OCEANS S1

SUPERSONIC

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USER'S MANUAL REVISION 1
S1 FIRMWARE 1.1 • OCEANS 3.0.0

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SAFETY INFORMATION

Read the user guide carefully before using the dive computer. Do not use the dive computer without certified training. Failure to do so may lead to serious injury or death. The dive computer is intended for recreational use and compressed air only.

DANGER This dive computer is capable of calculating decompression stops based on best guess algorithms. Diving with decompression stops greatly increases the risks of scuba diving. Always aim to stay well within no decompression stop limits.

WARNING Technology will fail. Always use backup instruments and dive tables when diving with a dive computer. The dive computer does not remove the risk of decompression sickness. Consult a doctor before diving to determine your diving fitness.

WARNING Check your dive computer at regular intervals while diving. In case of any problem or signs of malfunction, immediately abort the dive, follow emergency procedures provided by your training agency and return safely to the surface.

WARNING Never share a dive computer with other divers when diving and while the dive computer is calculating your dive profile.

WARNING Do not fly while the NO FLY countdown is active on your dive computer. Always check your dive computer before diving.

TECHNOLOGY IS NOT A SUBSTITUTE FOR TRAINING. SCUBA DIVING INVOLVES HIGH RISKS AND NO TECHNOLOGY WILL KEEP YOU ALIVE. KNOWLEDGE, SKILL, AND PRACTICED PROCEDURES ARE THE BEST WAYS TO KEEP YOU SAFE WHILE DIVING.

OVERVIEW

3D DIGITAL COMPASS

HAPTIC FEEDBACK

LEFT BUTTON

RIGHT BUTTON

ULTRASONIC SENSOR (4X)

Dimensions	60 x 60 x 20mm
Weight	95g
Screen	2.2" hi-res color LCD display
Communication range	15-20m+/50-65ft+
Battery	~10 hours diving • Standby: ~1 year
Computer algorithm	Buhlmann ZHL-16C with gradient factors
Dive modes	Air • Nitrox • Apnea
Logbook storage	500 dives or 80 hours
Depth range	100m/330ft, rec. max depth 50m/160ft

FEATURES

- Ultrasonic buddy communications
- Bluetooth connectivity
- 3-axis tilt-compensated digital compass
- Haptic feedback (vibration)
- Qi wireless charging (charger not included)

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CHARGING

Oceans S1 Supersonic charges wirelessly using any Qi-compliant wireless charger.* To start charging, place S1 facing upwards on a charging pad.

Please note that charging pads may be harmed by water, always make sure S1 is dry before charging.

* To keep price, shipping cost and environmental impact as low as possible, no charger is included in the box. If you don't own a wireless charger, they are widely available at stores selling electronics.

Connect S1

Scan QR code on S1's Display
(Settings > Connection)

CLOSE

CONNECTING

Oceans S1 Supersonic connects via Bluetooth to Oceans for iOS and Android. Start by downloading the Oceans app at oceans.io and create your free account.

1. In Oceans, navigate to MORE → SETTINGS → COMPUTER and tap CONNECT.
2. Turn on S1 by pressing the left side button and select CONNECT (If the on-boarding screen is not displayed automatically, go to SETTINGS → CONNECTION on S1).
3. Direct the phone camera at S1 to scan the QR code and follow the instructions in Oceans to complete the setup.

Your S1 is now connected to Oceans and ready to import dives to your digital logbook.

SURFACE MODE

Turn S1 on by pressing the left button. When in surface mode, S1 displays the current time and date, maximum depth, dive time and elapsed surface interval time since last dive, if applicable.

If there are less then 24 hours since your last dive, a yellow NO FLY countdown is visible to indicate when it's safe to board an airplane.

→

S1 is operated by the two buttons on each side of the device, as indicated by the function hints on the top section of the display. Options marked PRESS is activated by a single press, and HOLD by pressing the button for ~0.5 seconds.

SETTINGS

S1's settings can be accessed when in surface mode. Press the left side button to enter the settings menu.

- To move forward in the settings menu, PRESS the left button.
- To select a menu option, PRESS the right button.
- To exit the settings menu, HOLD the left button.

Some settings like buddy ping name and syncing of time & date and unit system are available only in the Oceans app when connected wirelessly.

DIVE MODE

To switch between air, Nitrox and apnea diving, select the DIVE MODE option and the correct gas for your dive. The surface mode screen will indicate the current dive mode. The following modes are available:

- AIR
- NITROX (22–40, default is EAN32)
- APNEA

APNEA

In APNEA (freediving) mode, S1 acts as a bottom timer to record descents and ascents into the logbook. Press the right button to START logging. To STOP, press right button again.

Each apnea session will be stored in a single log entry in the logbook. If you want separate logs, exit apnea mode between each dive by HOLDING the left button. Apnea mode will exit automatically after some time of inactivity.

BUDDY PAIRING

Oceans S1 Supersonic enables diver–to–diver communication via ultrasonic pings underwater. You can add one or multiple S1s to your buddy list.

1. Make sure your buddy's S1 is turned on.
2. On your S1, navigate to SETTINGS → BUDDY PING → NEARBY BUDDIES.
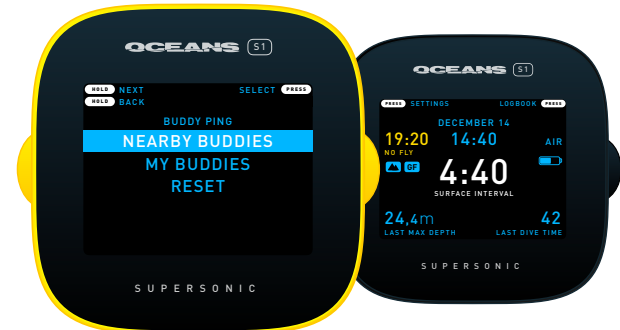3. Select your buddy's S1 in the list and press ADD.

Note: Apnea diving have consequences for the computer algorithm and will disable scuba dive modes for 24 hours after last logged apnea dive. Apnea mode can't be activated within 24 hours of last logged scuba dive.

Your buddy will be invited to add your S1 in return. The devices are paired and will receive notifications when sending pings in dive mode. To add more buddies, repeat the same steps with another S1.

For information on using buddy ping in dive mode, see the BUDDY PING section under DIVING.

ADJUSTMENTS

The ADJUSTMENTS menu lets you set personal preferences and adjust how S1 and its algorithm works.

SAFETY FACTOR

The SAFETY FACTOR setting uses built-in gradient factors to determines the level of conservativeness of the computer algorithm and adds a safety factor to the dive.

- NORMAL — Default value
- CONSERVATIVE — Adds a conservative safety factor
- MORE CONSERV. — Adds a very conservative safety factor

Note: Changing the safety factor will affect the NO DECO limit. Adjusting to a more conservative setting can result in shorter dive time before decompression stops are required.

PPO2

The partial pressure of oxygen adjustment determines the level of PPO₂ reached before showing a warning to ascend to a shallower depth. A value over 1.6 is considered toxic.

- 1.4 — Default value
- 1.2 — More conservative
- 1.0 — Very conservative

UNITS

The UNIT setting lets you set the preferred unit system for S1. By default, the unit system is synced between S1 and the Oceans app.

- METRIC (Meters and degree Celsius)
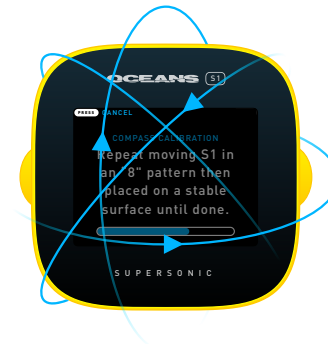- IMPERIAL (Feet and degrees Fahrenheit)

ALTITUDE

When diving at high altitudes, select the nearest ALTITUDE value corresponding to your current elevation above sea level. When activated, an icon is displayed in surface mode.

COMPASS CALIBRATION

Compass CALIBRATION can be needed when accuracy is reduced over time, the surrounding magnetic environment changes or when S1's silicone cover is replaced. Follow these steps to perform a full compass calibration:

1. Rotate S1 180° in multiple dimensions for at least 10 seconds.
2. Hold the device still in 6 different orientations for 1 second each.
3. Position S1 facing upwards on a flat surface for 5 seconds.

Repeat step 1–3 until the progress bar is filled and a CALIBRATION COMPLETE message is displayed on S1.

Note: When calibrating, stay away from metallic objects or electronic devices as they may interfere with the magnetic field. Always keep the silicone cover on when calibrating. Be aware that metallic objects underwater will interfere with the compass, e.g shipwrecks.

VIBRATION

The VIBRATION setting adjusts the power of the haptic feedback engine used for alerts and warnings while diving.

- HIGH
- MEDIUM (Default value)
- LOW

DISPLAY

When diving in darkness or to safe battery life, display brightness can be adjusted in 3 levels: 100% (default), 50% and 20%.

To keep night vision intact while diving in black water, enable NIGHT MODE to limit the display to red hues.

- BACKLIGHT — Select display brightness and time out
- NIGHT MODE — Enable/disable red night vision mode

The display is always on in dive mode, but will dim after some time of inactivity to save battery life. To temporarily increase display brightness; turn S1 towards you, or quickly PRESS the right side button.

CONNECTION

In case of lost connection between S1 and the Oceans app, select the CONNECTION option to display the onboarding screen and connect the device again as described in "CONNECTING" on page 4.

COMPASS

To display the compass view in surface mode, select the COMPASS option. For more information on operating the compass, see "COMPASS VIEW" on page 11.

TIME & DATE

By default, time and date are automatically synced when connected to the Oceans app. To manually set time and date, select the TIME & DATE option and use S1's buttons to edit the values as described by the function hints on the top section of the display.

ABOUT

The about option displays S1's device ID, firmware version number and Bluetooth firmware version.

DIVING

In dive mode, S1 will keep you updated on status, alerts and warnings on the display and via haptic feedback during your dive.
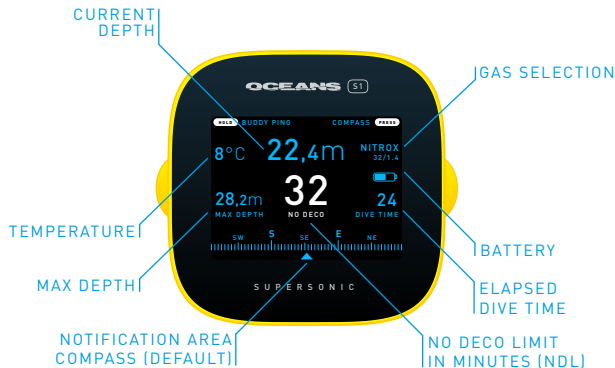
BEFORE THE DIVE

Always turn S1 on by pressing the left side button to check your settings before diving.

- To switch between Air, Nitrox and Apnea mode, navigate to SETTINGS → DIVE MODE and select the correct one.
- To change PPO$_2$, altitude and gradient factor settings, navigate to SETTINGS → ADJUSTMENTS.
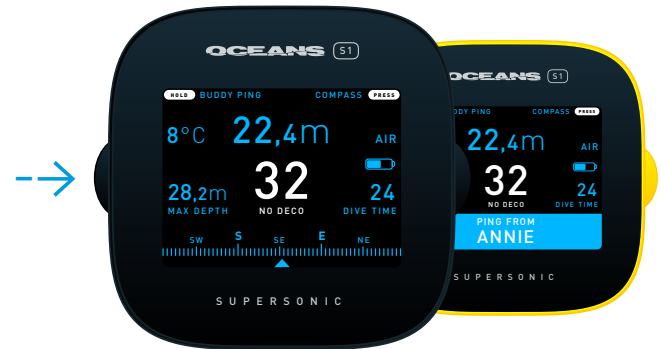
DURING THE DIVE

S1 will automatically start dive mode after the depth sensor reaches 2m (6ft), even when off. Turn S1 is on before descending to start dive mode immediately at 2m (6tf).

CURRENT DEPTH
GAS SELECTION
TEMPERATURE
MAX DEPTH
BATTERY
ELAPSED DIVE TIME
NOTIFICATION AREA COMPASS (DEFAULT)
NO DECO LIMIT IN MINUTES (NDL)

BUDDY PING

Oceans S1 Supersonic is equipped with 4 ultrasonic sensors to allow 360° underwater communication with other S1 devices. S1 can be paired and receive pings from up to 8 other buddies.

- To send a ping to your paired buddies, HOLD the left side button. A short vibration will indicate that a ping is sent.
- When receiving a ping from a paired buddy, a message is displayed in the lower notification area of the display together with a vibration feedback.

Buddy ping works at a distance of 20m/65ft or more depending on conditions. The range is limited when diving in caves, shipwrecks or where the signal is restricted by other objects.

Buddy pings will be recorded in your logbook and visualized by a white dot on the depth profile.

DECOMPRESSION STOPS

The NO DECO limit is displayed in the middle of the display. When the NO DECO limit reaches 1 minute it will turn red, and you will be notified by a vibration alert. To avoid decompression stops, ascend to a shallower depth.

If diving past the NO DECO limit, you will be notified by a vibration warning, and the deco stop CEILING depth and COUNTDOWN in minutes will be displayed. Start ascending towards the CEILING depth and stay until the deco stop COUNTDOWN disappears.

When the countdown has ended, it's safe to ascend to the next CEILING depth or start ascending to the surface if no more deco stops are required.

While in deco stop, never go above the CEILING depth. Animated arrows will guide you to the right depth.

Note: While ascending to a shallower depth, the deco stop may disappear if S1 calculates that a safe level has been reached.

SAFETY STOP

When ascending above 6m (20ft), S1 will display a recommended 3 minute safety stop COUNTDOWN. Arrows will guide you to the right depth.

ASCENT RATE

When ascending, S1 will alert you if exceeding the recommended safe ascent rate.

The ascent rate bars will be displayed in the notification area, together with vibration feedback if diving above 10m (32ft).

- BLUE — 6m per minute or more
- YELLOW — 8m per minute or more
- RED — 10m per minute or more

COMPASS VIEW

In addition to the compass visible by default in the notification area, S1 allows you to enter full compass view with bearing information and mark for heading.
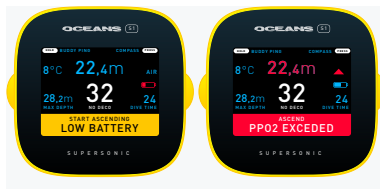

- To enter full compass view, PRESS the right side button. PRESS again to return to dive view.
- To set a heading mark, HOLD the left side button. A yellow mark will represent the current heading, and a yellow arrow will show the heading direction in relation to magnetic north.

Note: The compass view will automatically return to dive view for notifications and alerts, and after some time of inactivity.
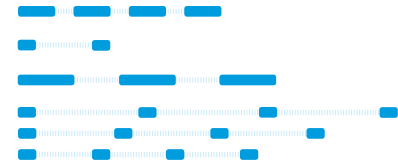
ALERTS AND WARNINGS

If a warning is displayed during dive, notify your buddy and start safely ascending to the surface.

HAPTIC FEEDBACK

S1 uses the following vibration patterns during the dive.

- PING
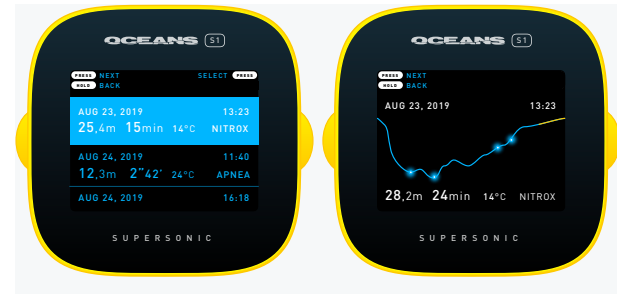- ALERT
- WARNING
- ASCENT RATE (Low, Med, High)

AFTER THE DIVE

S1 will keep track of depth for 5 minutes after surface, if you start descending, the dive will continue. After 5 minutes any new activity will be considered a new dive.

LOGBOOK

Dives will be stored in S1's logbook. When in surface mode, PRESS the right side button to access the logbook.

- White markings on the dive graph indicates sent pings.
- Yellow line segments indicate SAFETY and DECO STOPS.

Note: It's not possible to delete logs from S1's logbook. When the storage is full, the oldest log will be removed from the logbook.

IMPORTING DIVES TO OCEANS

Oceans is the world's number 1 discovery and dive logging app. With Oceans, you can store your logbook safely in the cloud and share your adventures with a worldwide community.

SYNCING

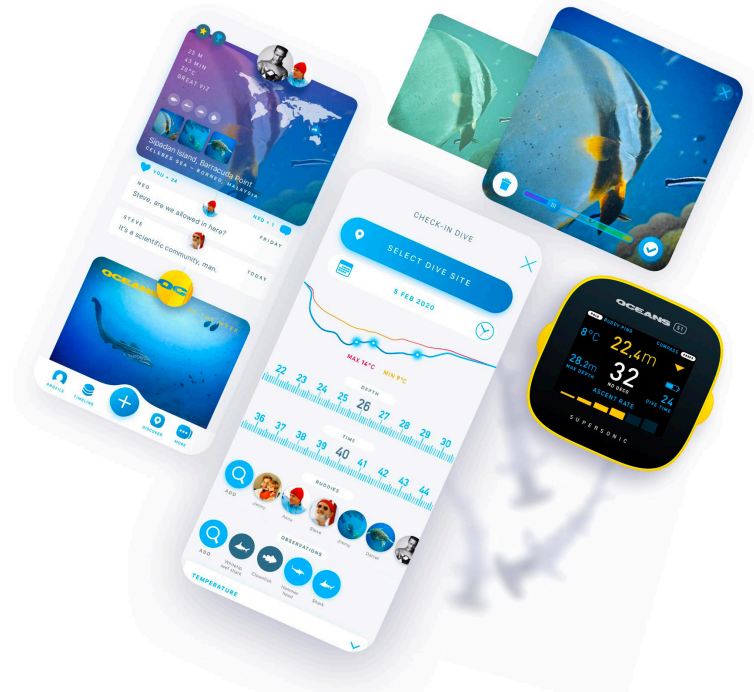When connected to Oceans, you can import dives and depth profiles to your digital logbook.

1. Turn S1 on by pressing the left side button.
2. In the Oceans app, tap the bottom ⊕ button, and select S1 from the top navigation bar.
3. When connected to S1, select dives to import and tap ADD TO LOGBOOK.

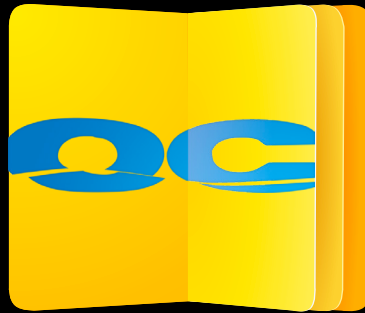While the S1 logbook is limited in storage, your Oceans logbook has no limits on number of logs.

COMPLETING YOUR DIVE LOG

Complete your imported dives in Oceans with additional data and share them with the community.

- In Oceans' timeline under RECENTLY IMPORTED, tap the blue EDIT button for each imported dive.
- Tap SELECT DIVE SITE to add a location to your dive. If applicable, add other options like buddies, observations and photos to your dive.
- Tap UPDATE DIVE to publish the dive to your Oceans' timeline and logbook.

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