



# Audi e-tron foil Instruction manual

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# You Gonna Fly.

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For your perfect moment.



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# 1 Foreword

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**You have chosen an Audi e-tron foil from Aerofoils GmbH.  
- thank you very much for your trust.**

With your new e-tron foil, you will experience a sports machine with groundbreaking technology and high-quality equipment. We recommend you to read this operation manual carefully so that you get to know your sports device and can use all functions in driving operation. The information on the procedure is supplemented by important operating and care instructions that serve your safety and the maintenance of the value of the e-tron foil. In addition, we provide you with assistance on how to use your sports device efficiently and in an environmentally friendly manner.

**We hope you enjoy your e-tron foil  
and have a good trip.**

**Your Aerofoils GmbH**

## **All rights reserved**

Aerofoils GmbH is constantly working on the further development of all products and model variants.

Aerofoils GmbH reserves the right that changes to the scope of delivery in equipment and technology are possible at any time. The operating instructions are based on current data at the time of execution.

Therefore, no claims can be derived from the information, illustrations and descriptions contained in these operating instructions. Furthermore, no part of this manual may be reprinted, reproduced or translated in any form or by any means without the prior written permission of Aerofoils GmbH.

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Operation manual version 2022-02



## 2 About this instruction manual

### **2.1 Introduction**

To ensure safe and proper use, these instructions must be read in full before commissioning the electric hydrofoil Audi e-tron foil (starting now referred to as e-foil), manufactured by Aerofoils GmbH.

The instructions are intended for drivers and operators of the e-foil. These operating instructions apply to all model variants. It contains essential information, tips, suggestions, and warnings for handling the e-foil.

Ensure that these operating instructions and the associated documents are always with the product. This applies in particular if you lend or sell the e-foil to others.

Failure to follow these instructions may result in personal injury or property damage. Aerofoils GmbH does not accept any liability for damage caused in contradiction to this manual. If you are uncertain about the operation or maintenance of the e-foil, contact an authorized Aerofoils dealer or Aerofoils Support.

### **2.2 Manufacturer**

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### **2.3 Laws and standards**

The instruction manual is based on EN 82079-1: 2021.



## 2.4 Other applicable documents and technical status

This operating manual is only complete together with the applicable documents.

The following documents apply to this product:

- » Battery datasheet
- » Charger datasheet
- » Warranty booklet

The operating instructions correspond to the technical status at the time of the editorial deadline. Significant changes will be taken into account in a new edition of the operating instructions.

The latest version can be found at [www.aerofoils.de](http://www.aerofoils.de).

## 2.5 Warnings



### **Danger**

Medium to high degree of hazard risk.

Can lead to serious injury if not death.



### **Warning**

Low degree of risk of hazard.

May result in minor or moderate injury if ignored.



### **Caution**

May result in property damage if not observed.

## 2.6 Miscellaneous

The illustrations may differ from your e-foil and are to be understood as principle representations.

All directional indications such as „left“, „right“, „forward“ and „backward“ refer to the direction of travel of the sport device.



## 3 Safety

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### 3.1 Disclaimer

Electric hydrofoiling (e-foiling) is a water sport with risks. It can lead to serious injury or death. The manufacturer is not liable for damage to property or personal injury, particularly not in improper use or damage to property or personal injury to third parties. Unauthorized modifications to the e-foil and its accessories will void the warranty.

### 3.2 Protective equipment and safety instructions

Ensure that you always wear a suitable helmet and life jacket when using the e-foil. Also, observe the legal regulations of the country of use.

Before you start e-foiling, read these operating instructions carefully and completely.



#### Danger

- » Move away from the shore only as far as you can swim.
- » Avoid body contact with the sharp edges of the wing, mast, and tail, especially their trailing edges and tips.
- » Adhere to right-of-way and distance rules and always keep a generous safe distance from other watercraft and water sports enthusiasts.
- » If you lose control of your e-foil and/or are unable to stay on it, do the following:
  - » Immediately release the remote control lever and push the remote control underwater to interrupt the radio connection. The drive will stop within a few milliseconds.
  - » Always jump off to the side. Never jump forward; otherwise, there is a risk of being run over by the e-foil.
  - » Try to land in the water as far away from the board, wings and mast as possible.
- » Note that the travel time of the e-foil is highly dependent on factors. These include wind and current, choice of a wing, rider weight, speed, or altitude.
- » Inform yourself about the weather conditions before each ride. Consider changing weather conditions, including high winds, storms, precipitation, and fog.





### 3.3 Intended use

The e-foil may only be used if it is in perfect working order. It should not be used as a means of transport or pulling persons or objects. The driver must not exceed a maximum weight of 100 kg.



#### **Danger**

Failure to observe the following points may result in considerable damage.

The e-foil is basically designed for the temperature range from 0 °C to 40 °C. However, this only corresponds to the capabilities of the product. Water sports can be dangerous, especially at extreme temperatures. Therefore, the user is responsible for protecting and preparing himself. Furthermore, the following must be taken into account:

- » Navigation rules and all legal regulations must be observed, on which these operating instructions do not provide any information.
- » Extreme weather conditions, such as storms or heavy rain, are to be avoided. Also, avoid waters with heavy swells.
- » Do not drive in contaminated or polluted waters.
- » The e-foil is to be driven at a safe speed. Therefore, it should be possible to react appropriately to unexpected hazards at any time. The specification of a safe speed depends on visibility conditions, frequency and size of the navigated water area, and the individual driving ability.

Intended use also includes the following duty of care and further instructions for use. These can be found in particular in [chapter 7 Operation](#).

### 3.4 Duty of care

The following measures must be observed to ensure safe handling of the e-foil:

#### **The driver:**

- » has completed at least 14 years of age (unless otherwise required by the country's laws of use) and is in sound mental and physical condition.
- » has received proper instruction before the first ride.
- » has read the operating instructions carefully and com-



pletely and has clarified any questions regarding this with the operator or a specialist dealer.

- » wears proper protective equipment.
- » assumes all obligations of the operator if the e-foil is passed on.

The operator's duty of care is to plan the measures and check their execution.

#### **The operator:**

- » shall make these operating instructions available to the driver for the duration of the use of the e-foil. Then, if necessary, he translates the operating instructions into a language the driver can understand.
- » instructs the driver in the functions of the e-foil before the first journey. Only instructed drivers are permitted to drive an e-foil.
- » instructs the driver on the intended use and wearing proper protective equipment.
- » ensures that the driver has completed at least 14 years of age (unless otherwise required by the country's laws of use) and is in a healthy mental and physical condition.
- » only entrusts qualified personnel with the maintenance and repair of the e-foil and does not make any changes to the components on his own.

### **3.5 Observance of local regulations**

Before using an e-foil, make sure that the water is ideal for it (see [chapter 7 Operation](#)) and whether driving is permitted. Also, observe national and regional regulations.

### **3.6 Notes on compulsory insurance**

Depending on the local legal situation, the acquisition of a boat license plate and the conclusion of an insurance policy may be obligatory. This is the responsibility of the user.

### **3.7 Safety labels**

The following safety label is used on the e-tron foil: Observe instructions:



Observe instructions

### 3.8 Handling the battery



#### Warning

Pay attention to applicable regulations when shipping your battery. Batteries are hazardous materials, so improper shipping is prohibited and dangerous.



#### Danger

**Fire and explosion hazards due to short circuits.**

Small metal objects can bridge the electrical connections of the battery. As a result, the batteries can self-ignite and explode. Keep paper clips, screws, coins, keys, and other small parts away, and do not insert them into the battery.

**Fire and explosion hazards due to high temperatures.**

Excessive temperatures can damage the battery. The battery may self-ignite and explode.

- » Excessive temperatures can damage the battery. The battery may self-ignite and explode.
- » Never expose the battery to permanent heat.
- » The rechargeable battery is not microwave- or oven-proof.

If the rechargeable batteries are damaged or defective, the safety electronics may fail. The residual voltage can trigger a short circuit. The rechargeable battery may self-ignite and explode.

- » Immediately take externally damaged rechargeable batteries out of operation and never recharge them.
- » If the rechargeable batteries become deformed or start to smoke, keep your distance, disconnect the power supply and notify the fire department immediately.
- » Defective rechargeable batteries are hazardous materials. Therefore, dispose of defective rechargeable batteries properly as soon as possible (see [chapter 12](#)).
- » Store the batteries in a dry place and never in the vicinity of flammable substances until they are disposed of.
- » Never open or repair the rechargeable batteries yourself.



### **Danger**

#### **Electric shock if damaged**

Damaged chargers, cables, and plugs increase the risk of electric shock.

- » Check the charger, leads, and plugs before each use. Never use a damaged charger.
- » During charging, the ambient temperature must be within the temperature range of 10 °C to 30 °C.

Do not place the battery in a pressure-tight box. Exceptions to this may be transport and storage boxes specially designed for the battery.



## 4 Warranty

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For complete information on service and warranty, please refer to the enclosed warranty booklet.

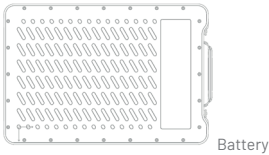
## 5 Scope of delivery

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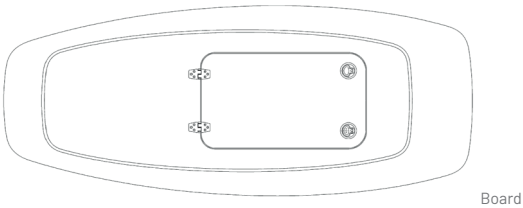
### 5.1 Scope of delivery

The Audi e-tron foil is delivered in three packaging units.

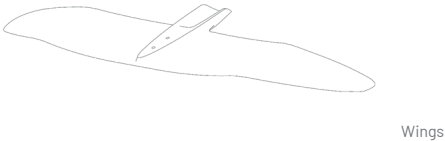
Battery:



The board bag includes:



The drive bag includes:





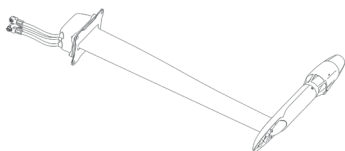
Tail unit



Screw  
M6X30



Screw  
M6X20



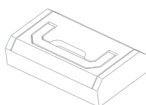
Drive unit



Charger



T-wrench (TX30)



L-Boxx Mini



Charging cable  
(remote control)



Charger plug  
(remote control)



Remote control



## 5.2 Additional purchase options and spare parts

Position on e-foil	Designation	Quantity per e-foil	Order number
Drive	Jet	1	22502S1B
Drive	Stator	1	22501P5D
Drive	Impeller	1	22205P3C
Drive	Mother M8	1	NT10
Board	Latch (Closure)	2	NT29
Board	Latch holder	2	11006S1A
Board	Screws latch holder	2	NT19
Board	Mast seal	1	11004S1A
Board	Screws M6x20	4	NT22
Remote control	Leash	1	33106P1
Remote control	Charging cable	1	34101P1
Wing	Schrauben M6x30	3	NT59
Wing	Flügel 1350	1	51001S1
Tail unit	Schraube M6x20	2	NT22
Tail unit	Leitwerk 400	1	52001S1
Special tool	Abzieher Impeller	1	22902P1
Special tool	Ausdreher Stator	1	22901P1

If you do not find the spare part you need in this list, please contact our support. Accessories can also be found in our online store or at your Aerofoils dealer.



## 5.3 Technical data

### Battery

For detailed technical information on the battery, refer to the battery data sheet included in the drive bag.

### Remote control

Weight	191 g
Communication band	2.4 Ghz to IEE802.11 (Board); Bluetooth (Handy/ App)
Battery life	8 hours operation
Charging time	3 hours (0%-30% in 30 min)
Display	Sunlight-Readable High-Brightness Colordisplay
Environmental protection standard	IP68, up to 2m
Battery cycles	>500 Battery cycles
Storage temperature	10 °C bis + 30 °C (ideal) -20 °C bis +50 °C (general)
Operating temperature	-20 °C bis + 60 °C
Charging temperature	0 °C bis +45 °C
Other	Floating

### Charger

For detailed technical information on the charger, refer to the charger data sheet included in the drive bag.

### Drive

Max. Input power	6 kW
Continuous wave power	4,5 kW
Weight	ca. 7,6 kg
Pack size	0,97 x 0,73 m

### Board

Volume	102 l
Measures (without bag)	1,76 x 0,72 x 0,18 m
Weight	ca. 9,5 kg





### Wing 1350

Area	13 dm <sup>2</sup>
Span	0,95 m
Aspect ratio	7,3
Weight	ca. 1,45 kg

### Tail 400

Area	4 dm <sup>2</sup>
Span	0,5 m
Aspect ratio	6,3
Weight	ca. 0,3 kg

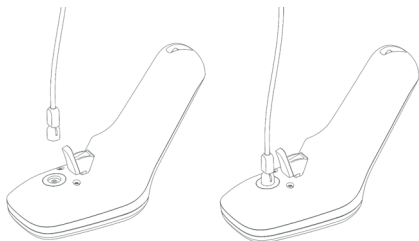


## 6 First Start-Up

### 6.1 Charging the remote control

Procedure:

1. Connect the USB charging cable to the USB power adapter.
2. Connect the charging plug to the charging socket of the remote control.



3. As soon as the remote control is charging, a charging bar appears on display.
4. The remote control should be charged to at least 30% before each use.

**Note:** Before each use, check the remote control for external damage. Both the lever for regulating the speed and the buttons should always be free to move.

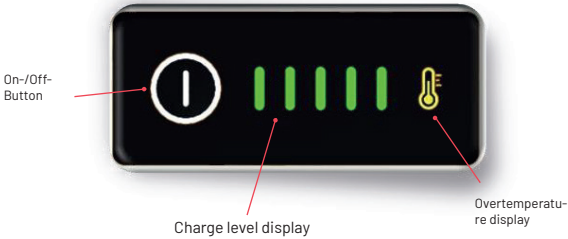
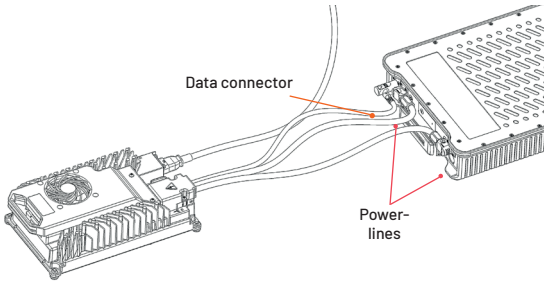
Do not expose the remote control to direct sunlight.

For more details on charging, see [chapter 6.5 Remote Control: First steps](#).



## 6.2 Charging the battery

Please refer to the operating instructions of the battery and charger for technical information and safety instructions.



### Procedure:

1. Always charge the battery in a dry environment, away from flammable objects.
2. Connect the battery to the charger. Make sure to connect the colored plugs with the socket of the same color. First, connect the two power cables (black and orange) and then the data connector.
3. As soon as the battery is charging, the charger indicator flashes green. Refer to the charger data sheet for detailed information on different charging modes.
4. Once the battery is fully charged, the charger will automatically turn off.

**Note:** Perform a brief visual inspection for damage to the battery before each use. The battery should be charged to at least 50% before each ride.



### Danger

Fire and explosion hazards due to damaged battery or use of



the incorrect charger.

Aerofoils GmbH assumes no liability for incorrect charging and improper use of the battery. This includes, for example, using at excessively high temperatures or charging with third-party devices.

### 6.3 Assembly

Check the tightening torques of the wing, the tail unit, and the mast box at each assembly. The screws and threads must be free of any dirt and sand. They must be lightly greased regularly with the enclosed environmentally friendly lubricant. Check the wing, tail, mast, drive, and board for damage before each flight.



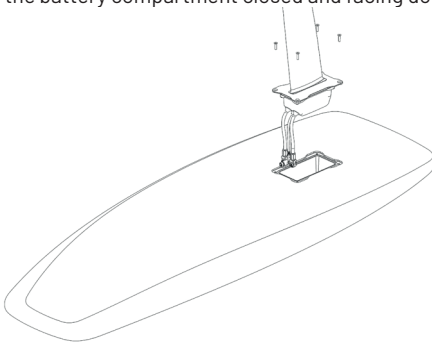
#### Caution

When assembling, always make sure that:

- » all sealing surfaces and plug connections are free of sand and other dirt.
- » O-rings and other seals are not damaged and are not bent or damaged.

#### Procedure:

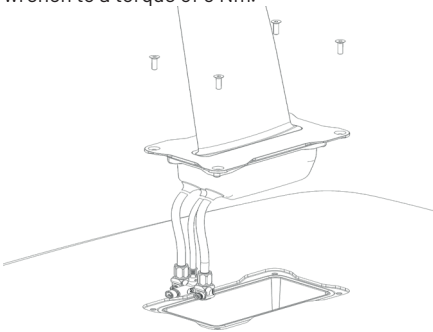
1. Place the board on a soft surface (e.g., board bag) with the battery compartment closed and facing down.



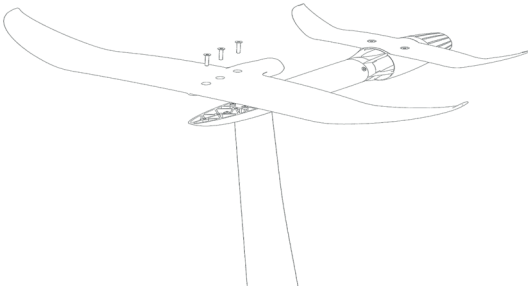
2. Take the drive unit (mast) and insert it into the mast holder. The cables of the drive unit must point in the direction of travel. First, make sure that the seal on the board is correctly seated. Now fasten the mast with the four screws (M6X20) provided for this purpose. Carefully tighten the screws crosswise with the enclosed



T-wrench to a torque of 8 Nm.



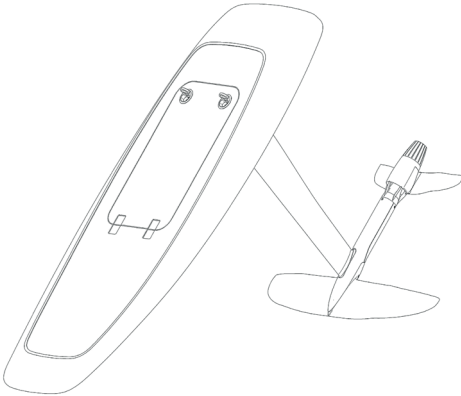
3. Now assemble the wing and the tail unit. It is recommended to remove the protective covers only immediately before flying. Fasten the tail unit with the two fastening screws provided (M6X20) and the wing with the three fastening screws provided (M6X30). Ensure a torque of 6 Nm.





## 6.4 Connecting and inserting the battery

The board can be turned over if the drive unit with wings is mounted. Find a suitable surface beforehand (stony or sandy surfaces leave scratches on the board and wings) and place a soft base (e.g., the board bag) underneath. Place the board so that the tip of the board and the leading edge of the wing touch the ground.



### Caution

The e-foil should never be in the water with the lid open.

- » Before placing the e-foil in the water, always check that the lid is properly closed. You can tell this by the fact that the lid surface forms an almost flat surface with the board surface and also that the two latches are completely locked.
- » Never open the lid while the e-foil is in the water.

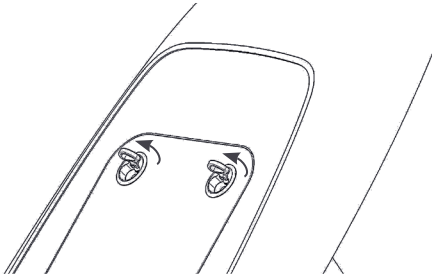


### Danger

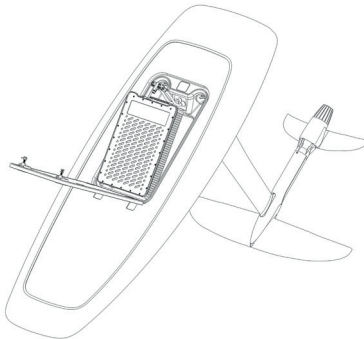
Avoid touching or short-circuiting the battery contacts. This may result in an electric shock.

### Procedure:

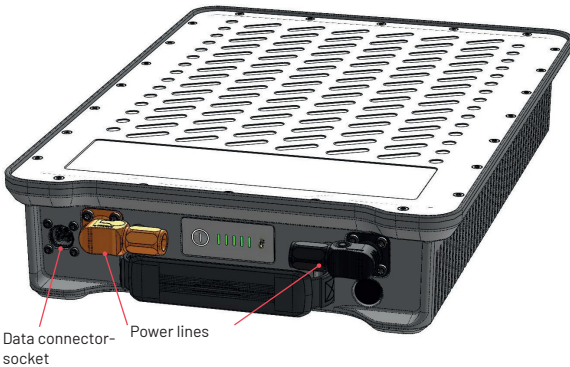
1. To open the lid of the board, lift the latches of the lock and rotate them 180°. Next, open the lid as far as it will go without exerting too much force (max. 90°). Now the battery compartment is accessible.



2. Take the battery by its handle and carefully place it in the battery compartment. The battery should be placed level and flush on all sides in the compartment. Next, check the position of the battery's connectors. They must be on the same side as the mast wires come out of the mast receptacle.



3. Now connect the wires of the battery to the battery. Check if they are free from dirt and corrosion. First, connect the two power lines (black and orange) and then connect the data line with a firm pressure. You must always plug the connectors to the matching color socket. Press the plugs firmly until you feel a clear click.



**!** **Caution**

When inserting and connecting the battery, avoid:

- » Seals or plugs are being damaged.
- » Power lines are being kinked

4. After the battery is connected to the e-foil, the lid must be closed and then locked. Next, press the lid down, turn the latches 180° and fold them shut. A certain amount of force is required when doing this. If this is not the case, repeat the process with the latches turned by 180°. This activates the e-foil. An acoustic signal can be heard if the connection is correct.

**Note:** You should not run the motor of the e-foil dry for more than a few seconds. Only do this for test purposes. The motor may otherwise suffer considerable damage. Also, do not reach into the drive components with your hands.

The e-foil is not intended to be used in residential areas and cannot ensure adequate protection of radio reception in such environments.





## 6.5 Remote control: First steps

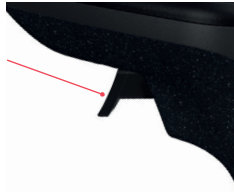
The remote control is operated via the three buttons





on the top side.



In addition, the remote control has a lever on the side opposite the display, which is used to regulate the speed.



### Switching on/off the remote control

You turn on the remote control by pressing for about 3 seconds on , until the home screen appears. To turn off the remote control, press for 5 seconds on .

Tip: Turn on the remote control before inserting the battery into the board so that the GPS module has enough time to find a signal.



Turn On



Turn Off



## Screen layout

All screens follow the same layout:



## Status bar

In the status bar you will see the following icons:

Designation	Symbol	Function
Clock	<b>21:41</b>	Displays the time
Lock		Indicates if the motor is locked
Warning/Error		Indicates whether an information, warning or error is still active
Bluetooth		Indicates the current Bluetooth status: white icon: Bluetooth is enabled blue symbol: Board is connected
GPS		Displays the GPS status
Battery Remote Control		Displays the current battery level of the remote control: White: More than 30% (over 2h driving time). Yellow: 10-30% (between 30min and 2h driving time) Red: Under 10% (under 30min driving time)

## Remote control soft reset

The remote control can perform a soft reset by pressing for longer than 10 seconds.

Only perform this in the event of error indications that cannot be traced.



## Changing the screens

The remote control has several screens. To switch between them, you need to press and hold for 2 seconds.



## Start screen

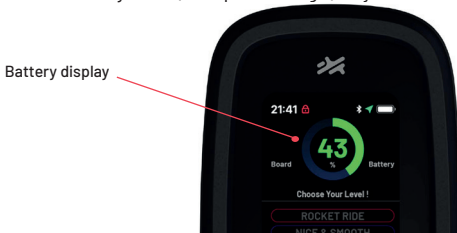
The e-foil offers you three different driving modes. You can switch between them by pressing and . With the help of you set the driving mode.

Tip:

„Gonna Fly“ is recommended for beginners. In this ride mode, the e-foil accelerates more smoothly. „Nice & Smooth“ is suitable for advanced riders and „Rocket Ride“ for experienced riders.

## Battery display


On the start screen, the information area shows you the current battery level (as a percentage) of your board. .



When the battery level is low (<20%), the battery icon changes color. If the battery level is critical (<10%), the navigation bar is colored red. If no board is connected, either the last detected battery status (gray coloring) or „-“ is displayed.



## Driving screen

By pressing  for 2 seconds, you will enter the driving screen.

### Driving screen overview



## Immobilizer

If the remote control cannot establish a connection to a board, the immobilizer is activated.

The immobilizer is also displayed once as a pop-up window when switching to drive mode and each time it is activated.





The immobilizer activates due to:

- » a fall (with immersion of the remote control).
- » an inactivity of 30 seconds.
- » during a change to power level 0.
- » when pressing the ▽ button for 2 seconds.

You can deactivate the immobilizer by pressing the △ button, provided that there is a connection of the remote control to the board.

### Power levels

In addition to the various driving modes, additional power levels can be set and thus the maximum power of the engine can be regulated.

- » Press △ and ▽ to set the power levels.
- » Press △ for 2 seconds to set the maximum power level.
- » Press ▽ for 2 seconds to activate the immobilizer.

Tip:

Depending on the rider's weight, approx. 1/10 of the body weight is recommended as the maximum power level for entry.

z. B.: For an 80kg rider, it is recommended to start at power level 8 or lower.

### Board computer

The board computer compiles an overview of the data of your ride. Pressing ≡ displays various data sheets.



## Board computer overview



## Settings menu

### Further settings

Further settings can be made under the „Settings“ menu item. With the help of  $\Delta$  and  $\nabla$  the corresponding setting can be selected or changed and saved by pressing  $\equiv$ . In the case of multi-digit parameters, the cursor can be moved by one power of ten by holding down  $\Delta$  and  $\nabla$  (for at least 2 seconds).





## Connecting the remote control to the board

After software updates or a service case it may be necessary to reconnect the remote control with the board. (= pairing)

Before you start the pairing process, the board should be mounted. However, the battery compartment must remain open.

Now select the sub-item „Pairing“ in the „Settings“ menu. You start the pairing process by selecting the option „Pair new Board“. Now follow the instructions that appear on the display.

1. Pop-up window with instruction 1: **„Close the battery compartment lid“.**
2. After closing the battery compartment, a pop-up window with instruction 2 follows: **„Open the battery compartment“.**
3. After opening the battery compartment, a pop-up window with instruction 3 follows: **„Close the battery compartment“.**
4. After closing the battery compartment again, the pairing process is finished. If the pairing process is successful, a pop-up window (**„Pairing successfully finished“**) appears for confirmation.

If an error occurs during the pairing process or the process is aborted by confirming the „Abort“ pop-up window, any previously existing pairing is retained.

## Charging the remote control

As soon as the remote control is connected to the charger, the charging indicator appears.





After a short time, the display goes dark. By pressing any key, the current charge status is displayed again. If the battery of the remote control is completely discharged, it can take up to 15 minutes until a charging display appears.

### Connection with the app

First install the Aerofoils app, which can be found in your AppStore. Now select the sub-item „Bluetooth“ in the settings menu on the remote control. Here you can connect your phone through the option „Pair new Phone“ (you may have to activate Bluetooth via ☰ first).

1. Scan the QR code displayed on the remote control in the Aerofoils app to initiate the connection setup.
2. The app confirms the successful connection setup.
3. If you want to connect another phone, a QR code must be generated again using „Pair new Phone“. Each QR code contains an individual key.

### Pop-up window

Events are displayed in the app by pop-up windows. In principle, there are three event categories to distinguish:

- » Information:  
Contain further information for the driver.
- » Warning:  
give statements that may have an impact on system performance, e.g. drive throttling in case of critical battery level.
- » Error:  
indicate a problem. Further information can be found in [chapter 13 Remote control settings menu](#).





## 7 Operation

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Instruction before the first ride and supervision during the first ride by one of our partners or dealers is strongly recommended. For the first assembly after a transport or storage change in [chapter 6](#) (First commissioning - Assembly).

### 7.1 Selecting a suitable body of water



#### Danger

Failure to observe the following points may result in significant damage. Therefore, pay attention to the following:

- » To avoid the bottom contact of the e-foil, the water should be at least about 1.5 m deep throughout. Additionally, take into account that the e-foil has a higher diving depth when you are on it.
- » Sandy bottom can also cause damage to the e-foil. Especially the impeller can suck in the sand and smaller objects or stones due to its suction effect and thus be damaged.
- » Also, watch out for submerged and floating objects such as branches, rocks, boat chains, fishing lines and keep a sufficient distance from them.
- » Avoid waters with strong currents and pay attention to tides if necessary (currents and water depth can change drastically). If you are not sure, be sure to ask local people.
- » For beginners, calm water and little wind are advantageous.

### 7.2 General notes for safe operation

- » Before you start e-foiling, read these operating instructions carefully and completely.
- » Move away from the shore only as far as you can swim.
- » Avoid body contact with the sharp edges of the wing, mast, and tail, especially their trailing edges and tips.
- » Adhere to right-of-way and distance rules and always keep a generous safe distance from other water sports enthusiasts.
- » If you lose control of your e-foil and/or are unable to stay on it, do the following:
  - » Immediately release the lever on the remote control.



- » Always jump off to the side. Do not jump forward under any circumstances; otherwise, you run the risk of being run over by the e-foil.
- » Try to land in the water as far away from the board, wings, and mast as possible.
- » Note that the travel time of the e-foil is highly dependent on factors. These include the choice of a wing, rider weight, speed, or altitude.
- » Inform yourself about the weather conditions before each ride. Also, consider changing weather conditions, including high winds, storms, precipitation, and fog.

### 7.3 Learning to e-foil

In addition to this manual, we recommend that you view our How-To-Use videos and other helpful documents on our social media channels and website. Make sure you have internalized and followed everything in this manual (esp. [7.1 Selecting a suitable body of water](#) and [7.2 General instructions for safe operation](#)).



#### **Danger**

Failure to observe the following points may result in considerable damage. Therefore, pay attention to the following:

#### **Transporting the e-foil into water**

The following two options are recommended for transporting the e-foil into the water:

- » **Carrying the e-foil on your shoulder:** kneel carefully under the erected e-foil. Position your shoulder in front of the mast and grasp the board by the side edges. Now stand up carefully, and you can carry the board into the water.
- » **Carrying the e-foil sideways on your body:** place the board sideways. Position yourself in front of the drive unit and grasp the mast with your hand facing away from the board. The hand facing the board grips the side carrying strap of the board. Now lift the e-foil out of your legs and carefully carry it into the water.

When you have reached a sufficient depth (at least 1.5 m), you can carefully lower the e-foil into the water.

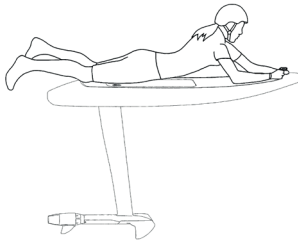
Caution: Be careful of the sharp edges of the mast and drive unit when carrying the e-foil.




## Learning to e-foil

Go through all the steps that follow now in the dry first.

1. Attach the remote control to your wrist using the attached loop. Start in the „Gonna Fly Mode“ mode. First, set the third power level to limit the power output. The motor should still be locked initially. Wait until a GPS signal is received.



2. Push yourself belly-first from the rear of the board into a central lying position. The view should always be in the direction of travel. In order to assume a stable position, you should also support yourself with your forearms on the top of the board. The freehand can grip the front edge of the board. You should be able to separate yourself from the board at any time.
3. Unlock the motor with . Start to hold down the remote control lever in a dosed manner. The e-foil will now start to move. Develop a feeling for the acceleration of the e-foil. If you feel confident, continue to accelerate. **Caution:** Shift your weight further forward as the speed increases. This will prevent the e-foil from lifting off. Shifting your weight to the left allows you to make turns. Now practice riding the e-foil on the water surface in a controlled manner.
4. If you can safely ride lying on the water surface, now learn to stand up. Ride at a low, steady speed on the water. Slowly straighten up by slowly pushing your knees forward on the board and finally placing one foot. The foot should be positioned in the front of the board to apply constant pressure. Slowly stand up on the front foot once you have a secure feeling and your body is balanced. You can support yourself with your hands on the board. Once you are upright, continue to apply pressure to the board with your front foot so that it



does not lift off. The front leg is slightly bent. The back leg is used for stabilization. For balance support, the rear foot can also be placed crosswise (toes pointing perpendicular to the direction of travel).



5. Only when you are safely standing on the board you can accelerate further and move the board from displacement to glide. Use  $\triangle$  and  $\nabla$  to set a power level at which you are driving approx. 15 km/h with the throttle fully depressed. Continue to provide sufficient pressure on the front foot. Then carefully relieve the pressure on the front foot. The e-foil will now take off! As soon as you „fly“, immediately put more pressure on the front foot again to avoid getting too high. The wing must always be below the water surface to prevent falling. Due to the lower resistance in flight, the e-foil will now accelerate. Reduce the speed with  $\nabla$  to no more than 20km/h for the beginning.

**Caution:** If you reduce the thrust too much or too abruptly, the e-foil will fall back to the water surface.

You control the flight altitude and turn attitude by shifting your weight.

- » **Shift the body's center of gravity to the front foot:**  
You steer the e-foil toward the water surface.
- » **Relief of the front foot:**  
You will favor lift-off or fly higher.



**Note:** Try not to fly too high in the beginning so that you can always land again quickly. Always put weight on the front foot. Also, make sure the wing does not break the water's surface as you go. This can cause an abrupt fall. Initially, regulate the speed with the throttle fully depressed using  $\triangle$  and  $\nabla$ . More advanced driver can later control the speed faster and more precisely using the throttle.



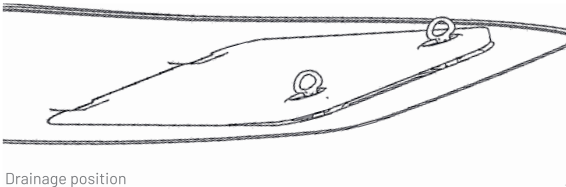
### Danger

Notes to prevent injuries such as cuts, bruises, and contusions:

- » Immediately release the lever on the remote control.
- » Always jump off to the side. Do not jump forward under any circumstances, or you may run the risk of being run over by the e-foil.
- » Try to land in the water as far away from the board, wings, and mast.
- » Always wear a helmet and a protective vest.

## 7.4 After operation

1. When you have finished your ride, lock the motor or switch off the remote control (see [chapter 6.5](#)).
2. Now, carry the e-foil out of the water and place it on a flat surface on a soft base.
3. Now also switch off the e-foil by opening the battery compartment and disconnecting the data plug and the power cables.
4. Remove the battery.
5. Move the battery door to the drainage position. To do this, turn the battery door locks by  $180^\circ$  and lift the battery compartment slightly. Now turn the latches again by  $180^\circ$  in the opposite direction. The battery compartment then snaps back into the slightly open position.



Drainage position

**Note:** Rinse all components (especially after saltwater operation).



ration) with fresh water. Refer to the battery datasheet for a detailed description of how to clean the battery.



## 8 Disassembly, transport, storage

### 8.1 Disassembly

To disassemble the e-foil, simply perform the assembly steps in reverse order (see [chapter 6.3 Assembly](#)). It is advantageous to put the protective covers of the wings back on beforehand to protect yourself from the sharp edges and the wings from damage.

### 8.2 Transport

The e-foil should always be transported in the associated transport bags. In addition, the battery should always be removed from the board. This ensures maximum protection and manageability.

### 8.3 Storage

The e-foil must be removed from the water after each operation. It is not suitable for being stored in water. All components must be stored free of contamination, dry and free of salt. When operating in saltwater, rinsing with freshwater is necessary for this reason before each disassembly. Do not use compressed air or high-pressure cleaners to avoid damaging the paint and seals. Unsuitable cleaning agents must also not be used (see [chapter 4 Warranty](#)).

### 8.4 Long-term storage general notes

If you store your e-foil for longer than 4 weeks, the following things must be observed in addition to the standard procedure:

- » Perform a thorough cleaning of the individual components before any longer storage. Do not use any harsh cleaning agents, such as cold cleaners or rim cleaners. Instead, you can use a conventional car cleaner. Never use solvents.
- » Allow your e-foil to dry out thoroughly after cleaning (see [chapter 7.4 After operation](#)).
- » For winter storage, it is recommended to clean all electrical contacts with contact cleaner and to preserve them with environmentally friendly, water-resistant grease or special contact oil. (see [chapter 4 Warranty](#)).



- » Also, clean the battery thoroughly and then allow it to dry well (see battery datasheet).
- » The charge status of the rechargeable battery should be checked every 4 weeks. An optimum storage condition is between 20-30 %.
- » The rechargeable battery should not be stored below  $-5^{\circ}\text{C}$ .

### **8.5 Long-term storage of board and foil**

Loosen all screw and plug connections that you had to assemble during the initial assembly (see [chapter 6.3 Assembly](#)). Then, clean these connections by rinsing them with fresh water.

Ensure that all parts, especially the board's deck pad and cavities, are dry. Once completely dry, you can lightly wet the screws with environmentally friendly grease.

### **8.6 Long-term storage of battery**

For long-term storage, the charge level of the battery should optimally be between 20 and 30% (2 LEDs light up after pressing the button), as mentioned in [chapter 8.4](#) (see Charging/ discharging to storage voltage in the charger datasheet). Check the battery's charge level every 4 weeks and recharge if necessary. You should avoid completely discharging the battery.

### **8.7 Long-term storage of remote control**

A battery level between 20 and 30% is also recommended for storing the remote control.





## 9 Maintenance and care



### Danger

Always make sure that the battery is completely disconnected from the e-foil before any maintenance or servicing work. Observe all warnings to avoid serious and life-threatening injuries.

Mandatory work	Capital	before each ride <sup>1</sup>	after each ride <sup>1</sup>	every 100h, or 1x per year <sup>1</sup>	every 300h or 2x per year
Visual inspection for damage: Wing, tail, mast, drive, board	<a href="#">6.3</a>	x			
Visual inspection for damage: Remote control	<a href="#">6.1</a>	x			
Visual inspection for damage: Battery	<a href="#">6.2</a>	x			
Test for Free movement: Hinges and Closures Board	<a href="#">6.3</a>	x			
Test for Free movement: Lever of the remote control, button of the remote control	<a href="#">6.1</a>	x			
Checking the charge status of the battery and Remote control	<a href="#">6.1</a>	x	x		
Testing of sealing elements: Mast to board, board cover seal	<a href="#">6.3</a>	x			
Checking the Tightening torques: Wing, tail unit and mast	<a href="#">6.3</a>	x			
Check for tight fit: Wing, tail unit and mast	<a href="#">6.3</a>	x			
Visual inspection of plug connections: Clean soiling with contact spray <sup>2</sup>	<a href="#">6.4</a>	x			



Mandatory work	Chapter	before each ride	after each ride	every 100h, or 1x per year <sup>1</sup>	every 300h or 3x per year <sup>4</sup>
Visual inspection of cables: Kink-free routing and perfect condition of insulation	<a href="#">6.4</a>	x			
Fresh water rinsing of all components with the exception of the accumulator	<a href="#">8.3</a>		x		
Cleaning battery	<a href="#">7.4</a>		x		
Leakage test of battery compartment cover (some drops allowed, but no complete water ingress)	<a href="#">7.4</a>		x		
Drying of all components	<a href="#">7.4</a>		x		
Clean and spray screws and threads when dirty <sup>3</sup>	<a href="#">6.3</a>		x		
Mastspiel kontrollieren	<a href="#">9.4</a>			x	
Control mast clearance	<a href="#">9.3</a>			x	
Visual inspection Impeller, stator, nozzle	<a href="#">9.1</a>	x			
Service drive: replacement of sealing elements, operating materials and individual drive parts					o
Read error memory					o

### Legend:

- 1 : or abnormalities during operation
- 2 : Contact spray
- 3 : Teflon grease or spray
- 4 : First time after 12 months
- x : to be carried out by the operator
- o : to be performed by dealer or Aerofoils Support



## 9.1 Replacing the impeller after damage



### Danger

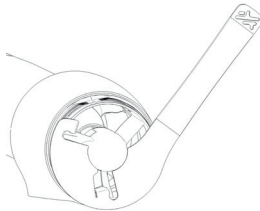
#### Serious risk of injury

Suppose the nozzle at the end of the fuselage is removed while the battery is connected to the e-foil. In that case, it may result in serious injury.

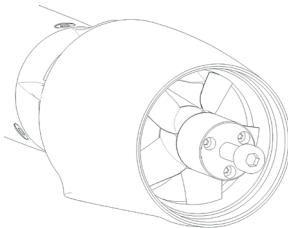
- » Therefore, always disconnect the battery completely from the e-foil before removing the nozzle.
- » Never interrupt your work without reattaching the nozzle. Likewise, never start the motor without the nozzle mounted.

During this repair work, it is of particular importance to once again ensure that the battery is completely disconnected from the e-foil. **Note:** This work should only be carried out by customers with technical background knowledge.

1. Turn the nozzle off counterclockwise.
2. Remove the stator counterclockwise using a special tool.



3. Loosen the nut by holding it counters with a 4mm allen wrench.
4. The impeller can now be removed with the special tool. To do this, screw in the three M3 screws completely. Then screw in the middle screw until the impeller is free.





5. Clean all components that will be reassembled. Lightly grease all threads.
6. Put on the impeller and tighten it with a nut M8. Ensure a torque of 10 Nm by holding it in the opposite direction.
7. Mount the stator (lightly grease) and nozzle, then clockwise.

## 9.2 Repair of board

If the board has any damage that could limit its function or cause a leak, immediately take it out of service and let it dry. Have your board repaired only by experts with experience. If your board has damage to the mast mount or battery compartment, or sealing surfaces, contact Aerofoils Customer Service.

## 9.3 Replacing the sacrificial anode

Every 100 operating hours or once a year, you should replace the sacrificial anode on the drive unit. To do this, remove the screw and replace it.

## 9.4 Check mast clearance

Assemble the board and the drive as described in [chapter 6.3 Assembly](#). Now turn the board over on a soft surface so that the EVA deck faces the ground. Now move the mast alternately with a force of max. 5 kg in 90° to the direction of travel. You should not feel any play when the board is in perfect condition.



## 10 Self-help/Problem solving

### Remote control

The remote control switches off automatically.

- » Check the battery level of the remote control.
- » In the settings under „Battery Saving“ → “Power Timeout” adjust the time until automatic shutdown in idle mode if the automatic shutdown occurs too quickly for your needs.

The remote control does not turn on.

- » Charge the remote control.
- » If the remote control has not been used for a long time, the charging process is briefly confirmed haptically when it is plugged in. It may take up to 15 minutes until the charging status is shown on display.

The remote control loses the signal in the water.

- » Check the battery status of the remote control and the e-foil.
- » The signal may be disturbed if the remote control and the board are underwater for too long/deep.

The remote control does not connect to the e-foil.

- » Re-pairing may be necessary after a software update.
- » Perform a new pairing. (see [chapter 6.5](#))
- » Check if the connectors in the board are inserted correctly and have contact, clean the contacts if necessary.

The remote control loses the connection to the e-foil if:

- » an unpair is performed in the menu.
- » a new board has been connected in the meantime.
- » the board has been connected to another remote control in the meantime.

Repeat the pairing. Instructions can be found in [chapter 6.5 Remote control: First steps](#).

### Battery and e-foil

Water has entered the battery compartment.

- » Check the battery compartment and mast seals. Look for any kind of contamination, such as sand and da-



mage.

- » Check that the battery compartment closes completely and that the battery is seated correctly and level in the board. Check the contact pressure of the latches. If necessary, clean the contact surface of the battery.

The e-foil simply shuts off while riding

- » Get back to shore as soon as possible and open the battery compartment.
- » Check the remote for error messages and verify that a connection to the board is possible.
- » Check that the data line is plugged in properly.
- » Make sure there is no debris or water between the data lines.

Can I continue to use my battery after I drop it?

- » Contact Aerofoils Support and do not continue to use the battery under any circumstances.

There is damage to the power lines.

- » Contact Aerofoils Support.

## Drive

The drive has dropouts or insufficient thrust.

- » Disconnect the battery.
- » Check for rocks, sand, or other debris caught in the actuator.
- » Clean the drive with fresh water.
- » If there is no debris or damage, clean or replace the impeller/stator or contact Aerofoils Support.



### Danger

Always inspect the drive with sufficient, safe distance. For example, never look into the rear nozzle opening while starting the engine.

Clean or replace the impeller/stator only when no battery is connected! Also, make sure that other persons are far enough away from the drive of the e-foil.

Foreign bodies and solids such as dust, chips, splinters, or grains can be accelerated and fly out of the nozzle. This can cause damage to the eyes and other parts of the body.



### Danger

Only allow the drive to run dry for a maximum of 10 seconds. Do not put any objects or your hands into the drive. Make sure that no hair or the like is pulled in.



## 11 Contact for service

Aerofoils GmbH  
Brauneckweg 14  
85748 Garching

Phone: +49 9251/438890-01  
E-Mail: support@aerofoils.de

An overview for your local dealer network can be found at:  
[www.aerofoils.de/support](http://www.aerofoils.de/support)

## 12 Disposal and Recycling

The e-foil, the rechargeable battery, the remote control, and the charger are recyclable materials. However, they must be disposed of separately from household waste and recycled in accordance with the applicable legal regulations.

Separate professional collection and recycling conserves raw material reserves and ensures that all regulations for the protection of health and the environment are complied with when recycling the product and/or the battery.

- » Never disassemble the e-foil, battery, remote control, or charger for disposal.
- » The e-foil, the remote control, the unopened and undamaged battery, and the charger can be returned free of charge to any specialist dealer. Depending on the region, further disposal options are available.



### **Danger**

#### **Risk of skin and eye burns**

Liquids and vapors may escape from damaged or defective batteries. These can irritate the respiratory tract and cause burns.

- » Never come into contact with escaping liquids.
- » In case of eye contact or discomfort, consult a doctor immediately.
- » In case of contact, rinse skin immediately with water.
- » Do not inhale vapors.
- » Ventilate the room well.





## Danger

### Fire and explosion hazard

If the batteries are damaged or defective, the safety electronics may fail. The residual voltage can trigger a short circuit. The rechargeable batteries may self-ignite and explode.

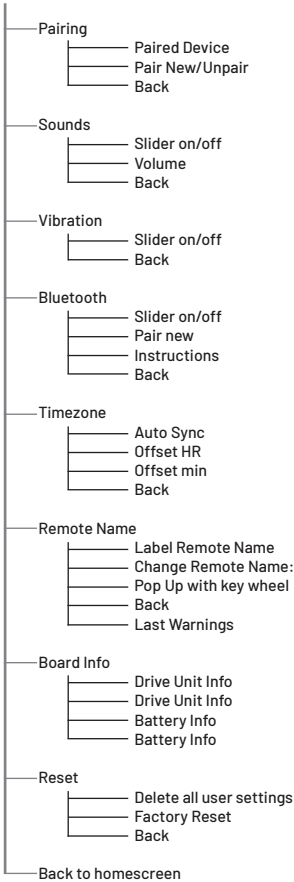
- » Immediately take externally damaged rechargeable batteries out of operation and never recharge them.
- » If the rechargeable batteries become deformed or begin to smoke, keep your distance, disconnect the power supply at the socket and notify the fire department immediately.
- » Never extinguish damaged batteries with water or allow them to come into contact with water.
- » Defective rechargeable batteries are hazardous materials. Dispose of defective batteries properly as soon as possible.
- » Store the batteries in a dry place and never in the vicinity of flammable materials until they are disposed of.
- » Never open or repair the battery yourself.

If you have any questions about recycling, please contact our support team.



## 13 Remote control settings menu

### Settings menu - overview





## Error/Warnings/Information

Display indication	Categorie	Explanation
No Board Paired	Info	No board is connected
Pairing Successful	Info	Connection of the board successful
Motor Locked	Info	Motor locked. $\Delta$ press to unlock
Battery 50%	Info	50% battery remaining
Battery low	Info	20% battery remaining
Battery Remote 50%	Info	50% remote control battery remain
Battery Remote low	Info	< 2 h remote control battery remaining
Battery critical low	Warning	10% battery remaining
Battery empty	Warning	Battery empty, motor switches off
Battery Remote critically low	Warning	< 30min Remote control battery remaining, Energy saving mode is activated
Drive System High Temperature	Warning	High temperatures in the drive, Until cooling down, the power is reduced
Remote High Temperature	Warning	Remote control threatens to overheat
Battery High Temperature	Warning	Battery threatens to overheat, motor switches off
Water Ingress Drive Unit	Warning	Water has been detected in the drive unit, contact support
Drive System Overtemperature	Error	Overheat in the drive, let the drive cool down and try again
Remote Overtemperature	Error	Remote control overheats, let it cool down and try again
Battery Overtemperature	Error	Battery overheated, let the battery cool down and try again
Battery Communication Error	Error	Battery communication error, try reconnecting the board or contact support
Drive Unit Error	Error	Drive unit error, try to reconnect the drive unit to the board or contact support
Water Ingress Battery	Error	Water has been detected in the battery, contact support
Water Ingress Remote Control	Error	Water was detected in the remote control, contact support



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