



Swim**BETTER**

# OPERATING INSTRUCTIONS



VERSION 2.0 - DECEMBER 2022

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# 1. ABOUT YOUR **eo** SwimBETTER

These Operating Instructions cover everything you need to know about your **eo** SwimBETTER handsets. They're a bit more comprehensive than your Quick Start Guide and contain some important details and safety information, so sit back, relax and have a read before recording your first swim.

## 1.1 INTENDED USE

Purpose built to help improve your swim technique, **eo** SwimBETTER is worn on both hands to measure the forces generated as you swim. Fitting neatly in your palms, the **eo** SwimBETTER handsets collect a host of additional data, including your hand path and velocity, stroke rate, stroke phases and consistency. The collected data is downloaded to the **eo** App on your mobile phone for analysis and stroke intervention right on the pool deck.

**eo** SwimBETTER is intended for use in indoor and outdoor chlorinated and salt water pools and can be used by swimmers of any age or experience level who are looking to improve their swim technique.

## 1.2 WHAT'S IN THE BOX

Everything you need to SwimBETTER (see what we did there):

1. Left and right handsets
2. A pair of straps and keepers
3. Two **eo** charging clips
4. Two USB-C charging cables
5. Microfibre mini towel: to dry off your handsets before storing them
6. Mesh pouch: to carry your charged handsets to and from the pool
7. Two Sunscreens to clip over your handsets when swimming in sunshine
8. Quick Start Guide
9. Pool Orientation instruction card
10. Protective case



# 1.3 GET TO KNOW YOUR eo SwimBETTER HANDSETS



## 1.4 TECHNICAL SPECIFICATIONS

Size	Each handset is 11cm x 4cm x 1cm (4.3in x 1.5in x 0.4in) excluding straps.
Weight	Each handset weighs 30g (1.06 oz.) that's about as much as a slice of bread.
Operating voltage	3.6V DC
Charger supply voltage	5V 0.2A
Battery type	Lithium-ion cell - LIR2450
Battery voltage	3.6V 120mAh
IP rating	IPX8
Water resistance	30 metres (100 feet)
Recording time	<b>eo</b> SwimBETTER90 - records up to 90 minutes of data <b>eo</b> SwimBETTER15 - records up to 15 minutes of data
Data storage	Once downloaded, data is immediately deleted from the handsets so you can record more. Downloaded data is stored securely in the Cloud and is accessible any time on the <b>eo</b> App or Platform via your <b>eo</b> Account.
Connectivity	Bluetooth®
Charging	Charge using the supplied charging clip and cable.

## 1.5 ENVIRONMENTAL CONDITIONS

**eo** SwimBETTER has been designed for use:

1. in indoor and outdoor chlorinated and salt water swimming pools and wet areas, and
2. in temperatures from -10°C (14°F) to 40°C (104°F).

**NOTE:** When using **eo** SwimBETTER outdoors when the sun is shining, you need to clip the **eo** Sunscreens included in your kit over each handset. They shade the pressure sensors which are sensitive to sunlight without hindering their ability to measure the pressure (forces) during the stroke.

# 2. SET UP AND GET STARTED

## 2.1 ATTACH YOUR STRAPS

1. Place the handset face down with the sensor band facing away from you.
2. With the **eo** logo on the strap facing up, feed it through the hole from the inside of the sensor band until the orange strap clip clicks into place. When it's clicked in correctly you will have a smooth finish on the inside of the sensor band.

**IMPORTANT:** There is a little key on the orange strap clip that clicks into the sensor band. This will click in with minimal pressure if you have the strap facing the right way – please do not force it. If the strap doesn't click into place easily, check you have the strap the right way around and try again.

3. In your straps bag, you'll find two orange keepers. These will help hold your straps closed during your swim. Slide one of these onto the strap.
4. Now feed the other end of the strap through the hole on the other side of the handset.
5. When the strap wraps around your hand, the velcro should connect to the strap. If it doesn't, you've got it back-to-front. Take the band out, flip it and try again.

## 2.2 PUT YOUR HANDSETS ON

The most important thing is to make sure you put your handsets on the correct hands. You'll see an L and R hand reference on the back to make this easy.

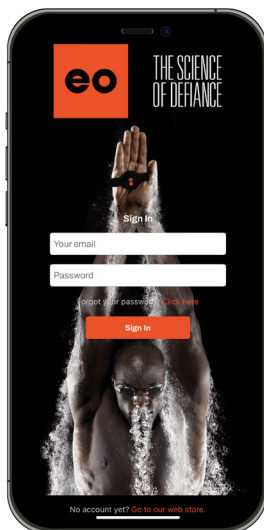
This is what they look like when on correctly – the **eo** logo should read from left to right when you're looking at your palms.



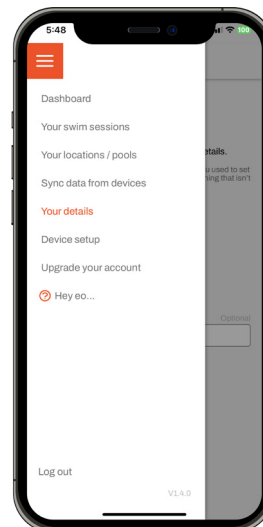
1. Sit the body of the handset into the hollow of your palm.
2. The sensor band wraps around the outside (pinkie side) of your hand.
3. Adjust the velcro straps for a firm but comfortable fit. Ensure the straps are secure by sliding the orange keeper over the end of the strap. If your straps come loose during a swim, it could impact the quality of your data.
4. Avoid placing the straps across your knuckles as this can cause them to release when your hand flexes as you swim.

## 2.3 SET UP YOUR APP

1. It's important to set up your App and complete the **Your details**, **Your locations / pools**, and **Device setup** sections before you record any swims. These steps will link your handsets so they're ready to record. These steps only need to be completed once, however, additional pools can be added at any time.
2. If you haven't already, you first need to set up your **eo** Account. You can do this at [eolab.com](https://eolab.com) by clicking the **Login** menu link – second from the right at the top of the screen - then **Sign up with your email**.
3. Download the iOS or Android **eo** SwimBETTER App from the App Store or Google Play. Click one of the icons below or search for eo swimbetter.
4. Login with the email and password you used to set-up your **eo** Account.

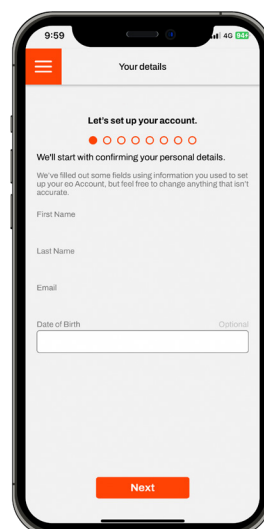


5. On your first log in, you will be taken to the **Your details** page. It's important to fill in this information before your first swim so your data is properly reflected.



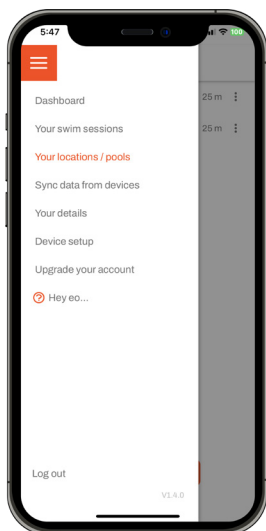
6. Review your personal details auto-populated from the information you provided when creating your **eo** Account. Change anything you need to, then follow the on-screen instructions by clicking the **Next** button at the bottom until you complete all information.

**Note:** you'll need to provide some measurements here. If you don't have a ruler or tape measure handy, just take your best guess.



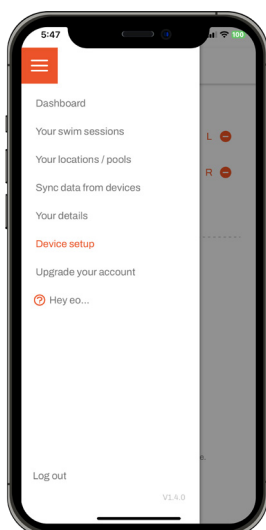


7. Now it's time to set up your pools. Click **Your locations / pools** on the Home Screen and fill in the details of the pools you regularly swim at. You can add as many pools as you like, but you will need to have at least one listed before uploading your first swim. If your pool has both short and long course, register it twice - once for each distance.

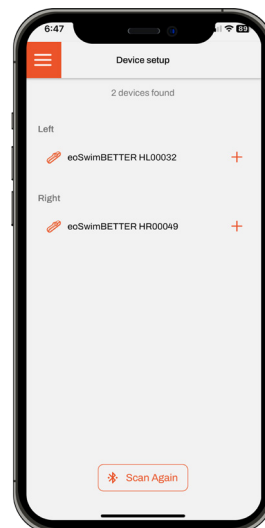


8. Next up, you need to pair your handsets. We recommend doing this at home where there aren't any other handsets in your vicinity.

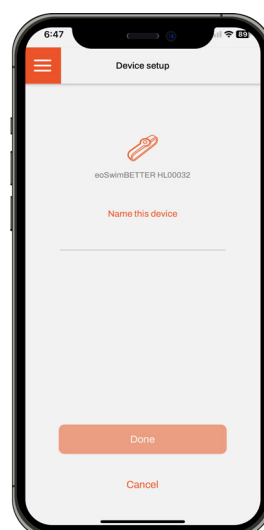
Make sure your phone has Bluetooth® enabled and that both of your handsets are turned on - the LED should be either purple or green - then click **Device setup** on the Home Screen.



9. The App will automatically scan for handsets in its vicinity. Look for yours in the list, by matching the serial numbers with the ones that are printed on the back of each of your handsets - this is the large number that appears below the L and R.

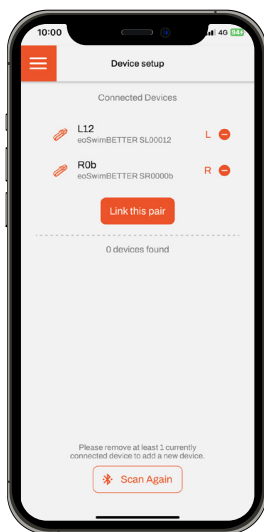


10. Hit the **+** button alongside your left handset. You'll then be asked to name your device - call it whatever you like - then click **done**. Do the same for your right handset.





11. Your renamed handsets will now be listed above the line, ready to be linked. Click **Link this pair**.



13. Your App set up and device pairing is now complete. You're ready to record your first swim.

14. If you ever need to remove your handsets from your App (for instance, if you're swimming on a team and have access to multiple sets of handsets), just click the **+** button and follow the prompts. You can relink a new pair by following steps 9 to 11.

12. A pop-up will appear on screen letting you know that your handsets will be erased. Click **Yes**. This is just one of the reasons why you need to complete this process before you swim. The other is to ensure your handsets operate as a pair.



## 2.4 TURN YOUR HANDSETS ON, POOL ORIENTATION & RECORDING

Your handsets will arrive with some charge in them so you can jump in the pool straight away. We recommend you top up the charge after your first session.

Each time you turn your handsets on, and before you swim, you need to take a Pool Orientation to ensure your hand path data is accurately captured. Follow these steps:

### STEP 1:

#### LEDs are off

Press and hold the button on **EACH** handset for **3 seconds** to turn on.

### STEP 2:

#### LEDs are solid purple

Press the button on **EACH** handset to start Pool Orientation.

### STEP 3:

#### LEDs are flashing purple

You have **20 seconds** to complete this step.

**Standing at the end of the pool with your fingers pointing in the direction you're about to swim, hold your palms level, steady and facing directly up, with your elbows tucked into your sides - see illustration on the right.**

If your LED(s) turn back to solid purple, the Pool Orientation was unsuccessful. Try again from Step 2.

### STEP 4:

#### LEDs are solid green

Pool Orientation was successful.

**With both hands out of the water, double press the button on ONE handset.**

### STEP 5:

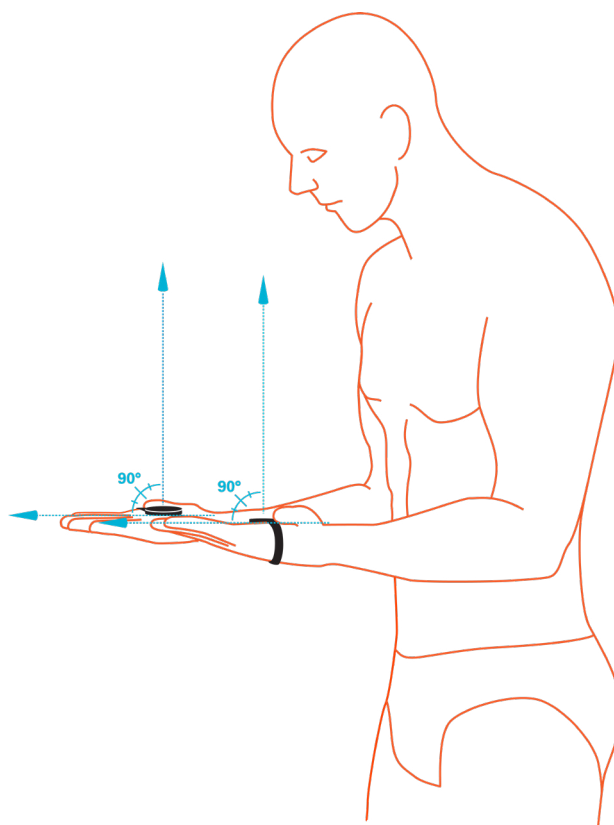
#### LEDs are flashing green

**Recording has started, it's time to swim.**

For a swim to register data, both hands need to be underwater at the same time for a minimum of **2.5 seconds** and then take at least **3 strokes**.

You can start and stop recording each swim by double pressing the button on either handset.

Your handsets will automatically turn off after 10 minutes of inactivity. Pool Orientation will need to be retaken every time the handsets are turned on ie. the LED is solid purple.



## 2.5 DOWNLOAD YOUR DATA

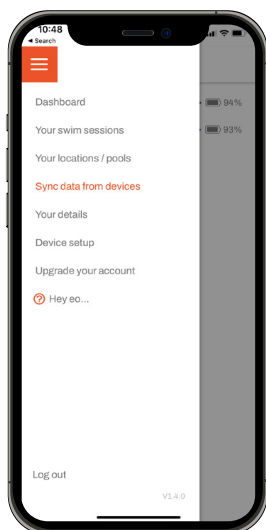
You must have a valid **eo** licence to download your data. If you don't have one yet, you can buy one [HERE](#).

### File transfer data usage

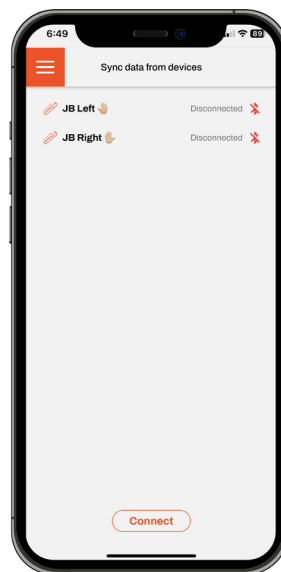
As you may be downloading and transferring quite large swim data files, we recommend connecting to Wi-Fi to save your mobile data.

If you are not connected to mobile data or Wi-Fi, your swim files won't transfer to the Cloud until you are connected. Once your files have been transferred to the Cloud, it can take a couple of minutes for them to show up in **Your swim sessions** so don't panic if they don't show up immediately.

1. Ensure Bluetooth® is enabled on your phone and both your handsets are switched on (the LED should be either green or purple) and within range of your phone. Login to your App.
2. On the Home Screen, click **Sync data from devices**.

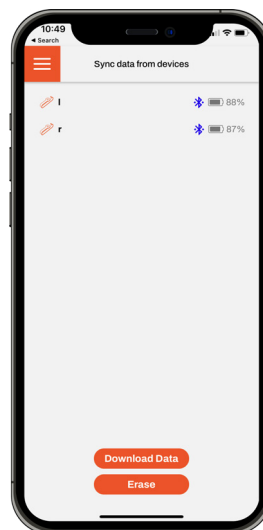



3. When your left and right handsets appear on screen, click **Connect**.



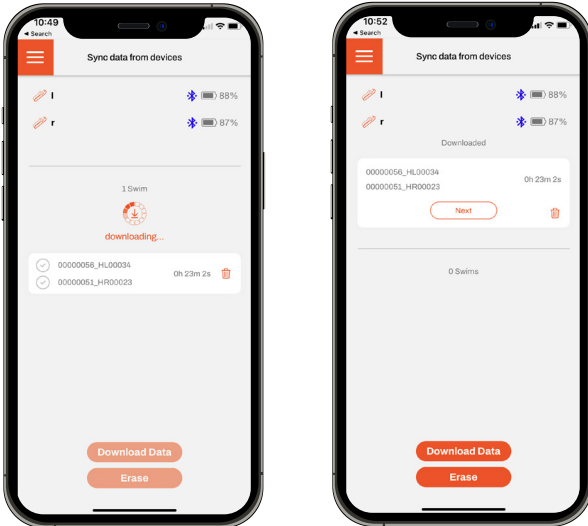
4. Once handsets are connected, click **Download data**. Be careful not to hit **Erase** as this will delete the data from your handsets before it's downloaded. Your LEDs will flash dark blue during the download process.

Ensure your App remains open while your swim data downloads, otherwise the download will stop.

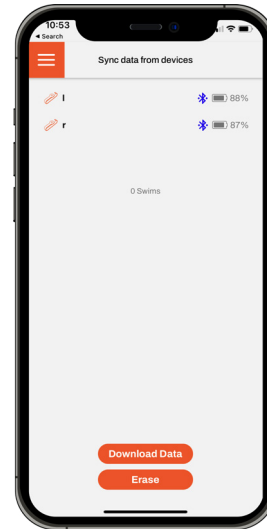


- Once your swims have downloaded, remove any you don't want to keep by clicking the  icon - this will remove it from your account.

On the swims you want to keep, click **Next** to add in your stroke, location, date and time of swim. Then click save and upload.



- Once your information is added to all your swims, click **Save to Cloud** to securely store your data. Your swims will upload to the Cloud one by one. When they have all safely uploaded you will see 0 Swims on your screen.



If one or more of your swims gets stuck - which can sometimes happen - it will still appear on your screen with **Save to Cloud**. Just click **Save to Cloud** again and it will upload.

**NOTE:** Transferring your data to the Cloud can take several minutes - depending on the length and number of recordings.

Once your swims are visible under Your swim sessions, they'll also be available to review in more detail on the **eo** Platform.



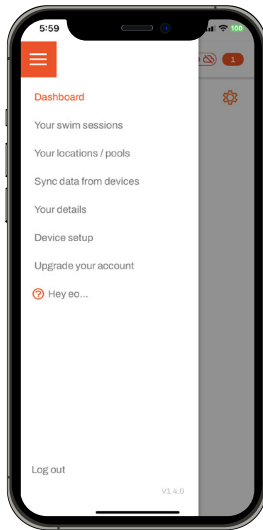
Deletes an upload from your swim account, but not from your handsets.

**Erase**

Deletes all data currently stored on your handsets.

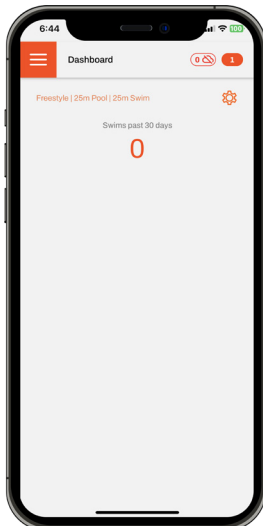
## 2.6 SET UP YOUR DASHBOARD

1. From the menu screen, click **Dashboard**. This will bring up your Dashboard screen.

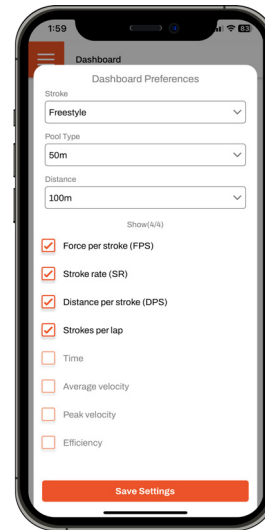


2. Click the settings symbol .

This will bring up your Dashboard Preferences Screen.



3. Select your core stroke, usual pool type and swim distance, then select up to four (4) metrics that you would like to display on your dashboard. Click **Save settings**.



4. To select the swims you'd like to aggregate into your Dashboard, click **Your swim sessions** and click the star icon alongside the swims you'd like to include. If the star is red it's included. If it's white it is not.

To remove any swims from your dashboard aggregates, just click the star again.

## 2.7 TURN YOUR HANDSETS OFF

1. Press and hold the button on **EACH** handset for 3 seconds.
2. Wait for the LEDs to turn off completely.

## 2.8 CHARGING

1. After turning your handsets off, attach one charging clip to each handset - the **eo** logo on your charging clip should be facing up - see image below. Align the charging pins with the charging plates on the inside of the sensor band - you will feel it click into place when properly connected.
2. Plug one end of the USB-C cable into the charging clip and the other end into a power adaptor or computer.
3. The LED light on your handset will flash white while charging is in progress.
4. Charging is complete when the LED turns solid white.
5. Try not to leave your handsets connected to power once they are fully charged as overcharging may reduce their life.



## 2.9 eo SUNSCREENS

Photons from the sun can dramatically impact the performance of the pressure sensors. So, when using **eo** SwimBETTER in sunlight, you'll need to clip the Sunscreens included in your kit over each handset.

The Sunscreens are shaped to perfectly fit the handsets and are easy to clip on. Just make sure they're clipped in all locations (top and sensor band) before you start to swim.

The Sunscreens are not required if you're swimming indoors, at night, or on an overcast day.

## 2.10 eo PLATFORM

Once your swim data has transferred to the Cloud, you can view it in more detail on the **eo** Platform: [swimbetter.eolab.com](https://swimbetter.eolab.com).

Open the platform on your computer or tablet, login to your **eo** account and all your swim history will be available to view in larger format charts with easy interaction to zoom in on sections.













## 2.11 GLOSSARY

There may be some acronyms and abbreviations used in the chart metrics that are unfamiliar to you.

Here's a breakdown:

<b>Avg</b>	Average
<b>DPS</b>	Distance per stroke
<b>FPS</b>	Force per stroke
<b>Impulse</b>	Force generated by stroke
<b>Left</b>	Strokes taken by left arm
<b>N</b>	Newtons
<b>Right</b>	Strokes taken by right arm
<b>SR</b>	Stroke rate
<b>Str/min</b>	Strokes per minute

## 2.12 LED COLOUR GUIDE









Appearance	LED	Handset status	On / Off button presses
No visible light		Off	3-second press on EACH handset
Purple - solid		Ready to take your Pool Orientation	Single press on EACH handset
Purple - flashing		Pool Orientation is in progress	
Green - solid		Ready to record	Double press on ONE handset to start recording
<b>GREEN - FLASHING</b>		<b>RECORDING IN PROGRESS</b>	<b>Double press on ONE handset to stop recording</b>
Dark blue - solid		Handset is connected to a PC or mobile device	
Dark blue - flashing		Data is transferring and memory is being cleared	
Yellow - solid		The memory is full - time to download	
Red - flashing		Low battery - you have about 20 minutes of power left when it starts flashing red	
Red - solid		Turning off	3-second press on EACH handset
White - flashing		Charging	
White - solid		Fully charged	



## 2.13 TROUBLESHOOTING

What the heck - something's not right!!!

App issue	User instruction
I've uploaded my data but it's not showing up in my list of swim sessions.	<p>This could be one of two things. First, check that you have available mobile data or are connected to Wi-Fi so your swims can transfer to the Cloud. Once they have transferred to the Cloud they can take a couple of minutes to show up under <b>Your swim sessions</b>.</p> <p>If that's not the problem, then it's likely you weren't under water for long enough before taking your first stroke. The handsets need to both be under water for a minimum of <b>2.5 seconds</b> and then you must take at least <b>3 strokes</b> for your stroke analysis to begin.</p>
My hand path data looks very strange. It shows my hands shooting off in odd directions which I know is not correct.	<p>This is likely caused by your hands being twisted or your arms not being straight in front of you while you were doing the Pool Orientation.</p> <p>Try redoing the Pool Orientation and ensure you follow these instructions carefully:</p> <ol style="list-style-type: none"><li>1. Position yourself at the end of the pool, facing down the lane in the direction you are about to swim;</li><li>2. Press the button on <b>EACH</b> handset to start Pool Orientation;</li><li>3. Place your hands in the Pool Orientation Position:<ul style="list-style-type: none"><li>• Palms facing up, parallel with the water,</li><li>• Fingers pointing in the direction you're about to swim,</li><li>• Hold your palms level, steady, and facing directly up, with your elbows tucked into your sides.</li></ul></li></ol> <p>Your LED(s) will turn solid green when Pool Orientation has been completed successfully. If your LED(s) turn back to solid purple, the Pool Orientation was unsuccessful and you need to try again.</p>

Handset state	Left LED	Right LED	User instruction
I'm trying to record but the LED on one, or both, of my handsets is yellow.			Your memory is full. Better download your data so you can get back in the pool and record some more.
The LEDs are doing strange things. One is blinking and the other is solid.			Yeah, that is strange. Turn them off and try again.
I'm trying to take the pool orientation reference, but my LED(s) keeps turning back to solid purple			OK, this could be one of two things:  1. Check that your hands are level, facing straight ahead, and the <b>eo</b> logo is facing directly up.  2. Check you're holding your hands still for long enough. The handsets need a second or two of stability.
My handsets are on charge, but the LED is not flashing white.			Check that the charging clip is located correctly with the charging pins connecting to the charging plates in the sensor band. Give the clip a gentle wiggle and you should feel it click into place. That should do the trick.

If all else fails, turn your handsets off then back on, and / or relaunch your App.

# 3. SAFETY & HANDLING

**WARNING:** Failing to follow these safety instructions could result in fire, electric shock, injury, or damage to your **eo SwimBETTER** handsets or other property that is not covered by warranty.

If **eo SwimBETTER** is not used in the manner specified in these guidelines, the protection provided by the equipment may be impaired. Read all the safety information below before using **eo SwimBETTER**.

## 3.1 HANDLE WITH CARE

- **eo SwimBETTER** contains sensitive electrical components, including batteries, that can be damaged, impair functionality, or cause injury if dropped, burned, punctured, crushed, or disassembled.
- Do not push up out of the pool with **eo SwimBETTER** still on your hands as the pressure of your bodyweight may crack the casing.
- Do not use your **eo SwimBETTER** handsets if they are cracked as this may allow water to enter the units and damage the sensitive electronic components inside.

## 3.2 REPAIRING

- Do not attempt to repair your **eo SwimBETTER** handsets or charging components yourself. Disassembling may cause further damage, resulting in loss of water resistance, injury, or void your warranty.
- If your **eo SwimBETTER** is damaged or malfunctioning, contact us at: [support@eolab.com](mailto:support@eolab.com) for help.

## 3.3 REPLACING THE BATTERY



- Do not attempt to replace the **eo SwimBETTER** battery yourself as this could cause injury or damage to your handset.
- The lithium battery contained in **eo SwimBETTER** should only be replaced by an authorised watchmaker.
- Battery must be replaced with an LIR2450 3.6V 120 mAh Lithium-ion cell battery.
- Used batteries must be recycled or disposed of separately from household waste.
- Do not incinerate the battery.

## 3.4 CHARGING

- **eo SwimBETTER** should be charged indoors in a well ventilated location.
- Do not charge **eo SwimBETTER** on wet surfaces, or within 3 metres (10 feet) of a pool, bath, or sink.
- Do not handle the charging clips or cords with wet hands.
- Do not expose the charging clip or charging cords to moisture.
- Temperature of the handsets may increase while charging.
- Do not use or charge **eo SwimBETTER** in the presence of gaseous fumes, dust, or flammable materials - sparks may be generated, and cause a fire.
- Do not charge with a damaged cord.
- Do not place charging cord under strain.
- Keep the cord away from heated surfaces.

- Do not leave your handsets connected to power once they are fully charged as overcharging may reduce their life.
- Only use the supplied **eo** charging clip to charge **eo** SwimBETTER.
- Only charge with an adapter and USB-C cord that is compliant with your country regulations and international and regional safety standards, including the International Standard for Safety of Information Technology Equipment (IEC-62368-1). Charging with adapters that do not meet the applicable safety standards could pose a risk of death or injury.
- Using damaged cables or chargers, or charging when moisture is present, can cause fire, electric shock, injury, or damage to property and **eo** SwimBETTER.
- **eo** SwimBETTER is not compatible with wireless charging.

### 3.5 DISPOSAL



- Do not burn or incinerate your **eo** SwimBETTER handsets. This can cause the internal battery to explode, causing injury or damage.
- When your **eo** SwimBETTER reaches the end of its life, please do not dispose of either the handsets, charging clip or charging cord with normal household waste. Instead, please take them to a local designated collection point for the recycling of waste electrical and electronic equipment. Please dispose of packaging in an environmentally friendly way.

### 3.6 CARE & CLEANING

- Thoroughly rinse **eo** SwimBETTER in fresh water after swimming in

chlorinated or salt water, and dry with the supplied microfibre cloth or a similar soft cloth before storing in the protective case.

- Do not leave the handsets in direct sunlight.
- Do not use detergents, coarse cloths, ultrasonic cleaners, or compressed air to clean your **eo** SwimBETTER handsets.

### 3.7 FCC COMPLIANCE

Contains FCC ID 2AA9B05

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which

the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this product not authorised by **eo** could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product.

### 3.8 CHARGING CABLE & CLIP

The radiated output power of this device meets the limits of FCC/IC radio frequency exposure limits. This device should be operated with a minimum separation distance of 20cm (8 inches) between the equipment and the body of a person.

Responsible party contact for FCC matters:

**eo**  
Level 2  
11 York Street  
Sydney NSW 2000  
Australia  
E: [support@eolab.com](mailto:support@eolab.com)

### 3.9 BATTERY WARNING



**This product contains a coin cell battery. Do not ingest battery; chemical burn hazard.**

Keep new or used batteries away from children. The battery can cause severe or fatal injuries within two (2) hours due to chemical burns. If swallowed or placed inside any part of the body, seek immediate medical attention.

If you're in Australia, contact the Australian Poisons Information Centre immediately on 13 11 26 for fast, expert advice 24/7.

### 3.10 COPYRIGHT

Patents applied for.

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### 3.11 LIMITED WARRANTY

Click [HERE](#) to read our limited warranty information or go to:

[eolab.com/limited-product-warranty](http://eolab.com/limited-product-warranty).

## 4. SUPPORT

For support, warranty claims or spare parts,  
please email us at: [support@eolab.com](mailto:support@eolab.com)

## 5. CONTACT

**eo**

Level 2

11 York Street

Sydney NSW 2000

Australia

E: [support@eolab.com](mailto:support@eolab.com)

W: [eolab.com](http://eolab.com)

We have made every effort to ensure the  
accuracy of the information in these Operating  
Instructions. If you can't find the information  
you're looking for, drop us a line at:

[support@eolab.com](mailto:support@eolab.com)