

Introduction

Thank you for choosing the paramotor Rocket-200. We would like to invite you to spend some of your time reading and familiarizing yourself with this manual, which will allow you to discover the characteristics of your new engine. Thanks to the maintenance tips found inside, you will always be able to trust your engine and enjoy your purchase for a long time.

We would also like to invite you to hand over this manual along with the engine if you decided to sell; the new owner will find it as useful as you did.

The manufacturer, or, if the case be, the distributor are at your full disposal to answer any questions and concerns and solve any problem. **YOUR SAFETY AND THE SAFETY OF OTHERS ARE OUR BIGGEST CONCERN.**

We would like to inform you that the contents of this manual will not give you the information necessary to operate the engine; this manual contains only the information necessary to assemble and maintain your engine.

OWNER INFORMATION:

Name: _____
Address: _____
Paramotor Model: _____
Engine Series Number: _____
Distributor/Point of Purchase: _____
Address: _____
Date of Purchase: _____

Owner Signature: _____

Distributor Seal and Signature: _____

**IT IS ABSOLUTELY NECESSARY TO READ THIS MANUAL BEFORE
OPERATING PARAMOTOR EQUIPMENT**

ENGINE SPECIFICATIONS

ENGINE	Rocket-200
CYCLE	2 stroke
POWER	27cv to 8.000 rpm
DISPLACEMENT	200cc
MAXIMUM RPM	7.800 rpm - 8.000 rpm
COOLING	Air
PISTON	Light alloy with two pressure points
CYLINDER	Light alloy- cermetal plated sicilium
CYLINDER HEAD	Light casting alloy
CARTER	Mechanized duralumin
ROD	18NiCrNo5 steel with high-speed rods
CARBURETOR	Walbro 37
FUEL INJECTION	Laminated set
ELECTRIC START	CDI style
SPARK PLUG	NGK BR 9 ES
PINION	Poly-V cord
FUEL	Mix: Super 95-98 octane, 3.5% oil at softening, 3% for normal use
CHASSIS ATTACH	4 rubber shock mountings
ROTATION	Reverse direction from propeller face clock

BEFORE ENGINE START-UP

1. The chassis should be placed on flat land, on carpet or on a surface without gravel or any other foreign object that could be sucked up by the propeller. **Double-check visually and make sure there are no irregularities in every single part of the paramotor; fix in case of irregularities (ex: air box, exhaust tube, harness bands or any other component that is loose and could interfere with the propeller at start-up).**
2. Pump the primer pump while simultaneously pressing the carburetor entry with the flange point to relieve pressure from the membranes, until fuel enters the carburetor. **ATTENTION!** Once fuel enters the carburetor, do not continue pumping more than two (2) seconds, as the engine will choke. In case of engine choking, accelerate deeply and make the engine spin ten (10) to fifteen (15) times, until it expels the excess fuel. It is advised that if the engine has been choked too much, you should remove the spark plug, make the engine spin so it expels the gasoline, and replace it with a new spark plug, and proceed from the beginning.

TO START THE ENGINE

1. Prime the engine as in Point 2 (above), press the ignition button or pull the cord. The act of pulling the cord should be controlled so that the ignition cord does not suffer stress from the pull; this can be achieved by pulling gently on the cord until you feel compression. From this point and without losing tension in the cord, pull quickly and the engine will start. Normally, you should accelerate slowly with the precaution that once the engine starts you should let go of the accelerator. It will usually start on the first or second try.
2. Keep about 20% of the gas accelerated for five (5) minutes to let the engine warm up.
3. Normally the start-up will be almost immediate. Do not insist too harshly on an engine that won't start. In 99% of such cases, the issue is that there is excess or not enough fuel. If the engine has not been operated for several weeks or has choked, you should disassemble the engine and clean the spark plug. Before each flight verify that the stop button functions properly by pressing it.

SOFTENING THE ENGINE

During the first ten (10) hours of use, a fuel mix of super or unleaded and 3,5% synthetic oil should be used. During these hours, you should avoid accelerating for prolonged periods and the best method will be to take off from an inclined launch point and to fly without prolonged periods of ascension.

AFTER THE FIRST HOUR YOU SHOULD DOUBLE-CHECK THE SECURITY OF ALL SCREWS IN GENERAL AND OF THE PROPELLER, THE EXHAUST, AND OF THE CARBURETOR IN PARTICULAR. After the first ten (10) hours it is important to decrease the fuel mix to 3% or 2,5%, depending on the altitude of flight, the pilot's weight, or the environmental temperatures of the location of flight. This way, you will avoid an excess of cinder production. The spark plug can also be changed after these first hours.

NOTE: Always use the same high-quality synthetic oil. We recommend Castrol TTS or Motul 710 brand oils.

MAINTENANCE

1. Centering the Propeller

- Place an object on the lower part of the chassis.
- Rotate the propeller and verify that the two (2) or three (3) ends of the arms pass the same point (remove the spark plug to facilitate this process).
- In the case that the ends don't coincide, tighten the appropriate screws.
- The maximum allowed discrepancy is 2 mm.
- The screw tightening pressure should not exceed 1,3 kg.
- **The propeller is one of the most important components of the paramotor; a poorly tightened or poorly repaired propeller, or a propeller in poor conditions due to small erosions, can damage the other components of the paramotor. For this reason, it is advised that only the original propeller be used at all times and that all repairs be made by the manufacturer of the propellers.**

2. Check-up Every 20 and 50 Hours of Flight

- Verify and control the state of the spark plug every twenty (20) hours of flight. The interior insulator should be light brown in color and the space between the electrodes should be 0,4 to 0,5 mm.
- Wash the air box with fuel every twenty (20) hours.
- On the first 20-hour check-up, adjust the cylinder screws at 2,2 kg of pressure, doing this at cross and with the engine fully stopped and cold so as not to damage the cylinder.
- At fifty (50) hours of flight, verify and control all of the previous points and replace the fuel filter.
- Replace the shock mounting once every two (2) years, or sooner in case of cracking or deformation.

FUEL ADJUSTMENT

1. The carburetor is adjusted in the factory with a standard adjustment; depending on the altitude of flight, it will be necessary to readjust it.
2. Standard adjustment is one and one-fourth ($1 \frac{1}{4}$) turn on the upper screw and one and one-half ($1 \frac{1}{2}$) turn on the lower screw.
3. The "**upper**" T shaped screw adjusts the fuel flow on a high-revolution regimen and should be adjusted with the engine being accelerated deeply. Turn the screw right or left until the maximum push is found.
4. The screw to the right of the "upper" screw regulates fuel flow on a low-revolution regimen. Turn lightly until the proper point of noise and response from the engine is found.
5. The screw located **behind** the "upper" and "lower" screws regulates the idle speed. Turn it right or left until the desired point is found.

ANCHOR POINT

All of our paramotors are equipped with low anchor systems. A series of drills can be found on the arms. The two (2) drills closest to the harness are for light weights: 60-65 kg; the next two (2) drills are for 70-75 kg; the next two (2): 80-85 kg; and the following drills are for pilots who weigh from 90-105 kg. To adjust the system, try one of the indicated drills and verify via flight that the position is appropriate for the pilot. If it is not, the anchor should be moved forward or back until the ideal position is found.

WARRANTY

All of our models have a one (1) year warranty from the date of delivery, keeping in mind the following points.

- 1.** The commercial warranty provided by **PARAMOTORES AIRFER** (henceforth **the warranty**) does not cover engine irregularities, given that the causes of such are undetectable (lack of oil in the fuel, improperly lubricated, low quality oil, improper use, etc.).
- 2.** The company is not responsible for any imperfection caused by improper use of the engine; the customer agrees to strictly follow the described maintenance, as well as the pre-flight examination. Not following these guidelines will void the warranty.
- 3.** The warranty does not cover the normal wear of parts caused by use or damage caused by the installation of parts not provided by **PARAMOTORES AIRFER**.
- 4.** The warranty does not cover engines used in races, competitions, or for commercial purposes.
- 5.** The warranty does not cover damage caused by use of the engine without propellers or damage caused by altering any part of the paramotor if the alteration has not been authorized in writing by **PARAMOTORES AIRFER**.
- 6.** The warranty does not cover damage caused by the use of propellers not approved by **PARAMOTORES AIRFER**.
- 7.** The warranty does not cover damage caused by oxidation (rust), premature wear due to water exposure, sand infiltrations, or exposure to any foreign objects.
- 8.** The warranty does not cover damage resulting from mechanical manipulation by a service not authorized by **PARAMOTORES AIRFER**.
- 9.** The warranty does not cover damage caused by improper transport.

ALL TRANSPORTATION COSTS ARE BUYER'S RESPONSIBILITY.

ATTENTION: THE PROPELLER IS THE MOST IMPORTANT PART OF THE PARAMOTOR. IT SHOULD ALWAYS BE CLEAN AND SMOOTH. IN CASE OF WEAR, IT SHOULD BE REPLACED OR REPAIRED AND BALANCED BY THE MANUFACTURER.

A DAMAGED PROPELLER CAN WRECK THE PARAMOTOR, WITH THE APPROPRIATE CONSEQUENCES.

PARAMOTORES AIRFER IS NOT RESPONSIBLE FOR ANY STRUCTURAL IMPERFECTION IN THE PARAMOTOR CAUSED BY AN IMPROPERLY REPAIRED PROPELLER OR A PROPELLER WITH GENERAL IMPROPER UPKEEP.

Our paramotors are delivered as a KIT; therefore, the paramotor's use and maintenance are solely the customer's responsibility. The customer must make a complete examination of all of the paramotor's parts and elements which are detailed in the maintenance and pre-flight examination **BEFORE STARTING THE ENGINE.**

PARAMOTORES AIRFER IS NOT RESPONSIBLE FOR ANY INCIDENT RESULTING FROM NOT HEEDING THE PREVIOUS WARNINGS.

EXPLICIT OR IMPLICIT WARRANTIES

In so far as it is allowed by local law, the previous warranties are exclusive and do not include any other warranties or conditions, written or oral, expressed or implied. **PARAMOTORES AIRFER** rejects all warranty or condition implied in commerce. This warranty will provide the customer specific legal rights, as well as possibly providing other rights that vary from one country, state, or province to another.

PARAMOTORES AIRFER reserves the right to modify your warranty policy at any moment, it being understood that such changes won't alter the conditions applicable to engines sold while the warranty that appears above is valid. In case of litigation **PARAMOTORES AIRFER** recognizes only the courts of Castilla-La Mancha.

CUSTOMER SERVICE PROCEDURES

If you have any problems, difficulties, or concerns, please contact the company at:

1. Authorized **PARAMOTORES AIRFER** customer service centers.
2. Authorized **PARAMOTORES AIRFER** distributors.

VALIDITY OF WARRANTY

The warranty will be valid only if the buyer completes the registration card and sends it into the authorized **PARAMOTORES AIRFER** distributor immediately after delivery of the paramotor.

NOTICE OF WARNING

This paramotor, due to its design, may be subject to sudden stops. This stop may cause impact upon landing. This type of accident may result in serious injury, including death.

For this reason, the paramotor equipment must never be flown in closed spaces, wind currents, inappropriate heights, or under any other circumstances in which it may not be possible to make a smooth landing after a sudden engine stop. This equipment must only be flown in daylight and under visual flight conditions (Visual Flying Rules V.F.R.).

WARNING

This paramotor is not certified by any establishment. It has not passed any security or durability tests or examinations and it does not fall into any patterns of airplane engine standards. It is designed SOLELY for **experimental** use in paramotors, non-certified vehicles and venturous flights, in which engine failure might endanger the safety of any persons involved.

The user or owner assumes all risks of use and recognizes that via its use, the engine might be subject to a sudden stop.

AGREEMENT OF WARRANTY

I, _____,

With D.N.I. _____,

Recognizing in my own name sufficient capacity for the issuance of this document, declare:

That I am solely responsible for my actions and freely purchase a paramotor for experimental and venturous flight, which might merit some risk. In declaration of the fact that I am solely responsible of any and all incidents that might take place during its operation, and freeing the manufacturer of all civil and criminal liability that might arise in case of incident or accident, I sign this document.

DATE:

SIGNATURE:

WARRANTY REGISTRATION CARD

1. In order to comply with the requirements of the warranty, it is necessary that this form be properly and completely filled out by the user and/or owner of the paramotor and returned to **PARAMOTORES AIRFER** by ordinary mail within twenty (20) days of delivery, to the following address:

Paramotores Air Future SLU
C/ Pedro Muñoz, 22
13630 Socuéllamos (Ciudad Real) España

This requirement not being properly filled, the benefits of the warranty will be denied.

2. No other type of warranty is available, besides the conditions defined in the present warranty.
3. Paramotor Model: Rocket 200

Engine No: _____

Propeller Model and No: _____

Date of Purchase (date of delivery): ____ ____ ____

Warranty Date of Expiration: ____ ____ ____

Buyer: _____

Distributor: _____

I have fully read and understood the user manual and I agree with the procedure and conditions described above.

DATE:

SIGNATURE:

WARRANTY CARD AND CHECK-UP REGISTRY

<p style="text-align: center;">1st Check-up</p> <p>Date: __ _</p> <p>Incidents/Irregularities: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Company Seal and Signature:</p> <p>_____</p>	<p style="text-align: center;">2nd Check-up</p> <p>Date: __ _</p> <p>Incidents/Irregularities: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Company Seal and Signature:</p> <p>_____</p>
<p style="text-align: center;">3rd Check-up</p> <p>Date: __ _</p> <p>Incidents/Irregularities: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Company Seal and Signature:</p> <p>_____</p>	<p style="text-align: center;">4th Check-up</p> <p>Date: __ _</p> <p>Incidents/Irregularities: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Company Seal and Signature:</p> <p>_____</p>

WARNING: If one of the above indicated check-ups is not performed for any reason outside of this company's control, the warranty will be void.