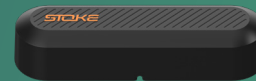




# Stoke Foil Boost User Guide



# IMPORTANT INFORMATION



To minimise the chances of damage, serious injury, or death, it is vital to ensure the proper use of the product by reading and following all of the instructions and safety warnings in this guide prior to assembly, setup, or use.



By using a Stoke product, you agree that you do so at your own risk and as per the terms of use that can be found on our website at [stokefoiling.com/terms-of-use](https://stokefoiling.com/terms-of-use).

All safety and disclaimer information is subject to change at the sole discretion of Stoke. The information in this manual was accurate at the time of publication, but changes can be made at any time without notice.

The diagrams contained within this document are intended to aid in comprehension and are for illustrative purposes only. They have no contractual nature.

For up-to-date information, please visit [stokefoiling.com](https://stokefoiling.com).

# CONTENTS

Important Information .....	2	Starting Up .....	14
Warning .....	4	Charging .....	14
Intended Usage .....	4	Quick Set Up .....	15
Learning with Stoke .....	5	Mast Clamp .....	15
Propulsion System .....	5	Receiver .....	15
Remote System.....	5	Battery .....	15
Battery System.....	6	Remote .....	15
First Time Initial Set Up .....	7	Removing the Unit.....	16
Mast Clamp .....	7	After Session Care .....	16
Rubber Bands .....	8	Remote Overview .....	17
Overboard Receiver Installation .....	9	Attaching the Remote.....	17
Mast Track Guide.....	9	Pairing the Remote .....	17
Mast .....	9	Throttle Calibration .....	17
Stick On Cable Guide .....	9	Remote Strap Options .....	18
Overboard Receiver.....	10	Screen Guide Legend.....	18
Underboard Receiver .....	11	Screen Guide Examples .....	19
Mounting the Underboard Receiver....	12	Troubleshooting .....	20
Battery .....	13	Propeller Spins Clockwise .....	20
Lanyard .....	14		

Congratulations on your purchase of the Stoke Foil Boost. Soon you'll be foiling more and easier than ever before. This user guide will ensure you have an easy and safe set up and riding experience. Please read it carefully before riding the Stoke Foil Boost.

If you have any difficulties or the instructions aren't clear, please get in touch via [+61 3 9596 8314](tel:+61395968314) or [info@stokefoiling.com](mailto:info@stokefoiling.com)

We highly recommend watching our [installation video](#) and our [remote overview](#).

You're only a few minutes away from electrifying your foil.

# WARNING

Failure to operate the Stoke Foil Boost in a safe and responsible manner consistent with the environmental conditions and the warnings and instructions within this guide could result in injury or death to yourself or others, and/or damage to the product and your and other's property.

**This product must be operated with caution and common sense and in accordance with local laws and regulations.**

Consider the safety of your environment before using the Stoke Foil Boost. Observe the body of water you will be navigating before entering the water. Maintain a safe distance from other people (swimmers, surfers, divers, foilers, etc.) and from other watercraft and obstacles.

The Stoke Foil Boost is not a toy. Exercise caution. Act responsibly while operating. Do not use the product in conditions that are beyond your level of ability.

It may be necessary to obtain a licence or permit to use the product in some areas. Check your local laws and regulations before operating the product.

Do not alter this product in any way without the express approval of Stoke.

By using this product, you agree that you do so at your own risk. Stoke does not accept any responsibility for personal injury or material damage in case of an accident.

# INTENDED USAGE

The Stoke Foil Boost is an individual product intended for operation by one person at a time. The user should be over the age of 16 years old (or as local laws apply). It is not to be used for towing objects or people, nor is it designed for passengers.

Travel at a safe speed so that you can stop in time to avoid sudden and unforeseen dangers. When judging a safe speed, you must consider a number of factors including but not limited to visibility; navigation hazards; other people; other vessels; wind, waves, currents, and other weather conditions; your vessel; and your ability.

Stoke does not offer boating safety or seamanship advice. Please ensure you are familiar with your local laws and regulations.

Ensure you are able to use the product in a safe and responsible manner before using it. Do not operate the product if you are not in good physical health, if you are not an experienced swimmer, or if you are under the influence of alcohol, drugs, or medications.

# LEARNING WITH STOKE

Please view our instructional videos to learn the proper technique and review riding safety information.

Using the Stoke Foil Boost can be easy when the proper technique is used. Incorrect technique can result in injury or damage.

# PROPULSION SYSTEM



**The Stoke Foil Boost propeller carries risks of serious and even fatal injuries. Keep body, fingers, and toes away from the propeller.**

Never touch or handle the propeller while the battery is connected. If intervention is required on the propeller (for example, to dislodge an object) the battery must be removed first.

Always ride a safe distance from other people, watercraft, and wildlife.

We recommend using a coiled leg rope or waist rope, and to always check it is clear of the propeller before engaging the throttle.

# REMOTE SYSTEM

Do not open the remote casing.

Do not modify, disassemble, or otherwise tamper with the remote. If the device becomes damaged, do not use it.

Do not expose the remote to extreme temperatures.

Do not use chargers other than those supplied by Stoke. Any damage caused by the use of another charger will not be covered by warranty.

Always use both the strap and the lanyard to attach the remote system to your gear.

# BATTERY SYSTEM

- ⚠ **Do not use or charge a damaged battery. Doing so can cause the battery to catch fire.**
- ⚠ **Do not attempt to change the battery while on the water. Make sure you are in a dry, stable place.**

Use the Stoke Foil battery at your own risk.

Do not disassemble the battery in any way. Doing so could cause an injury or damage your Stoke Foil Boost or other property. Tampering with the battery will void the warranty.

Do not use chargers or batteries other than those supplied by Stoke. Any damage caused by use of another battery or charger will not be covered by warranty.

Do not drop or strike the battery.

Carefully inspect the battery before each use. If the battery casing has visible damage, do not use or charge it.

Signs of visible damage include but are not limited to:

- Wear and tear, sand, dirt or debris on O-ring.
- Wear and tear, sand, dirt, debris, or moisture on blade power connectors.
- Sand and debris on battery locking ring.
- Movement or signs of stress on the battery casing, particularly where the nose cone cover intersects with the internal locking ring connection.

The Stoke Foil Boost should be used in temperatures from 0°C to 40°C. Using or charging the battery outside these ranges can permanently damage your battery.

Do not use the battery if it was involved in a severe crash or heavy impact.

Do not heat the battery. Keep away from heating sources and out of prolonged exposure to direct sunlight.

Do not put the battery in a microwave, freezer, or pressurised container.

Do not use the battery to power any device other than the Stoke Foil Boost.

Do not let the connectors come into contact with water or wet hands. Always ensure the main unit is dry before removing the battery.

After use, ensure the dust cap is dry and free of debris before re-attaching it.

Never leave the battery unattended while charging. Always charge your battery in a dry place. Use only a standard voltage outlet to charge your battery.

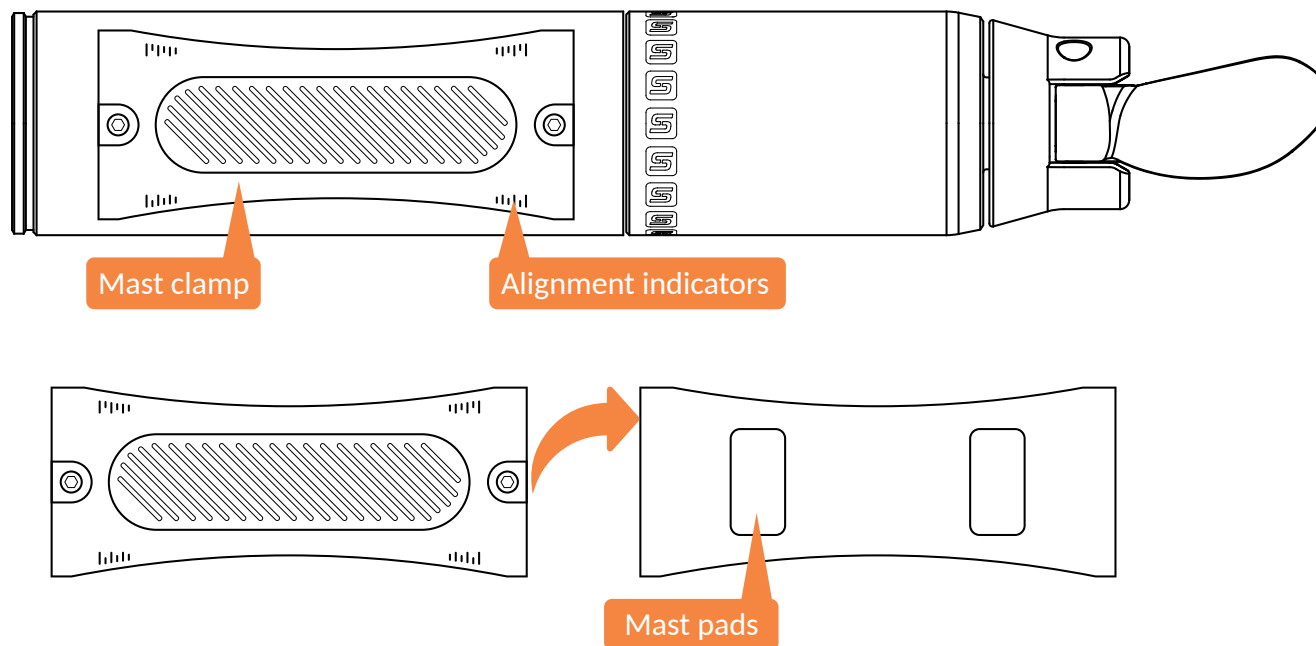
Do not leave the charger plugged in when not in use.

To preserve the battery lifespan, when it will not be used for a long time, keep the charge between 50 and 70%. Do not charge to full if you do not anticipate using the battery soon.

# FIRST TIME INITIAL SET UP

## MAST CLAMP

Remove the mast clamp and check that you have the appropriate mast pads (see sidebar).



**! Do not over-tighten the mast clamp – just ensure that the mast clamp doesn't slide up or down when some force is applied. Overtightening the mast clamp can strip the threads on the main unit and is not covered by warranty.**

Place the unit on the mast at the desired height with the receiver cable up exiting towards the board. To tighten, turn the front bolt 1 revolution, then the rear bolt 1 revolution. This ensures both bolts are engaged. Now tighten each bolt progressively, using the alignment lines near the mast opening to ensure you are lined up equally forward and back.

### Which mast pads should I use?

Try the orange pads first. These will fit most masts.

Position your unit about 12-15cm from the top of the mast. If you find the orange pads are too small, switch to the thicker blue pads. If you can't tighten your unit enough, switch to the thinner grey pads.

You may find that mixing and matching pads - for example, grey pads in the front and orange in the back - will give you the perfect fit.



DEFAULT



THICK



THIN

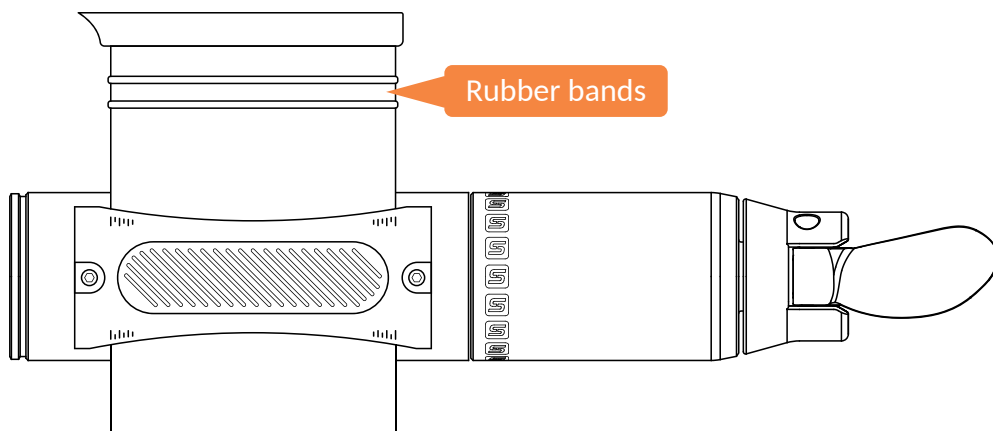
**! The front and back pads are different and labelled on the rear side of the pad.**

# RUBBER BANDS

Place a pair of rubber bands near the top of your mast plate. This is an optional step to keep your setup tidy; you can also use tape.

Guide the receiver cable through the rubber bands.

If you are mounting the unit further down near the bottom of the mast then it is recommended to run a strip of duct tape up the trailing edge of the mast to guide the cable up the mast. The ideal way to do this is by placing the cable against the trailing edge of the mast and then folding the tape over to attach to both sides of the mast on the trailing edge.



## Recommended mast length

Where possible use longer masts with the Foil Boost. This assists you in keeping the unit out of the water most of the time while foiling. A 90cm+ mast is ideal, but 80cm+ is recommended (unless you are prone foiling in very shallow water, over reefs, etc).

## Recommended board and foil size

The recommended board size is above 110% of rider weight in kg (1.1x rider weight) and the recommended foil surface area is above 15x rider weight in kg. As you get more experienced, smaller boards and foils can be used. The Foil Boost has plenty of power to be able to use smaller boards and foils, although these may reduce battery usage duration.

## Unit mounting height

The mounting height of the unit comes down to personal preference, rider experience level, foiling type and riding style.

When learning to use the Foil Boost, placing it lower on the mast will keep the thrust in the water longer (though once foiling, the unit may dip into the water more regularly). As rider gets more proficient they may mount the motor higher. We suggest starting at 15-20cm from the board initially and then moving it up progressively to 10-15cm from the board. You can also mount it lower than this if you want to keep the thrust from the unit in the water longer or even continuously.



# OVERBOARD RECEIVER INSTALLATION

## MAST TRACK GUIDE

❗ For most boards, use the front mount set up.

Insert the small mast track cable guide into your board mast track and using the Allen key tighten the grub screw.

❗ Do not over-tighten the screw - finger tight is fine.

Place the mast track cable guide at the back if you are going to mount the receiver at the rear, or the front if you wish to mount it forward.

❗ Ensure the cable guide is on the same side that the cable comes from the main unit - the right side if the board is upside down.

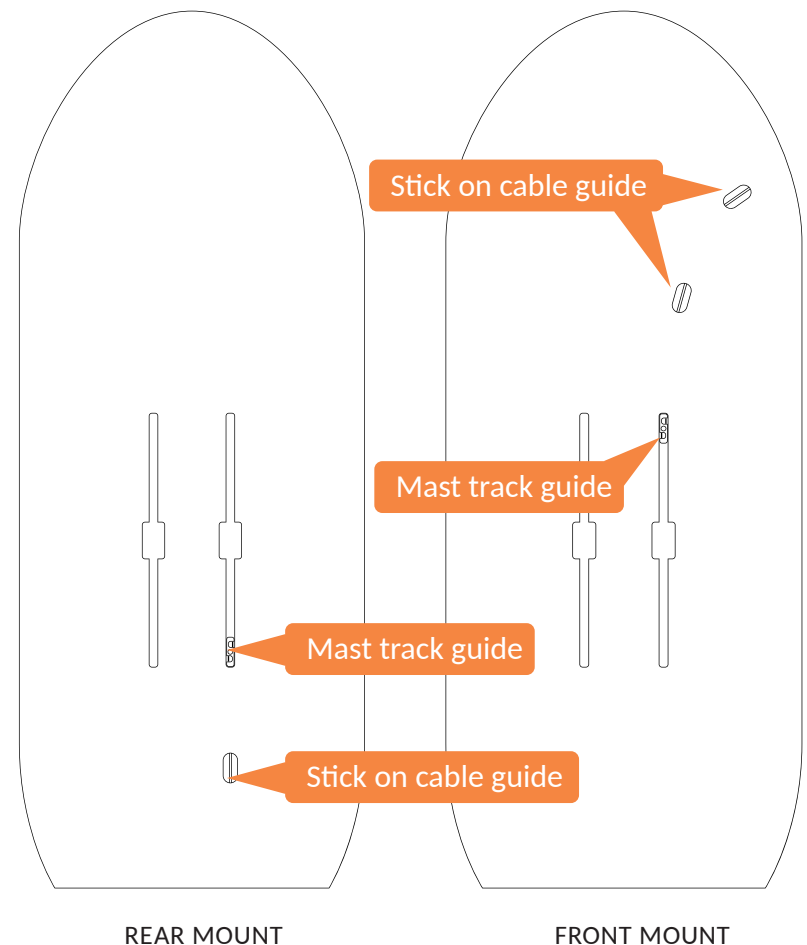
## MAST

Attach your mast to your board according to the manufacturer's instructions.

## STICK ON CABLE GUIDE

Ensure the surface is clean and dry. Place a stick on cable guide on the bottom of the board to hold the cable. Run the cable through both the mast track cable guide and the stick on cable guide.

If you are mounting the receiver near the front of the board you might need to use 2 or 3 stick on cable guides. It is ok to run the cable diagonally along the bottom of the board towards the front, it's small diameter won't affect performance.



# OVERBOARD RECEIVER

If you've selected the overboard receiver, determine where on top of your board you want to place it and peel off the 3M adhesive backing to attach. Run the receiver unit under the rubber bands on your mast to ensure the cable is neatly up against the mast.

If you are mounting at the back of the board, we recommend placing it directly behind the footpad.

❗ If the cable is too long or short, remove the receiver from the board and unscrew the bottom of it. You can unwind or wind up cable inside it and then screw the bottom back on.

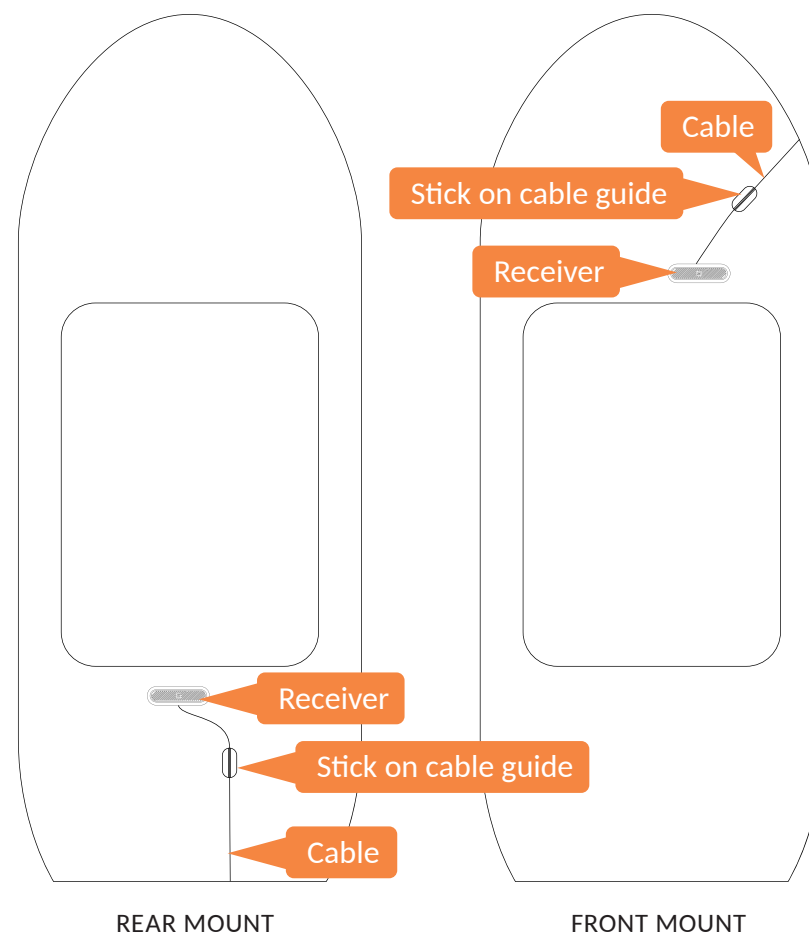
Place another cable guide on top of the board to keep things neat.

## What if I want to mount the receiver at the front of the board?

The process is the same, but you will need to use additional cable guides stuck under the board. We recommend using 3 cable guides when front-mounting the receiver.

In many circumstances it is better to mount the receiver at the front of the board unless you have a high volume SUP/Downwind board (about 30% more volume than rider weight in kg). It is surprising how much water passes over the back of boards from waves; although the receiver will work submerged to a depth of approximately 5-7cm, its better to have it at the front which will always be clear of the water.

For very low volume prone boards the rider might have to shift their weight slightly to ensure the nose and receiver are clear of the water.



# UNDERBOARD RECEIVER



The underboard receiver cannot be used as an overboard receiver. It is designed only to withstand the forces encountered within the mast track, and attaching it to the top of the board risks damaging the receiver, cable, or connector.



While the underboard receiver works on the majority of boards on the market, it will not work effectively on boards with a carbon mast track. If your board has a carbon mast track, we recommend using the overboard receiver.

## Switching between the over and underboard receivers



Care must be taken when switching receivers not to pull the little cable on the main unit side out of unit, or damage the cable by bending beyond a 45 degree angle. If you are unsure please have the receivers swapped professionally.

Identify the rubber seal covering the area where the receiver is installed.

Insert a thin plastic item like a credit card under the rubber seal and gently pry it out. Using an Allen key, unscrew and remove the plate covering the connectors. Set the plate aside.

Carefully disconnect the two connectors. Avoid pulling on the cables excessively to prevent damage. To separate, gently push the connectors together and then pull apart (it may take a few attempts). Take extra care not to pull the smaller cable out of the main unit.

Take the connector from the underboard receiver and align the white dot on the connector with the corresponding white dot on the main unit's connector.

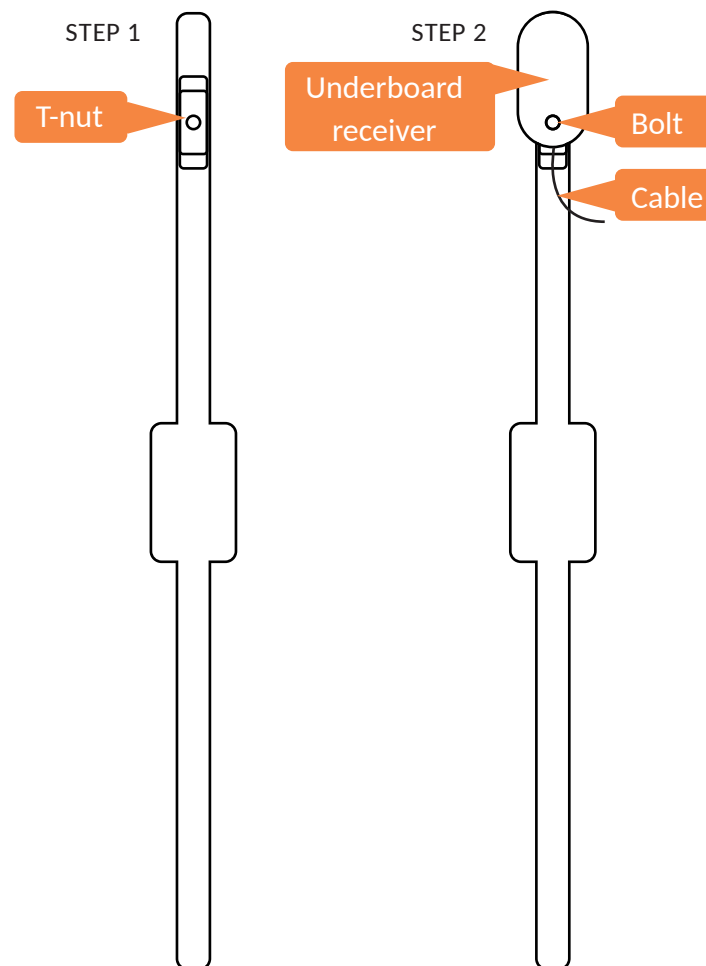
Reverse the process: guide the cable back into the cable guide and secure the plate with the screw. Use the Allen key to screw the plate back into place, and replace the rubber seal by gently pressing it into position along the edge. Ensure it is aligned correctly.

# MOUNTING THE UNDERBOARD RECEIVER

If you've selected the underboard receiver, after attaching your mast according to your manufacturer's instructions, insert the T-nut into your mast track behind your mast. The receiver can also be mounted in front of the mast, if your mast's position requires it.

Run the receiver unit under the rubber bands on your mast to ensure the cable is neatly up against the mast. Place the underboard receiver above the T-nut and tighten the bolt to hold the receiver firmly, but don't overtighten.

- ⚠ If the cable is too long or short, remove the receiver from the board and unscrew the bottom of it. You can unwind or wind up cable inside it and then screw the bottom back on.
- ⚠ If the cable is even slightly removed from the main unit, do not put it in the water. This may result in water getting inside the unit and damaging the electronics.



# BATTERY

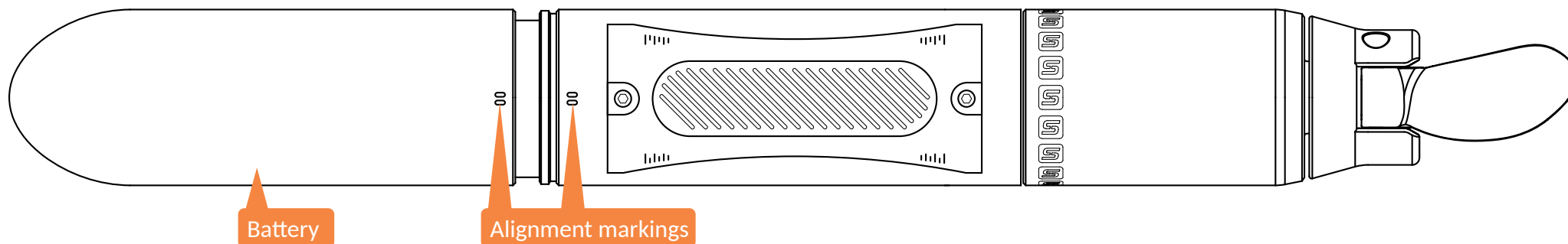
Remove the dust caps off the main unit and battery. Check there is no sand or grit on the battery o-ring seal or in the main body where the battery inserts. Use a small brush or soft cloth if required. Apply some of the silicone lubricant if it is dry.

❗ To lengthen the life of the o-ring, use lubricant if dry or every third use.

Attach the battery using the alignment pin and markings as a guide. Ensure the single dashes are aligned and gently push the battery in. The indicator light on the receiver will flash once the battery is inserted correctly.

Do up the external locking ring tightly. We recommend applying pressure from the front of the battery while tightening the locking ring. Once the locking ring feels tight then gently attempt to wobble the battery side to side whilst applying pressure to the front of the battery and attempting to further tighten the locking ring.

❗ Ensure the locking ring is firmly attached - it must not come loose during use.




# LANYARD

Attach the remote lanyard to your wing or paddle handle by passing the lanyard around the handle and then passing the remote through the center of the lanyard. Attach the rubber strap. We recommend trying the circular strap first and switching to the rectangular strap if the circular strap doesn't fit well.

Place the remote so that you have easy access to the throttle with your thumb.

# STARTING UP

 Before continuing, check the unit is correctly installed and that there is nothing near the propeller - especially the receiver cable and leg rope. Use a short coiled leg or waist rope that won't hang down near the propeller when the rider is standing on the board.

Power on the remote.

Press the trigger once to unlock. The trigger will lock again after 5 seconds of inactivity.

Ensure your rope is clear of the propeller. Gently press the trigger and the motor will spin up.


 The trigger safety lock time can be configured in the remote menu.

# CHARGING

The battery will take about 2 hours to charge from flat. Attach the charger to the wall and switch the power on. A green light will appear on the charger.

Attach the charger to the battery, taking care when inserting the charger plug to do so squarely and not at an angle. The charger light will turn red to indicate the unit is charging.

The light will turn green once the battery is fully charged. Once charged, immediately disconnect the charger and turn the power off.

 As with any lithium ion battery, do not leave the battery unattended while charging and disconnect as soon as charging is complete. We recommend setting a 2 hour timer.

To charge the remote, attach the wireless USB charger to a USB power source or computer. Place the flat side of the remote with the charge symbol onto the charger so that the circle and diagonal line is located in the center of the charger.

Once correctly positioned, the ring around the outside of the charger will turn blue and the remote screen will show the charging indicator.

The remote will take about 30 minutes to charge. The display will indicate when the battery is full. Don't overcharge: set a timer as a reminder. The battery should not need to be charged every use. Apply the same precautions when charging the remote as when charging the main battery.

# QUICK SET UP

Once the initial set up has been performed and your cable guides and attachments are correctly placed, assembling and disassembling your foil is a very quick process.

## MAST CLAMP

Attached the mast clamp at your desired height. As in the initial set up, do not over-tighten the mast clamp.

Attach the mast to your board per your manufacturer's instructions.

## RECEIVER

If using the overboard receiver, pass the receiver cable through the rubber bands on the mast, then through the mast track guide and the mast cable guides on the board, then attach the receiver to the dual lock Velcro on the deck of the board.

If using the underboard receiver, attach the receiver to the T-nut in your mast track and tighten the bolt.

## BATTERY

Remove the dust caps off the main unit and battery. Check there is no sand or grit on the battery o-ring seal or in the main body where the battery inserts and clean if required. Apply some of the silicone lubricant if it is dry.

Attach the battery using the alignment pin and markings as a guide. Tighten the external locking ring ensuring it is firmly sealed and will not come loose during use.


## REMOTE

Attach the remote lanyard to your wing or paddle handle by passing the lanyard around the handle and then passing the remote through the center of the lanyard. Attach your preferred rubber strap.

Place the remote so that you have easy access to the throttle with your thumb.


# REMOVING THE UNIT

1. If using the overboard receiver, remove the receiver from the deck of the board by unattaching from the dual-lock Velcro strip. If using the underboard receiver, unscrew the bolt from the T-nut.
2. Remove the cable from under the mast rubber bands, and, if using the overboard receiver, from the stick on cable guides and the mast track guide.
3. Remove the battery and replace the dust caps, ensuring both surfaces are clean of grit and dust and dry following the after session care instructions opposite.
4. While supporting the main unit, loosen the clamp mounting bolts progressively and then remove the top clamp.
5. Remove the main body and reattach the top clamp to keep the bolt holes free from sand and dirt.

 **Having the board and foil on its side can make removing the main body easy, as you can support the unit from underneath while undoing the clamp from above.**

# AFTER SESSION CARE

After your session riding, rinse the propeller and remote trigger with fresh water.

 **Always ensure the main unit is dry before removing the battery. We recommend keeping a spare towel for this use.**

Unscrew the locking rings, remove the battery, and check for and remove any sand or grit from either surface. Ensure both interfaces are completely dry.

Place the dust caps onto the main unit and battery.



# REMOTE OVERVIEW

## ATTACHING THE REMOTE

The Stoke Foil Boost Remote comes with two straps. Depending on your preferred style of foiling, you may find one more suitable than the other. Please see the diagram on the following page.

Regardless of whether you are using the rectangular strap or the circular strap, ensure that the lanyard is also looped over your paddle or bar.

Place the remote so that you have easy access to the throttle with your thumb.

On a paddle, attach the remote with the trigger pointing upwards towards the top handle of the paddle. Place the remote so that it is 3-4cm from the top of the handle and easily reachable with your fingers.

On a wing, we recommend using a front underhanded grip where possible, placing the remote at the front of the front handle. If this is unsuitable, attach it to the back of the front handle.


On soft round wing handles, use the round rubber strap. Attach the remote to the handle in front or behind the one you usually hold on to using the front mounting point.

## PAIRING THE REMOTE

1. With the main battery disconnected, power on the remote control.
2. Hold down the menu button (⋮) until the screen displays "Pairing". You are now in menu mode.
3. Hold down the menu button again to enter pairing mode. Release the menu button.
4. Attach the main battery to the main unit. You'll see a message that pairing succeeded on the remote and the signal strength will be shown.

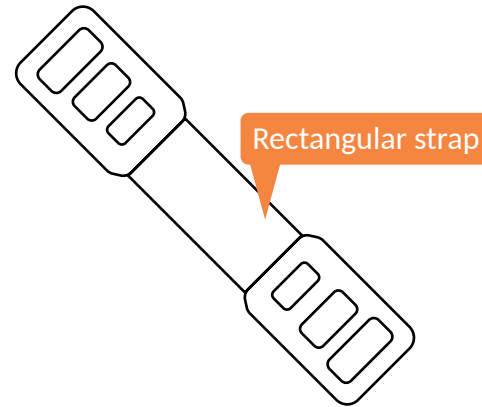
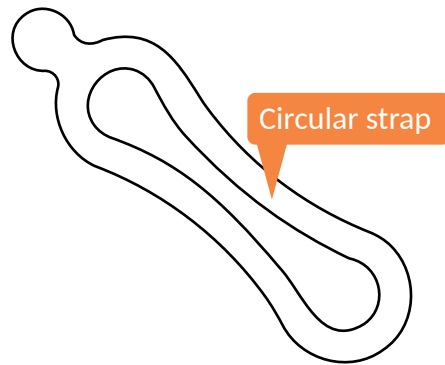
 **Very occasionally the pairing process will take two attempts.**

## THROTTLE CALIBRATION

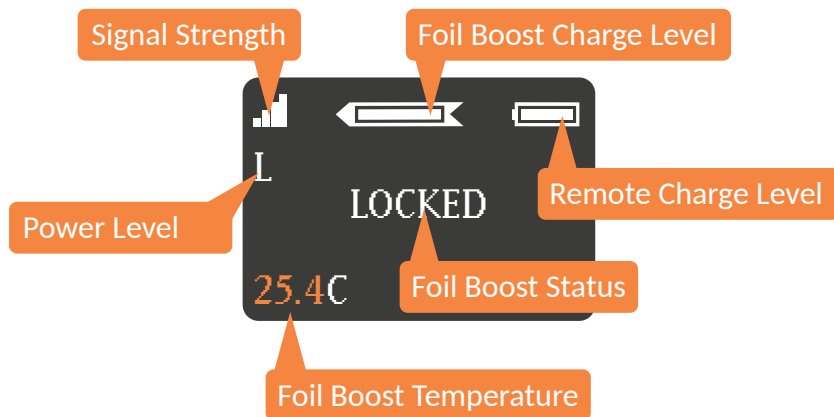
 **As the throttle is calibrated before shipping, it's unlikely you will need to do this. Perform the throttle calibration if the remote isn't unlocking or if the range isn't from 0-100%.**

1. Power on the remote control.
2. Hold down the power level/menu button (⋮) until it displays "Pairing". You are now in menu mode.
3. Click the menu button again until "Throttle Calibration" is displayed.
4. Hold down the menu button again to enter throttle calibration mode. Release the menu button.
5. Pull the trigger through its full range, then release the trigger.
6. Click the power button once to exit throttle calibration mode.
7. Click the power button again to exit the menu mode.

# REMOTE STRAP OPTIONS



# SCREEN GUIDE LEGEND



# SCREEN GUIDE EXAMPLES

## MOTOR LOCKED



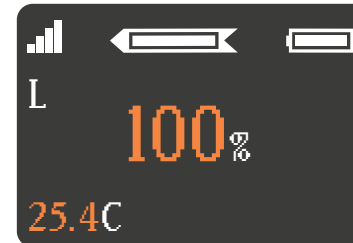
Depress the trigger to unlock the motor.

## MOTOR UNLOCKED



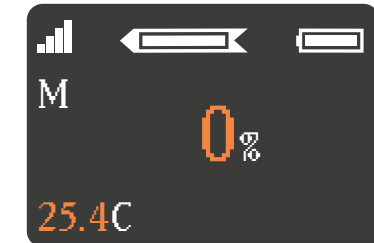
Motor unlocked with 5 seconds to depress the throttle and engage the motor.

## MOTOR FULLY ENGAGED



Percentage shows current motor usage.

## POWER LEVEL MEDIUM



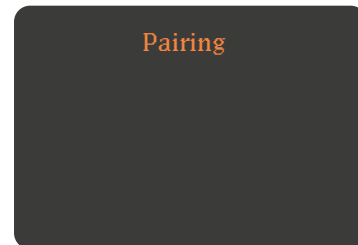
Pressing the menu button will increase the power level - first to medium, then high.

## POWER LEVEL HIGH



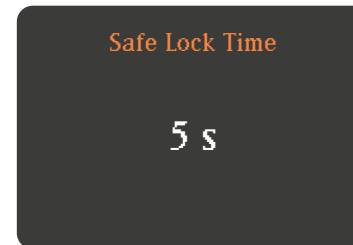
Many riders will never need the high power level.

## PAIRING



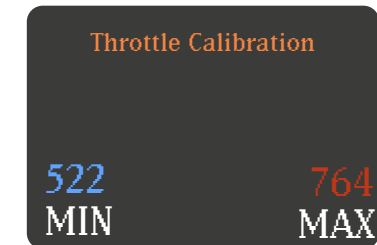
To re-pair your remote and Stoke Foil Boost, press and hold the menu button.

## SAFE LOCK TIME



The standard lock time is 5 seconds, but this can be adjusted in the menu.

## THROTTLE CALIBRATION



If necessary, the throttle can be calibrated via the menu.

# TROUBLESHOOTING

## PROPELLER SPINS CLOCKWISE

If your propeller spins clockwise instead of anti-clockwise, turn the remote on before attaching the battery.

This may trigger an error prompt on your remote, but this message can be safely ignored. It is caused by a spike of current within the receiver when the battery is inserted.



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