plated Stainless Steel

Selection Of The Power Supply

The RCAME Ignition is rated for 4.0v to 15v. It can use 4.8V-12V Ni-cd/Ni-MH batteries, 2S-3S Li-po batteries, or any other power supplies which can output 1.5A peak current. With a 500mah 4 cell 4.8v Ni-cd or Ni-MH pack, the RCAME Ignition can work well. For the best efficiently, We recommend that you use a 2S 7.4V Li-po batteries.

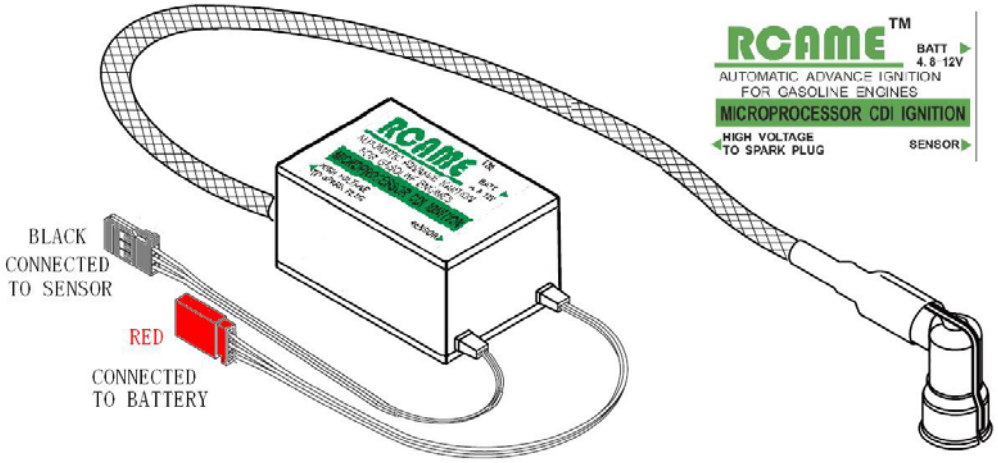
Installation

·> SPIRAL WRAPPING

Use the supplied spiral wrapping included with ignition to protect the high voltage wire from heat and chafing.

·> MOUNTING

Mount your ignition in the engine bay. Keep the ignition as far away from your receiver as possible and never use the same power source to run your ignition and remote control system.

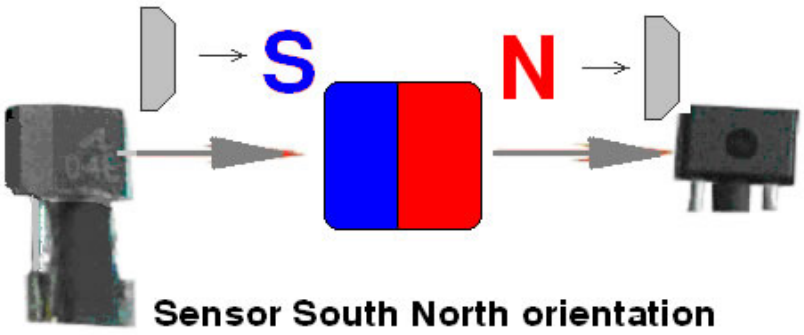


·> CONNECTING THE BATTERY

The RCAME Ignition utilizes Futaba plugs. The ignition circuit is with built in reverse polarity protected. The ignition can't work when reverse connect the power supply by mistake, but it is harmless for ignition . Mount the ignition as far away from the receiver as possible. Never use the same battery with remote control system.

·> HALL EFFECT SENSOR

Hall sensor need a magnet. A cylindrical Nd-Fe-B magnet with the size of diameter 3-5mm and thickness 3-5mm will be fine. Fix the magnet flush with the prop driver face reliably. Assembling the sensor bracket and determine the orientation of your magnet as figure. A quick way to determine the orientation is that connecting the hall sensor to the ignition, insert a sparkplug and connect your battery. Quickly pass the sensor over the magnet without stopping. If the plug doesn't fire, flip the magnet or sensor over and repeat. If the orientation is correct, the sparkplug will fire when magnet just leave the sensor.



·> ASSEMBLING THE SENSOR BRACKET

Before assembling the sensor bracket, please make sure you have the proper sensor orientation. Fully insert the sensor into the sensor housing. Use the supplied wedge to hold the sensor in its housing. Use CA glue to fill the gap between the hall sensor and the bracket. The wedge is designed to be a one-way fit, so it's important to confirm the correct orientation of the hall sensor .

·> TIMING

Timing will vary from different engine. Usually, 28°-35° before top dead centre (TDC) is the recommended maximum. The ignition reaches full advance at 3500 rpm. More than 35° advance will cause knocking, over heating, excessive vibration and may cause permanent internal engine damage.

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