GENESIS GRAVITON

Color Wrist Dive Computer
Owner's Manual

Device information
Manufacturer – Genesis Scuba
The device name – Genesis Graviton
For SW version: GE5088

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1.0 Introduction

Congratulations on acquiring the new Genesis Graviton dive computer; one of the most versatile, feature packed and rugged wrist mounted dive computers on the market today.

The Genesis Graviton dive computer was created for recreational scuba divers, who are properly certified and have basic knowledge of diving physics and diving physiology. This information must have been acquired during an Open Water diver course or equivalent. Which was administered through a qualified instructor and sanctioned by a recognized scuba certification agency.

The diver must also be well trained on how to use all scuba equipment components. Neither this product nor the contents in this manual are a substitute to formal diving education & proper training. Make sure you have the adequate qualifications before using your dive computer and engage in scuba diving activities. If you have questions about this product, please contact Genesis Scuba before using it.

All scuba dives carry a risk of injury. Even if you follow any dive computer profile correctly, the dive computer itself can not anticipate the individual's own physiology, mental state or physical fitness. Before engaging in scuba diving activities, you must consult with your physician to ensure you are cleared to engage in scuba diving activities.

There is no dive computer on the market, dive algorithm, dive table or dive formula that will completely eliminate the risks associated with scuba diving such as decompression sickness, overexpansion injuries or oxygen toxicity. Please remember that safety is ultimately your own responsibility.

Please also be sure to read the entire contents of this manual carefully before using your Genesis Graviton dive computer. Failure to fully understand your dive computer's operation in relationship with your dive profiles could result in serious injury. Proper knowledge is required before using your new Genesis Graviton dive computer.

1.1 Safety Considerations Before Using Your Dive Computer

The Genesis Graviton dive computer was designed for the recreational diver who dives recreational dive profiles. Dive only at the maximum depth that your training allows and to an absolute maximum depth of 40m/ 130ft if you are trained for it. Anyone engaged in commercial or technical diving should be aware that this product is not intended to be used in conjunction with technical or commercial dive profiles that usually involve deeper depths and prolonged dive times. Genesis discourages the use of the Graviton dive computer for commercial or technical diving purposes.

Genesis Scuba discourages divers to engage in dives requiring decompression stops. Observe the NDL (No Decompression Limit) of your dive computer and never let the timer go to 0.0 minutes. Notice buzzer & vibration, and pay attention to the screen warnings when increasing the ascent speed, or indications to remain at depth and time.

In the event you exceed NDL Graviton will go into decompression mode, the computer will signal the diver. The diver must terminate the exploration dive and proceed to an immediate ascent to the indicated decompression stop **before reaching the surface**. The ascent speed should never exceed 30cm/sec / (1 ft. per second) to avoid injuries. Always keep close attention to your ascent speed & ascend even slower when you approach to the surface.

Redundancy is always good practice in scuba diving. Genesis Scuba encourages the use of additional depth & time instruments during dives to be able to closely monitor dive profiles and compare instruments. In the unlikely event your dive computer fails, you'll have additional backup instruments to be able to monitor your dive profile and safely ascend to the surface. Consult with your Genesis dealer for a complete list of redundant instruments you can acquire.

Turn on your Genesis Graviton computer before each dive. Make sure the battery is fully charged and your settings for either air or nitrox are correct. Additional depth, time, deep stop and safety stop settings/alarms are also available.

Flying after diving and driving to altitude, which are covered during your Open Water Diver training or equivalent must also be observed. An airplane icon will be present on the Graviton screen after each dive and it will remain on the watch's screen until you are allowed to fly on an airplane or drive to high altitudes. Please observe this precaution.

Your Genesis Graviton dive computer is intended only to be used either at sea level or at dive sites where the altitude level does not exceed 3000m / 10,000 ft. OSL (Over Sea Level). Make sure you check the altitude of all dive sites prior to diving when not at sea level. Incorrect altitude entries will result on higher risk of decompression sickness due to the decreased atmospheric pressure found at altitude.

Divers must never exchange dive computers during group diving activities. A dive computer that was originally used by a particular diver is currently monitoring gas absorption and release the tissues linked to that particular diver and based on the particular depth and time profiles. Even if divers in a group were in close proximity that does not ensure the exact depth and time the other divers performed was the same, let alone during multilevel diving or multiple dives scenarios during the day. Each diver must provide the means to monitor his/her own depth, time and NDL for each dive.

If the dive computer was forgotten at the surface and the diver performed a dive without his/her dive computer, that dive computer should not be used again; only after both the diver and the computer have spent a complete 24-hour cycle at the surface to ensure full tissue outgassing & the computer is also free of all previous gas intake / release information. Using that 'forgotten' dive computer again on a subsequent dive will carry a very high risk of decompression injuries as the profile provided by the computer will be completely inaccurate and will not reflect the real gas absorbing/releasing timers in the diver.

1.2 Nitrox

Be sure to personally check the oxygen concentration in each cylinder prior to use. If you are certified to use oxygen enriched air at a concentration higher than 21% (AIR), use the Nitrox computer settings to enter both the correct EANx mix from the cylinder you are going to use and adjust the desired PO/ MOD in your Graviton dive computer nitrox settings. If you are **not** qualified to use oxygen enriched mixes, use only cylinders that contain air.

The Graviton input value for EANx settings does not accept decimal fractions. If the O2 reading in the tank label or oximeter is fractional, round up that value. For example, a 32.2% oxygen

reading enter 32% in the dive computer's settings. For a 32.5% enter 33%. The 0.5% fraction will be your tipping point to round up or down. Incorrect O2 entered values will either underestimate or overestimate the oxygen/nitrogen gradients inside the diver's body, affecting both Oxygen toxicity and Nitrogen build up estimations. Again, only dive with EANx mixes if you are certified to do so.

2.0 Getting Started Guide

2.1 Maintenance

Particularly after using your computer in salt water, soak your dive computer in fresh water for 5– 10 minutes to dissolve minerals and then rinse it with running fresh water, but not at very high pressure. Remove it from the water, shake off the excess of water & wipe it off with a soft cotton cloth or paper towel.

Avoid using any kind of solvent other than fresh water. Solvents may permanently affect the watch finish and may even affect the seals compromising the computer's physical integrity.

Avoid taking apart your dive computer. Opening it or tampering with the internal components will automatically void your warranty.

2.2 Battery

Your Genesis Graviton dive computer comes equipped with a pre-assembled & sealed rechargeable lithium battery. Do not attempt to open your dive computer, puncture it, short the contacts, throw the computer into the fire, expose it to a source of high heat, high electric current or crush it. The risk of fire or explosion may result if the computer is tampered with.

Locate the charging clip and charging USB cable provided with your Genesis Graviton dive computer. Connect the USB cable to any qualified source with an output of 5.0v at 1.0 – 1.5 mAh such as a USB mobile phone charger or a USB outlet from a laptop computer. Do not use chargers that are not qualified or that you have doubts about the mentioned voltage and amperage outputs.

Connect the micro USB portion of the cable to the Graviton proprietary charging clip.

At the charging clip, locate the 4 brass colored metal pins. At the Graviton computer, locate the corresponding connection points, (4 round and chrome-colored contacts) & make sure they are clean, free of debris, mineral build up or corrosion. Clean the contacts with denatured alcohol and a cotton swab if needed.

After cleaning, make sure that the charging contacts are free of any water residue and completely dry before charging, otherwise there will be a risk of electric shock.

Squeeze the clip to open it & guide it to the watch. Ensure the 4 contact points on the clip are pointing down and match with the corresponding 4 circular contacts points on the watch. For reference, if looking at the watch from the top, with the 3 buttons pointing towards the right, the contacts are located at the bottom of the watch on that same side.

Once the clip is properly connected and charge is flowing, the battery icon, located at the top of the screen, will display a 'growing build up motion' inside the icon. The icon will display full when the battery is charged completely. Right after that, the computer will turn itself off.

Separate the clip from the watch when it is fully charged. Depending on how depleted the battery watch is, full recharge time can vary from one to three hours.

2.3 Storage

After rinsing and drying, store your Genesis Graviton dive computer in a dry, cool place away from direct sources of high heat, strong electric currents, strong vibrations, excessive compressing force or at risk of falling off from a high place. Extreme low (below -20°C/ -4°F) or extreme high temperatures (50°C / 122°F) will also affect your dive computer internal components.

If the Graviton computer is going to be stored for a long period of time, make sure the battery charge is at least to 50% (or more preferably). This will ensure that the discharge rate is slow and the battery does not get depleted completely. Leaving a rechargeable battery completely depleted for long periods of time will damage it permanently.

2.4   General Considerations Before Using Your Genesis Graviton Dive Computer

This product uses EU-certified non-toxic materials and it is RoHS certified. If any discomfort is noticed during or after the use of this product, discontinue its use and consult a medical professional.

This product should not be handled by children under 8 years of age. Junior Open Water divers, or equivalent based on certification agency, should only handle this computer under certified diver adult supervision.

For optimal viewing and button access wear your dive computer on the wrist you normally wear a wrist watch, you may even want to use it as your daily watch going forward.

Make sure you confirm that the computer has sufficient battery charge and adjust all your desired settings before entering the water and confirm that all the pre-dive information is displayed on the screen before the dive.

The Genesis Graviton compass & time zone settings feature a GPS antenna that is hidden under the screen and it is recommended to keep the antenna pointing up toward the sky when calibrating the compass or setting time for a better signal.

2.5   Force Shutdown & Turning ON From Shutdown mode

Your Genesis Graviton features a Force Shutdown mode that assists in conserving battery power. When your Genesis Graviton is on Time Mode, just press and hold the Power Button (Fig#1 Button #2) in the lower left corner for about 15 to 20 seconds, the Graviton will force the shutdown, to re-initiate press the Power Button again for 5 seconds to start normally. If the watch does not respond, it is possible that your Graviton has run out of battery power, please attach the charging clip to your watch and charge it for about 5 minutes before trying again.

If there is any information you've read in this manual that you do not fully understand, contact your local Genesis retailer and ask all the necessary questions. Additionally, you can go to www.genesisscuba.com and use the general contact form to let us know your questions or concerns.

3.0   Buttons Positions & Functions

Fig#1

#1 Backlight Button
ON/OFF

#3 Move UP Button

#4 Mode Selector

#2 Power Button

#5 Move DOWN Button

1. Backlight Button   Backlight on/off. Press and hold for two seconds to backlight

2. Power Button   Powers the watch ON, press 3 sec. Deep Sleep 15 sec. Returns to a previous option

3. Move up   Changes the options within a Menu Screen Upwards

4. Mode Selector   Toggles the different Menu Screens forward

5. Move DOWN Button   Changes the options within a Menu Screen downwards

4.0 Settings Quick How-To & Menu Screens

Quick How To:

To access the different menus, sub-menus, and the settings within a particular sub-menu, please follow the same simple & easy sequence principle. This principle applies to all menus, sub-menus & all options within each section.

Use the Mode Selector button to move to the different Menus the Graviton features; the UP or DOWN buttons to toggle up or down through the different options, and the Mode Selector button **again** to **"select & accept"** a value.

Once a particular value has been found within a submenu (after locating it with the UP/DOWN buttons), example: Units from Metric (M/C) to Imperial (FT/F), press the Mode Selector one last time & the watch will revert to the previous screen. This "jump back" is the indication that the change has been accepted. No other button has to be pressed to accept the value. To go back, use the Power Button, one short press at the time, to return to the initial time screen. The watch will now have the new selected value.

If there are additional options within a particular selection, pressing the Mode Selector will move to additional screens where you can change values again using the UP & DOWN buttons & select and accept using the Mode Selector button again.

INITIAL MENU SCREEN

Press the Mode Selector button once to access the Initial Menu Screen. This screen contains the following options:

Fig#2

- **Diving**
- **Settings**
- **Logs**
- **Timer**

To access each submenu, you can scroll up or down using the **Up** or **Down** buttons & to select press **Mode Selector**.

Diving:

- Scuba - Puts the computer in Scuba Diving mode showing the Scuba surface screen
- Free - Puts the computer in Free Diving mode showing the Free Diving surface screen
- Gauge - Sets the computer in Gauge mode showing the Gauge surface screen
- Plan - Goes to Plan mode. Use the UP & DOWN buttons to scroll different Depth/Time options.

Settings

The **Settings** Sub-Menu gives access to the following:

- **Set Dive** options:
  - Scuba
    - Set Gas – Sets Oxygen value 21%-99% | PO2 values 1.0 – 1.8 & provides the MOD
    - CF – Sets Conservative Factor
      - CF1 Most Conservative
      - CF2 Balanced Conservative
      - CF3 Least Conservative
    - Sdepth-Alarm – Sets a Maximum Depth alarm
    - Stime -Alarm – Sets a Maximum Elapsed Dive-Time alarm
    - Sampling – Performs Data Sampling every 10, 20, 30 or 60 seconds for Profile Graph
    - Log Stop – Stops the log at 1, 2, 5 or 10 minutes
  - Free
    - Fdepth-Alarm: Selects Max Depth Alarm
    - Ftime-Alarm: Selects Maximum Time Alarms
    - FSI-Alarm: Selects Surface Interval Alarms
  - Auto Mode (Selects different modalities the watch will go automatically & activation depth for each)
    - SCUBA
    - FREE DIVE
    - GAUGE
  - Salinity
    - Salt water
    - Fresh water
  - Twist to Next
    - By quickly twisting wrist in Scuba Mode the bottom section of the screen changes from SI/MOD to a fraction of the compass & again from compass to Tissue % Loading & then back to SI/MOD

- **Set System** options:

  - GNSS   Global Navigation Satellite Systems
  - Backlight   Backlight options
    - Brightness Press Mode Selector & Up/Down to change values
    - Duration Press Mode Selector & Up/Down to change values
  - Buzzer   Turns Buzzer ON or OFF
  - Vibration   Turns Vibration ON or OFF
  - Time   Access the 5 different Time submenus:
    - UTC   Universal Time Coordinated |Time standard commonly used across the world
    - Format   Changes the Date Format: YY.MM.DD | DD.MM.YY | MM.DD.YY
    - DTS   Daylight Time Savings ON or OFF
    - Set Time   Sets the Time of Day using GNSS
    - 24H/12H   Changes the Hour Format from 12h to 24h versions
  - Alarm Clock
    - Sets different Alarm Clock options, Press Mode Selector & the Up/Down buttons to change values: OFF/ON | One Time | Weekday | Daily

- o Language – 3 different options:
  - English
  - Chinese
  - Spanish
- o Units - Sets the Distance (depth) & Temperature options:
  - M/C = meters & degrees ° Celsius
  - FT/F = Feet & degrees ° Fahrenheit
- o Watch PSM - Power Savings Management
  - Auto Backlight ON (uses more battery) or OFF (uses less battery)
- o Compass CAL Compass Calibration
  - Shows image on how to rotate watch, press Mode Selector to start calibration.
- o Watch Face
  - Gives two options for watch face displays, UP or DOWN to locate, Mode Selector to select & accept the option
- o USB
  - Turns the PC watch access via USB cable ON or OFF

- **Delete** option:
  - o Access two options YES or NO to Delete all logs & previous Settings information from the watch

- **Reset** option:
  - o Shows: System Reset. Press the Mode Selector button to reset the watch system entirely

- **About** option:
  - o Shows a screen with
    - GENESIS   Watch's Brand
    - SN: GE5Bxxxxxxxx   Model + Serial Number
    - VER: GE50xx   Watch's Firmware Version
    - EPO: Watch's EPO

Logs:

- Diving information stored inside the watch. Press Mode Selector to access a Dive Profile graph

Timer:

- Countdown
  - o 00:00 to 99:00 Mode Selector to make digits blink, UP or DOWN to change & Mode Selector to accept
  - o Starts the countdown
  - o Repeat (Select ON or OFF)
- Stopwatch
  - o Mode Selector to Start, Pause, Done, Continue
  - o Power button to go to Lap
- Alarm Clock
  - o Access to the Alarm Clock (This function can also be accessed/edited on Settings > Set System > Time)
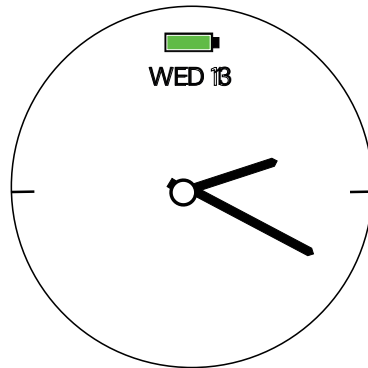
5.0   Watch Mode Options

5.1   Watch Time Mode - Faces

Fig#3

Fig#4

When Powering Graviton ON the initial time screen appears. This screen shows the Battery Charge Status on top, the date & time and if a dive has occurred & the computer is still calculating Gas Release information, it will let you know the Time to Fly in Hours : Minutes & the Surface Interval (SI) in Hours : Minutes as well.

An additional analogue screen is included with your Graviton. To access Press the MODE button & go to Settings > Set System > Watch Face & chose from the two options provided.

Please note: Before diving, be sure to confirm that the required settings for the Graviton have been set up and return to watch mode to confirm that the watch is switched on before going diving. Recharge battery if it has gone below 50%.

5.2   Compass
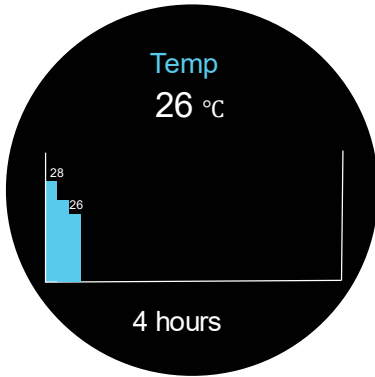
Fig#5
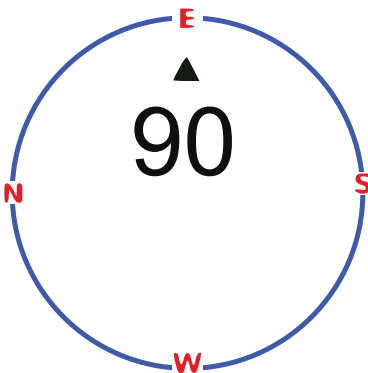
Press the UP button once. This is the Compass Screen & when accessed it will point the arrow in the direction the front part of the watch is aimed to. To confirm it functions properly make a full circle & ensure a 0 to 360° occurs in a full revolution. If the compass gets stuck recalibrate the compass by pressing the Mode Button once scroll to Settings > Set System > Compass Cal.

5.3   Additional Sensors Screens & Complete Information Watch Face

Fig#6

Fig#7

Fig#8

Temp

26 ℃

28

26

4 hours

Altitude

148 ft

148

4 hours

Barometer

1033

1038

4 hours
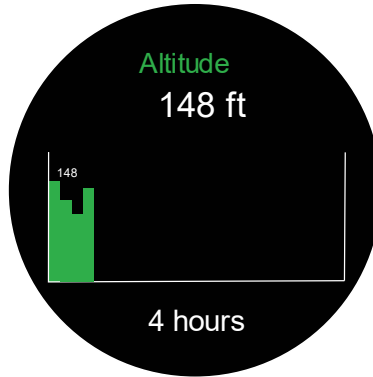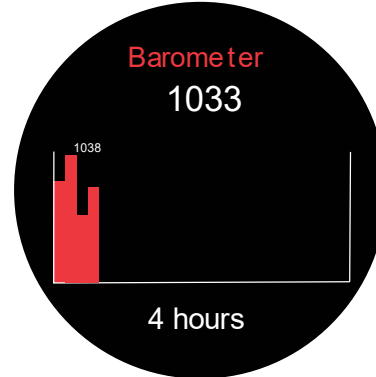
Press the UP button one at a time. The following screens provide graphics for Temperature, Altitude & Barometer.

Fig#9

100%

04:42:53

Sunrise
05:28

Sunset
17:11

75.4 ℉

Press the UP button again & you will see a Time Screen with additional information & the time also indicating seconds.

5.4   Last Dive

To access the Logs & Historical Records from the Initial Time Screen press the DOWN button one at the time & you will be able to see the Last Dive, SCUBA History & Free History Historical Records screens.

Fig#10

Last Dive. From Initial Time screen press the DOWN button once.
1. Date of the last dive recorded. Time is after exiting the water.
2. SI: Surface Interval in Hours : Minutes
3. No Fly Time: Countdown in Hours : Minutes
4. No Dive Time: Countdown in Hours : Minutes

5.5   Scuba History

Fig#11

Scuba History. From the Last Dive screen press the DOWN button once.

1. Recorded cumulative number of scuba dives
2. TTL Time: Cumulative time record for all scuba dives
3. Max Depth: Maximum depth recorded from all scuba diving records
(Will reflect the Units the watch is set on).
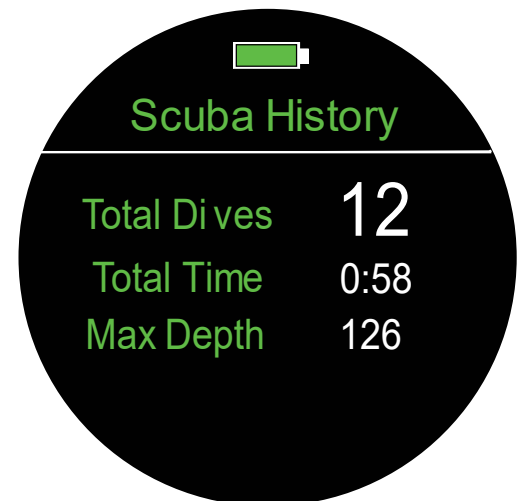
5.6   Free History

Fig#12

Free Diving History Record. From Scuba History press the Down Button once.

1. Total Dives: Accumulative record of all free dives
2. Max Time: The longest time from all free diving dives in records
3. Max Depth: Maximum depth from all free diving dives in records (Will reflect the Units the watch is set on)

5.7   How to set time & date:

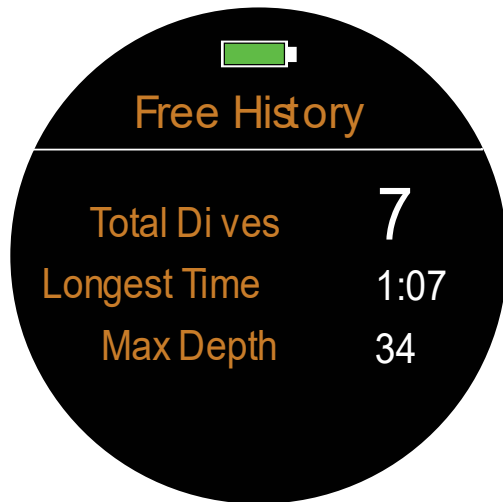From the Initial Time screen press the Mode Selector button to go to the Main Menu, press the Down Button to go to **Settings**, press Mode Selector again > **Set System** press Mode Selector again & using the Up or Down buttons locate **GNSS** and turn it ON. Now go to **Time** & Press Mode Selector. On **UTC**, using Up/Down buttons enter the UTC of your location (Example: San Diego, CA, USA is -7.0 hours UTC; NY City, New York, USA is -5.0 Hours UTC). Press Mode Selector to accept UTC value. Now with the Up or Down buttons access > **Set Time** when you press the Mode Selector one last time the Graviton will show you a screen that indicates that the computer is locating GNSS (Satellites) & a percentage. Make sure you perform this operation outside so the watch has a direct line of sight to the sky so the antenna is able to access satellites & wait for screen to complete search to 100%. The time & date will be adjusted automatically via satellite link.

- Time   Access the 5 different Time submenus:

    - UTC   Unified Time Coordinated | + or - Hours UTC for a specific location in the world.
    - Format   Changes the Date Format: YY.MM.DD | DD.MM.YY | MM.DD.Y
    - DTS   Day Time Savings ON or OFF
    - Set Time   Sets the Time of Day using GNSS
    - 24H/12H   Changes the Hour Format from 12h to 24h versions
    - Alarm Clock
        - Sets different Alarm Clock options
            - Press UP/DOWN to select OFF. One Time, Workday. Daily
            - Press Mode Selector to go to time values & UP/DOWN to increase or decrease values.
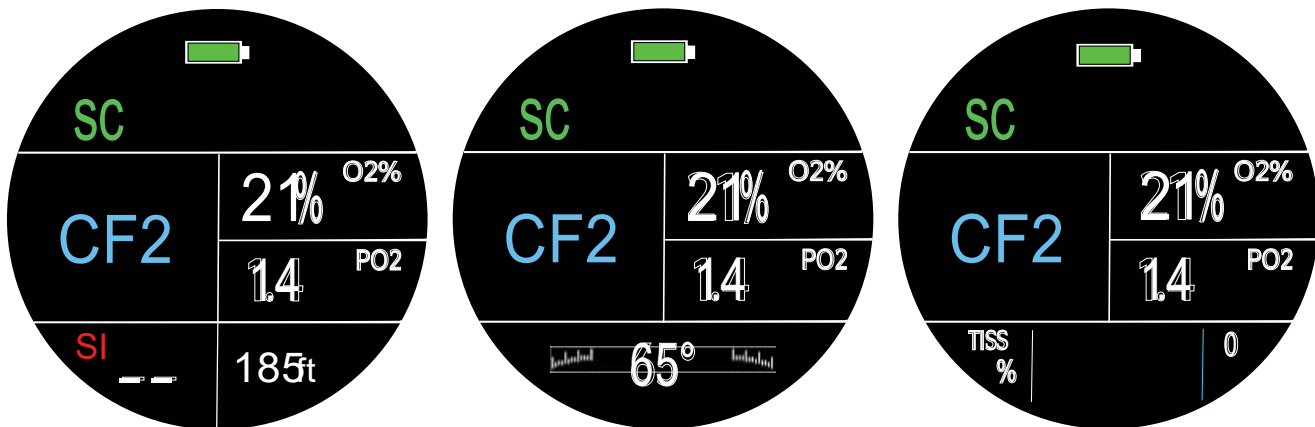
6.0   Scuba Mode

6.1   Scuba Mode - From Initial Time Screen Press: Mode Selector Button > Diving >

Fig#13

> Scuba – (Figures #14, #15 & #16):

Scuba Diving Mode – Surface Screen Examples (After pressing Mode Selector on "Scuba")

Battery Icon on top indicates the Battery Charge remaining
SC: Graviton abbreviation for Scuba
CF2: Indicates the default Conservative Factor the Graviton algorithm is set as.
The CF value can be set to:
CF1 – Most Conservative, **CF2** – Balanced Conservative, **CF3** – Least Conservative
21% **O2%**: Indicates the oxygen percentage content in breathing gas. By default, is set to 21%. Change in Settings
1.4 **PO2** Indicates the CNS Oxygen Toxicity value. 1.4 is the default setting.
65 °: The compass heading (direction) the watch is pointing at.
MOD: Maximum Operating Depth. Allowable depth based on Oxygen percentage content in Breathing Gas & the PO2 value. The maximum depth indicated by the MOD must not be exceeded.
O2%: The oxygen concentration value of the gas used.
SI: Current Surface Interval in hours the diver has remained at the surface, more than 24 hours Graviton will show: - -
185ft: MOD considering the O2% Breathing Gas & the PO2 value | TISS%: Nitrogen saturation % in tissues.

6.2   Screen Information – Scenarios Examples While Underwater

Fig#17

Underwater Screen Example – Scuba Diving Mode – Normal NDL Dive

020.6m: The depth of the current location.

NDL 20: No Decompression Limit at the current depth. Example is 20 min. Will display 99 when NDL is at the beginning of a dive or at very shallow depth or not enough Elapsed Time has passed to indicate a significant Nitrogen Buildup.

Ascent Speed "Arrow Up" – Ascent Speed in the example is 3 meters /min (03). If the ascent speed exceeds 10 meters/min, a warning prompt will appear & repeated short warning tones and continuous vibrations will occur.

If the Ascent Speed drops below 3 meters /min a "Arrow Down" icon will show in that field.

If the diver is on a stationary position there will be no arrows marker.

TIME 11: Elapsed Dive Time

09:25 Current time of the day. 9:25 in the morning in that example

TEMP: The water temperature of the current location

Fig#18

Fig#19

Underwater Screen Example - Scuba Diving Mode – Normal Safety Stop & NDL has not been exceeded.

004.6 m: Indicates the Current Depth the diver is positioned at
STOP 03:26: Indicates the Safety Stop elapsed time
CEILING 5 m: Indicates the Ceiling Depth at which the diver is to perform a Safety Stop
TIME 11: Elapsed Dive Time
TEMP 21.5 C: The water temperature of the current location – Example: 21.5 °C
CLEAR: When the diver has completed a Safety Stop (or DECO Stop) & is now OK to continue to the surface.
"Arrows Up" 03: 3 meters /min
"Arrows Down": The Speed has dropped at less than3 meters/min
No arrows marker: Diver is in stationary position.
1.4 PO2: Indicates the CNS PO2 the Graviton was set as.

Underwater Screen Example - Scuba Diving Mode – **NDL has been exceeded.** Fig#20

020.6 m Current depth the diver is positioned at.
NDL -0:25 (in orange digits) Displays the amount of time (Min: Sec) the diver has exceeded the NDL.
TIME 21: Current Elapsed Dive Time, example is 21 minutes.
A short warning tone will repeat with a continuous vibration warning. It is recommended to terminate the exploration part of your dive and immediately ascend to the indicated Ceiling Depth. Once there a countdown will appear contingent to the last depth & amount of time the NDL was exceeded.
CEILING 5 m: After exceeding the NDL, diver is encouraged to immediately proceed to a Ceiling Depth of 5 meters.

020.6 m	
NDL	CEILING
-0:25	5 m
TIME 21	⋀ 03

Underwater Screen Example -Scuba Diving Mode - **When the limit is exceeded (after three minutes)**

DECO: Shows that the limit time for decompression is exceeded. After three minutes, the display is: minutes.
CEILING: After surpassing the NDL, divers can rise to the limit depth.
TIME 24: Recommended Decompression Stop time in minutes
"Arrows up"05: Ascent Speed of 5 meters/min

|	
017.3 m	
DECO	CEILING
-03	9 m
TIME 24	⋀ 05

Fig#21

Underwater Screen Example -Scuba Diving Mode - **OVER**

OVER 5m: When a diver reaches the recommended Safety Stop depth but continues to ascend and does not stop the word "OVER" is displayed in yellow as a warning prompt & flashes continuously; the computer will also give a short warning tone repeatedly adding continuous vibration.

Make an effort to descend to the recommended Ceiling Depth & remain there until the countdown timer "STOP" as reached 00:00. Providing you have sufficient breathing gas & can remain at that depth safely. If unable to complete the recommended stop due to insufficient remaining Breathing Gas proceed to the surface & monitor yourself for Signs & Symptoms of Decompression Sickness.

Fig#22

6.3   End of Dive
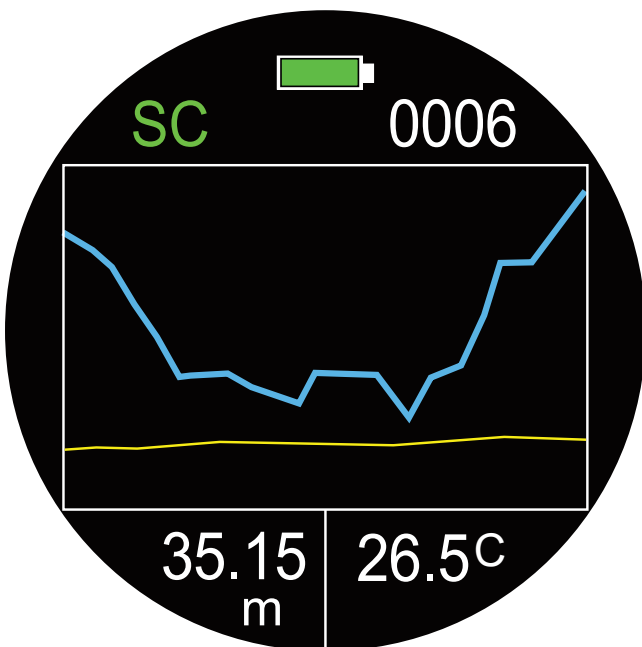
Fig#23

Scuba Diving Mode - End of Dive

Once the diver surfaces the Graviton will show a Dive Profile graph for about 1 minute.

The graph will provide a visual aid of the dive executes as well basic info such as Dive #, Max Depth & Temperature. To access additional diving information, press the Up or Down buttons & a 2nd page with information will appear. After 1 minute the standard Time Screen will appear

Scuba diving mode – NO DIVING

Do not participate in another dive if this screen is present. It indicates that you are still in a time when repeated diving is prohibited likely due to excessive nitrogen saturation, high O2 levels in tissues or a DECO stop that was not performed. For exact dive times, please refer to historical records and version information.

Note: The Dive Computer will be locked & you will not be able to use the following features at this time Scuba Diving mode, Free Diving mode and Dive Plan mode.

Fig#24

6.4   Scuba Diving Settings

Set Gas

CF
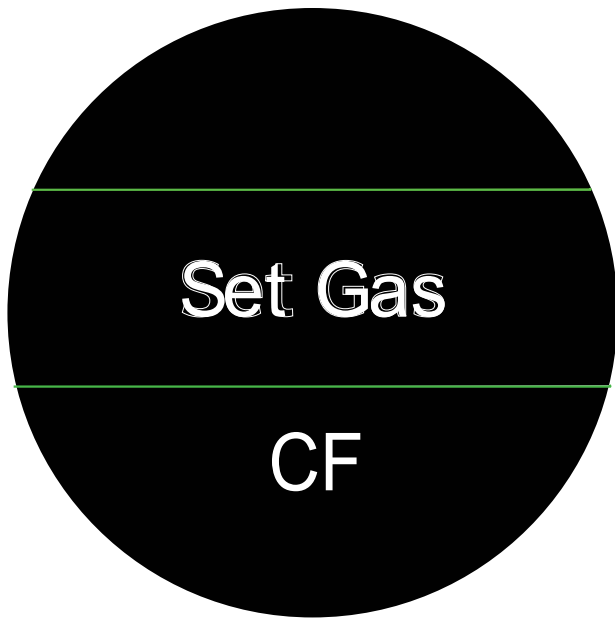
Fig#25

Set Gas

PATH: Menu > [Down Button] Settings > Set Dive > Scuba > **Set Gas**

Gas Setting   Fig#26

Set Gas

O₂%   21%

PO2   1.4

MOD   184ft

Once this option is selected, the first line will show 21% FLASHING, press the Up/Down arrow keys to select different values & then the Mode Sele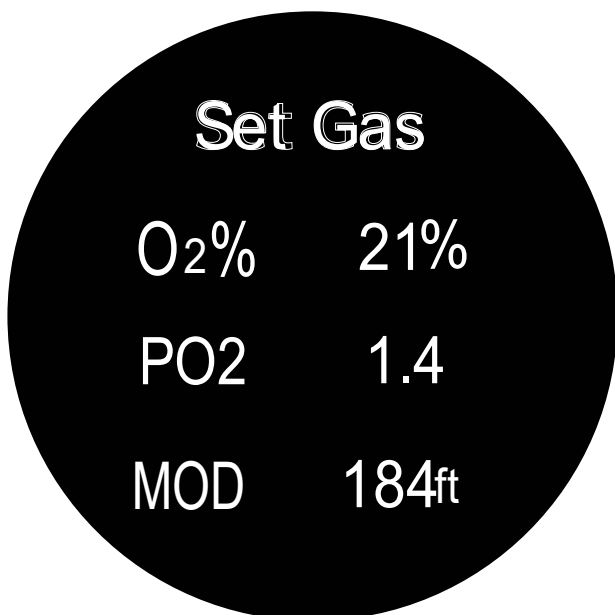ctor button to confirm the setting, and pass to the next setting. The PO2 value 1.4 will now be FLASHING now, change the values with the Up/Down buttons & accept the selection pressing the Mode Selector button once until the selection stops flashing. NOTE: The MOD value will change automatically based on the gas O2% & PO2 selections.

Notes:

1. Change this O2 value until you had personally confirmed via oximeter that oxygen % of the cylinder you are using has the exact same value you are entering in your Graviton.

2. Do not use Nitrox if you've not received the proper training first & fully understand the risk of CNS Oxygen Toxicity associated with the use of gas blends different than breathing air.

CF – Conservative Factor

The Conservative factor is linked to how the Algorithm behaves in relationship with Time Allowance & considering Nitrogen Build up. CF1 is the most conservative, it will have the least time allowance. CF2 is Balanced Conservative, giving more time than CF1 CF3 is the Least Conservative setting, giving more time but increasing the Nitrogen Build up exposure to the diver. Make sure you understand well Nitrogen Exposure in tissues before editing the CF. The Genesis Graviton sets CF2 as factory default CF.

Fig#27

CF – Conservative Factor

6.5 Scuba Alarms

Sdepth-alarm

ON

131

ft
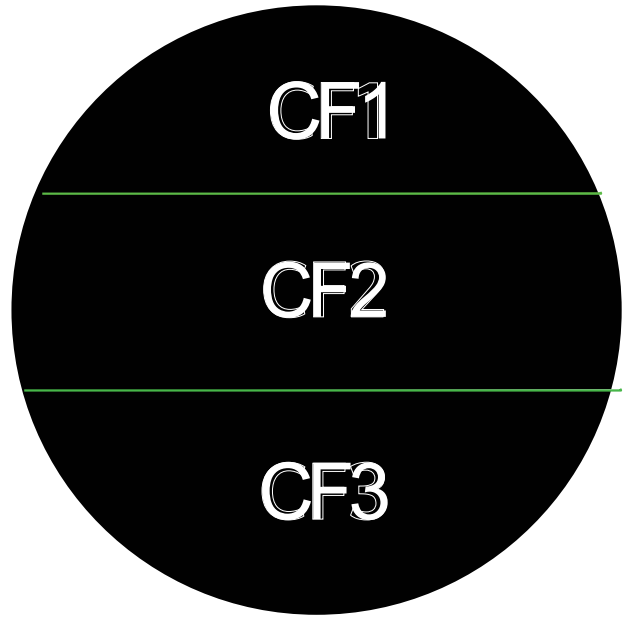
Scuba Maximum Deep Alarm

Once in this option, ON will be flashing. Press Mode Selector to agree w/ ON or up/down buttons to go to OFF. If ON is selected press Mode Selector to go to depth options. The Depth value will be flashing. Use Up/Down to change values & press Mode Selector again to confirm & accept. The depth value will stop flashing after the selection.

Fig#28

Scuba Maximum Time Alarm

Once in this option, ON will be flashing. Press Mode Selector to agree w/ ON or up/down buttons to go to OFF. If ON is selected press Mode Selector to go to time options, Time value will be flashing. Use Up/Down to change values & press Mode Selector again to confirm & accept. The time value will stop flashing after the selection.

Stime-alarm

ON

60

MIN

Fig#29

Sampling

10

SEC

Once this screen is accessed one of the sampling options will be blinking. Press the Up or Down buttons to select other sampling options as needed. Press the Mode Selector button to accept your selection. The value will stop blinking.

Note: Sampling means how often the computer will be collecting (or 'sampling') depth/time events and record them within a data base within the memory. A longer sampling rate time will provide less accuracy but will also use less memory while a shorter sampling rate will produce a more detailed graph but more memory will be used. The Graviton will hold around 500 logs at a 10s sampling rate.

Stops the log at a specified time after surfacing. Useful feature when no other repetitive dive is going to be performed

Log Stop

1

MIN

7.0   Free Diving Mode

Free

Gauge

FD 00   80.2 F

SI 02:56

1431

To access: From main Watch Mode, press the Mode Selector > Diving > Up or Down buttons until **Free** appears in the center of the screen. Press Mode Selector one more time to access the **Free** mode and view the screen information:
Battery Status Icon | FD: An abbreviation for free diving mode | Temperature | SI (Surface Interval)
14 31: Example Time of Day while at the surface

FD

02:38
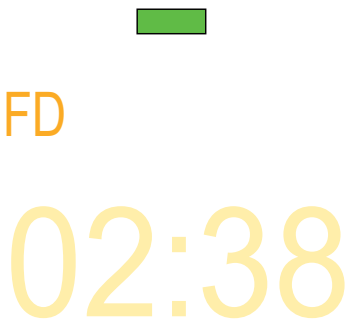
00: Automatic calculation of the total number of free dives within 12 hours. | Temperature reading
(Free diving sample rate: Fixed preset value 0.5 seconds.)
SI: Surface Interval from previous Free Dive
LAST DPTH: The previous maximum depth
LAST TIME: Last free dive time

Free Diving Mode – Example Underwater Screen

26.7 C: Water Temperature
012.5m: The depth of the current location
TIME: Current cumulative free diving time

26.7 c

012.5 m

TIME
05:27

7.1   Free Diving Historical Data

MAX Rate

Ascent   0.0   ft/s
Descent   0.0   ft/s
Depth   0.0   ft
Time   0   s
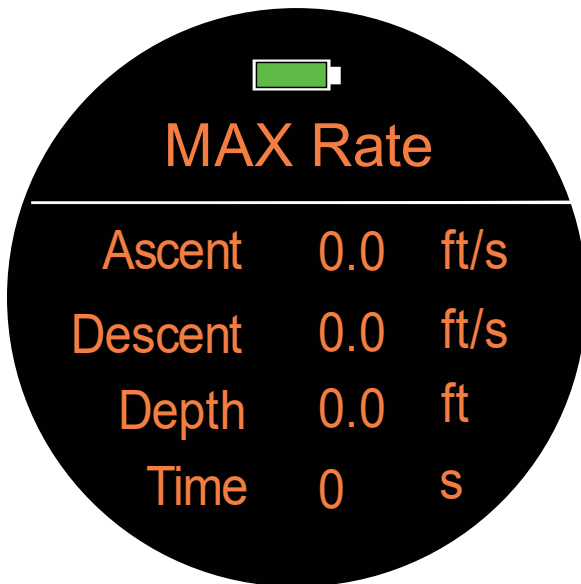
Max Rate records (Highest Numbers Achieved from all Free Dives)
(This log will automatically calculate the maximum record of free diving activities using this product within 11 hours)
How to access: From Initial Free Dive Surface Screen press the Down Button once

ASCENT: Maximum ascent speed per second
DESCENT: Maximum dive speed descent per second
DEPTH: Maximum depth
TIME: Maximum dive time

AVG Rate

Ascent   0.00 ft/s
Descent   0.00 ft/s
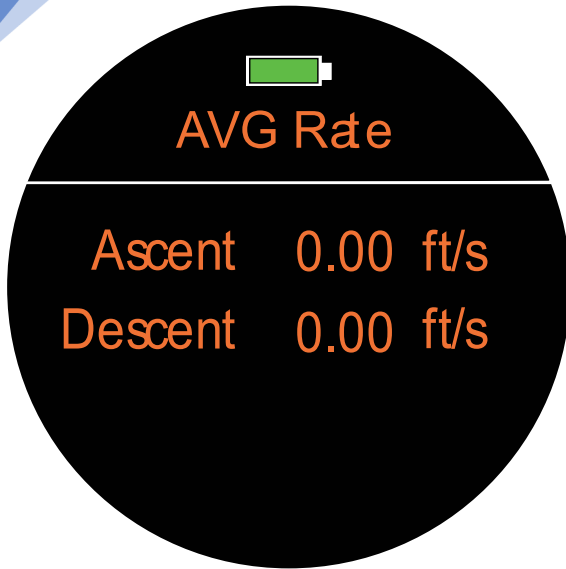
Average Rate records
(This log will automatically calculate the average record of free diving activities using this product within 11 hours)

How to access: From Initial Free Dive Surface Screen press the Down Button twice.

ASCENT: Average rise rate per second
DESCENT: Average dive rate per second

NO DIVING

02:59

Free Diving Mode - Repeated diving is prohibited

Do not repeat diving if this screen indicates that you are still in a time when repeated diving is prohibited.

For exact dive times, please refer to historical records and version information.

Note: You will not be able to use the following features at this time Free diving mode, scuba diving mode, diving plan mode.

7.2   Free Diving Alarms

Free Diving Maximum Depth Alarm

Once in this option, Alarm 1 "ON" will be flashing. Press Mode Selector to agree w/ ON or up/down buttons to turn it OFF. If ON is selected, press Mode Selector to go to depth options, the depth value will be flashing. Use Up/Down to change values & press Mode Selector again to confirm & accept. The depth value will stop flashing after the selection.

Use the same protocol to edit the depth values of **Alarm 2** & **Alarm 3**. The settings are the same.

Alarm 1
ON
10
ft

Free Diving Maximum Time Alarm (seconds)

Alarm 1
ON
10
SEC

Once in this option, Alarm 1 "ON" will be flashing. Press Mode Selector to agree w/ ON or up/down buttons to turn it OFF. If ON is selected, press Mode Selector to go to time options, the time value will be flashing. Use Up/Down to change values & press Mode Selector again to confirm & accept. The time value will stop flashing after the selection.

Use the same protocol to edit the time values of **Alarm 2** & **Alarm 3**. The settings are the same.

Free Diving Maximum Time Alarm (minutes)

Once in this option, Alarm 1 "ON" will be flashing. Press Mode Selector to agree w/ ON or up/down buttons to turn it OFF. If ON is selected, press Mode Selector to go to time options, the time value will be flashing. Use Up/Down to change values & press Mode Selector again to confirm & accept. The time value will stop flashing after the selection.
Use the same protocol to edit the time values of **Alarm 2** & **Alarm 3**. The settings are the same.

Alarm 1
ON
1
MIN

8.0 Gauge Mode

NOTE: The Gauge Mode is only a bottom timer, it will only indicate the depth/time information during a dive. It will not provide NDL, & will not store nitrogen absorption/release or Nitrox calculations. Do not use it as if it was a dive computer.

NOTE: It is not necessary to press any of the buttons on your Graviton computer while underwater. The screen will be locked for the duration of the dive.

To access: From main Watch Mode, press the Mode Selector > Diving > Up or Down buttons until **Gauge** appears in the center of the screen. Press Mode Selector one more time to access the **Gauge** mode and view the screen information. Additionally, you can use the "Twist to Next" (Set Dive Page 10) function to access a small section of the **compass** at the bottom of the screen.

Battery Icon indicating charge level
GA: An abbreviation for instrument diving mode.
AVG: The average depth
STPW: Dive Time in the current stage
SI: Surface Interval
TEMP: Water temperature
Use Twist to Next to access compass

Example of a typical **Gauge** screen view while underwater:

Battery Icon displayed
Current Depth displayed
AVG: Average Depth
STWP: Stopwatch (immersion's elapsed dive time)
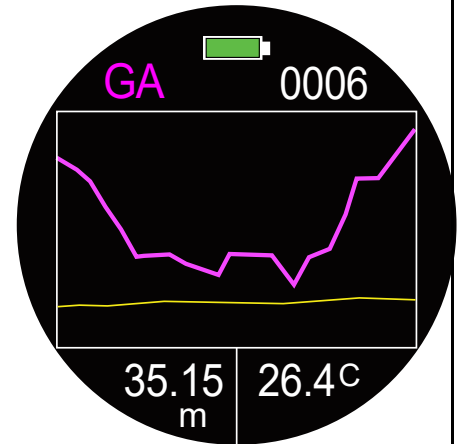TIME: Current time of the day
TEMP: Water Temperature

Gauge Mode - End of Dive

Once the diver surfaces the Graviton will show a Dive Profile graph for about 1 minute.
The graph will provide a visual aid of the dive executed as well basic info such as Dive #, Max Depth & Temperature.
To access additional diving information, press the Up or Down buttons & a 2nd page with information will appear. After 1 minute the standard Time Screen will appear.

Gauge mode – NO DIVING

Do not participate in another dive if this screen is present. It indicates that you are still in a time when repeated diving is prohibited. For exact dive times, please refer to historical records and version information.

Note: The Dive Computer will be locked & you will not be able to use the following features at this time Scuba Diving mode, Free Diving mode and Dive Plan mode.

9.0   Plan Mode

Gauge

Plan

21% | CF2

DPTH

5 m

NDL

99 min
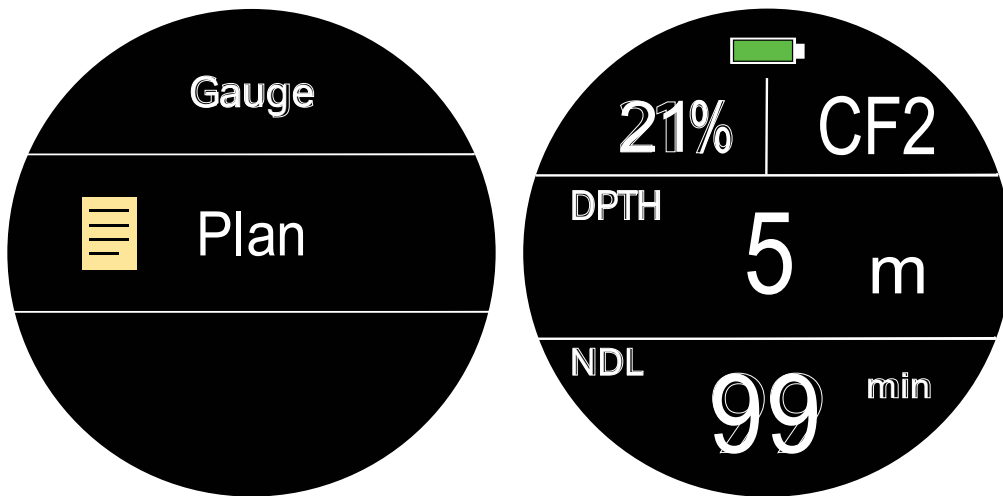
Dive Plan Mode - Alert Information

To access: From main Watch Mode, press the Mode Selector > Diving > Up or Down buttons until **Plan** appears in the center of the screen. Press Mode Selector one more time to access the **Plan** mode and view the screen information.
Use the Up or Down buttons to different Planning Depth options & see how those affect your time. This function assists the dive make determinations such as Dive Sites to explore, etc.
A warning message will appear when your dive plan exceeds the PO2 value you previously set.
Warning mode: a long warning tone once, the surface vibration once, & the PO2 value continues to flash. It is recommended that you modify your diving plan after you are made aware of this information

10.0 Dive Spot Mode

Dive Spot Mode allows the user to either download a pre-recorded database of Dive Spots using the Divestory app and then access them in conjunction with the watch or mark real time locations of particular dive spots (My Spot) while at the surface to later access them via GPS. Some of the Data Base options is still under development.

To access Dive Spot press the Mode Selector button, go to "Diving" and from the options scroll down to "Dive Spot".

Dive spot options are: Navigate, Add Spot, and My Spot.

The watch will go to "GPS Searching" (searches for satellites…) and after the 100% is achieved the watch will display the Latitude/ Longitude coordinates of where you & the watch are located in the world.

Use the "+" symbol to add that particular spot to the list of spots within the watch's memory. The watch screen will display "Saved to My Spot" as well as the date and time of the event.

11.0   Wireless Sync

The Genesis Graviton must be used with Divestory App to download/ upload Diving Information, Logs & Settings wirelessly.

1. Please go to the App Store or Google Play to download the Divestory App.
2. Turn on the "BT" function of your phone.
3. Turn on the APP, go to the "+" symbol to add your Graviton & follow prompts. Use Dive Logs to read & sore logged dives. Divestory can also be used to update computer's firmware.

12.0   Disclaimer

This unit is for recreational use only. The Genesis Graviton Dive computer is not applicable to the measurement of data and usage specifications which are required for occupational or industrial grade compliance.

13.0   Flying After Diving Considerations

The Society of Underwater High-Pressure Medicine (UHMS) recommends that divers who are planning to use standard air travel or drive to a high-altitude destination, to wait at least 24 hours after the end of their last dive. Commercial aircraft, even with cabin pressurization, can only provide an altitude equivalent cabin pressure of 2,400m/8,000ft.

To ensure divers do not experience symptoms of decompression sickness after diving, wait at least 24 hours before heading to high-altitude destinations (by land transportation) or on-board commercial aircraft with an cabin pressure altitude-equivalent of 2,400m/8,000ft.

In watch mode, the No-Fly aircraft symbol displayed at the bottom of the screen reminds you not to fly or drive to a high-altitude destination. The time remaining before being allowed to fly is displayed on the first information page. To access, click the DOWN button while in watch mode to view the information page.

Please remember the following additional recommendations concerning Do-Not-Fly time:

Divers who have performed several dives for several consecutive days, or who have required to perform a decompression stop, should exercise extreme caution and continue to wait even longer than 24 hours before flying or driving to a high-altitude location.

Genesis Scuba recommends to NOT drive a vehicle or use any means of transportation to a destination of high altitude and NO airplane travel should be made during the prohibited flight time established by DAN and UHMS, and until the airplane symbol / icon has disappeared from the computer's screen.

14.0　　　How to delete Dive Logs

Press the Right-Side Center button once.
Press the Right-Side Lower button to Logs.
Press the Right-Side Center button to enter Logs.

Option 1 – To delete individual Logs.
1. Press the Right-Side Center button once to enter the Log with the arrow indicator.
2. Press the Right-Side Lower button twice to view the Log information.
3. When in this last Log screen press the Right-Side Center button once.
4. Choose Yes with Right-Side Center button.
5. Choose No with Left-Side Lower button.

Option 2 – To delate all Logs.
1. After entering Logs section, press Right-Side Lower button all the way to the bottom of the Logs.
2. Press Right-Center button for All Delete
3. Choose Yes with Right-Side Center button.
4. Choose No with Left-Side Lower button.

Important –

1. Make sure that all the Logs that you want are saved in the Dive Story App before deleting from the computer.
2. Deleting any Logs will not delete the algorithm calculation to protect the diver for any additional dives and for the No-Fly indication.

15.0　　　Conditional Warranty

Genesis Scuba provides warranties for buyers who purchase dive computer watches and computer accessories (hereinafter referred to as products). These may include free repairs or overall product replacement, which is at Genesis Scuba's sole discretion. If local regulations otherwise provide for consumer rights, they are not subject to these terms. The validity of the warranty terms is limited to the country in which the product was originally purchased, and the product is also a product that is duly licensed locally for sale and service by Genesis Scuba. No fees will be charged to the consumer for the parts replaced during the warranty period, except for the shipping costs of the repair company or other services that may be derived from it. The warranty period begins on the day the consumer buys the product. The product may contain several different parts, and the warranty conditions for the parts vary.

The main body of the diving computer has a two-year warranty.

Expendable spare parts are under warranty for a full year, and these parts may include:

batteries, chargers, charging lines, straps etc. Unless otherwise specified by local ordinance, resale, sending to the original plant for repair or replacement of new products will not extend the original warranty period.

Parts that have been repaired and replaced during the warranty period shall include a warranty period of 3 months from the date of maintenance, or extend the warranty period of the original remaining products, both of which take longer as the criteria for identification.

16.0 Exclusions and Limitations

This conditional guarantee does not include:

- Wear and tear caused by normal use.
- Problems caused by improper exposure to sharp objects, bends, squeezes or drops.
- Improper use in violation of Genesis Scuba's original regulations/instructions, product damage or malfunction (e.g. non-compliance with the product manual), and other conduct beyond reasonable control.
- Damage to settings, data content, or other data inside the computer. Whether it's a manual obtained with the purchase of the goods, downloaded, software from a third person or even data obtained by the user themselves.
- Failures caused by the use of non-original services, software, accessories or any related products, or the use of Genesis Scuba products for non-original design purposes.
- Unit failure due to attempts to replace or remove the battery.

The warranty terms automatically cancel if:

- The product itself has been disassembled, altered, or repaired by a non-Genesis Scuba certified technician.
- Use parts or consumables not supplied from the original factory for repair.
- The products serial number has been removed, worn, altered, or defaced unrecognizable.
- Products have been exposed to the effects of chemical environments, such as chemical sprays with solvent components such as sprayed mosquito-resistant liquid.

Genesis Scuba cannot guarantee that the product will operate without interference or errors at all, or that the product will be compatible with the hardware or software provided by other vendors.

17.0 How to Obtain Genesis Scuba Warranty Services

For warranty repair services, please check the customer service data in the instructions, or check online at www.genesisscuba.com . To claim warranty rights, please contact your local Genesis Scuba dealer. For Dealer contact data please visit the Dealer Locator of the web page. Ask the Genesis Dealer for details on how to make a warranty claim. The above information will inform the consumer how to bring the product to the service location to request warranty repair. If you would like to send the repair by mail, please send the product to your local Genesis Scuba authorized dealer at your own expense. When requesting warranty repair benefits, you must indicate your name, address and present proof of purchase and product registration card. Purchase documents need to clearly record the product serial number, the name of the purchaser, address, place of purchase, product model and other detailed data. If the conditions of warranty are met, Genesis Scuba will provide free repair and parts replacement, and within a reasonable period of time to return the product to consumers. The determination of providing product repair or replacement of new products will be determined at the sole discretion of Genesis Scuba or Genesis Scuba Authorized Repair Center. If the warranty period has been exceeded or the warranty conditions are not met, the repair product will no longer be eligible for free service and Genesis Scuba or Genesis Scuba Authorized Service Center will retain the right to collect the cost of repair at its discretion. When a product is found to be in trouble, a warranty requirement must be made within a reasonable period of time and the consumer will voluntarily notify Genesis Scuba or a Genesis Authorized Service Center.

In any case, all warranty requests must be made before the warranty period expires before a warranty interest can be claimed.

Genesis Scuba contact

WEBSITE: www.genesisscuba.com

EMAIL: https://www.genesisscuba.com/contact-us/contact-information

18.0 Copyright Notice

Both the contents of this manual and the document are property of Genesis Scuba, Graviton and other words and graphics, are registered or unregistered trademarks of the Company. While we have made every effort to ensure the integrity and correctness of the contents of this instruction, we cannot guarantee 100% accuracy. Therefore, the contents of the specification may be revised at any time without notice.

19.0 Appendix

Product specifications

Dimensions:
Surface diameter: 51.7 mm / 2.03 inches
Depth: 14.77 mm / 0.58 inches
Weight: 65 g

Depth Gauge:

Temperature compensation pressure sensor

With seawater as the calibration benchmark, within approximately 3% reduction in freshwater readings (in accordance with EN 13319)

Maximum operating depth: 100 m/328 ft (EN 13319 compliant)

Precision: Full display of 1%, or at 20°C/68°F, 0 to 80m/262ft best-in-form EN13319

Depth display range: 0 Up to 100m/0 - 328ft

Resolution: 0.1m in range to 100m, or 1ft in range from 0 to 328ft

Temperature display:

Resolution: 1°C/1°F

Display range: 0° to 40°C/ 32°F to 104°F

Accuracy: ± 0.2 °C/ ± 0.36 °F (temperature changes within 20 minutes)

Calendar clock:

Precision: ± 0.25 seconds/month (at 20°C/68°F)

12/24 Switch

High oxygen mode display:

Oxygen concentration %: 21 - 56

Oxygen level display: 0.1 - 1.8 bar

Oxygen exposure limit: 1-100%, 1% display resolution

Working environment: Normal altitude range: 0to 3000m / 10,000ft

Operating temperature: 5°C to 40°C / 32°F – 10°4F

Storage temperature: 0°C to 40°C/ 32°F to 104°F

Note: Low temperature conditions affect battery power. If you use this dive computer in a low temperature environment for a long time, it will cause more charge cycles to the battery. The low power warning will disappear automatically when diving mode is started again.

Genesis Scuba Decompression Algorithm operations use 16 tissue intervals using the Bühlmann ZH-L16C half-time organization table.

The "M" value represented by nitrogen emissions is related to diving habits and whether dive warnings are violated

After the dive, the computer algorithm continues to track changes in the "M" value.

The calculation of hyper-oxygen and oxygen exposure is based on NOAA (National Oceanic and Atmospheric Administration) High oxygen NITROX mode shows:

Oxygen concentration: 21% to 99%,

Oxygen pressure display: every 0.01 bar

Oxygen exposure limit: 1% to 100 %, display resolution 1 %

Stress reduction theory and organizational mode:

Genesis Decompression Algorithm operations use 16 organizational intervals. The organization interval is organized using a half-time organization table of Bühlmann ZH-L16C. The "M" value represented by nitrogen emissions is related to diving habits and whether diving warnings are violated. After the dive, the computer table continues to track changes in the "M" value. High oxygen and oxygen exposure are calculated in accordance with NOAA's (National Oceanic and Atmospheric Administration) exposure schedule and limitation principles.

The company, the trade name or the user shall not change the frequency, increase the power or change the characteristics and functions of the original design without approval for the low-power RF equipment as approved. The use of low-power RF equipment shall not affect the safety of flight and interfere with legitimate communication, and should be discontinued immediately if interference is detected, and shall be improved to non-interference before continued use. The aforementioned legal communication refers to the radio communication operating in accordance with the provisions of the Telecommunications Administration Law. Low-power RF equipment is subject to legal communications or interference from industrial, scientific and medical radiological motor equipment.

20.0 Glossary of Terms & Definitions

Term	Description
High-Altitude Diving	Diving activities above 300m/1000ft altitudes
Ascent Rate	The speed at which the diver rises in the water to the surface
Central Nervous System Poisoning	High pressure oxygen is toxic to the human body, and the toxicity produced by excessive breathing can lead to different symptoms of neurotoxicity. The most serious of these is the convulsive neurotoxic reaction, which is likely to cause breathing to be caused by convulsions beyond the diver's control and cause drowning
CNS	Abbreviation of oxygen poisoning in the central nervous system
Decompression	Before the diver ascends to the surface of the water, the diver stays at the permissible depth, allowing nitrogen dissolved into the body's tissues to be discharged naturally by the body's metabolism due to differences in pressure gradients
Decompression Sickness	Also known as DCI or diver disease. The cause is due to improper control of the decompression process, resulting in the body or tissue because the pressure gradient is too large, the body's metabolic system is too late to drain excess nitrogen and directly form bubbles, these bubbles in the body directly or indirectly caused by a variety of diseases. Generally referred to as DCI or diver disease.
Dive Time	Start of diving until the end of the dive
NDL	No Decompression Limit, also known as the decompression-free time or decompression-free limit, is called a dive with a diver's ascent process that does not require a decompression stop, while a diver's maximum time at a certain depth without entering a stress-free state is a stress-free time or decompression-free limit
EAN	An abbreviation for Enrich Air Nitrox (High Oxygen Nitrogen Mix. For short, or EANx, x represents a percentage increase in oxygen percentage. For example, the ratio of high oxygen mixture is a mixture of 32% and 36% for EAN32 (NOAA I) and EAN36 (NOAA NN II).
NITROX	The nitrogen oxide concentration of the mixture with variable nitrogen concentration is changed to the proprietary name "NITROX" in the English word meaning of the nitrogen and oxygen as the pre-vowel, and the Chinese name is defined as "nitrogen oxide mixture gas"

Gensis Scuba

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www.genesisscuba.com