AIR ADVENTURE

SkyPulse 185

1. **Introduction.**
2. **Be caryful.**
3. **Assemble.**
4. **Engine start.**
5. **Harness Adjustment**
6. **Maintenance.**

1. Congratulations and thanks for becoming the owner of this Air Adventure product. Please carefully study this professional guide. Please consult the safety list of this manual prior to each flight.
-Before starting the engine, check that the area next to the propeller is free from the lines, clothes and all that can be caught by the propeller.
-Always warn everyone nearby before starting the engine to stay clear.
-Make a habit of yelling "Clear Prop!" in a loud, clear voice.
-Before taking off, check the harness, carbines, lines, make sure that everything is in good working order.

2. Do not start your flight until you check all the points:

Harness. Check all points of the frame connection with the harness and point of connection with the main carbine for damage.
Frame. Check the frame, arms, cage and net for damage.
Fuel system.

- **A. Check that fuel hoses are in good condition.**
- **B. Check that the fuel hose and the filter is at bottom of the tank.**
- **C. Fuel the required amount of fuel for the flight.**

The throttle control handle.

- **A. The throttle control handle. A.Check the condition of the trottle control handle for damage.**
- **B. Check the cable for fraying and twists.**
- **C. Open and close several times the throttle to make sure that it moves and returns the throttle to the closed position.**

Start system.

- **A. Check the starter cord for fraying.**
- **B. Slowly pull the starter cord on yourself, after which the cord will retract.**
- **C. Make sure the spark plug is tight.**

Engine.

- **A. Check for oil & exhaust leaks.**
- **B. Confirm that the air filter is tight.**
- **C. Inspect the motor mounts, they should be in good condition, without damage.**

Prop.

- **A. Check that the propeller is installed correctly.**
- **B. Make sure that the front edge of the propeller is clean and without damage.**
- **C. Check the torque of the propeller bolts.**

If you are not near the paramotor, the main switch should always be in the OFF position.

3. Assembly of the frame.

The paramotor consists of a frame, five arms and six parts of the cage. On each arm there is a groove for fixing it in the frame. The upper arm has two grooves or only one groove at the top to fix the arm in the frame. fig 2 After installing the arm in the frame, the arm needs to be fixed using a cam. fig 1

fig 1

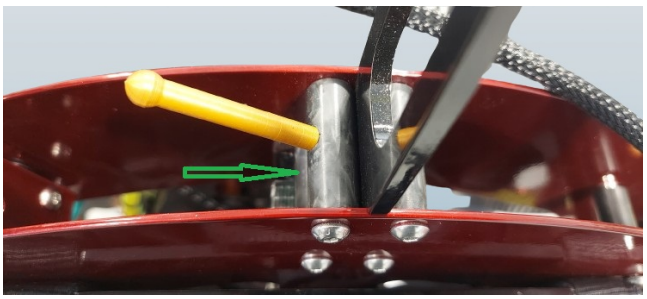
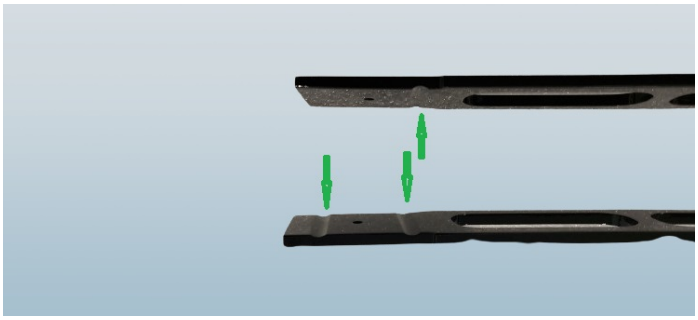


fig 2



It is possible to adjust the clamp force using an cam, which is located opposite the cam with a lever. To do this, you need to slightly loosen the screws of the adjustment cam and turn it to get the right amount of force. fig 3, fig 4

fig 3

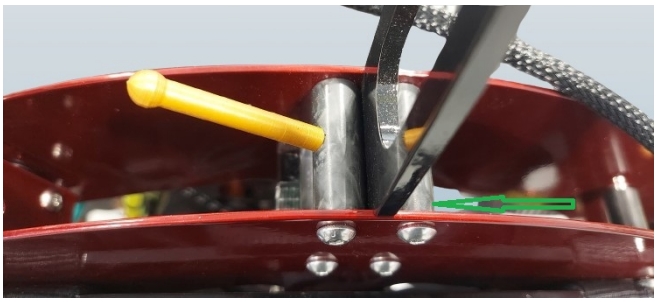
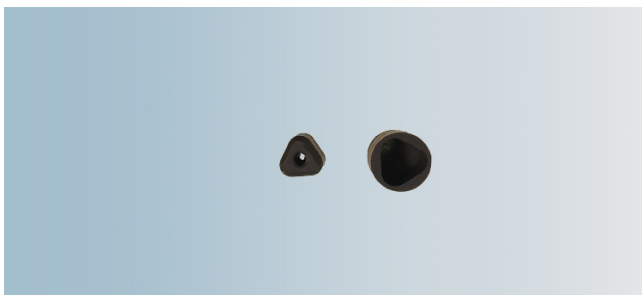


fig 4

Then, you need to tighten the screws that fasten the cam. The rest of the arms install the same way. Then, we install the cage, starting from the upper part. Connectors have a triangular shape so that the outer cage ring cannot turn on its axis. fig 6

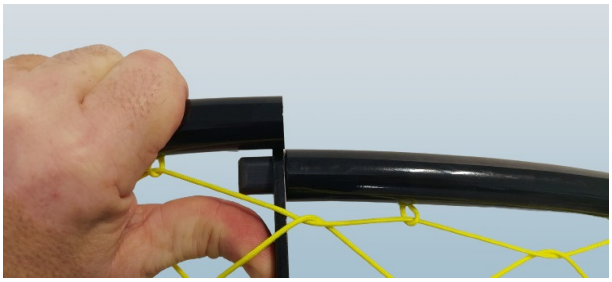
fig 5

fig 6



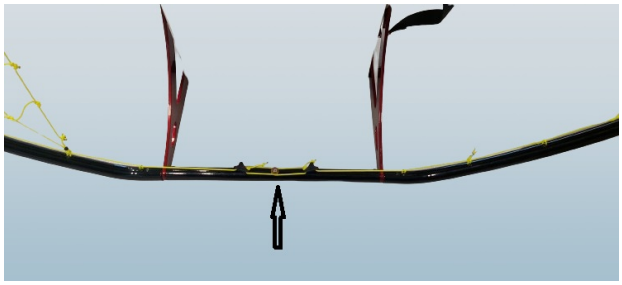
After, we set the middle section of the cage, then the lower ones. pic 5 To connect the last docking area, it wil require some effort. In order to increase reliability, the ring of the fence is made with a small offset to be able to help hold tension. pic 7

pic 7



Then, connect the outer ring at the bottom of the frame. pic 8 The outer line has the ability to adjust the tension on the outer ring.

pic 8



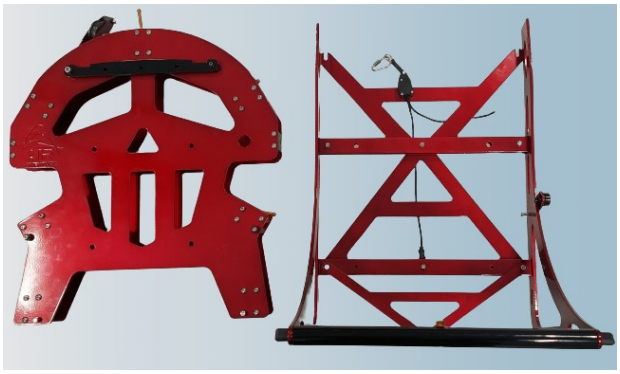
Then, tighten the outer line by pulling the tensioner. fig 9

fig 9

The line should take shape at the point indicated by the arrow.

For transportation in limited space, the frame can be dismantled into two parts. In order to make it clearly visible how two parts are joined, we took a photo without engines and a harness. fig 10

fig 10



To fix the two parts of the frame, connectors are used, which are indicated by arrows in the photo. fig 11-13

fig 11

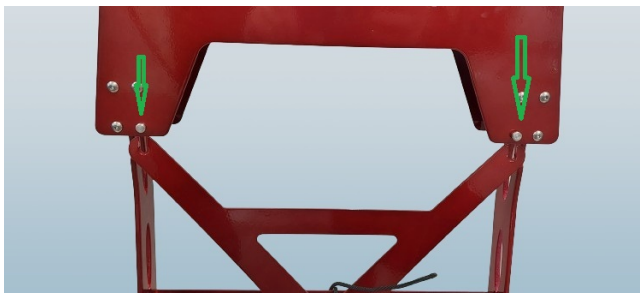


fig 12

fig 13

Since we equip our paramotors with primer buttons for cold starting, there is another place that needs to be disconnected for disassembling the frame. See the photo below. fig 14,15

fig 14

fig 15

To disconnect the main fuel line from the fuel tank, a quick coupler is used. fig 16,17

fig 16

fig 17

4. Engine starting.

Before starting the engine, it is necessary to press the primer button a few times. fig 18, until all fuel hoses pic 19 (both thick and thin) are filled with fuel. After that, make one - two final clicks on the primer.

fig 18

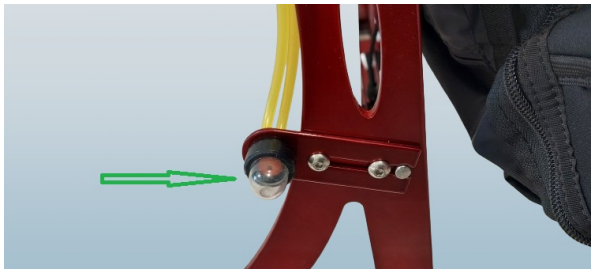
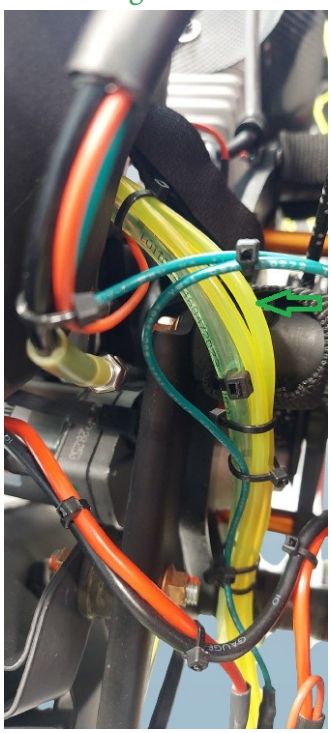


fig 19



Open and close the throttle several times to make sure that movement is free to the closed position. Turn the master switch to the "on" position. Without pressure on the throttle, click on the "Start" button on the hand throttle.

-If the primer was used correctly, the engine will start almost instantly. If the engine has not started within 3-5 seconds, you either added too little fuel.
-If the engine does not start within 3-5 seconds, you need to make sure that you have primed correctly. First, open the throttle completely and press the start button again. Be careful, since the engine can start and quickly go to maximum speed. Be prepared to let go of the throttle immediately after the engine starts.
-If the engine does not start, press the primer 3-4 times and repeat the start procedure without the opening of the throttle.
-Do not hold the starter turned on for more than 5 seconds, doing this will cause the starter to overheat, and cause potential damage!
-Warm up the engine to a temperature of at least 60 degrees Celsius before the flight.

4. Adjustment harness.

The harness has many adjustments, which will be described in detail below.

Centering.

The optimal angle of incline of the paramotor back is 10-15 degrees. The installation of the angle of unit is affected by several adjustments. The way to achieve the desired angle, is to adjust the suspension point on the S-bar. pic 20

fig 20

The angle of incline of the paramotor depends on the weight of the pilot. The heavier the pilot, the angle of the paramotor is reduced.
When moving the suspension point to the back of the paramotor, the angle of incline of the paramotor will decrease. When moving the suspension point forward - the angle of incline will increase.
The next adjustment is carried out using buckle **B**. Adjustment of this bar **A** is needed to obtain a comfortable position in flight, and also slightly affects the angle of incline of the paramotor. If the bar is lowered, the angle of incline will decrease. fig 21

fig 21

Adjusting shoulder belts. There are two belts at point **A**. One of them (belt **B**) is needed to adjust the position of the paramotor on the pilot's shoulders. (Higher or lower.) Another belt (**C**) regulates the angle of incline of the entire lower part of the harness. (**D**) fig 22

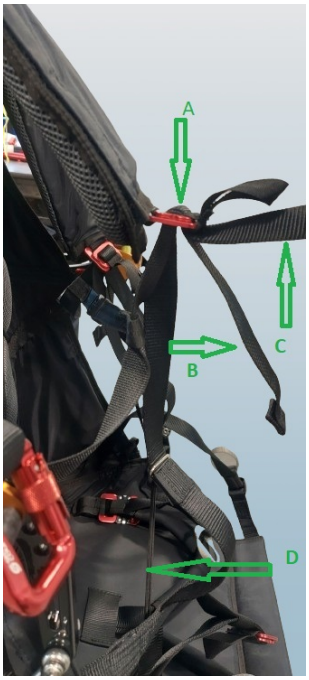


fig 22

Adjusting the lower part of the harness **D** is also needed to choose a comfortable position for the pilot and there will be little affect on the angle of inclination of the paramotor.

It is possible to change the size of the harness depending on the size of the pilot. In the photo below, the arrow indicate zipper with which you can change the size of the harness. fig 23

fig 23

The difference between a fastened and unbuttoned position is 5cm.

The next adjustment changes the distance between the harness and the paramotor. This also will affect the angle of incline of the paramotor. When tightening the belt A, the angle of incline will decrease. fig 25

fig 25

Belt R is very important. The distance between the frame and the harness should be in the range of 3-5 cm. These belts do not allow the paramotor to shift side to side while the pilot is executing power. If the belt is too long, it will cause the paramotor to turn in the direction of the torque of the motor. fig 26

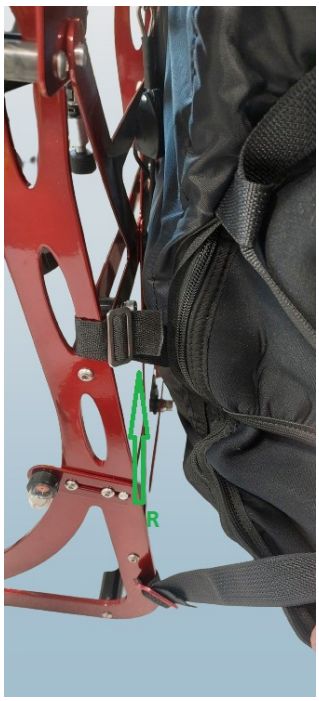


fig 26

Leg harness straps should not be too tight. They should allow for free movement.

The paramotor is equipped with a rescue parachute release and belt for rescue chute, as well as a speed bar. fig 27

fig 27

In the lower part of the harness, there is a large pocket that can be used to transport small items. fig 27

fig 27

The paramotor has two points to compensate for side to side movement. The main point is the displacement of the glider mounting point. If the propeller has counterclockwise rotation, the compensation point should be installed on the S-bar to the right, if you look in the direction of the paramotor. fig 28

fig 28

An additional point of compensation for the side to side movement should also be located on the right, in the direction of the paramotor, if the propeller has counterclockwise rotation. fig 29

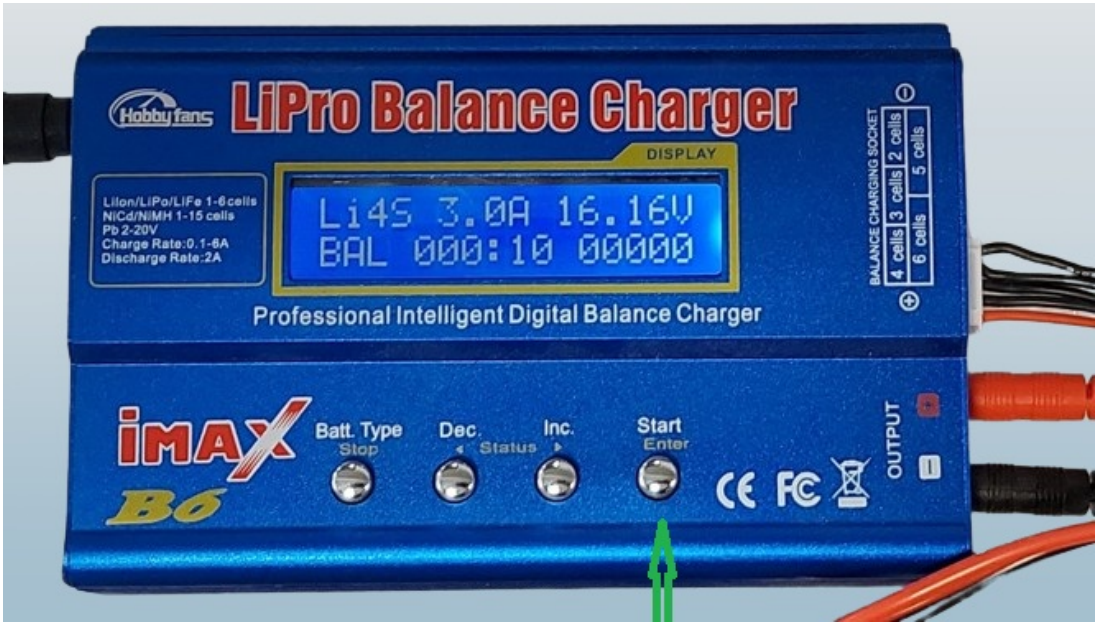
fig 29

Battery and charger.

The paramotor is equipped with a light and compact Lipo battery. The engine is not equipped with a charger suitable for a battery of this type, so the voltage must be checked periodically; you need to charge with a special charger, which is supplied with a paramotor.
The battery capacity is enough for about 40-50 paramotor launches. (Provided that you are doing the correct start engene procedure and do not hold the starter on for more than 4-5 seconds.)
This battery must only be charged with a special charger. It is taboo to use charger devices designed to charge batteries of a different type!
If you notice that the starter rotates more slowly than on a recently charged battery, immediately start charging the battery. To extend the service life of the battery, do not allow it to fully discharge. (less than 2.75 volts per cell.)
Before each flight, inspect the wiring for insulation damage. It is important!
The charger wil automatically stop, when batteryy is fully charged. it must be programed for a particular battery.
The charger can work from the on-board battery of the car.
The paramotor uses a 3300-3500A/h battery and the battery has four cells. The voltage of the charged battery is 16.8V.
To charge the battery, you need to connect a power connector and a balancing connector. For the convenience of charging the battery, the charger is equipped with an extension chord for a balancing connector.
After turning on the charger, it will be in charging mode.

To install the balancing mode on the charger you need to use the Inc button.

Then, press and hold the start button to the sound signal. After that, the charger checks the correct connection of the battery. Once again, press the start button and the charger will go into charge and battery balancing mode.



The battery charge time is about 30 minutes. The charger will emit a signal notifying that the charge is complete. We pre set chargers with which we equip paramotors. These chargers can also be used to charge many other types of batteries. Explore detailed instructions for the charger.