deepblu

COSMIQ+ Dive Computer
Product Manual

Firmware Version 1.5

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SECTION 1 – INTRODUCTION

Congratulations with the purchase of your new COSMIQ⁺ Dive Computer!

The COSMIQ⁺ Dive Computer is designed to bring an entirely hassle-free diving experience to scuba divers and freedivers. In addition to providing you with the real-time information you need to dive safely, it also synchronizes wirelessly with the Deepblu app, allowing you to effortlessly create digital dive logs that you can keep as a memory or share with your peers.

1.1   KEY FEATURES

- Measures all vital dive data and performs decompression, saturation and desaturation calculations, for Standard Air and Nitrox dives.
- Decompression Algorithm based on the calculations on the Bühlmann ZHL-16C model.
- Three Safety Factor settings: Conservative, Normal or Progressive.
- Adjustable settings for Nitrox diving between 21% and 40%.
- Adjustable for diving in highly saline water.
- Dive Plan function for planning dives in advance.
- Freedive Mode built specifically for apnea/freediving.
- Bottom Timer Mode with resettable average depth and stage time (COSMIQ⁺ only).
- Gauge Mode with current depth and run time (Original COSMIQ only).
- Audible and visual alarms.
- Dive logbook saves dive data for up to 25 unsynchronized dives.
- Wireless synchronization with the Deepblu mobile app to create digital dive logs.
- Ability to adjust settings by syncing COSMIQ⁺ with the Deepblu mobile app.
- Free over-the-air (OTA) firmware upgrades.
- 2.2-inch high-contrast LCD screen with pixel-less EBTN technology.
- Rechargeable lithium-ion battery with magnetic USB connector.

1.2   ABOUT THIS MANUAL

Please take the time to read and digest this product manual and pay attention to all the instructions and warnings contained within. Save it for future reference. We recommend that you upload it to a cloud storage service or save it to your computer or mobile device to enable access to it anytime, wherever you are.

The COSMIQ⁺ Product Manual contains vital information for you to become familiar with your device. Ensure that you fully understand the displays, functions, settings and limitations that govern the use of this dive computer. If you have any questions about the Product Manual or the dive computer, contact the Deepblu Sales Ambassador or COSMIQ⁺ Reseller who sold you the dive computer, speak to a trained dive instructor or contact Deepblu's support team before diving with it.

Be mindful that you are responsible for your own safety. When used correctly, in accordance with your dive training and the instructions provided in this manual, the COSMIQ⁺ Dive Computer is a powerful instrument for supporting recreational/sport diving.

If you attempt to dive deeper than 40 meters/130 feet, do decompression or staged dives, or dive in any enclosed or challenging environments such as in caves, wrecks, ice, high altitude lakes, or any sort of penetration diving using trimix, or any other kind of air mix with oxygen levels lower than 21% or higher than 40%, or any technical diving, please DO NOT use this device as your primary recording device, gauge or computer.

1.3   ABOUT COSMIQ AND COSMIQ⁺

COSMIQ⁺ is a refresh of the original COSMIQ. The COSMIQ⁺ and COSMIQ are nearly identical, but the COSMIQ+ replaces Gauge Mode with Bottom Timer Mode, which adds average depth and secondary time reading. All other instructions in this manual apply to both the COSMIQ and the COSMIQ⁺ model.

1.4   COSMIQ⁺ FIRMWARE

Deepblu regularly releases improvements for your COSMIQ⁺ in the form of firmware updates. It is very important that you update the firmware on your COSMIQ⁺ each time an update is available, and Deepblu recommends you to update at your earliest convenience.

The firmware version currently installed on COSMIQ⁺ is indicated in the bottom-left corner of the display screen when your COSMIQ⁺ is in **Sync Mode** ⇄ .

To update the COSMIQ⁺ firmware:

- Pair your COSMIQ⁺ with the Deepblu app. For full instructions, please see Section 4.5 below.
- Go to COSMIQ Settings. If new firmware is available for your COSMIQ⁺, the application will offer to install it right away.
- Tap Yes to install now, or choose No to postpone the update until a better time.
- The update process takes 7–12 minutes depending on your handset. Both your COSMIQ⁺ and your phone need to remain on. Deepblu recommends keeping both devices charged while updating.

1.5   FIRMWARE UPDATE HISTORY

Please see the table below for details about each firmware update currently released to date, as well as the major functions and features which were improved or modified.

Release Date	Version	Changelog
April 12, 2017	1.5	• New brightness setting allows control over the backlight while diving • Power-saving mode dims to 10–30% depending on brightness setting • New pre-dive screen shows all your settings at a glance • New High salinity setting replaces Water type setting • Sync screen shows settings as they are adjusted in the Deepblu app
March 9, 2017	1.4	• Added power-saving mode which extends COSMIQ dive time by up to 15 minutes by decreasing brightness when the battery level shows empty • Improved power management decreases COSMIQ startup time after battery runs out while diving • Fixed extremely rare bug where COSMIQ would show incorrect safety stop time
February 7, 2017	1.3	• Fixed a rare bug where COSMIQ would sometimes forget safety setting after restart
January 25, 2017	1.2	• The 5m safety stop now also takes water type into account
December 12th, 2016	1.1	• Adjusted safety top initiation calculation. • Fixed incorrect surface interval display bug.
November 16th, 2016	1.0	• Added support for COSMIQ⁺. • Bottom Timer Mode introduced to replace Gauge Mode on COSMIQ⁺ model only. • Minor bugfixes.
October 23rd, 2016	0.9	• Added Water Type setting.
October 4th, 2016	0.8	• Added Altitude diving function. • Altered safety stop range to 3–6 meters/9–20 feet. • 'GAU' displayed when in Gauge Mode. • Deepest depth reading displayed in Gauge Mode. • MOD displayed in oxygen setting screen. • Altered the No Dive Time and dynamic lockout function. No Dive Time only causes lockout if it is over 1 hour with a Conservative/Normal Safety Factor setting. No lockout with a Progressive Safety Factor setting. • Minimum depth for Depth Alarm in Scuba Mode changed to 5 meters/16 feet.
July 20th, 2016	0.7	• Added deepest depth reding in Scuba Mode • Alarms added to remind users to charge COSMIQ's battery when the battery power is extremely low. • 'Err' warnings indicating a lockout from Scuba Mode changed to 'SUF', advising users to stay on the surface.
June 15th, 2016	0.6	• Added timeout setting for OTA firmware upgrade process. • Optimized battery consumption and adjusted battery power indicator.

May 24th, 2016	0.5	• Added Safety Factor function, allowing users to set COSMIQ's algorithm to Conservative, Normal or Progressive. • Added option to set PPO_2 level between 1.2 bar and 1.6 bar. • Added 'Err' display message in Dive Plan mode when Scuba Mode is locked. • NDL bar shown above the surface. • Time and depth of last freedive shown in Freedive Mode above the surface.
April 12th, 2016	0.4	• 'NO FrEE' display warning added to Freedive Mode after a dive in Scuba Mode. • No-Fly Time adjusted to 24 hours after a dive in Freedive Mode. • Added the ability access the Dive Plan function through Watch Mode. • Set the deepest depth to be shown in Dive Plan to 40 meters/130 feet or the maximum operating depth (MOD). • Modified the formula determining Surface Interval Time after a dive in Freedive Mode. • Surface Interval Time shown in both Watch Mode and Freedive Mode.
April 9th, 2016	0.3	• Restricted ability to shutdown COSMIQ to Watch Mode only.
March 25th, 2016	0.2	• COSMIQ able to show temperatures below -10°C/14°F. • Added automatic reboot function after upgrading firmware. • Introduced Scuba Mode lockdown if No Dive Time is over 30 minutes.

SECTION 2 – WARNINGS AND SAFETY MEASURES

NOTE: Always turn off your COSMIQ+ before flying, as changes in the pressure may cause it to start logging and exceed the no-decompression limit.

1. PLEASE CAREFULLY READ THE ENTIRE CONTENTS OF THE PRODUCT MANUAL BEFORE USING THE COSMIQ+ Dive Computer. Be sure that you fully understand the purpose, technical functions, settings and limitations of the COSMIQ+ Dive Computer before you dive with it. Failure to do so may cause you to misunderstand the instructions and failure to heed the warnings and instructions may cause you to engage in behavior that might lead to serious injury, harm, sickness or even death.

2. THE COSMIQ+ Dive Computer IS INTENDED TO BE USED FOR RECREATIONAL AND SPORT DIVING ONLY. It is not recommended for professional or technical diving, which require longer dive times and deeper depths than is recommended for recreational sport dives. Commercial or professional diving may subject the diver to depths and conditions that result in an increased risk of decompression illness and/or other pressure-related complications. Therefore, Deepblu strongly advises that the device not be used for any activities other than recreational/sport diving.

3. ONLY SCUBA DIVERS TRAINED AND CERTIFIED BY AN INTERNATIONALLY ACCREDITED DIVE AGENCY IN THE APPROPRIATE USE OF SCUBA EQUIPMENT AND TECHNIQUES, AND WHO ARE FAMILIAR WITH THE USE AND FUNCTIONS OF DIVE COMPUTERS, SHOULD USE THE COSMIQ+ Dive Computer FOR SCUBA DIVING. Using a dive computer is not a substitute for receiving adequate and proper training. Inadequate or improper training may cause a diver to engage in behavior that may lead to serious injury or death.

4. ONLY FREEDIVERS TRAINED AND CERTIFIED BY A RECOGNIZED AGENCY IN THE APPROPRIATE USE OF FREEDIVING TECHNIQUES SHOULD USE THE COSMIQ+ Dive Computer FOR FREEDIVING. Using a dive computer is not a substitute for receiving adequate and proper training. Inadequate or improper training may cause a diver to engage in behavior that may lead to serious injury or death.

5. USING COSMIQ+ DOES NOT REMOVE THE RISK OF DECOMPRESSION ILLNESS (DCI). The risk of decompression illness may still be present even with a dive profile based on dive tables or which is deemed safe by a dive computer. COSMIQ+ does not take into account the unique biological characteristics of individual divers, including physiological disposition, alcohol consumption, dehydration, or use of medication or other drugs, all of which may cause a diver to be more susceptible to decompression illness. Deepblu strongly advises that you dive safely within the limits prescribed by dive tables and COSMIQ+, and that you consult a doctor before diving to determine your fitness for diving.

6. THE COSMIQ+ Dive Computer DOES NOT REPLACE THE NEED FOR OTHER INSTRUMENTS. COSMIQ+ is intended to supplement the use of other instruments, including a depth gauge, pressure gauge, timer and watch. Deepblu further recommends that COSMIQ+ be used in conjunction with dive planning based on dive tables.

7. COSMIQ⁺ IS INTENDED FOR PERSONAL USE ONLY. It is NOT to be shared among divers during dives or exchanged between two dives in a series. The information displayed applies only to the diver who has been using it throughout a dive or series of dives, therefore the recorded information will not be accurate for someone who has not been using it continuously.

8. DO NOT USE COSMIQ⁺ FOR DIVES DEEPER THAN 40 METERS/130 FEET. Deepblu strongly recommends that divers do not dive below 40 meters/130 feet, the limits for recreational diving. Doing so greatly increases the risk of oxygen toxicity and decompression illness.

9. ALWAYS ENSURE THE PROPER FUNCTIONING OF COSMIQ⁺ BEFORE DIVING. Before diving, check the display screen to confirm that information is being displayed clearly. Toggle between modes to check that it is functioning properly. Additionally, make sure that there is sufficient battery power to complete your dive. DO NOT dive if the computer's display is not clearly visible, if it is frozen in one mode, or if the battery power is low.

10. WARNING: DO NOT ATTEMPT MULTI-GAS DIVING WITH COSMIQ⁺. The COSMIQ⁺ does not have the capability to support calculations for multi-gas diving and therefore should only be used for Standard Air or Nitrox dives.

SECTION 3 – COSMIQ+ DISPLAY REFERENCE GUIDE
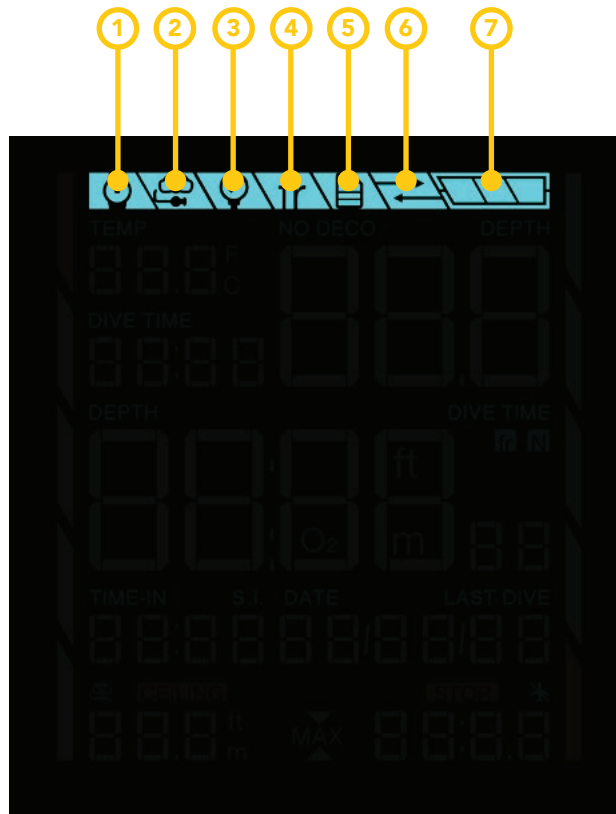
1. Watch Mode

2. Scuba Mode

3. Bottom Timer Mode (Gauge Mode on COSMIQ)

4. Freedive Mode

5. Log Mode

6. Sync Mode

7. Battery Power Indicator

WATCH MODE
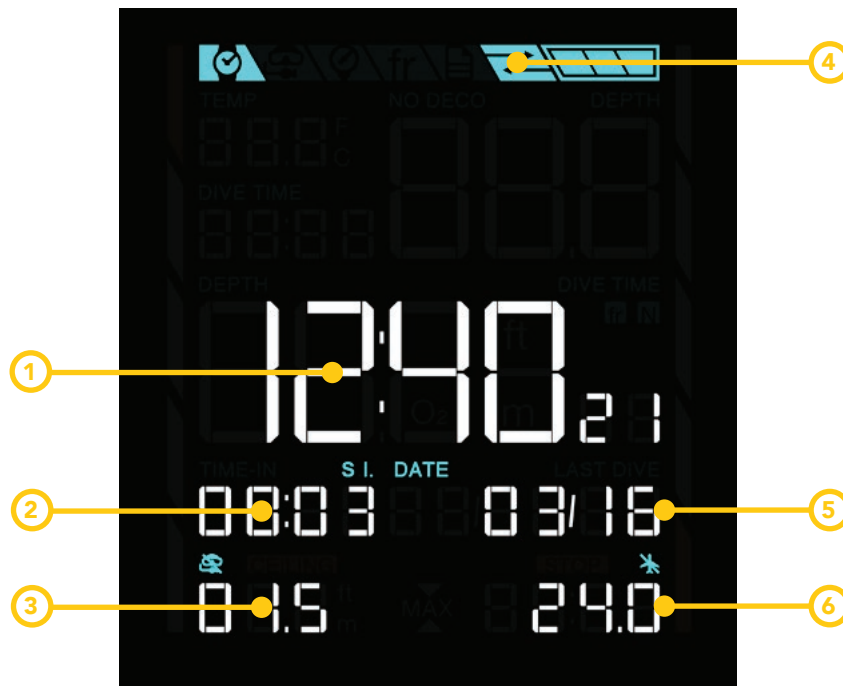
1. Current Time
2. Surface Interval S.I.
3. No-Dive Time in Hours
4. Icon Flashes if Memory is Full
5. Current Date or Last Dive Date
6. No-Fly Time in Hours

PLAN in WATCH MODE

1 Depth Input
2 Calculated NDL

SCUBA MODE
Showing dive settings before immersion

1. Partial Pressure of Oxygen (PPO$_2$)
2. Safety Factor
3. Air Mix
4. Surface Interval
5. No Dive Time in Hours
6. Unit (m/ft)
7. Default Mode Indication
8. Salinity/Altitude Indication
9. No-Fly Time in Hours

SCUBA MODE
During a dive
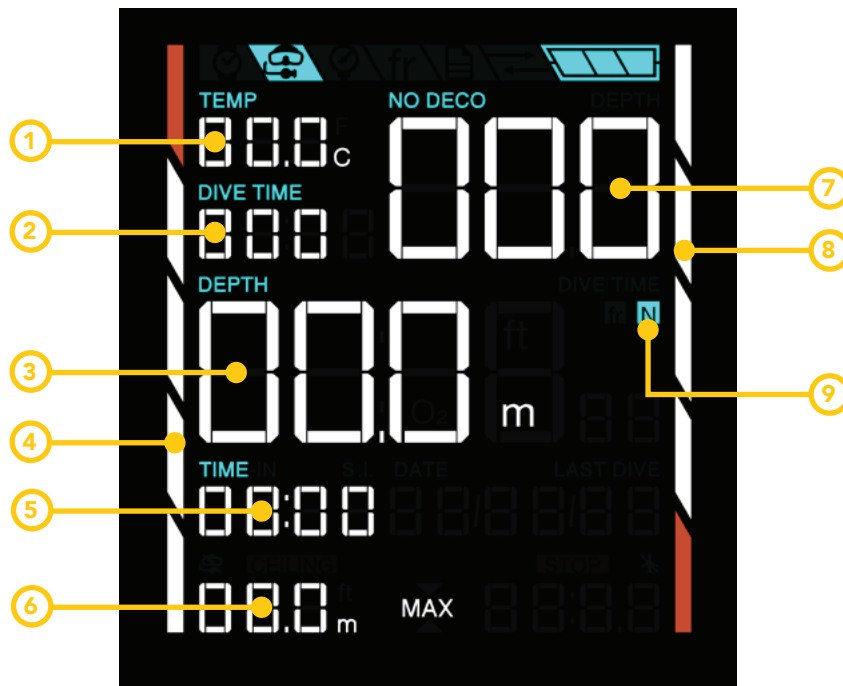
1. Current Water Temperature
2. Time Elapsed
3. Current Depth
4. Ascent Rate Indication
5. Current Time
6. Maximum Depth
7. No-Decompression Limit (NDL)
8. Visual NDL Indication
9. Nitrox Indication

SCUBA MODE
With warnings

1. Ceiling Depth
2. Ceiling Indication
3. MOD Exceeded/CNS Toxicity Warning
4. Decompression/Safety Stop Indication

BOTTOM TIMER MODE
(Gauge Mode on COSMIQ)
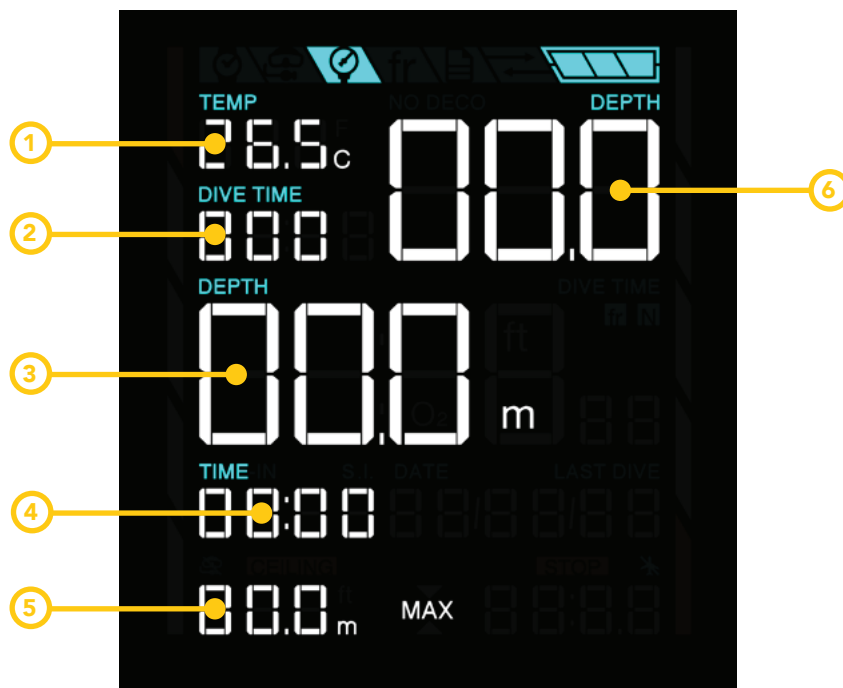
①	Current Water Temperature
②	Time Elapsed
③	Current Depth
④	Current Time
⑤	Maximum Depth
⑥	Average Depth

FREEDIVE MODE
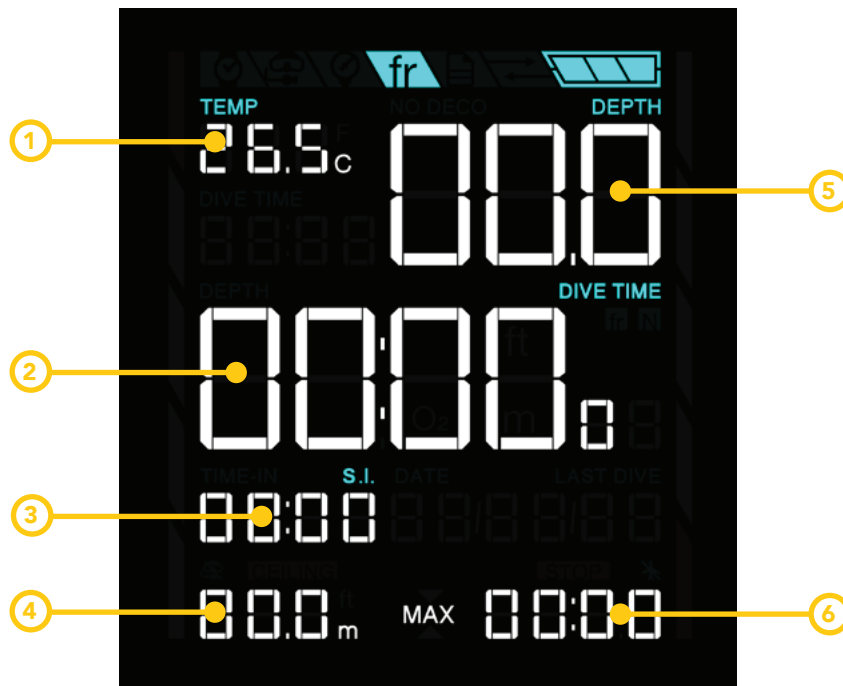
1. Current Water Temperature
2. Time Elapsed
3. Surface Interval
4. Maximum Depth of Previous Dive
5. Current Depth
6. Duration of Previous Dive

LOG MODE
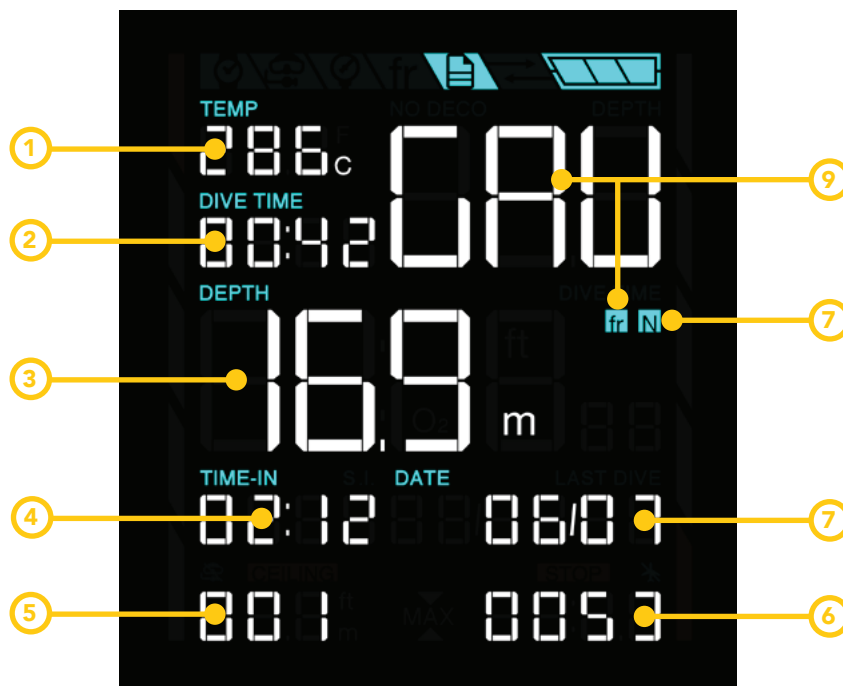
1 Water Temperature

2 Time Elapsed

3 Maximum Depth

4 Time in Water

5 Log Number

6 Total Number of Logs done with this COSMIQ

7 Dive Date

8 Nitrox Indication

9 Dive Type Indications
   - GAU: Gauge mode
   - bOt: Bottom timer mode
   - fr icon: Freedive mode
   - Nothing shown: Scuba mode

SYNC MODE

1. Partial Pressure of Oxygen (PPO$_2$)
2. Safety Factor
3. Sync Countdown Timer (Animation during Data Transfer)
4. Default Dive Mode Indication
5. Firmware Version
6. LCD Backlight Brightness Indication

SECTION 4 – OVERVIEW

4.1   OPERATING MODES

The functions of the COSMIQ⁺ Dive Computer are organized into 6 operating modes. You can always tell which mode COSMIQ⁺ is in by looking at the icon indicator at the top of the screen.

COSMIQ⁺ Operating Modes

- **Watch Mode**: The default mode for COSMIQ⁺. Time and date are displayed along with the battery level indicator. COSMIQ⁺ will enter **Standby** after 20 seconds of inactivity in **Watch Mode**. The Dive Plan function can be accessed from this mode.

- **Scuba Mode**: COSMIQ⁺ measures current depth, dive time, water temperature and performs all decompression calculations. It also monitors ascent rate and determines required stop times. COSMIQ⁺ monitors CNS oxygen toxicity and initiates visual and audible alarms to warn of potentially dangerous situations. Divers can pre-set the oxygen level between 21% and 40% and set a depth and/or time alarm. Before immersion, this screen will show your dive settings.

- **Bottom Timer Mode**: COSMIQ⁺ acts as a gauge and timer ONLY. It will not perform any calculations related to decompression, saturation or desaturation. COSMIQ⁺ also keeps track of your average depth and displays a secondary dive time, both of which can be reset by pressing the **ADJUST** button. **Scuba Mode** will be locked for 24 hours after a dive in **Bottom Timer Mode.** Note that this mode is not available in the original COSMIQ model that preceded the COSMIQ⁺.

- **Freedive Mode**: COSMIQ⁺ measures current depth, dive time and water temperature. Freedivers can set a Max Depth and/or Max Time alarm.

- **Log Mode**: Gives access to dive data from previous dives. Maximum depth, dive time, water temperature, run time, date and the number of the dive are all shown for each saved dive.

- **Sync Mode**: Use this mode to upload dive data from COSMIQ⁺ to the Deepblu app via Bluetooth. This screen will show a preview of your settings as well as the firmware version in the bottom-left corner of the screen.

4.2   BATTERY AND CHARGING

The COSMIQ⁺ has a lithium-ion battery that is rechargeable using the magnetic USB connector, which is compatible with standard USB (Type-A) ports.

Charge your COSMIQ⁺ before using it. To charge your COSMIQ⁺, connect the magnetic USB cable with the gold-plated contact points on the bottom of the COSMIQ⁺ and plug the USB charging cable into any standard USB (Type-A) port. Check the screen to ensure that the battery indicator is running on the battery icon. COSMIQ⁺ will enter into **Standby** during the charge period, but it will continue charging.

COSMIQ⁺ displays a battery power indicator that allows you to track the amount of battery power at all times and to give you advance warning of an impending need to charge the battery. The battery power indicator is visible in the top right hand corner of the display in all modes except **Standby**.

A fully-charged COSMIQ$^+$ battery will allow between 7 to 12 hours of dive time, depending on your backlight and power-saving settings. However, given the various factors that affect battery usage, it is best to exercise caution and charge your COSMIQ$^+$ as often as possible. The battery will last for 500 full-cycle charges of use before gradually diminishing in capacity.

Please see the following table for the technical details related to the battery status of your COSMIQ$^+$.

Battery Indicator	Battery Power	Status/Instruction
	60% – 100%	Battery power is at high level.
	30% – 60%	Battery power is at medium level.
	10% – 30%	Battery is at low level. Charge your COSMIQ$^+$ when possible.
battery indicator flashing	0% – 5%	Battery is about to expire. Power-saving mode will dim the screen while underwater. Safely conclude your dive. Do not begin a new dive until you have charged your COSMIQ$^+$.

When your COSMIQ$^+$ battery level is showing 0 segments, it will beep once every minute as a reminder that you should charge COSMIQ$^+$ immediately. It will also beep once right before it shuts down due to lack of battery power.

WARNING: DO NOT DIVE WITH YOUR COSMIQ$^+$ IF THE BATTERY LEVEL INDICATOR IS DISPLAYING 0 SEGMENTS. Doing so may cause your COSMIQ$^+$ to fail during a dive, and may lead to serious injury or death.

WARNING: THE REMAINING OPERATION TIME DEPENDS ON THE OVERALL HEALTH OF THE BATTERY. As with any lithium-ion battery, the battery of your COSMIQ$^+$ will gradually lose its capacity. Remaining operation time may therefore shorter than on your first use.

4.3   BUTTONS AND NAVIGATION

The COSMIQ$^+$ has two buttons used for navigation and setting selection. The buttons are used in the same way across all screens.

The left button is the **MODE** button. Press **MODE** to cycle through the operating modes and to confirm setting selections.

The right button is the **ADJUST** button. Press **ADJUST** to navigate within modes and to change settings.

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To turn on your COSMIQ$^+$, hold both buttons simultaneously for 3–5 seconds. To turn it off again, make sure it is in **Watch Mode** or **Standby**, and hold both buttons simultaneously for 3–5 seconds.

When turned on, COSMIQ$^+$ will enter into **Watch Mode**. As you press the **MODE** button, it will cycle through **Scuba Mode**, **Bottom Timer Mode** (**Gauge Mode** on the original COSMIQ), **Freedive Mode**, **Log Mode**, and **Sync Mode**.

4.4   STANDBY

The COSMIQ$^+$ automatically enters **Standby** after 20 seconds of inactivity in **Watch Mode** to conserve battery power. When it does, the screen goes blank but the computer is still active. Press any button to turn on the display and bring the computer out of **Standby**. You can adjust the time before your COSMIQ$^+$ enters **Standby** by changing the Screen Timeout setting in the **Settings** menu of the Deepblu app.

4.5   SETTING UP YOUR COSMIQ$^+$ USING THE DEEPBLU APP

The COSMIQ$^+$ has a built-in clock and calendar that are both customizable based on your location and the current date. Additionally, the measurement system can be set to the Metric system (meters/°C) or the Imperial system (feet/°F). When you receive your COSMIQ$^+$, the time and date will be set to UTC+8. The default distance measurement units will be set to the Metric system.

Syncing your COSMIQ$^+$ with the Deepblu mobile app is necessary to adjust the majority of your COSMIQ$^+$ settings, including time and date, measurement units, safety mode and so on.

Syncing with the app also necessary for creating digital dive logs and linking the product with your personal Deepblu account for registration and warranty purposes.

You MUST download and install the Deepblu App in order for COSMIQ$^+$ to operate properly. Only a limited number of settings can be changed directly on the COSMIQ$^+$.

Please follow these steps in order to set up and customize the settings for your COSMIQ$^+$:

Step 1: Install the Deepblu App
Download and install the Deepblu iOS App from the Apple App Store or the Deepblu Android App from the Google Play Store. Register for a Deepblu account or sign in using Facebook or with your email and create a personal profile.

Step 2: Pair COSMIQ$^+$ Using Blue-tooth
To use the Deepblu app to change the settings on your COSMIQ$^+$, you must pair your COSMIQ$^+$ with the app by establishing a Blue-tooth connection. It is very important that you are signed into your personal Deepblu account before you do this.

Next, ensure that Blue-tooth is enabled on your smartphone and place your COSMIQ$^+$ close to your smartphone. With COSMIQ$^+$, navigate to **Sync Mode** ⇄ using the **MODE** button. A countdown of 1 minute and 30 seconds will begin on the screen.

Now access the Deepblu app and press **COSMIQ$^+$** in the main menu. The app will automatically start to scan for your COSMIQ$^+$. Once it detects your COSMIQ$^+$, it will begin the pairing process. A running rectangle on the COSMIQ$^+$ screen shows that the devices are pairing.

When the pairing process is complete, the COSMIQ$^+$ Options menu will appear with 3 options:

• **Synchronize Logs**: Create dive logs using dive data from your COSMIQ$^+$.
• **COSMIQ$^+$ Settings**: Adjust the settings on your COSMIQ$^+$.
• **Rename COSMIQ$^+$**: Personalize your COSMIQ$^+$ by giving it a name.

You only need to pair COSMIQ$^+$ with your smartphone once. After it has been successfully paired the first time, your phone will automatically establish a Blue-tooth connection with your COSMIQ$^+$ when you sync them in the future.

Step 3: Perform Sync to Adjust Settings
After pairing your COSMIQ$^+$ with your phone, you can set your operation preferences. Make sure your COSMIQ$^+$ is in **Sync Mode** and choose **COSMIQ$^+$** from the Deepblu app's main menu. After establishing a connection, choose **COSMIQ$^+$ Settings**.

Below are the various preferences you can set. Preferences are automatically set on your COSMIQ$^+$ as you change them.

General
• **COSMIQ$^+$ Firmware:** Periodic firmware upgrades for your COSMIQ$^+$ will be made available for download. Press Update to upgrade the firmware on your COSMIQ$^+$.
• **Screen Timeout:** Adjust the time before COSMIQ$^+$ reverts to Standby in Watch Mode. The default is 20 seconds.
• **Measurement Units:** Change the distance and temperature units from the Metric system (meters/°C) to the Imperial system (feet/°F).
• **Default Dive Mode:** Set the diving mode that your COSMIQ$^+$ will activate when it detects immersion. Before diving, your COSMIQ$^+$ will show 'dF' when it is in the default mode.
• **Date Display:** Choose to show the current date or the date of your last dive in Watch Mode. The default setting is to display the current date.
• **High Salinity:** Turn this setting on when diving in extremely saline water. This is an advanced feature and not necessary for diving in most ocean and sea waters. The default is off.
• **Altitude:** Set the altitude settings for your dive. Depending on your location, you can set COSMIQ$^+$ to Sea Level or Above 300 meters/1000 feet. The default is Sea Level.
• **Backlight Brightness:** Increase or decrease the brightness of your display during a dive.
• **Power-Saving Mode:** If activated, the backlight brightness will be dimmed to 10%–30% (depending on your brightness setting) when the battery level drops below 5% during a dive.

Scuba Mode
• **Safety Factor:** Choose to alter the decompression calculation algorithm to Conservative, Normal or Progressive. The default is Normal.
• **Partial Pressure of Oxygen (PPO2):** Change the PPO2 limit from 1.2 bar to 1.6 bar. The default is 1.4 bar.

- **Air Mix:** Choose the oxygen level based on the type of gas being used in your cylinder (Standard Air or Nitrox). The minimum is 21% and the maximum is 40%. This setting can also be adjusted manually using COSMIQ⁺. The default is 21% (Standard Air).
- **Time Alarm:** Set an alarm to sound once you reach a certain dive time. You can set the Time Alarm between 10 minutes and 2 hours. The default Time Alarm is 1 hour.
- **Depth Alarm:** Set an alarm to sound once you reach a certain depth. You can set the Depth Alarm between 5 meters/16 feet and 50 meters/165 feet. The default Depth Alarm is 40 meters/130 feet.

Freedive Mode
- **Max Time Alarm:** Set an alarm to sound once you reach a certain dive time. The Max Time Alarm can be set from 30 seconds to 3 minutes. The default is set at 1 minute and 30 seconds. This setting can also be adjusted manually using COSMIQ⁺.
- **Max Depth Alarm:** Set an alarm to sound once you reach a certain depth. The Max Depth alarm can be set from 15 meters/50 feet to 80 meters/265 feet. The default is 15 meters/50 feet. This setting can also be adjusted manually using COSMIQ⁺.

4.6   SETTINGS ADJUSTABLE ON YOUR COSMIQ⁺

Most settings on your COSMIQ⁺ can only be adjusted using the Deepblu mobile app. Only the following settings can be changed manually on your COSMIQ⁺:

Scuba Mode
- Oxygen level (21% to 40%).

Freedive Mode
- Max Depth Alarm (15–50 meters/50–165 feet).
- Max Time Alarm (30 seconds to 3 minutes).

To change the above settings, use the **MODE** button to cycle to the corresponding operating mode. Press the **ADJUST** button repeatedly to adjust the setting. Press the **MODE** button to confirm.

In addition to changing the above settings, the **ADJUST** button can be used to access the following functions:

Watch Mode
- Dive Plan function: plan your next dive while taking residual nitrogen levels into account.

Log Mode
- Toggle between saved dive logs.

To access the Dive Plan and Dive Log functions, use the **MODE** button to toggle to the correct operating mode. Use the **ADJUST** button repeatedly to cycle through items within the mode. Press the **MODE** button to exit.

Please see below (Section 5) for a detailed description of each mode, and instructions for adjusting the settings within the various modes.

SECTION 5 – INSTRUCTIONS FOR USE

5.1   WATCH MODE

When activated at the surface, your COSMIQ$^+$ will go into **Watch Mode**, which displays the current time and date by default. You can change this settings so that COSMIQ$^+$ will show the date of your last dive instead by accessing **COSMIQ$^+$ Settings** from the Deepblu app.

A flashing Sync icon ⇄ in **Watch Mode** means that the log memory is full. Synchronize your COSMIQ$^+$ with the Deepblu app to prevent your logs from being overwritten by new logs.

5.1.1 Dive Plan Function

The Dive Plan function allows you to prepare for an upcoming dive by calculating how long you can safely remain at various depths without surpassing no-decompression limits and requiring a decompression stop. As you scroll through the various depths, a corresponding no-decompression limit will show.

The Dive Plan function can be accessed before your first dive as well as during a surface interval between dives. During a surface interval, or within 24 hours of a previous dive, COSMIQ$^+$ takes into account the calculated residual nitrogen levels in your body when determining no-decompression limits. COSMIQ$^+$ also takes into consideration the the percentage of oxygen in the gas you will be breathing, calculating no-decompression limits based on the percentage of oxygen currently set in **Scuba Mode**.

5.1.2 Planning a Dive

To access the Dive Plan function, press the **ADJUST** button one time when your COSMIQ$^+$ is in **Watch Mode** or two times if it is in **Standby**. You will hear a beep and the screen will change to show the word 'PLAN' as well as a value for depth and a value for the corresponding no-decompression limit.

When you first enter the Dive Plan screen the minimum depth displayed is 9 meters/30 feet. It is visible in the bottom left corner of the display screen. Press the **ADJUST** button to scroll though different depths in increments of 1 meter/3 feet. The deepest depth it will display is 40 meters/135 feet. You can hold the **ADJUST** button to toggle through the depth and time continuously.

The corresponding no-decompression limit is displayed in minutes in the bottom right corner of the display screen. No-decompression limits will be shorter depending on the presence of residual nitrogen in your body. COSMIQ$^+$ will show a series of three horizontal dashes (- - -) instead of a time value if the no-decompression limit is greater than 300 minutes.

The Dive Plan function will not display depths beyond the no-decompression limit or beyond the maximum operating depth (MOD). If you reach a depth with a corresponding no-decompression limit of zero (0), or if a combination of depth and oxygen level exceeds the safe MOD, the depth will revert to 9 meters/30 feet and restart the cycle. Always limit your dive plan to depths shallower than the deepest depth displayed in the Dive Plan screen.

When you are finished using the Dive Plan function, press the **MODE** button at any time to switch back to **Watch Mode**.

WARNING: DO NOT PLAN DIVES DEEPER THAN THOSE FOR WHICH COSMIQ$^+$ DOES NOT DISPLAY A NO-DECOMPRESSION LIMIT. Doing so greatly increases your chances of exceeding no-decompression limits and may cause decompression sickness or central nervous system oxygen toxicity which can lead to serious injury or death.

5.2   SCUBA MODE

In **Scuba Mode**, your COSMIQ$^+$ will perform decompression calculations and assist you with assist you through any mandatory decompression stops if the no-decompression limit is exceeded. You can also set the oxygen level in your air mixture.

5.2.1 Preparing to Dive

Before immersion, your COSMIQ$^+$ will display an summary of the settings that influence the decompression calculations. It is important that you check these carefully before entering the water.

There are two ways to prepare for a dive in **Scuba Mode**: water activation or manual activation.

Water activation: If **Scuba Mode** is your default dive mode, then simply enter in the water when your COSMIQ$^+$ is in Standby or **Watch Mode**. Your COSMIQ$^+$ will automatically activate **Scuba Mode** once you descend past 2 meters/6.5 feet.

Manual activation: Alternatively, navigate to **Scuba Mode** using the **MODE** button. Your COSMIQ will show you an overview of all your dive settings (see section 3 above). Enter the water and begin your descent while in **Scuba Mode**.

NOTE: On the surface, the COSMIQ$^+$ refreshes its sensors and captures data at 15 second intervals in **Watch Mode**. Therefore, there may be a slight delay between descending below 2 meters/6.5 feet and **Scuba Mode** activating. During a dive, the sampling rate for the COSMIQ$^+$ is 1 second.

5.2.2 Adjusting the Oxygen Settings

COSMIQ$^+$ is programmed with a default oxygen level of 21%. You can change the oxygen level based on the air mixture you will be breathing—Standard Air or Nitrox—with the default being 21% and the maximum 40%. Oxygen levels have to be set on the surface BEFORE the descent. It is not possible to adjust the oxygen settings during a dive.

There are two ways to adjust the oxygen settings on your COSMIQ$^+$:
1. Directly on the COSMIQ$^+$ (see below)
2. Using the Deepblu app (see above section 4.5)

Using COSMIQ$^+$ to adjust the oxygen settings:

You can change the oxygen settings on COSMIQ$^+$ based on the air mixture in your cylinder before a dive begins. Remember to always check that the air mixture in your cylinder matches the percentage input into COSMIQ$^+$.

To change the settings for oxygen level, use the **MODE** button to enter into **Scuba Mode**. Once you are in **Scuba Mode**, press the **ADJUST** button to change the oxygen level. The default is 21% and the maximum amount is 40%. Press the **ADJUST** button repeatedly to achieve the desired percentage. You can hold the **ADJUST** button to toggle continuously.

When you reach the correct percentage, press the **MODE** button to save your changes and return to the **Scuba Mode** screen. The Nitrox icon will be displayed in **Scuba Mode** when the oxygen level is set above 21%.

As you adjust the oxygen level, a depth reading will appear in the bottom left corner of the display screen. This is the corresponding maximum operating depth (MOD) for that paticular oxygen level. Keep this depth in mind, especially when diving with Nitrox, and do not dive below the MOD. Diving below the MOD can lead to oxygen poisoning.

Note: The settings for oxygen level remain the same indefinitely until you change them. So the default is 21% and will remain so until you change it. If you make a change to 36% before your first dive, it will remain at 36% for your second and third dives unless you change it.

WARNING: ONLY DIVERS WHO HAVE RECEIVED SPECIALIZED TRAINING FROM A RECOGNIZED AGENCY SHOULD DIVE WITH NITROX. Diving with Nitrox poses risks that are different from those associated with using Standard Air, and therefore require specialized training. Nitrox diving without proper training may result in errors that can lead to death or serious injury.

WARNING: DO NOT CONDUCT A NITROX DIVE WITHOUT FIRST CHECKING YOUR CYLINDER(S) AND ENTERING THE OXYGEN PERCENTAGE INTO COSMIQ⁺. Failure to authenticate the contents of your cylinder and set the appropriate oxygen percentage will cause COSMIQ⁺ to calculate and display inaccurate information.

5.2.3 Safety Factor

The Safety Factor controls the decompression algorithm COSMIQ⁺ uses to perform decompression calculations. It allows you to set the level of conservativeness based on your personal preference and unique risk factors. There are three levels to choose from: Conservative, Normal and Progressive. The Safety Factor can only be changed through the Deepblu app. Sync COSMIQ⁺ and access **COSMIQ⁺ Settings** in the main menu of the Deepblu app to adjust the Safety Factor.

5.2.4 Partial Pressure of Oxygen (PPO$_2$)

COSMIQ⁺ is originally set to a PPO$_2$ level of 1.4 bar in order to ensure maximum safety. The PPO$_2$ level is adjustable between 1.2 bar and 1.6 bar, in intervals of 0.1 bar. The PPO$_2$ settings can only be changed through the Deepblu mobile app. Sync COSMIQ⁺ and access **COSMIQ⁺ Settings** in the main menu of the Deepblu app to adjust the PPO$_2$ level.

5.2.5 During a Dive

When COSMIQ⁺ detects pressure at 2 meters/6.5 feet it will begin recording dive data and calculating the decompression schedule for the dive. COSMIQ⁺ will lock into **Scuba Mode**, disabling the **MODE** and **ADJUST** buttons for the duration of the dive. No settings can be changed and no other modes can be accessed during a dive.

During a dive within the no-decompression limit using Standard Air (21% oxygen) the following information will be displayed on screen:

- Current time (Time in hours:minutes)
- Water temperature (Temp in °C/°F)
- Current depth (Depth in meters/feet)
- Deepest depth (Max in meters/feet)
- Dive time (Dive Time in minutes)
- No-decompression limit (No Deco in minutes)
- No-decompression limit bar (graphic bar on right hand side)
- Ascent rate bar (graphic bar on left hand side)
- Safety stop time (in seconds) and stop indicator. This will be shown only at a depth of 3–6 meters or 10–20 feet

During a dive within the no-decompression limit using Nitrox (above 21% oxygen) all of the above information will be shown in addition to the Nitrox icon .

5.2.6 Central Nervous System Oxygen Toxicity

COSMIQ$^+$ constantly monitors your exposure to oxygen, by estimating the amount of oxygen in your body and how it affects your central nervous system (CNS). Your CNS oxygen toxicity level is calculated in accordance with your exposure to high partial pressure of oxygen (PPO$_2$) levels. It is represented as a percentage ranging from 0% to 100%. Oxygen toxicity levels reaching 100% are considered dangerous and should therefore be avoided.

If COSMIQ$^+$ calculates a CNS level of 80%, the alarm will sound. The letters 'CNS' will flash on the screen along with the arrow indicator instructing you to ascend to a shallower depth. The alarm will become more frequent if you do not ascend to a shallower depth and the calculated CNS level increases to 85% or higher.

In the case of a CNS alarm, you should conduct a safety stop and end the dive immediately.

WARNING: NEVER ALLOW YOUR OXYGEN TOXICITY LEVEL TO REACH 100%. Doing so may cause your body to suffer from convulsions, which can lead to injury and death from drowning.

5.2.7 Maximum Operating Depth

COSMIQ$^+$ also calculates the safe maximum operating depth (MOD)—a depth limit, below which the PPO$_2$ level in the gas mixture you are breathing may become toxic. The MOD is determined based on both the PPO$_2$ limit and the percentage of oxygen you've set. Diving below the MOD may lead to oxygen poisoning and should therefore be avoided.

You can determine your MOD for an upcoming dive by accessing the oxygen setting screen. Navigate to **Scuba Mode** and press the **ADJUST** button. The MOD will be displayed in the bottom left corner of the display screen. As you change the oxygen level the MOD will change accordingly.

If you dive below the MOD during a dive, the alarm will sound and 'PO2' will flash on the screen along with the arrow indicator instructing you to ascend to a shallower depth. The alarm will continue to sound until you ascend above the MOD.

In the case of an MOD alarm, you must obey the alarm warnings and ascend to a shallower depth. Consider ending the dive.

WARNING: DO NOT EXCEED THE MAXIMUM OPERATING DEPTH (MOD). Exceeding the MOD greatly increases the risk of oxygen toxicity, which may cause convulsions and drowning.

WARNING: ONLY DIVERS WHO HAVE RECEIVED SPECIALIZED TRAINING FROM A RECOGNIZED AGENCY SHOULD DIVE WITH NITROX. Diving with Nitrox poses risks that are different from those associated with using Standard Air, and therefore require specialized training in order to understand and avoid. Nitrox diving without proper training may result in errors that can lead to death or serious injury.

5.2.8 Ascent Rate

COSMIQ⁺ monitors your ascent rate at all times throughout a dive. Your ascent rate is represented by a graphic bar on the left of the screen. The COSMIQ⁺ algorithm considers an ascent rate slower than 12 meters/40 feet per minute to be safe. If the safe ascent rate is exceeded, the alarm will sound and will continue to beep until you slow your ascent. The ascent rate bar operates according to the table below:

Ascent Rate	Ascent Speed
No bars	Slower than 4 meters/13 feet per minute
1 bar	4–6 meters per minute 13–20 feet per minute
2 bars	6–8 meters per minute 20–26 feet per minute
3 bars	8–10 meters per minute 26–33 feet per minute
4 bars	10–12 meters per minute 33–40 feet per minute
5 bars	Faster than 12 meters per minute Faster than 40 feet per minute

WARNING: NEVER ASCEND FASTER THAN THE SAFE ASCENT RATE OF 12 METERS/40 FEET PER MINUTE. Faster ascents may increase the chance of decompression illness.

5.2.9 Safety Stop

COSMIQ⁺ is programmed to automatically count a safety stop at the end of each dive. A 3-minute (180 seconds) safety stop should be conducted between 3–6 meters/10–20 feet at the end of every dive.

If you exceed 9 meters/30 feet, COSMIQ⁺ will consider this a dive, and will therefore begin automatically counting the safety stop once you reach a depth of 6 meters/20 feet.

If you dive between 6–9 meters (20–30 feet) for less than 10 minutes, or if you do not exceed 6 meters/20 feet, COSMIQ⁺ will consider this a shallow dive and therefore will not count a safety stop time.

The Stop Countdown Time will be displayed under the Stop indicator in the bottom right corner of the display screen when COSMIQ⁺ detects a depth of 6 meters/20 feet. It will be counted downwards in minutes and seconds. The countdown will continue as long as you remain within a range of 3–6 meters/10–20 feet. If you ascend above or descend below that depth range, the countdown will pause until you return to the depth range, at which point it will continue the countdown.

5.2.10   Exceeding the No-Decompression Limit

During a dive in **Scuba Mode**, the no-decompression time limit (NDL) is visible in the top right hand corner of the screen underneath the 'No Deco' indicator. The no-decompression limit is represented by a graphic bar on the right of the screen. The bar represents the no-decompression limit according to the following formula:

NDL Graphic Bar	No-Decompression Limit
0 bars	NDL exceeded
1 bar	0–5 min
2 bars	5–15 min
3 bars	15–30 min
4 bars	30–60 min
5 bars	> 60 min

COSMIQ⁺ will sound an alarm when you are nearing the no-decompression limit. The alarm will begin 3 minutes before the no-decompression limit is reached. It will then sound every minute until the no-decompression limit is exceeded.

In the event of exceeding the no-decompression limit, the letters 'CEL' will flash on the screen. Additionally, the following information will be displayed in order to assist you with safely performing a mandatory decompression stop:

- Ceiling indicator
- Ceiling Depth (meters/feet)
- Stop indicator
- Stop Countdown Time (minutes)

The Ceiling Depth value will be shown under the Ceiling indicator in the bottom left corner of the display screen. The Ceiling Depth value represents the shallowest depth to which you can ascend to in order to complete a decompression stop. Do not ascend above this depth before completing your decompression stop.

Additionally, the Stop Countdown Time will flash on the display screen under the Stop indicator, in the bottom right corner of the display screen. The arrow icon will appear instructing you to ascend to the ceiling depth.

The alarm will beep 10 times for a duration of 20 seconds and will continue this cycle every 10 seconds for a total of 3 minutes. The Ceiling Depth and Stop Countdown Time will both flash at the same time.

If you begin to ascend quickly after the NDL violation, the Ceiling Depth and Stop Countdown Time values may disappear from the screen if COSMIQ⁺ calculates that your nitrogen levels have receded back to safe levels. You should still conduct a regular safety stop at the end of your dive.

If you do not begin to ascend soon after exceeding the NDL, the decompression stop will become mandatory. The Ceiling Depth value and the Stop Countdown Time will continue to flash until you ascend to the ceiling depth and conduct a decompression stop.

Obey the warnings and ascend to the ceiling depth to complete a decompression stop in accordance with the time shown on the Stop Countdown Time. Do not ascend above the ceiling depth until the Stop Countdown Time has elapsed. Once the stop countdown time is over, it is safe to ascend to the next ceiling depth (if required) or to the surface.

WARNING: STAY WITHIN THE NO-DECOMPRESSION LIMIT AND AVOID DIVES THAT REQUIRE DECOMPRESSION STOPS. Deepblu advises against exceeding no-decompression time limits and dives that require decompression stops. In the event that you exceed the no-decompression time limit and a decompression stop is required, you should begin your decompression stop immediately. Remember to never ascend above the ceiling depth until your decompression stop is complete.

WARNING: IN THE EVENT OF EXCEEDING THE NO-DECOMPRESSION LIMIT, ALWAYS CONDUCT A DECOMPRESSION STOP AND DO NOT ASCEND ABOVE THE CEILING DEPTH UNTIL YOU HAVE COMPLETED THE REQUIRED STOP(S). Follow the instructions above, and conduct the necessary decompression stop in accordance with the Ceiling Depth and Stop Countdown Time values displayed on COSMIQ⁺.

5.2.11 After a Dive

Upon surfacing from a dive, COSMIQ⁺ will remain in **Scuba Mode** for 2 minutes. If you surface for less than 2 minutes and then descend again, COSMIQ⁺ will consider this a continuation of the previous dive and the calculations and measurements will continue from where they left off.

After 2 minutes, COSMIQ⁺ will begin to count the Surface Interval Time. It will be displayed on the **Watch Mode** screen and counted upwards in hours and minutes. Any additional descent will be considered a new dive.

When no pressure is detected by COSMIQ⁺ for 3 minutes upon surfacing from a dive, it will switch automatically to **Watch Mode**.

The dive data recorded during each dive will be logged and accessible in **Log Mode**.

After every dive, the No-Fly icon will be shown in the bottom right corner of the display screen. The No-Fly Time is dynamic and is based on the calculations of your desaturation time according to your actual dive profile. The No-Fly Time will be counted downwards every half hour. Avoid flights and travel to high altitudes

WARNING: DO NOT BOARD A PLANE IF THE 'NO-FLY' ICON IS SHOWING ON THE COSMIQ⁺ DISPLAY SCREEN. Flying while COSMIQ⁺ displays the No-Fly symbol may result in serious injury or death.

5.2.12 No-Dive Time/Dynamic Lockout

COSMIQ⁺ constantly tracks the estimated level of nitrogen in your body based on the dive profile of all dives in a series. Upon surfacing from a dive, COSMIQ⁺ may display a No-Dive Time value underneath the No-Dive icon in the bottom left corner of the display screen.

The No-Dive Time function was designed as a safety measure to encourage divers to conduct a surface interval for a minimum amount of time, to allow for the offloading of nitrogen gas before any additional dive in a series.

The No-Dive Time represents the estimated amount of time it will take for the nitrogen levels in your tissues to return to normal, safe levels. The No Dive Time is counted downwards in half-hour intervals, so 30 minutes is represented as 0.5 and 1 hour is represented as 1.0.

For most recreational divers, especially those that stay within the no-decompression limits, the No-Dive Time will almost always be under 30 minutes.

For dives where the no-decompression limit is exceeded and decompression stops are performed properly, it is also unlikely that the No-Dive Time will be over 30 minutes, although it is still possible depending on the dive profile.

Finally, for a dive that exceeds the NDL, and where decompression stops are not performed properly (for example, if the diver ascends above the ceiling depth before the Stop Countdown Time has elapsed and fails to descend back to the ceiling depth range within 3 minutes), the No-Dive Time is likely to be 30 minutes or more.

Depending on the Safety Factor setting you dive with, a No-Dive Time may lead to a lockout. This is to encourage you to conduct a surface interval for the minimum amount of time represented by the No-Dive Time. The lockouts are dynamic and only last for the duration of the No-Dive Time.

When COSMIQ⁺ is locked, **Scuba Mode** will be inactive and any dive attempted during a lockout will be conducted in **Bottom Timer Mode**.

With a Conservative or Normal Safety Factor:

If your No-Dive Time is longer than 1 hour, COSMIQ⁺ will display the mandatory surface interval screen with the letters 'SUF' and will go into lockdown after you reach the surface. The letters 'SUF' are a reminder that you should stay on the surface in order to allow for nitrogen desaturation. The length of the lockdown time will depend on calculations of residual nitrogen levels in your body, and is equal to the No-Dive Time value.

A lockout will only kick in when the No-Dive Time is calculated to be 1 hour or longer. This means that the lockout will most likely only happen after a decompression dive where the NDL was exceeded and decompression stops were not properly performed.

With a Progressive Safety Factor:

COSMIQ⁺ will not lockdown no matter how long the calculated No-Dive Time is. The No-Dive icon will be displayed along with a No-Dive Time value, but these will serve as a recommendation only for the minimum surface interval which should be conducted. You will still be able to conduct a dive in **Scuba Mode** and COSMIQ⁺ will continue to measure nitrogen loading and oxygen exposure.

WARNING: DO NOT DIVE WHEN THE NO-DIVE ICON AND A NO-DIVE TIME VALUE ARE SHOWN. Diving while COSMIQ⁺ displays the No-Dive icon and a No-Dive Time value may result in increased risk of decompression illness, serious injury or death.

5.3   GAUGE/BOTTOM TIMER MODE

When diving with **Bottom Timer Mode**, only depth, time and temperature are measured. No decompression calculations are done in **Bottom Timer Mode**. Use this mode when COSMIQ⁺ is being used as a secondary dive computer or as a depth gauge and timer only. **Note: in the original COSMIQ model, this mode was called Gauge Mode**.

COSMIQ⁺ will also keep track of average depth and display a secondary time, which are useful to monitor staged dives, for example where you need to make decompression stops. COSMIQ⁺ will start tracking these values when the bottom timer kicks in at the beginning of the dive and both of these measurements can be reset at any time by pressing the **ADJUST** button.

5.3.1 Bottom Timer Mode – Preparing to Dive

There are two ways to prepare for a dive using **Bottom Timer Mode**: water and manual activation.

Water activation: If **Bottom Timer Mode** is your default dive mode, simply enter the water when COSMIQ⁺ is in **Standby** or **Watch Mode**. COSMIQ⁺ will automatically activate **Bottom Timer Mode** once you descend past 2 meters/6.5 feet.

Manual activation: If **Bottom Timer Mode** is not your default dive mode, you must activate it manually before commencing your dive. Navigate to **Bottom Timer Mode** using the **MODE** button. Enter the water and begin descent while in **Bottom Timer Mode**.

When doing manual activation, remember to navigate to **Bottom Timer Mode** less than 3 minutes before you begin your descent. If you set COSMIQ$^+$ to **Bottom Timer Mode** more than 3 minutes before you descend, COSMIQ$^+$ will revert back to **Watch Mode**, and will therefore automatically switch to the default dive mode upon detection of pressure.

NOTE: On the surface, COSMIQ$^+$ refreshes its sensors and captures data in 15-second intervals. Therefore, there may be a slight delay between descending below 2 meters/6.5 feet and **Bottom Timer Mode** activating. During a dive, the sampling rate in **Bottom Timer Mode** is 1 second.

5.3.2 Bottom Timer Mode – During a Dive

Once you descend past 2 meters/6.5 feet, COSMIQ$^+$ will lock into **Bottom Timer Mode**. The **MODE** button will be disabled for the duration of the dive. No other modes can be accessed during the dive. When you commence a new stage, press **ADJUST** to reset the average depth and secondary dive time.

During a dive using **Bottom Timer Mode**, the following information will be displayed:
  - Current depth (Depth in meters/feet)
  - Average depth (Depth in meters/feet; replaces the letters 'BOT'; resettable)
  - Deepest depth (Max in meters/feet)
  - Dive time (Dive Time in minutes)
  - Secondary dive time (Time in minutes:seconds; resettable)
  - Water temperature (Temp in °C/°F)
  - Current time (Time in hours:minutes)
  - Ascent rate bar

NOTE: Average depth and stage time were introduced in the COSMIQ$^+$ Bottom Timer Mode and are not available in the original COSMIQ model's gauge mode.

5.3.3 Bottom Timer Mode – After Diving

Upon surfacing from a dive, COSMIQ$^+$ will remain in **Bottom Timer Mode** for 2 minutes. If you surface for less than 2 minutes and then descend again, COSMIQ$^+$ will consider this a continuation of the previous dive and the calculations and measurements will continue from where they left off.

After a dive in **Bottom Timer Mode**, COSMIQ$^+$ will begin to count the Surface Interval Time. It will be displayed on the screen when COSMIQ$^+$ is in **Watch Mode**.

Dive data recorded during the dive will be saved in **Log Mode**.

When no pressure is detected by COSMIQ$^+$ for 3 minutes upon surfacing from a dive, it will switch automatically to **Watch Mode**.

5.3.4 Lockdown for 24 Hours

After completing a dive in **Bottom Timer Mode**, **Scuba Mode** will be locked for the next 24 hours.

The letters 'SUF' will appear on the screen when COSMIQ⁺ is in **Scuba Mode** and it will not be functional. COSMIQ⁺ will not be able to perform any decompression, saturation or desaturation calculations for 24 hours after a dive in **Bottom Timer Mode**. If you attempt a dive while **Bottom Timer Mode** is locked, it will automatically switch to **Bottom Timer Mode** upon detection of pressure. Additionally, the letters 'SUF' will appear on the screen when you access the Dive Plan function and it will not be functional either. **Bottom Timer Mode** may still be used during this period of time.

5.4 FREEDIVE MODE

Freedive Mode is designed specifically for apnea/freediving. During a dive, COSMIQ⁺ measures the current depth, dive time and water temperature. You can set a Max Depth and/or Max Time alarm.

5.4.1 Freedive Mode – Preparing to Dive

There are two ways to prepare for a dive in Freedive Mode: water activation or manual activation.

Water activation: If **Freedive Mode** is your default dive mode, then simply enter in the water when COSMIQ⁺ is in Standby or **Watch Mode**. COSMIQ⁺ will automatically activate **Freedive Mode** once you descend past 2 meters/6.5 feet.

Manual activation: If **Freedive Mode** is not your default dive mode, you must activate it manually. Navigate to Freedive Mode using the **MODE** button. Enter the water and begin descent while in **Freedive Mode**.

NOTE: On the surface, COSMIQ⁺ refreshes its sensors and captures data at 15 second intervals. Therefore, there may be a slight delay between descending below 2 meters/6.5 feet and **Freedive Mode** activating. During a dive, the sampling rate in **Freedive Mode** is 1 second.

When you navigate to **Freedive Mode**, COSMIQ⁺ will stay in **Freedive Mode** for 30 minutes. It will enter **Standby** after 10 minutes, turning off the screen, but it will remain active in **Freedive Mode**, ready to activate upon detection of pressure. After 30 minutes of inactivity in **Freedive Mode** COSMIQ⁺ will revert back to **Watch Mode**.

5.4.2 Setting Alarms for Maximum Depth and Maximum Time

You can set alarms for maximum time and maximum depth in **Freedive Mode**. There are two ways to set the Max Depth and Max Time in **Freedive Mode**:
1. Using COSMIQ⁺ (see below)
2. Using the Deepblu mobile app (see above section 4.5)

To set the Max Depth and Max Time alarms using COSMIQ⁺, navigate to **Freedive Mode** using the **MODE** button. Once in **Freedive Mode**, press the **ADJUST** button to access the maximum depth settings. The minimum is 15 meters/49 feet and the maximum is 80 meters/265 feet. Press the

ADJUST button repeatedly to achieve the desired depth. Each time you press **ADJUST**, the depth will increase by 5 meters/16 feet. When you reach the desired depth, press the **MODE** button to save your changes.

Next, press the **ADJUST** button to set the maximum time. Press the **ADJUST** button repeatedly to achieve the desired time. The minimum is 30 seconds and the maximum is 3 minutes. Each time you press **ADJUST**, the time will increase by 10 seconds. Press the **MODE** button to save your changes and return to **Freedive Mode**.

You can hold the **ADJUST** button to toggle through the depth and time continuously.

5.4.3 Freedive Mode – During a Dive

Once pressure is detected, COSMIQ⁺ will lock into **Freedive Mode**. The **MODE** and **ADJUST** buttons will be disabled for the duration of the dive. No settings can be changed and no other modes can be accessed during the dive.

During a dive using **Freedive Mode**, the following information will be displayed:
- Current depth
- Dive time
- Water temperature

During a dive, once you reach the depth set on your Max Depth alarm, the alarm will beep continuously until you ascend above that depth.

When you reach the dive time set on your Max Time alarm, the alarm will sound for 6 cycles of 3 beeps per cycle.

5.4.4 Freedive Mode – Surface Interval

Upon surfacing from a dive in **Freedive Mode**, COSMIQ⁺ will begin to count the Surface Interval Time. It will be displayed on the display screen in **Freedive Mode** and **Watch Mode**.

COSMIQ⁺ will calculate a safe Surface Interval Time for you based on the profile of your last dive. The Surface Interval Time is calculated according to a formula that is designed to ensure maximum safety. The formula is as follows:

Surface Interval Time = (max depth / 10 + 1) x dive time

An alarm will sound halfway through the surface interval, as well as at the end of the surface interval.

For example, if you dove to 30 meters/99 feet for a total of 2 minutes, your safe Surface Interval Time will be 8 minutes. The first alarm will sound 4 minutes after your dive. The second alarm will sound after 8 minutes.

COSMIQ⁺ considers the minimum safe Surface Interval Time to be 3 minutes. For example, if you dove to 15 meters/50 feet for a total of 1 minute, technically your safe Surface Interval Time will be 2 minutes and 30 seconds, but COSMIQ⁺ will count your Surface Interval Time as 3 minutes. The first alarm will sound at 1 minute and 30 seconds, and the second alarm will sound at 3 minutes.

5.4.5 Freedive Mode – After Diving

After 30 minutes of inactivity in **Freedive Mode**, COSMIQ$^+$ will switch automatically to **Watch Mode** to display the current time and Surface Interval Time. The deepest depth you dove to and your dive time will be shown in **Freedive Mode** after the dive.

Dive data recorded during the dive will be logged in **Log Mode**.The No-Fly icon ✈ and the No-Fly Time will also be displayed, counting down for 24 hours from the last dive.

5.4.6 Mixing Scuba Diving and Freediving

Deepblu recommends that you do not attempt to mix scuba diving and freediving on the same day. As a result, if you attempt to enter **Freedive Mode** after completing a dive in **Scuba Mode**, the letters 'NO FrEE' will appear on the screen. The purpose of this warning is to remind you of the dangers associated with mixing freediving and compressed gas diving on the same day.

You may still use COSMIQ$^+$ for a freedive, and **Freedive Mode** will still function properly, but Deepblu strongly recommends against freediving on the same day as a scuba diving. Remember, you are responsible for your own safety.

WARNING: FREEDIVING AND SCUBA DIVING SHOULD NOT BE CONDUCTED ON THE SAME DAY. Conducting freedives and scuba dives on the same day increases your risk of decompression illness.

5.5   LOG MODE

Dive data measured from previous dives is recorded and saved in **Log Mode**. You can only access the **Log Mode** when you are above the surface.

To access previous dive data, navigate to **Log Mode** using the **MODE** button. Press the **ADJUST** button to toggle between your dive logs. Dives are logged in chronological order ranging from the most recent to the oldest dive. Log #1 is your most recent dive, and the highest number will be your oldest dive.

The following information will be displayed for each dive:
- Water temperature (Temp in °C/°F)
- Dive time (Dive Time in hours:minutes)
- Deepest depth (Depth in meters/feet)
- Time (in hour:minutes)
- Current date (month/day)
- Log number

COSMIQ$^+$ will save dive data for up to 25 dives at a time. Dive logs cannot be deleted from COSMIQ$^+$ itself. Once 25 dives are logged, the newest log will overwrite the oldest log. Deepblu suggests that you upload dive data to the Deepblu app as often as possible so you don't lose any of your log data. If you have over 25 logs and you haven't synchronized your previous logs to the Deepblu app, the letters 'MAX' will appear on the bottom of the screen and the **Sync Mode** icon ⇄ will flash when you are in **Watch Mode.** This is to remind you to perform a sync to upload your logs. Please see the next section for instructions on how to upload your dive data to the Deepblu app.

5.6   SYNC MODE

Sync Mode allows you to wirelessly synchronize your dive data to create digital dive logs, adjust settings, and upgrade the firmware on your COSMIQ⁺. See Section 4.5 for instructions on how to pair (set up communication between) your COSMIQ⁺ and your smartphone.

While in **Sync Mode** your COSMIQ⁺ will show a summary of your settings. These values will update as you adjust the settings and the screen will dim according to your brightness setting to give you a preview of what it will look like while diving.

Step 1: Navigate to Sync Mode
With COSMIQ⁺, navigate to **Sync Mode** using the **MODE** button. A countdown time of one and a half minutes will begin automatically.

Step 2: Turn on Blue-tooth on Your Smartphone
Enable the Blue-tooth setting on your mobile device. Make sure the two devices are close to each other.

Step 3: Sync Dive Data
Access the Deepblu app on your mobile device. In the main menu of the Deepblu app, press **COSMIQ⁺**. Next, in the COSMIQ⁺ Options menu, press **Create Logs**. Dive data will be uploaded automatically. Maintain the connection while COSMIQ⁺ uploads your logs. The process should take no more than 2 minutes; you can follow the progress on your phone screen.

After the syncing process is complete, your logs will be accessible in the **Create Log** section of the Deepblu app. You can edit them at any time to create digital dive logs.

Please note that COSMIQ⁺ will only upload each log once. After a log has been transferred to the Deepblu app once, it will not be duplicated.

5.7   DIVE ALARMS

COSMIQ⁺ uses visual and audible alarms to warn you of potentially dangerous situations while diving. It also includes the option of setting depth and time alarms according to your own preference. It is very important to understand the purpose and function of the alarm warnings in order to take the appropriate action and avoid danger. There are many different situations where an alarm will sound. See below for a quick summary of each alarm and how it works.

SECTION 5 – INSTRUCTIONS FOR USE

Dive Alarms Table

Situation	Visual/Audible Alarm	Action
Safe Ascent Rate Exceeded	- Continuous beeping - Ascent rate bar full	Slow ascent until alarm stops.
CNS=80%	- 5 beeps per minute - 'CNS' flashing - Arrow indicator flashing	End the dive. Conduct a safety stop and ascend to the surface.
CNS=85%	- 10 beeps per 3 seconds - 'CNS' flashing - Arrow indicator flashing	End the dive. Conduct a safety stop and ascend to the surface.
MOD Exceeded	- Continuous beeping - 'PO2' flashing - Arrow indicator flashing	Ascend above the MOD. Consider ending the dive.
No-decompression Limit Approaching	- 3 minutes left : 3 beeps - 2 minutes left: 3 beeps - 1 minute left: 5 beeps	Ascend to a shallower depth.
No-decompression Limit Exceeded	- 10 beeps for 20 seconds, 10 second pause, repeat for 3 minutes - Arrow indicator flashing - Stop indicator and Stop Countdown Time flashing - Ceiling indicator and Ceiling Depth value flashing	Perform a mandatory decompression stop. Ascend to the Ceiling Depth indicated in the bottom left corner of COSMIQ+ and stay there until the Stop Countdown Time is over. Do not ascend above the Ceiling Depth until the Stop Countdown Time is over.
Battery Power Low	- 1 beep every minute	Charge COSMIQ+ as soon as possible.
COSMIQ+ Shutting Down	- 1 beep	Charge COSMIQ+ immediately.
Max Depth (Freedive Mode)	- Continuous beeping until you ascend above the set depth	
Max Time (Freedive Mode)	- 6 cycles of 3 beeps	
Surface Interval Alarm (Freedive Mode)	- 2 cycles of 2 beeps (surface interval half completed) - 2 cycles of 3 beeps (surface interval completed)	
Depth Alarm (Scuba Mode)	- 6 cycles of 2 beeps	
Time Alarm (Scuba Mode)	- 6 cycles of 3 beeps	

SECTION 6 – CARE AND MAINTENANCE

6.1   TAKING CARE OF YOUR COSMIQ⁺

After every dive, wash COSMIQ⁺ thoroughly in fresh water, especially after diving in seawater. If the device is covered with ocean grime, soak COSMIQ⁺ overnight in fresh water. If you find salt deposits on the watch, consider using warm water. Do not use any cleaning agents or solvents. As with any precision instruments, do not drop it or subject it to impact by heavy objects. Do not leave it directly exposed to sunlight for extended periods of time.

To protect the display from scratching when inadvertently scraping your COSMIQ⁺ on your equipment, sand or other rough surfaces in and above the water, we recommend to always keep a screen protector on your COSMIQ⁺ and replace it when it scratches to a point where readability is impacted. Your COSMIQ⁺ ships standard with two screen protectors. When these run out, you may order more from the Deepblu Shop or you can use cut any screen protector to the right size. We do recommend choosing the thicker type as they offer better protection.

6.2   DEVICE DISPOSAL

Electrical and electronic devices must not be disposed with consumer waste as they are considered hazardous to the environment. Their components must be recycled or disposed separately from regular waste to prevent contaminative and hazardous substances from polluting our environment.

Dispose of the COSMIQ⁺ Dive Computer as electronic waste. Do not throw it in the garbage with regular trash. Please locate the nearest recycling facility that accepts electronic waste or send the device back to us for disposal. At Deepblu, we prize efforts to protect the environment and will do what is necessary to minimize any impact.

SECTION 7 – TECHNICAL SPECIFICATIONS

Measurement Units	Metric (meters/°C) or Imperial (feet/°F)
Water Resistance	100 meters/330 feet
Gases	Air and Nitrox. Oxygen level adjustable between 21%–40%
Partial Oxygen Pressure (PO₂)	Adjustable between 1.2 bar and 1.6 bar
Algorithm	Deepblu Decompression Algorithm based on the Bühlmann ZHL-16C model
Safety Factor	Conservative, Normal, Progressive
Altitude	Sea level to 5000 meters/16,400 feet
Battery Life	7 to 12 hours of dive time per charge, depending on your brightness and power-saving settings.
Battery Type	Lithium-Ion (rechargeable)
Battery Charger	Standard USB
Log Storage	Up to 25 logs unsynchronized
Data Transfer	Blue-tooth 4.0
Dive Log Software	Deepblu Mobile App (iOS/Android)
Firmware Upgrade	Free OTA firmware upgrades (via Blue-tooth)
Housing Material	Fibreglass-reinforced polycarbonate
Lens Material	Polycarbonate with 8h hardness coating
Screen Technology	Enhanced Black Twisted Nematic (EBTN) Negative Image LCD Display
Strap Material	- 24mm Ballistic Nylon NATO watch strap - Bungee cord
Dimensions	70.6mm (2.78") x 48.6mm (1.91") x 20.9mm (0.82")
Weight	Approximately 81 grams

SECTION 8 – WARRANTY

8.1   LIMITED WARRANTY

The COSMIQ$^+$ Dive Computer comes with a two-year global warranty covering all manufacturing defects, faults in design and workmanship. Deepblu will, during the warranty period, replace any damaged or defective COSMIQ$^+$ Dive Computer with a new or refurbished unit, subject to the terms and conditions of this Limited Warranty.

The warranty period begins on the day when COSMIQ$^+$ is first activated by syncing with the Deepblu app. Make sure you are logged in to your personal Deepblu account when syncing in order to link your COSMIQ$^+$ to your account.

The warranty does not cover commercial or rental use, nor does it extend to units purchased from anyone other than an authorized Deepblu Sales Ambassador, COSMIQ Reseller, or the Deepblu Webstore.

The warranty specifically excludes battery depletion or other conditions resulting from normal wear and tear, improper use or handling, negligence, alteration, accident or unauthorized repair.

We have a strict no refund policy. Exchanges will be provided in the case of manufacturing defects. In the event that you experience a fault with COSMIQ$^+$ within the warranty period, please submit a warranty claim through our website, to initiate the process of obtaining a replacement.

Deepblu retains sole discretion to determine, upon evaluation of the product, if your claim is legitimate.

SECTION 9 – GLOSSARY

Ascent rate	The speed (measured in meters/feet per minute) at which a diver ascends towards the surface.
Ceiling depth	The shallowest depth to which a diver can ascend in order to complete a mandatory decompression stop.
Central nervous system (CNS) oxygen toxicity	A measurement of the level of oxygen exposure in the body's central nervous system. The CNS oxygen toxicity level is expressed as a percentage. A CNS level of 100% is considered extremely dangerous.
Decompression illness (DCI)	Illness that results from a reduction in the ambient pressure surrounding one's body and the formation of nitrogen bubbles in the blood. DCI encompasses two diseases, decompression sickness (DCS) and arterial gas embolism (AGE).
Dive series	A number of dives completed within a day or over a number of days.
Dive time	The amount of time elapsed between the beginning and the end of a dive.
Maximum operating depth (MOD)	The depth limit which the PPO_2 level exceeds the maximum allowable level, based on the limit set (1.2 bar to 1.6 bar). Diving below the MOD may expose the diver to unsafe PPO_2 levels.
Nitrox	Also called Enriched Air Nitrox, a mixture of nitrogen and oxygen used as a breathing gas by divers which contains a higher proportion of oxygen than is normally contained in Standard Air (above 21%).
No-decompression limit (NDL)	The maximum amount of time a diver may remain at a certain depth before requiring a decompression stop.
No-dive time	Minimum amount of time a diver should wait before beginning another dive.
No-fly time	Minimum amount of time the diver should wait before embarking on a flight.
Oxygen level	The percentage of oxygen contained in a breathing mix.
Partial pressure of oxygen (PPO_2)	The total pressure exerted by oxygen in a breathing mix. It is a measurement of the concentration of oxygen in a gas mixture. PPO_2 levels are determined by the percentage of oxygen in a gas mixture and the depth at which a diver breathes the gas. A PPO_2 level above 1.6 bar is considered extremely dangerous and may be toxic.
Residual nitrogen	The amount of excess nitrogen remaining in a diver's body after one or more dives.
Safety Factor	The level of conservativeness of the decompression algorithm. This allows the user to select a standard decompression algorithm, a conservative algorithm or a progressive algorithm.
Stop countdown time	The amount of time required to complete a safety stop or a mandatory decompression stop.
Surface interval	The amount of time that elapses between surfacing from a dive and beginning a new dive.

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Dive on.