

TAKEOFF

MANTA FOILS



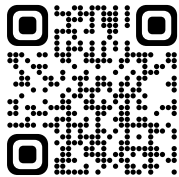
User manual

Manta Foils app

Download the Manta Foils mobile application to enjoy your ride to the fullest.



Useful videos and documents



Tutorial videos

Scan the QR code to access our tutorial videos.

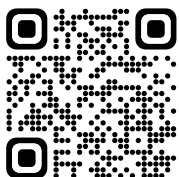
If you need more help, reach out at support@mantafoils.com

TakeOff community

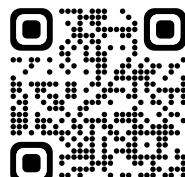


Join our Facebook group and become part of the community. Feel free to ask questions, share feedback and receive guidance.

Follow us on social media



Instagram



YouTube

For any questions or suggestions
sales@mantafoils.com

For after sales support
support@mantafoils.com

Warning

We understand your excitement to ride your new TakeOff. However, read the following section carefully to ensure longevity of the product and safety of the rider. Failure to comply to these warnings may result in serious injury or death of the rider or others. Please fully read and comply with the user manual before use. If you are unsure how to operate the device, contact your dealer. Use of the product and participation in the sport may lead to risk of injury or death. By using this product, the user accepts the inherent risk of use.

Battery safety

Do not open or attempt to modify the battery. No serviceable parts inside.

Risk of electric shock. Do not handle with wet hands. Do not connect the battery in water.

Risk of fire. Store in a cool dry place. Do not expose to direct sunlight for long periods of time.

Overheating can cause the cells to lose performance and capacity, affecting its longevity.

Allow the battery to cool down to room temperature before charging. Do not leave the battery unattended when charging.

Only use the supplied dedicated charger for charging.

Do not drop, puncture or damage the battery.

Carefully inspect the battery before every use.

Ride & public safety

Do not place hands or feet under the board where propeller contact could occur. Risk of serious injury or death.

Never operate the throttle with the motor/propeller obstructed.

Never touch the motor/propeller when the kit is switched on.

Never ride near other people or animals.

Wear a personal floatation device and ensure that your hair and any other loose items are tucked in and secured in place.

Any riding error e.g. hitting rocks on the ocean bed may cause the propeller to malfunction or can cause permanent damage making the propeller completely unusable.

Caution:
It is the rider's responsibility to ensure all components are in good working conditions prior to the ride.

Warranty

If the product is faulty or contains manufacturing defects do not use the system and get in touch with us on support@mantafoils.com.

Warranty claims will be considered on a case-by-case basis and outcomes will be determined at Manta Foils discretion.

Warranty period

- The warranty period for the European Union is 2 years.
- The warranty period for all other regions of the world is 1 year.

The warranty covers manufacturing defects only.

All batteries have a useful life span set by the battery cell manufacturer. Eventually, you'll notice some performance drop in the battery life. Battery health is not covered under warranty as all batteries suffer degradation over time.

Consumables and wear and tear components are not covered under warranty.

Failing to follow the care and maintenance instructions outlined in this manual voids the warranty.

The repair or replacement of parts under warranty does not extend the life of this warranty beyond its original expiry date.

ATTENTION:

Pay special attention to the seals when connecting and disconnecting elements. It is the user's responsibility to ensure all seals are in good condition prior to use. Defects and damages resulting from improper use of the kit are not covered under warranty.

DISCLAIMER:

Fast charging and riding full power for long periods of time deteriorates your battery health and will affect its longevity.

Basic riding tips

After ensuring your that your kit has been assembled correctly with charged batteries, power on the main unit and the remote.

Check that your propeller is not obstructed. Unlock your remote and accelerate for 2-sec to check that the motor runs properly.

Principles

Adding power will lift the nose of the board and you should offset this by moving your whole body towards the nose of the board. The more you accelerate, the more you move forward. Moving too much forward will sink the nose of the board, and staying too much back won't allow you to gain speed.

Starting to foil in 3 steps:

Step 1 - Starting & Dragging

Lay flat with your belly on the board. By default, the nose of your board will be higher than the back and you will be dragging the water when you start to move. Start with your body weight towards the front of the board, slowly add power and keep adjusting your weight towards the nose of the board. Your aim is to have the board flat on the water while moving.

Step 2 - Leveling & Sitting

Once you manage to level the board flat on the water, your board will start to pick up speed. You may want to reduce the power a little bit at this point so you can maintain a steady speed. With a steady speed in your belly position, push the nose of the board against the water with your hands, at the same time pull-in your knees under your body, transitioning from a lying to a sitting position. Make sure to not move back on the board as it would release the pressure on the nose, and make it fly when you're not ready. Pushing too much or without enough speed will make the nose sink and slow you down.

(3) Standing & Flying

Once sitting, push on the nose of the board to keep it stable and bring one foot to the front below your chest to stand up. Stand up gently, keeping your body weight on the front leg. Once standing, you will need to be at the center of gravity of the board. Most likely, this will require you to move a little back after you stand up. To do so, keep your weight on the front leg, move the rear foot back, then the front foot back in small steps. This will slowly release the pressure on the nose of the board, until you fly. If you cannot fly comfortably, it probably means that you need to move back a bit more.

Note: A good foiling position with the motor will require you to put more weight on your front leg, to control the pitch of the board.

When you are ready to foil without motor, pop the motor out of the water in a quick back leg input. Once foiling without the motor, release the pressure on the nose of the board.

Contact us

Manta Foils Head quaters is located in
PBU C-49 Dubai Production City
Dubai, United Arab Emirates
support@mantafoils.com

Controlling the power

You have two ways to control the power delivery of your remote during your ride.

A - Power levels

This way is easier for new riders and good for learning because you can have the trigger fully pressed and still be able to control the power.

From the power settings in the remote menu, set the Start Level at about 30-40% (e.g. level 6). When in the water, unlock your remote and accelerate to the maximum power of the trigger. Once you are balanced and riding steadily with the trigger fully pressed, use the '+' and '-' buttons on the remote to shift to higher or lower power levels as needed.

B - Trigger control

This way requires more precise throttle control so you may need some experience to ride this way.

From the power settings in the remote menu, set the Start Level at maximum (level 18). When riding, you can control the power directly with your trigger (The more you press, the more power you get). The benefit is that you can get all the power very quickly. The inconvenience is that you need to use your trigger very smoothly and without sudden fluctuations that would destabilize you.

Learning faster

If possible, choose a larger foil and board than you initially think you'll need for your first ride. Make it easier on yourself. Mount your TakeOff and Mast towards the rear of the board.

For motor positions closer to the fuselage, push mast further backwards.

Depending on your weight, you may not need full throttle. If your board starts sinking, you may need to stop and try again.

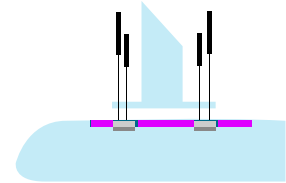
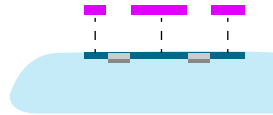
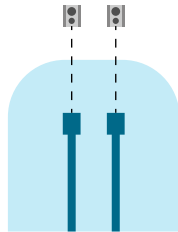
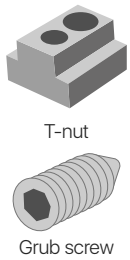
When you fall off the board, immediately release the trigger fully. This will stop the engine to avoid any risk of injury.

Intended use

The TakeOff has been designed for providing additional thrust to your standard foil setup, making it easier to foil. While it can support continuous motor operation, it can not be run at max power continuously as this will result in controller overheating and automatically reducing power or cutting power.

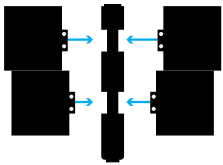
The TakeOff kits must not be modified, re-purposed or adapted in any form. Use the kit only as intended and follow the instructions. Failing to do so will void your warranty and can cause significant damage to you gear.

Attaching the battery



Slide the T-nuts into the board tracks through the slot and secure in place with the grub screws. Pack the provided foam into the remaining gaps of the board tracks for improved signal. Make sure to position the T-nuts correctly to match your mast plate holes.

AIR



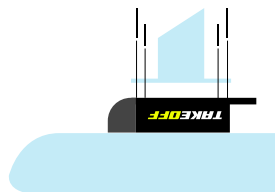
Apply battery grease to the rubber seals of each pack. **Do not** apply grease to the connector pins. Plug in the 4 individual packs into the connection hub. Secure each one in place with the provided M3x16 screws.

Note:

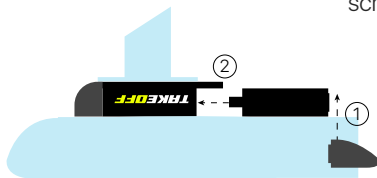
Pay special attention to the seals and ensure they are in good condition and correctly placed. The individual packs are only to be disassembled for air travel.



Flip the board and place the main unit on the board track.



Place your mast on top of the main unit and secure it in place with the M8x85 screws.



Clip-in the nose cone, then apply battery grease to the main hub connector (both rubber seal and connector pins). Now plug-in the battery into the main unit. Press firmly until you hear a click and ensure that the button is pushed back up. If the button is not level with the surface, it means that the battery is not fully locked in.

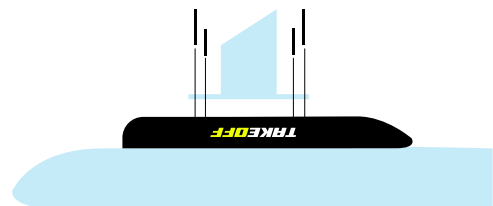
Note:

Apply battery grease to this power connectors before every use.

FLOW



Flip the board and place the main unit on the board track.



Place your mast on top of the main unit and secure it in place with the M8x85 screws.

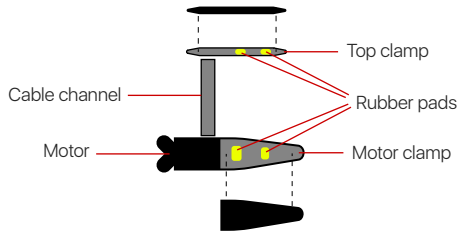


If the curved profile of your board creates a gap under the TakeOff, use the provided foam stickers to fill in these gaps so that water does not get between the board and the TakeOff.

You can stack multiple stickers on top of each other. This works for both TakeOff Air and TakeOff Flow.

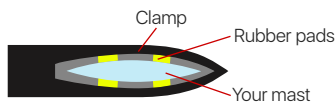
Attaching the motorpod

Profile view



Unscrew the two halves of the motorpod and place one side flat on a surface.

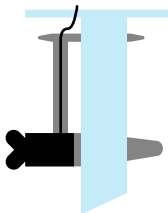
Top view



Select the correct size of the rubber pads to match your mast profile.

Note:

In most cases, the top and bottom pads will have the same thickness. You may have different pad thickness front and back to match your mast profile.



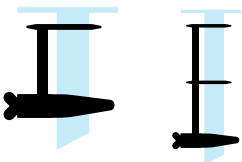
Place your mast on top of the motorpod and choose your position for the motor.

Use the aluminum cable channel to run the cable vertically along the trailing edge of the mast.



The cable channel has slots on both ends. A small nudge indicates the top end.

Make sure the cable is flat and neatly packed inside its sleeve before placing inside the cable channel.



Place the second half of the motorpod on top and tightly secure in place with the provided screws.

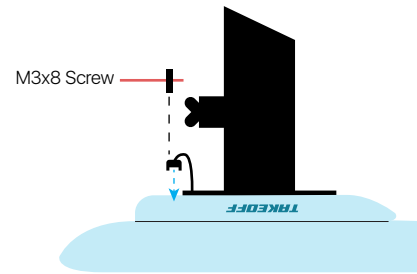
Make sure to tighten enough to apply significant pressure on the mast.

Note:

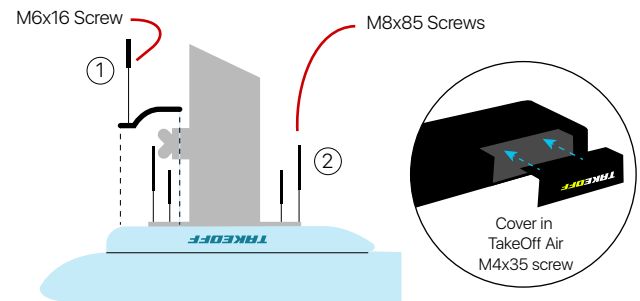
Loose mounts will result in motor damage and can damage your mast as well. Tighten the motor enough so that it does not move when pressure is applied by hand.

It is the rider's responsibility to ensure all components are in good working conditions prior to the ride.

Attaching the Integrated Mast



After placing the TakeOff unit on the board tracks, place the integrated mast on top and plug-in the motor cable into the main unit. Secure it in place with the provided M3x8 screw.

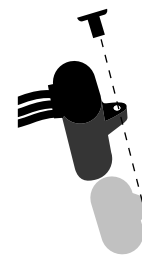


Place the provided cover on top of the motor plug and screw in place with the provided M6x16 screw. Finally, place the integrated mast and secure in place with the provided M8x85 countersunk screws..

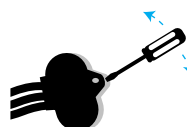
Connecting the motor cable



Apply battery grease on the rubber seals but not on the connector pins.



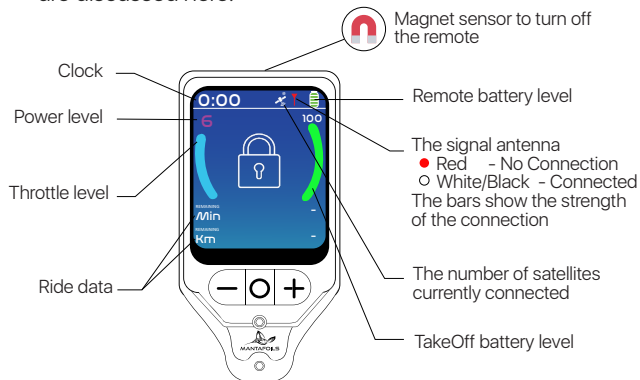
Insert the motor plug into the slot and secure in place with the provided M3x8 screw.



For removing, unscrew the plug and use a flat object to leverage the plug out of the slot.

Remote control

Your remote has many features. To explore in depth you can refer to the tutorial videos on the website. The main features are discussed here.



Power On/Off

Power on the remote by holding the 'O' button for 5 sec. Repeat the same to power off.

Pro tip:

For a quick power off, bring the top of your remote close to the motor and it'll power off instantly thanks to a magnetic sensor.

Menu options

To access the menu, press the '+' and the '-' button and hold both for 3 sec. Use the '+' and '-' buttons to navigate through the options and 'O' to select.

Device selection

On your remote, please select "TakeOff" as your device mode. As standard, your kit should come selected and paired.

Menu > Display settings > Device selection

Start level

As standard, the power settings will give you the maximum power level (18) when using the trigger. You can choose to reduce it for a smoother start, should you need less power sensitivity in the trigger.

Menu > Power settings > Start level

Cutoff delay

You can adjust the power cutoff delay for when your board loses the connection to the remote (e.g. when you fall in the water). Increasing this time will keep your motor running for longer after losing the remote's signal. Shorter time is by default safer, but you still want to keep a buffer to avoid immediate power disconnection when starting in choppy conditions where water can come over your board.

Menu > Power settings > Cutoff delay

Safety lock

To unlock the remote, press the '-' (minus) button and pull the trigger before the 5-sec countdown runs out. The remote will lock itself after a delay once you release the trigger completely. You can adjust this delay as per your needs, especially if you are able to surf unpowered for a long time.

Powering on the TakeOff

AIR



Power on

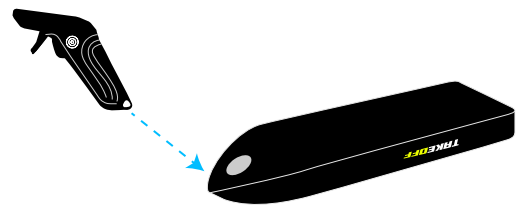
The main unit is switched on when the battery pack is plugged in to the main unit.

Power off

Unplug the battery from the main unit to switch off.

Do not leave the battery plugged in when not in use.

FLOW



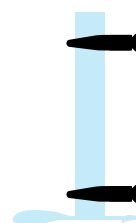
Power on

Touch the base of the remote at the tip of the main unit near the charging port for 3-sec. The in-built magnets will connect and the display screen will turn on, indicating that the unit is switched on.

Power off

Touch the base of the remote at the tip of the main unit again to switch it off.

Motorpod positions



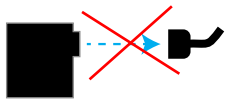
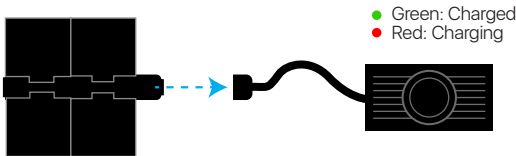
Assist position (20-25 cm)
Prone, downwind, wing foiling

eFoil position (bottom)
Flat water

Charging

AIR

Disconnect the battery from the main unit and connect the assembled battery to the charger for charging.



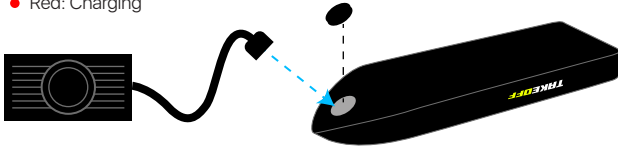
Do not connect the charger to a single battery pack. This will damage your battery.

ATTENTION:

Allow the battery to cool down to room temperature before connecting the charger.

FLOW

● Green: Charged
● Red: Charging

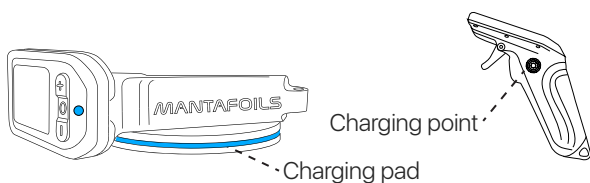


Switch off the main unit and unscrew the cap from the charging port then plug-in the charger. The display will show an estimated recharge time.

ATTENTION:

Ensure that the main unit is switched off before connecting the charger. Don't forget to place the cap back on after charging. Never use the product if the cap is missing. Failing to do so may cause sparks and can permanently damage your battery with a risk of fire.

Remote control



Place the remote flat on the wireless charging pad with the charging point facing down. The lights on both the charger and the remote should turn blue. The light indicates

- Blue light - Charging
- Light off - Charged

Post ride cleaning

Ensure these steps are followed after each use.

Fresh water rinse

Ensure the system is off and all connections are properly secured in place, then rinse the system with fresh water, as debris needs to be washed away after use.

Ensure there is no sand or salt residue before storing.

Do not clean or rinse with exposed connectors and plugs.

Never remove charging caps, motor plug or handle batteries when wet. Salty water & air are extremely corrosive and precautions should be taken.

Do not use high pressure water.

Dry wipe

With the remote and system powered off, rotate the propeller carefully by hand and rinse off excess sand residue. Use pressurized air when possible to remove sand.

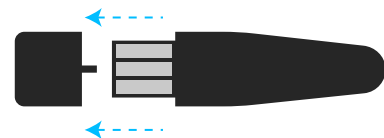
Cleaning the motor

Pull the rotor out and rinse with fresh water. It may require some force since it is magnetically locked in place.

After cleaning, spray the inside with lanolin before closing.

Be extra careful when putting the rotor back in place. The magnets will pull it very strongly so make sure to hold it firmly and watch out for your fingers.

Do not let go of the rotor as self-impact will damage the internal bearings.



Maintenance & storage

The TakeOff unit and batteries MUST be stored in a cool and dry place. Excessive exposure to heat may lead to overheating, resulting in damage d parts and risk of fire.

For increased longevity of your kit, before every use re-apply battery grease to the battery hub connector that plugs in to the main unit (both seal and connector pins). **Do not** apply grease to the connectors of the individual battery packs, apply only on the rubber seals.

Do not leave a charging battery unattended & unplug the charger whenever not in use. Make sure to clean any salt water and sand residue from the kit before storing for long periods. Failure to do so may result in corrosion.

IMPORTANT: Before storing for longer periods ensure to have atleast 50% charge on your battery.