Introduction

Thank you for choosing the paramotor Moster 185. 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 paramotor; this manual contains only the information necessary to assemble and maintain your paramotor.

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	Moster 185
CYCLE	2 stroke
POWER	25cv to 7.800 rpm
DISPLACEMENT	184,7cc
MAXIMUM RPM	7.800 rpm
PISTON	HQ, graphite, 2 rings chromed
CYLINDER	Single cylinder in aluminium Nicasil-chromed
COOLING	Propeller extraction
ELECTRIC START	IDI style
SPARK PLUG	NGK BR9ES
REDUCTOR	1 / 2.7 – Poly-V belt
FUEL	Mix: 95 octane minimum, synthetic oil 2,5%

BEFORE ENGINE START-UP

During the first engine start and every time the engine line is low or empty, it is necessary to fill the carburetor before starting the engine. To start, put pressure on the gasoline primer pump until filling up the carburettor. For the best start, when the carburetor is empty or the engine is cold, insert just a little bit of gasoline into the carburetor (pumping about ½ second). This small amount of gasoline will function as a starter for the engine.
Attention: if the quantity of gasoline pumped into the carburetor is excessive, there is risk of choking the engine or damage to the pull start.
The best start is done with minimal or no throttle. If the fuel circuit is on pressure and the engine is warm, it won't be necessary to make pressure on the pump.

WARMING THE ENGINE

Accelerate softly in the first thirty (30) seconds, allowing the carburetor and the engine to stabilize. Next, increase the number of turns and let the engine warm up 2-3 minutes at this constant speed. Finally, accelerate at full throttle for 15-20 seconds, and the engine is ready to fly. If you've installed a temperature sensor, the engine must exceed a temperature of 120ºC during this warm-up.
Before each flight, verify that the stop button works perfectly by pressing it.

SOFTENING THE ENGINE

A carefully performed softening will improve the durability and performance of your engine. The engine should be used with maximum care during the first five (5) hours (15-20 liters). During these hours, super unleaded gasoline and synthetic 3% oil should be used. You should also avoid prolonged accelerations and the best way to do this will be to take off from an inclined plane and to fly avoiding prolonged ascensions. After these first hours, it is important to reduce the oil mix to 2,5%.

First phase:
The first phase of the softening, done on the ground, will last about two (2) hours: operation cycles of fifteen (15) minutes followed by breaks of fifteen (15) minutes. Follow the following indications to effect the first sequence.

- 4000 rpm – 4 minutes, then idle 1 minute
- 5000 rpm – 3 minutes, then idle 1 minute
- 6000 rpm – 2 minutes, then idle 1 minute
- 7000 rpm – 1 minute, then idle 1 minute
- 8000 rpm – 30 seconds, then stop the engine and let it cool for fifteen (15) minutes

Repeat the series described above four (4) times. At the end of the last series, stop the engine and check the spark plug.

Second phase:
Perform flights or ground tests of maximum thirty (30) minutes each until completing the first fifteen (15) liters (4 hours of operation). Don't use the engine at constant speed for a long time; a gradual acceleration is preferable. Verify the state of screws and bolts in general.

FIRST CHECK-UP

The following controls should be performed during the first ten (10) hours of operation.

- Tighten the head nut (17 N/m) after two (2) AND ten (10) hours, always with the engine in cold.
- Check the color of the spark plug at the end of the first phase of softening.
- Verify the tension in the belt after five (5) AND ten (10) hours.
- Verify the idle stability, from 1.800 to 2.200 rpm.
- Verify that there are no anomalous oil, grease, or gasoline leaks.
- Verify the integrity of the rubber mounting.

MAINTENANCE

1. Centering the Propeller

- Push the propeller against the reduction drive until it is completely inserted. Gently screw the bolts until the end. Be sure the bolts are proper for the propeller; the bolt threads should enter at least 12-15mm into the hub. To tighten the bolts, apply the same pressure to every point. Do not over-apply pressure on the bolts, as there is risk of damaging the propeller, especially if it is wooden. The maximum torque should be 10 N/m.
- **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.
- Check and control the screw adjustment every twenty (20) hours of flight.

- On the first 20-hour check-up, adjust the cylinder screws at 1,5 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 years, or sooner in case of cracking or deformation.

FUEL ADJUSTMENT

When you receive the engine, the carburetor has been adjusted and verified in-factory with a fifteen (15) minute test. If you decide to adjust, the standard adjustment is ¼ to 1/3 turn for screw **L** and 1 1/8 to 1 ¼ turn for screw **H**. Close the screws completely and open them with these settings. Remember that an excessively strong pressure can irreparably damage the carburetor.

ANCHOR POINT

All of our paramotors are equipped with a low anchor system, which has four (4) adjustable positions, depending on the weight of the pilot and the desired position of flight. To adjust, test and determine which of the four (4) positions is most comfortable and move the fetter to the desired position.

WARRANTY

All of our models have a one-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 following 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: Moster 185

   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

1st Check-up	2nd Check-up
Date: __ _____ ____	Date: __ _____ ____
Incidents/Irregularities: _____	Incidents/Irregularities: _____
Company Seal and Signature:	Company Seal and Signature:
3rd Check-up	**4th Check-up**
Date: __ _____ ____	Date: __ _____ ____
Incidents/Irregularities: _____	Incidents/Irregularities: _____
Company Seal and Signature:	Company Seal and Signature:

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.