

# DIRECTION FOR USE DONATELLO / MICHELANGELO











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QUALITY PRODUCTS SINCE 1946 *(5534)* 

## **WARNING**

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **INGESTION HAZARD:** The product contains non user replaceable cell batteries.
- DEATH or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours.
- KEEP new and used batteries OUT OF REACH of CHILDREN.
- Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body.
- BATTERY TYPE: CR2430.
- NOMINAL VOLTAGE: 3V.



# **WARNING**

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- BATTERY TYPE: CR2430.
- NOMINAL VOLTAGE: 3V.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.

Congratulations on your purchase of your DONATELLO/MICHELANGELO dive computer, a sophisticated and complete instrument, manufactured to ensure you the utmost safety, efficiency, and reliability.

#### MAIN SPECIFICATIONS.

#### **DIVE COMPUTER**

- CRESSI RGBM algorithm. This new algorithm is the result of a collaboration between Cressi and Bruce Wienke, based on the Haldane model integrated with GRBM factors for safe decompression calculations for repetitive multi-day dives.
- Tissues: 9 with tissue saturation half-times between 2.5 and 480 minutes;
- "Dive" Program: Full processing of dive data, including with decompression (where needed), for any dive with Air or EAN (Enhanced Air Nitrox).
- Option to use TWO different hyperoxygenated Nitrox mixtures, which can be selected during the same dive (MICHELANGELO only).
- Full setting of %O2 parameters (oxygen percentage) and PO2 (oxygen partial pressure) with the option of setting PO2 between 1.2 and 1.6 bar, and %O2 between 21% and 50% for the first mix, between 21% and 99% for the second (MICHELANGELO only).
- A Nitrox dive may be carried out after an air dive (even with desaturation in progress).
- Deep stop can be turned on or off.
- **GRGE** function for diving without calculating decompression and resettable depth timer.
- FREE function for free dives with alarms that can be disabled.
- Display with "PCD System" that makes values legible and easy to understand.

- User-replaceable batteries.
- 12/24 time format with minutes and seconds.
- Calender.
- Planning dives with manual scrolling of the no-decompression limits.
- Users can switch units of measure between metric (meters and °C) and Imperial (ft and °F).
- Visual and audible alarms.
- Graphic indicator of CNS oxygen toxicity.
- High-efficiency backlit display.
- $\cdot$  Logbook with option to save up to 50 dives by type.
- Dive history.
- Option to reset the desaturation, which is useful for rental devices.
- $\cdot~$  PC/Mac interface with general information and dive profile (optional).

#### GENERAL WARNINGS AND SAFETY RULES

**WARNING:** Please read the instructions! Read this instruction manual carefully, including the sections on safety rules. Make sure that you have fully understood the use, functions, and limits of your device before using it! Do NOT use the device until you have read this instruction manual in its entirety.

**IMPORTANT:** this device must be considered a aid to your dive, and does not replace the use of dive tables.

▲ DANGER: AN UNDERWATER DIVING COMPUTER CAN NEVER COMPLETELY ELIMINATE THE RISK OF DECOMPRESSION SICKNESS (EMBOLISM). IT MUST BE CLEAR THAT AN UNDERWATER DIVING COMPUTER CAN NEVER COMPLETELY ELIMINATE THE RISK OF DECOMPRESSION SICKNESS. A COMPUTER CANNOT TAKE INTO ACCOUNT A DIVER'S PHYSICAL CONDITION, WHICH MAY VARY DAILY. Rev. 03/2019

WE RECOMMEND THEREFORE THAT YOU HAVE A THOROUGH MEDICAL EXAM BEFORE YOU BEGIN DIVING, AND THAT YOU ASSESS YOUR OWN PHYSICAL CONDITION BEFORE EACH DIVE. CIRCUMSTANCES SUCH AS COLD WATER (LESS THAN 50°F/10°C), POOR PHYSICAL CONDITION, MULTIPLE DIVES IN SUBSEQUENT DAYS, FATIGUE, USE OF ALCOHOL, DRUGS, OR MEDICATION, AND DEHYDRATION MAY ALL INCREASE THE RISK OF DECOMPRESSION SICKNESS. AVOID THESE SITUATIONS AND ANY OTHERS THAT MAY COMPROMISE YOUR SAFETY: EVERY DIVER MUST BE RESPONSIBLE FOR THEIR OWN SAFETY.

**IMPORTANT:** only certified divers should use this device. No computer can replace proper dive training. Remember that only adequate training can ensure a safe dive.

**WARNING:** the Cressi DONATELLO/MICHELANGELO computer is designed for recreational diving only. It is not intended for commercial or professional use requiring longer dive times and greater depths, which increase the risk of decompression sickness.

**WARNING:** before using the computer, check the battery charge and the indications on the display. DO NOT dive if these indications are at all unclear or dimmed, or if the low battery icon appears.

**WARNING:** while diving, be equipped with a depth gauge, a pressure gauge, a timer or watch, and dive tables. Always check that the cylinder pressure is sufficient for the dive you have planned, and during the dive check the amount of air in the cylinder frequently, using the pressure gauge.

 $\triangle$  **DANGER**: DO NOT DIVE AT HIGH ALTITUDES BEFORE SETTING THE CORRECT ALTITUDE. ONCE SET, PLEASE CHECK THE ALTITUDE LEVEL

ON THE DISPLAY. REMEMBER THAT DIVING AT ALTITUDES HIGHER THAN 9,842 FT./3,000 M. ABOVE SEA LEVEL SIGNIFICANTLY INCREASES THE RISK OF DECOMPRESSION SICKNESS.

▲ DANGER: WAIT FOR THE "NO FLY" INDICATION ON THE COMPUTER DISPLAY TO TURN OFF BEFORE YOU FLY.

**IMPORTANT:** this is a strictly personal device. The information it provides refer exclusively to the person who used it during the dive or the series of repetitive dives.

▲ DANGER: CRESSI DOES NOT RECOMMEND THE USE OF THIS INSTRUMENT IN DECOMPRESSION DIVES. HOWEVER, IF FOR ANY REASON YOU ARE FORCED TO EXCEED THE NO-DECOMPRESSION LIMITS, THE CRESSI DONATELLO/MICHELANGELO COMPUTER IS ABLE TO PROVIDE ALL INFORMATION CONCERING DECOMPRESSION, ASCENT, AND THE CORRESPONDING SURFACE INTERVAL.

**WARNING:** do not dive using Nitrox mixtures without personally checking the contents and the correct O2 percentage (%O2). Next, set the value for the mix in your computer so it can make the decompression calculations. Keep in mind that the computer does not accept decimal values for %O2.

WARNING: Check the parameter settings on your device before diving.

**DANGER**: DONATELLO/MICHELANGELO always keeps the most recent oxygen percentage set. It is very important for diver's safety to always check this parameter before each dive.



▲ DANGER: CRESSI DISCOURAGES NITROX DIVES WITHOUT PROPER TRAINING. NITROX DIVES WILL EXPOSE THE DIVER TO DIFFERENT RISKS THAN AIR DIVES, INCLUDING SERIOUS PHYSICAL HARM AND, IN EXTREME CASES. EVEN DEATH.

▲ DANGER: FOR SAFETY REASONS. THE DONATELLO/MICHELANGELO COMPUTER USES THE PO2 SET BY THE MANUFACTURER AT 1.4 BAR, EVEN FOR AIR DIVES. IF YOU NEED TO INCREASE THE MARGIN OF SAFETY EVEN FURTHER, THE PO2 VALUE CAN BE SET TO A LOWER VALUE, DOWN TO 1.2 BAR IN INCREMENTS OF 0.1 BAR.

WARNING: after a dive with DONATELLO/MICHELANGELO set in GAGE mode (depth gauge/timer), the instrument will not calculate saturation and desaturation for the subsequent 48 hours.

**IMPORTANT:** avoid any type of high-risk dive, such as those with a so-called "yo-yo" profile, those with reversed profiles, or multiple consecutive multi-day dives, since they are potentially dangerous and are at high risk for decompression sickness.

WARNING: Currently there is no corroborated scientific literature that allows for more than two dives per day for a period of one or more weeks without the risk of decompression sickness. For your own safety, it is important to avoid diving more than twice a day. A rest of at least 2 hours between two subsequent dives is also recommended.

**IMPORTANT:** whenever you realize that any factors exist that may increase the risk of decompression sickness, choose the most conservative Safety Factor (SF1 and SF2) to make the dive safer.

NOTE: when you fly, carry the instrument in the pressurized cabin with you.

NOTE: Cressi strongly recommends that all recreation dives be conducted within the guidelines of no-decompression diving and to a maximum depth of 132 ft/40 m. Exceeding these perimeters dramatically increases the likelihood of decompression sickness.

#### FREEDIVES

WARNING: Freediving safety depends on the rational abilities of each person to use their theoretical and practical knowledge sensibly and prudently to avoid accidents. This device must only be considered freediving aid for people who have diligently prepared for the risks that this activity entails. Therefore it must only be used by divers who are fully trained in both the theory and practice of freediving techniques and the dangers that it entails.

**DANGER:** IT MUST BE CLEAR THAT A DIVE COMPUTER CANNOT, AND IS NOT INTENDED TO, ELIMINATE THE RISK OF SYNCOPE OR TARAVANA. A DIVE COMPUTER ONLY INDICATES DIVE TIME, SURFACE TIMES, AND DEPTH. THE INFORMATION PROVIDED TO THE DIVER IS MERELY DATA, AND IT BECOMES SAFETY INFORMATION ONLY ONCE IT HAS BEEN EXAMINED AND PROCESSED BY THE HUMAN MIND. THEREFORE SOLID AND THOROUGH THEORETICAL PREPARATION IS RECOMMENDED.

WARNING: Only certified divers should use this device. No computer can replace proper dive training. Remember that only adequate training can ensure a safe freedive.

**WARNING:** The Cressi DONATELLO/MICHELANGELO computer was made solely for recreational use and is not intended to be used professionally.

**WARNING:** before using the computer, check the battery charge and the indications on the display. DO NOT dive if these indications are at all unclear or dimmed, or if the low battery icon appears.

**DANGER**: Before flying or traveling to high altitudes, it is crucial that you do not take any demanding freedives at a sustained pace in the preceding 48 hours.

WARNING: Check the parameter settings on your device before diving.

**WARNING:** Deep freediving is a dangerous discipline, and a great deal of practical and theoretical preparation is necessary in order to practice it safely. It is important to earn a certification from an accredited dive school. In any case, we recommend that divers always be fully aware of their limits and remain well within them when practicing this discipline. We recommend that you never dive alone, and that you are always with a buddy who is ready to help if needed.

**WARNING:** Currently there is no corroborated scientific literature that has a certain understanding of what causes Taravana. This means that it's important to your health to avoid deep freedives at a sustained pace for many hours with only brief surface intervals. Do not dive if you are not in perfectly normal health, and make sure you stay hydrated and maintain a regular energy intake.

**NOTE:** when you fly, carry the instrument in the pressurized cabin with you.

Cressi reserves the right to make changes to the instrument without prior notice as a result of the constant technological updating of its components.



#### INTRODUCTION

The DONATELLO/MICHELANGELO computer is an advanced recreational device that can provide all the necessary information about depth, dive times, need for decompression when applicable, ascent speed, and surface intervals between dives (AIR and NITROX).

Nitrogen absorption and release is continuously processed by its sophisticated software, taking into account the quantity of inert gas in the different usable mixes. This information is displayed on the instrument's display thanks to the PCD (Priority Compartment Digit Display) System, creating an easy and direct "dialogue" between the diver and the computer, ensuring that all useful information is clear and easy to understand at any moment and is perfectly legible under all circumstances. The computer also has a watch and calendar, and has a versatile memory of the dives taken (logbook).

The DONATELLO/MICHELANGELO mathematical model can calculate saturation and desaturation for a dive taken with air or with hyperoxygenated mixtures (Nitrox).

In the case of Nitrox, all the parameters for the dive mixture can be set from the maximum PO2 value (between 1.2 and 1.6 bar) to oxygen percentage for the mixtures (%O2), from 21% to 50% O2 (GAS1), from 21% to 99% (GAS2) (MICHELANGELO ONLY). Users can also switch the units of measure between metric (meters and °C) and Imperial (ft and °F). The Cressi DONATELLO/MICHELANGELO dive computer can be connected to a personal computer using the Cressi interface (accessory) and the corresponding software (accessory). It is very important to read this instruction manual carefully and understand its instructions exactly. Failure to do so can result in serious harm to your health. The purpose of this manual is to guide the buyer in understanding all the functions of the computer before using it on a dive.

#### WATCH FUNCTION

The DONATELLO/MICHELANGELO features an intuitive multi-level circular menu that is easy to read.

#### FUNCTIONS OF THE BUTTONS



Short: O when pressed briefly, the button scrolls through the various menus and sets the adjustments in increments. When pressed Long
(1 second) the button enters the various menus and confirms;
pressing even Longer O (3 seconds) returns you to the previous menu.

When pressing Long (1 second) in the predive, time - date, or dive functions, the display backlight will switch on for 5 seconds.

#### SWITCH ON

#### SWITCH ON (DESAT) AIR

PPO, MAX

PRE DIVE (DESAT)

PD: ĨŸŔR: P

THE SCREEN SCROLLS AUTOMATICALLY

EN

To turn on the computer, press Short  $\bigcirc$  :

The computer will be in PRE-DIVE mode, showing all information about the dive.



The computer is ready to begin a dive. Before the dive check that all the information is correct.

**NOTE:** The computer can turn on automatically during the dive within 20 seconds when descending past 4 ft/1.2 m, even if the diver fails to turn it on. Cressi nevertheless recommends turning on the device and checking the parameters.

SURF\_TIME DESAT TIME COUNTDOWN TO: IBI23-42 ISI823-42 NO FLY TIME COUNTDOWN

SWITCH ON (DESAT) AIR (DONATELLO/MICHELANGELO)



PPO<sub>2</sub> MAX DEPTH THE SCREEN SCROLLS AUTOMATICALLY



NO FLY TIME COUNTDOWN

The computer will return to standby mode (off) after 10 minutes of inactivity on the surface.

#### DESAT TIME

After completing a dive, if there is still DESAT time active in AIR, FREE, or GAGE modes, the computer will alternate between the DESAT and PREDIVE screens.

If there is still DESAT time in NITROX mode, the computer will alternate the DESAT screen with the screen for PREDIVE (DONATELLO); PREDIVE GAS1, GAS2 (MICHELANGELO).







From the TOP screen, press Short 🔿 to scroll the screens in the main menu:



From each of these screens, pressing the button Long — will access the corresponding functions:

#### PRE DIVE AIR

EN

### 

The computer is ready for the dive.

#### PRE DIVE NITROX



The computer is ready for the dive.

If you are using multiple GASES, the screens will change once per second, showing the settings for the dive.



# TIME/DATE MODE-S (MODE-SET) TIME Image: Second sec

On this screen you can see the current time and date.

The **MODE** - **S** function lets you choose the dive mode you want. To enter the **MODE** - **S** function, press the button Long  $\bigcirc$ . The first line will show the word SET and will show the mode that is currently set (flashing). Press Short  $\bigcirc$  on the button to select the various modes

- $\cdot$  AIR for monitoring dives using air
- EAN for monitoring dives using enhanced air (Enhanced Air Nitrox).
- $\cdot$  FREE or free diving
- $\cdot$  GAGE or the depth gauge function

Confirm the desired mode pressing the button Long — until you hear the confirmation beep.

Press the button Longer (3 sec.) 🔵 to return to the main menu.

#### LOGBOOK

From this screen, press Long 🛑 to access the dive log:



The memory in DONATELLO/MICHELANGELO allows you to record up to 50 dive by type (air/ean-free-gage) with pressure and temperature data.

After 50 dives, the oldest dives will be progressively deleted. The dives are numbered by date, from the most recent to the oldest. Press the button Short 🔘 to scroll through the dive dates.



The first line will show the day, month, and year of the dive.

<sup>2</sup> The middle line shows the start time.

For dives in NITROX, FREE or GAGE modes, the corresponding icon will be displayed.

Press the button Long 🛑 to view the data for the selected dive.

NOTE: the logbook cannot be cleared.

#### LOG AIR

The log of AIR dives consists of two pages that can be scrolled by briefly pressing the button Short 🔘 .

Page 1 shows:



- Safety Factor, SF (0/1/2)
- Total dive time, DIVE.T (min)
- The maximum depth reached during the dive, MAXDEPTH (m/FT)
- $\cdot$  The number of the page you are viewing, P (1/2)
- The average dive depth, A. (m/FT)
- The coldest logged temperature (°C/°F)
- The mountain icon, if applicable
- The icon for exceeding the PPO2 limit set, if applicable

Page 2 shows:



- The maximum PPO2 partial pressure value (1.2-1.6)
- The dive type (AIR)

#### LOG EAN (DONATELLO)

The EAN (NITROX) dive log consists of two pages that can be scrolled by briefly Short O pressing the button. Page 1 shows:



- Safety Factor SF (0/1/2)
- Total dive time, DIVE.T (min)
- $\cdot$  The maximum depth reached during the dive, MAXDEPTH (m/FT)
- $\cdot$  The number of the page you are viewing, P (1/2)
- $\cdot$  The average dive depth, A. (m/FT)
- $\cdot$  The coldest logged temperature, °C/°F
- $\cdot$  The mountain icon, if applicable
- $\cdot$  The icon for exceeding the PPO2 limit set, if applicable

Page 2 shows:



- The maximum PPO2 partial pressure value (1.2-1.6)
- The oxygen percentage in the mixture, O2 (21-50%)

#### LOG EAN (MICHELANGELO)

The EAN (NITROX) dive log consists of three pages that can be scrolled by briefly Short O pressing the button. Page 1 shows:



- Safety Factor SF (0/1/2)
- $\cdot$  Total dive time, DIVE.T (min)
- $\cdot$  The maximum depth reached during the dive, MAXDEPTH (m/FT)
- $\cdot$  The number of the page you are viewing, P (1/2)
- $\cdot$  The average dive depth, A. (m/FT)
- $\cdot$  The coldest logged temperature, °C/°F
- $\cdot$  The mountain icon, if applicable
- $\cdot$  The icon for exceeding the PPO2 limit set, if applicable

Page 2 shows:



- The maximum PPO2 partial pressure value (1.2-1.6)
- $\cdot$  The oxygen percentage in the mixture, O2 (21-50%)

Page 3 shows:



• The maximum PPO2 partial pressure value (1.2-1.6) for GAS2 • The oxygen percentage in the mixture, O2 (21-99%) for GAS2

#### FREE LOG

The FREE (freediving) log consists of 2 pages that can be scrolled by briefly pressing Short

SESSION

Page 1 shows:



- $\cdot$  The total session time SESS (min)
- $\cdot$  The maximum depth reached during the dive, MAXDEPTH (m/FT)
- $\cdot$  The number of the page you are viewing, P (1/2)
- $\cdot$  The progressive number of dives, D (01, 02, 03...)
- $\cdot$  The coldest logged temperature °C/°F

Page 2 shows:



logbook for the individual dive:

By pressing Long — on the button from one of the two pages on the FREE log

you will be taken to the data for individual dives.



in this log, when you Short O press on the button, the dives will be shown progressively with the following data:

- $\cdot$  Surface time for the previous dive, SURF.T (min)
- $\cdot$  Dive time for the dive displayed, DIVE.T (min)
- $\cdot$  Maximum depth of the dive displayed, MAXDEPTH (m/FT)
- Number of the dive displayed, D. (01, 02, 03...)
- $\cdot$  Coldest logged temperature for the dive displayed, °C/°F



(the logbook for the individual dive can only be viewed if the session is fewer than 100 dives. To view the individual data in sessions with more than 100 dives, use the PC/MAC interface).

#### GAGE LOG

The GAGE logbook consists of 1 page that shows:



- $\cdot$  Total dive time, DIVE.T (min)
- $\cdot$  The maximum depth reached during the dive, MAXDEPTH (m/FT)
- $\cdot$  The average dive depth, A. (m/FT)
- $\cdot$  The coldest logged temperature, °C/°F

#### DIVE-SET: Setting dive parameters. AIR/NITROX (DONATELLO), NITROX GAS1-2 (MICHELANGELO)

Once the MODE SET (MODE-S) menu has been set in the AIR and NITROX mode, its parameters can be edited by accessing the DIVE SET (DIVE-S) menu.

Press the button Long 🛑 to access the dive-set menu.

The parameters that can be edited in the DIVE-S menu in AIR/NITROX modes are as follows:

DEEPSTOP - SAFETY FACTOR (SF) - ALTITUDE (ALT)- DEPTH (MAXIMUM DEPTH ALARM) - OXYGEN PERCENTAGE (%O2 NITROX MODE) - PARTIAL PRESSURE OF OXYGEN (PPO2) - OXYGEN PERCENTAGE GAS 2 (OFF/21%-99% MICHELANGELO ONLY). PARTIAL PRESSURE GAS2 (MICHELANGELO ONLY) DEEP STOP

There are different diving teaching methodologies and decompression theories. Each of them has been developed according to important scientific concepts, lab tests and practical tests. During specific dives, some of them support and require DEEP STOPs, while others do not call for this type of decompression profile. DONATELLO/MICHELANGELO is factory set with DEEP STOP active.

The DEEP STOP icon indicates that it is active. Press the button Long 
, then a Short 
press to activate/deactivate the deep stop, followed by
another Long 
press until you hear the confirmation beep.

#### SF (SAFETY FACTOR)

The Safety Factor is an additional parameter whose purpose is to make dives safer based on when there are personal risk factors that increase the risk of decompression sickness. The diver can select from three values: SF0/SF1/SF2. The default factory setting is SF0, i.e. disabled.

To change the Safety Factor (SF), Long press the button and adjust the safety factor to the desired setting with a Short O press (SF0/SF1/SF2).

Confirm with a Long 🛑 press until you hear the confirmation beep.

#### ALT (ALTITUDE)

For dives taken at altitude, adjust the computer as follows: Give the button a Long press, and then a Short one to adjust the correct altitude value. Give the button a Long press until you hear the confirmation beep.

No mountain One mountain Two mountains Three mountains - from 0 to 2297 ft (0 to 700 m)

- from 2297 to 4921 ft (700 to 1500 m)
- from 4921 to 7874 ft (1500 to 2400 m)
- from 7874 to 12139 ft (2400 to 3700 m)

Each icon indicates that as a result the computer has changed its mathematical model as a function of the altitude set.

Clearly, this must correspond to the actual altitude reached, and must fall within the altitude levels on the computer (none, one, two, or three mountains). When diving at an altitude higher than the one where the diver usually lives, the body experiences alterations due to nitrogen oversaturation and it must rebalance itself with the external environment. It is important to keep in mind that because of the lower partial pressure of the oxygen in the atmosphere, our body needs an acclimatization period. Therefore we recommend after arriving at altitude that you wait at least 12 to 24 hours before taking a dive.

▲ **DANGER**: DONATELLO/MICHELANGELO does not automatically handle dives at a location above sea level. Thus, it is mandatory to correctly set the altitude level and respect the acclimatization period before diving.

**DANGER**: Diving at altitudes greater than 9,842 ft/3,000 m above sea level involves an increase risk of decompression sickness.

#### DEPTH (MAXIMUM DEPTH ALARM)

The DONATELLO/MICHELANGELO computer has a maximum depth alarm that can be set by the user, which is very helpful for teaching dives. The alarm can be adjusted from a maximum of 164 ft/50 m to a minimum of 32 ft/10 m in increments of 6 ft/2m. To set the maximum depth limit, from the DEPTH screen, give the button a Long — press to enter the function, and then give a Short O press to set the maximum depth desired, and confirm with a Long — press.

MAXIMUM DEPTH ALARM DURING THE DIVE:

When the maximum depth set is exceeded during the dive, three consecutive audible beeps will sound, and the depth value will flash until the diver returns within the set threshold.

NOTE: the computer is set in the factory with DEPTH set to OFF.

#### **OXYGEN PARTIAL PRESSURE (PO2)**

The company sets DONATELLO/MICHELANGELO to an Oxygen Partial Pressure (PO2) value of 1.4 bar both for Air and Nitrox dives to ensure maximum safety during any type of dive.

#### **OXYGEN PARTIAL PRESSURE SETTING (PO2) (AIR)**

(DONATELLO/MICHELANGELO): On the PPO2 screen, give the button a Long press to enter the function. The value of the partial pressure will begin to flash.

Use Short O presses until you have set the desired partial pressure. Give a Long O press to confirm your choice. The computer will give a confirmation beep.

Then press Longer 🔵 to return to the main menu.

#### SETTING %02 OXYGEN PERCENTAGE AND PRESSURE PARTIAL OXYGEN PO2 (NITROX)

**DONATELLO**: on the %02 screen, Long press the button to enter the function. The O2 percentage will start flashing. Give a Short O press to increase the oxygen percentage (the available values range from 21% to 50% in increments of 1%). Once you reach the percentage you want, Long press to confirm. The computer will beep to confirm. Next, Short O press to move the PPO2 screen. If you want to change the partial pressure, Long press to enter this function. Then briefly Short O press the button to set the desired partial

pressure, and confirm with a Long press. The computer will beep to confirm.

Then press Longer 🔵 to return to the main menu.

**MICHELANGELO**: on the GAS1 %02 screen, and Long — press the button to enter the function.

The GAS1 O2 percentage will start flashing.

Briefly Short O press the button to increase the oxygen percentage. Once you reach the percentage you want, Long Press to confirm. The computer will beep to confirm.

Next, Short press to move to the GAS1 PPO2 screen. If you want to change the partial pressure, Long — press to enter this function.

Then briefly Short O press the button to set the desired GAS1 PPO2 partial pressure and confirm with a Long press. The computer will beep to confirm.

Then press Longer  $\bigcirc$  to return to the main menu, or press Short  $\bigcirc$  to enable GAS2.

**EN** To enable the gas and change its percentage, press Long . Then give a Short O press until reaching the desired percentage (the available values range from 21% to 99% in increments of 1%).

Once you reach the percentage you want, Long press to confirm. The computer will beep to confirm.

Then, press Short O to set the desired partial pressure GAS2 PPO2

and confirm by pressing Longer. 🔴

Then press Longer 🔵 to return to the main menu,

**WARNING:** the computer maintains the last PO2 setting until the diver manually resets to different values.

**NOTE**: By varying the maximum PO2 set and the percentage of oxygen in the %O2 mixture, the computer indicates the maximum depth which may be reached.

**IMPORTANT**: The PO2 is set by the manufacturer to the default value of 1.4 bar, for both air dives and Nitrox dives. This ensures the safety of the diver by following the values recommended for recreational dives. If safety margin of the dive needs to be higher, the PO2 to value can be set lower, to a minimum of 1.2 bar. The values available range from 1.2 to 1.6 in increments of 0.1 bar. The value set will be stored in the computer until the diver resets it.

#### **DIVE-SET: Setting dive alarms. FREE**

Once the MODE SET (MODE-S) menu is set to FREE mode, you can activate and change the alarms by accessing the DIVE SET (DIVE-S) menu. Press the button Long to access the dive-set menu. The following alarms are available in FREE mode: (SURF-T) - (DEPTH) -(STEP) - (DIVE-T)

#### Surface time alarm (SURF-T)

By activating this alarm, once the previously set time has elapsed, the computer will beep three times to alert the diver that the surface time has been exceeded and the surface time shown on the display will begin to flash.

The setting can be based on elapsed time, from 1'00" to 10'00" in increments of 30", or the ratio between the previous dive time and surface time, from F1 to F5.

In the latter case, the computer will multiply the time of the previous dive by the factor set. For example, if the previous dive lasted 1'20" and the F2 ratio is set, the surface time will be  $1'20" \times 2 = 2'40"$ .

Press Long 🔴 to enter the function. Then press Short 🔘 to set the desired time. Finally, press Long 🛑 to confirm.

#### Depth alarm (DEPTH)

By activating this alarm, once the depth set previously is exceeded, the watch will beep three times to alert the diver that the depth has been exceeded, and the depth shown on the display will start flashing. The depth can be set from 1 m. (3 ft.) to 50 m. (164 ft.) in increments of 1 meter (3 ft).

Press Long 🔴 to enter the function. Then press Short 🔘 to set the desired depth. Finally, press Long 🛑 to confirm.



#### Depth interval warning (STEP)

A warning can be activated for each time that a depth interval passes, for example every 2 meters (6ft.).

When activating this warning, each time you pass a depth interval, the watch will beep three times.

The interval can be set from 2 m. (6 ft.) to 25 m. (82 ft.) in increments of 1 m. (3 ft.).

Press Long 🛑 to enter the function. Then press Short 🔘 to set the desired depth. Finally, press Long 🛑 to confirm.

#### Dive time alarm (DIVE-T)

By activating this alarm, once the time set previously has elapsed, the watch will beep three times to alert the diver that the dive time has been exceeded and the dive time shown on the display will start flashing. The time that can be set ranges fro 0'10" to 6'00" in increments of 0'10". Press Long to enter the function. Then press Short to set the desired time. Finally, press Long to confirm.

Press Longer 🔵 to exit the alarm setting section.

#### TIME SET (TIME-S) correcting the time and date

From this screen, press Long — to access the time/date correction function.

Give a Short O press to scroll through the following screens: H24/ H12 - hour - minutes - d-m/m-d (day-month or month-day) - day - month - year.

Press Longer 🔵 to exit the function.

#### PLAN (dive planner)

#### From this screen, press Long 🛑 to access the PLAN function (planner):



This function allows you to view the no-decompression time still available at various depths (safety curve) depending on the mix in use (Nitrox or Air). The values are given both for the first dive of a (possible) series and during a surface interval between two or more subsequent dives. In this case, DONATELLO/MICHELANGELO accounts for the residual nitrogen, and consequently reduces times in the curve. The screen will show the safety curve values (no-decompression times) for the various depths between 29 ft/9 m and 157 ft/48 m, with manual increments of 10 ft/3 m. Set these using a brief Short  $\bigcirc$  press. Then press Long  $\bigcirc$  to exit the function.

**NOTE**: The PLAN function is disabled if the computer is in STOP mode or if it is set to the GAGE or FREE function.

#### PC LINK - COMPUTER COMPATIBLE INTERFACE

The Cressi DONATELLO/MICHELANGELO can interface with a personal computer or portable device.

Follow this procedure to connect the two computers:

- Install the UCI Underwater Computer Interface software to your Mac or PC, or the Bluetooth App on your portable device.
- Access the PC function on your DONATELLO/MICHELANGELO by pressing Short O from the main menu.

Then, following the instructions, you can download all content from your DONATELLO/MICHELANGELO, like the profiles of your dives so you can then see them displayed or printed using the software.

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#### SYSTEM - system menu

System mode can download data to your Mac or PC, change system settings, reset the device, etc. From the SYSTEM screen, press LONG to access the menu



#### **UNITS - METRIC/IMPERIAL UNITS OF MEASURE**

The DONATELLO/MICHELANGELO computer can make calculations in metric (meters and  $^\circ C$ ), or Imperial units (feet and  $^\circ F$ ).

To change the units of measure, from the UNITS screen, give a LONG press to enter the function. Then press Short to change the unit of measure and confirm by pressing LONG . Check the units of measure, and then press Longer to exit the function.

#### HISTORY (HIST) - DIVE HISTORY

The HIST screen shows the dive history, which cannot be reset. The first line shows the total number of hours used diving, Hxxx. The second line show the maximum depth reached.

#### INFO

The INFO screen provides system information:

The first line shows the serial number, xxxxx.

The second line shows the Firmware Version, 1xx, and the number of battery changes by the user.

The watch comes from the factory with the battery change counter set at 00.

#### AL.SP - EXCLUDING THE ASCENT ALARM IN AIR/NITROX/GAGE MODE

This function lets the diver disable the audible alarm indicating a rapid ascent (over 12 m/min).

**WARNING:** An excessively rapid ascent increases the risk of decompression sickness! This function is reserved for instructors who assume full responsibility for disabling the ascent speed alarm (AL.SP). In any case, when this function is activated, for the entire dive the computer displays the icon of a speaker with an X  $\uparrow$ X.

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To use this alarm exclusion function, from the AL.SP screen, press Long to enter the function. Then press Short to change the setting between ON/OFF and then press Long to confirm your choice.

#### T.ERASE (TISSUE ERASE) RESET THE DEVICE

By resetting the instrument, all the calculations related to the current desaturation are reset. The logbook, profile and history remain stored in the memory even after the instrument is reset.

This function can be especially useful when the device is rented in Dive Centers.

**DANGER:** Never reset your computer if it will be used underwater in subsequent dives!

To proceed with the device reset, from the T.ERASE screen, press Long to enter the function. At this point the flashing word NO will appear, and the word SURE? Briefly press Short to switch from NO to YES and then immediately hold down the button for 5 seconds:

A countdown from 5 to 0 seconds will begin, at the end of which you will hear three beeps confirming that the device has been reset.

#### **DIVE (PREDIVE)**

The DIVE (predive) screen is the one that precedes the dive. From this screen you can check all the parameters that were set in advance by the diver.

Before diving, it is very important to set the computer to dive, and check the accuracy of all the parameters that will accompany the diver throughout the dive.



#### WHILE DIVING COMPUTER FUNCTIONS

The DONATELLO/MICHELANGELO computer can be set with three different functions:

- AIR if dives are performed with air and you want to use a decompression calculation.
- NITROX if the dives are performed with one or more Nitrox hyperoxygenated mixtures and you want to use a decompression calculation.
- FREE if the dives are freedives, counting dives and alarms for surface and depth.
- GAGE if you do not want the decompression calculation available, but want to see the time, instantaneous depth, and average depth of the dive.

**NOTE**: The company sets the DONATELLO/MICHELANGELO computer for the AIR function for dives with air with the PO2 pressure set to 1.4, and the oxygen percentage to 21%.

To set percentages other than Air 21%, activate the mode

**WARNING**: Before diving we recommend that you set the computer to DIVE by giving a Short O press. This will prompt the computer to activate the dive parameters within a maximum time of 2 seconds as soon as the diver reaches a depth of 1.2 meters. If the diver forgets, the computer will activate automatically, but within a maximum of 20 seconds as soon as the same depth is reached.

#### DIVING WITHIN NO-DECOMPRESSION LIMITS AIR DIVE FUNCTION: Dives with air.

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When set to AIR mode, during a no-decompression dive, the following information is shown on the display:

- Elapsed dive time (Dive.T min.)
- Current depth value (Depth m./ft.)
- Max depth reached (Max m./ft.)
- · Average depth (m./ft.)
- No-decompression time (No Deco min.)
- $\cdot~$  Current temperature, expressed in °C or °F
- Ascent rate indicator
- · Altitude level indicator (if set)
- Safety Factor, SF
- Graph representing CNS O2 toxicity level



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#### Additional important information may be obtained by giving a Short

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press during the dive, and represents:

- Maximum PO2 set.
- The mode selected (Air).
- · Maximum depth that can be reached depending on the maximum PO2

set.

The current time.



#### NITROX FUNCTION: Dive with Nitrox.

The DONATELLO/MICHELANGELO saves the setting for the %O2 oxygen percentage set previously until the diver manually sets different values. It is important to understand that:

Artificial respiratory mixtures may expose the diver to very severe risks if they are not perfectly understood, analyzed and studied from every angle involved in diving. It is mandatory to understand that THE MIXTURE BEING BREATHED MUST BE EXACTLY THE SAME AS THE ONE SET ON THE COMPUTER. OTHERWISE, THE DECOMPRESSION AND TOXICITY INFORMATION provided by the computer WILL BE DANGEROUS TO THE DIVER'S LIFE. Before, after, and during a NITROX dive, it is imperative that you check the oxygen percentage so that it exactly matches the mix in the cylinder.

#### **BEFORE A NITROX DIVE.**

The DONATELLO/MICHELANGELO computer always keeps the DIVE AIR program switched on, until the diver sets it for the use with Nitrox mixtures. In this case, the screen will display the NITROX icon that will remain there throughout the dive and as long as the DONATELLO/ MICHELANGELO remains set to MODE-S NITROX. Once the Nitrox program is activated, in order for the computer to adapt its calculation algorithm to the new parameters, the exact oxygen percentage values (%O2) contained in the cylinder that will be used (after carefully analyzing the content) must be entered into the computer. **DANGER**: Use of this computer with hyper-oxygenated (NITROX) mixtures is exclusively intended for divers who have attended a full training course on the use of such mixtures.

**DANGER**: Do not dive with cylinders containing Nitrox mixtures until you have personally checked their oxygen percentage.

**WARNING**: <u>Check the %O2 (Oxygen percentage) value set on the</u> <u>computer prior to diving!</u> This is done the on surface through the main DIVE screen and the DIVE SET screen which let you quickly view the parameters set.

**WARNING**: Keep in mind that under the same dive conditions, a Nitrox mixture requires longer no-decompression times than one with air. However, it is crucial that you strictly respect the maximum depth permitted by the Nitrox mix in use.

#### **DIVING WITH NITROX**

During a Nitrox dive within the no-decompression limits, all the information for a standard dive with air will be provided, as well as:

- · Graph representing CNS O2 toxicity level.
- NITROX Icon
- NITROX GAS1, GAS2 (MICHELANGELO) icon



Additional important information may be obtained by pressing the Short

- O button during the dive. It will show:
- Maximum PO2 set
- The %O2 oxygen percentage set
- $\cdot$  Maximum depth that can be reached depending on the maximum PO2 set
- The current time.



#### MULTI-GAS DIVE GAS SWITCHING (MICHELANGELO ONLY). BEFORE A GAS SWITCHING DIVE:

The MICHELANGELO also keeps the Air dive program active by default, until the diver changes it or sets it for use with two mixes in the EAN (NITROX) mode. Setting the dive mode. In this case, the display will show the NITROX icon, and it will remain on throughout the dive and until the MICHELANGELO settings are changed again. In order for the computer to adapt its calculation algorithm to the new parameters, the exact oxygen percentage values (%O2) contained in the cylinders that will be used must be entered into the computer (after carefully analyzing their content).

#### GAS SWITCHING DURING THE DIVE. (MICHELANGELO ONLY)

When ascending from a dive, if the computer is set to MODE-S NITROX mode, the icon for the GAS1 primary mix will flash as soon as the diver reaches the maximum operating depth for the second gas, GAS2, to alert the diver that from that level and upward the gas can be changed. At this point, in order to change the mix, Short  $\bigcirc$  press the button to move to the second page. Then Longer  $\bigcirc$  press the button. The word GAS1 will appear on the last line. Short  $\bigcirc$  press the button and the word GAS2 will appear with the parameters of the second mix (MICHELANGELO). Longer  $\bigcirc$  press the button to confirm the desired mix.

**NOTE**: The icon for the primary mix, GAS1, will not flash if the maximum operating depth for the second mix, GAS2 (MICHELANGELO) is not exceeded during the descent.

**DANGER**: If the current depth is greater than the maximum operating depth permitted by GAS2, the MICHELANGELO will not allow a change of gas. If the current depth is greater than the maximum operating depth permitted by GAS2 or GAS3

#### PO2 ALARM.

The computer can also constantly monitor another basic parameter concerning oxygen: O2 partial pressure value (PO2). Oxygen toxicity may be caused both by excessive exposure and by exceeding the maximum PO2, which in practice means exceeding the maximum depth allowed by the mixture used. As described above, the diver sets the PO2 limit value between 1.2 bar and 1.6 bar. DONATELLO/MICHELANGELO considers 1.6 bar to be the maximum allowable limit for partial pressure, and depending on the mixture used, it will automatically report the maximum depth that can be reached. Remember that even using air, you can reach the oxygen toxicity limit. This limit varies depending on the PO2 set.

DONATELLO/MICHELANGELO is manufactured with a preset value of 1.4 bar, which corresponds to maximum depth of 186 ft./56.6 m in air. Naturally, the computer can also be set to other PO2 values, up to a maximum of 1.6 bar, only when in the DIVE-S PPO2 SET screen, on the surface.

The computer will issue an alarm to alert the diver of excess PO2 [22]. When the limit depth for the PO2 set (from 1.2 - 1.6 bar) is reached, audible and visual alarms will be triggered. The visual alarm flashes the PO2 icon and the current depth. Once the diver returns to a depth shallower than the limit, the audible alarm will stop, and the current depth and the [PO2 icon will stop flashing. However, the icon will stay on for the rest of the dive and in the logbook.



#### **CNS TOXICITY DISPLAY**

The Cressi DONATELLO/MICHELANGELO can display a graph of the level of oxygen toxicity to the Central Nervous System (CNS). The toxicity level is tied to the Oxygen Partial Pressure and to the time the diver is exposed to high Oxygen Partial Pressure (PO2). The level of Oxygen Toxicity is represented in the display by a column with 5 segments that indicate growing quantities of accumulated oxygen. When all the segments are lit, 100% of the maximum limit the CNS can tolerate has been reached and there is a serious danger of hyperoxia.

It is clear therefore that it is imperative for divers to be able to constantly monitor this value, which as a function of the Oxygen Partial Pressure and exposure time, must be monitored throughout the entire dive. When the oxygen level reaches dangerous levels, near the maximum allowable tolerance (corresponding to 4 segments out of 5), the bar graph will start flashing and sets off a temporary audible alarm signaling a proximity to a toxic situation for the CNS. If the situation remains unchanged or worsens (100% of allowable toxicity), the bar and text will continue to flash and the temporary audible alarm is repeated until the diver ascends and the oxygen partial pressure falls below 0.6 atmospheres. At this point the graph will stop flashing, but the alarm will still be recorded in the logbook.



**NOTE**: The result of the oxygen exposure calculation is rounded up to the next highest percentage value.

**DANGER**: Do not use hyper-oxygenated mixtures when diving, much less in decompression, until you have completed specific courses. The Nitrox Basic license issued by dive training centers only enables the diver to use standard oxygen-rich mixes (EAN 32 and EAN 36), within non-decompression limits.

#### ASCENT RATE

The ascent rate is shown on the display as a points indicator in the center of the screen. It works as shown in the table below. If the maximum speed is exceeded during the ascent, the display will show the word SLOW while also flashing the three icons and sounding an audible alarm. Under these conditions, the diver must halt the ascent until the word SLOW disappears from the screen and the display returns to its normal state.



0.0 - 3.9 m/min. 4.0 - 7.9 m/min. 8.0 - 11.9 m/min. 12 -> 12 m/min. 0.0 - 12 ft./min. 13 - 26 ft./min. 26 - 39 ft./min. 40 - 40 ft./min.

**NOTE**: If the maximum ascent speed of 12 m/min - 40 ft/min is exceeded for an extended time, the DONATELLO/MICHELANGELO computer will make the next dive more conservative, but only if it is taken during the desat time, in order to protect the diver from the risk of decompression sickness.

The 🖺 icon indicates that the penalization factor is in force.

**DANGER:** Surfacing too fast dramatically increases the risk of decompression sickness. At the end of each dive, Cressi recommends a safety stop of 3 minutes at 16 ft/5 m, assisted by the computer (see next paragraph).

#### **SAFETY STOP**

DONATELLO/MICHELANGELO is programmed to automatically signal a safety stop after each dive deeper than 32 ft/10 m, as recommended by the training centers and the most recent studies on diving physiology. A 3 minute stop should be carried out at a depth between 16 ft./5 m - 9 ft./3 m.



The stop will be indicated on the display by the icon SAFE. In this circumstance, it clearly shows the duration of the stop in a countdown of minutes and seconds. The safety stop is not mandatory, but is strongly recommended when, for instance, the maximum ascent rate is repeatedly exceeded. Cressi recommends that you always perform this stop to avoid any safety issues.

**NOTE**: During the safety stop, the maximum depth can be displayed by Short O pressing the button.

#### **DECOMPRESSION FOREWARNING**

Whenever the time still available within the no-deco limits indicated by the NO DECO icon on the display drops to 3 minutes, DONATELLO/ MICHELANGELO alerts divers with an audible alarm. It means that the diver is approaching the no-decompression threshold, beyond which a decompression stop will be required.

#### **DEEP STOP**

In order to avoid the risks of microbubbles forming during the ascent, DONATELLO/MICHELANGELO can suggest a DEEP STOP of 1 - 2 minutes (in case of dives with decompression) at variable depths depending on the dive profile. During the dive, if the profile requires it, DEEP STOP will be displayed and an audible alarm will sound. The stop icon with the depth and the time in minutes is displayed. If the diver skips the Deep Stop, the warnings will be deleted and the computer will recalculate the ascent planning without that stop.

**NOTE**: Check whether the deep stop is enabled (see the DIVE SET section).

**NOTE**: In this case, the maximum depth can be viewed by pressing Short  $\bigcirc$ .

#### **DIVING OUTSIDE THE NO-DECOMPRESSION LIMITS**

**DANGER:** Do not use this instrument to dive beyond the nodecompression limits! Cressi discourages the use of this instrument for decompression dives.

However, if during the dive, due to distraction or emergency, the diver is forced to exceed the no-decompression limits, DONATELLO/ MICHELANGELO can assist by providing all the information for a correct ascent and the corresponding decompression stops.

Upon violating the no-decompression limits, the computer will issue an audible alarm, and the display changes as shown, providing the diver with the following information:



- Stop icon labeled DEC, showing that the no-decompression limits have been exceeded and that decompression stops must be performed. The up arrow will flash to prompt the diver to ascend.
- Depth of first decompression stage (the deepest), given in meters (m) or feet (ft.). This can vary from a maximum of 78 ft/24 m to a minimum of 10 ft/3 m., in increments of 10 ft/3 m.
- Time in minutes for the first decompression stage (the deepest).
- TOTAL icon indicating the total time to surface, meaning the time needed to ascend from the deepest stop, respecting the ascent speed, plus the stop time at that depth and any other subsequent depth (including the deep stop if needed, plus the safety stop time, plus the time needed to reach the surface after having completed the decompression stops.
- "DIVE. T" icon giving the total time spent while diving.

**NOTE**: In this case, the maximum depth can be viewed by Short **O** pressing.

**DANGER:** NEVER ascend above a decompression depth. To avoid doing so accidentally, during decompression always stay slightly below the stop depth, but within the interval established for the decompression indicated by the device using the two icons (arrows) that appear together, not flashing. You should consider the amount of gas needed to successfully complete all decompression requirements.

#### **Omitted Decompression stage alarm**

If the decompression stage is missed by ascending above the depth given by the computer, an alarm will sound and the down arrow of the decompression icon will flash on the display until the diver descends back to the proper depth or below it. The computer allows a maximum time of 2 minutes to correct this dangerous situation; during this time, the alarm will keep sounding.

If the diver does not descend to the proper depth after 2 minutes the DONATELLO/MICHELANGELO enters the ERROR PROGRAM. The "STOP" icon flashes and the instrument won't be usable for the next 48 hours. The only functions working will be Logbook and History. Later, on the PRE DIVE screen, the computer will show the "STOP" icon, flashing, along with the word DECO and the stop icon with the up arrow, meaning that the decompression stop was omitted during the last dive.

If the diver re-enters the water in the 48 hours that follow, the DONATELLO/MICHELANGELO will repeatedly show the word STOP on the screen.

The LOG BOOK will store the same warning, indicating that on a specific date the dive with a specific number was done without the decompression stop.

**DANGER:** Should this happen, you must not dive for the next 48 hours. In the event that you feel any symptoms of decompression sickness, you should contact the DAN (Divers Alert Network) and your local hyperbaric chamber center, providing as much data as possible about the dive. In the opposite case, meaning when the diver descends more than 3 ft./1 m below the stop depth, an arrow flashes to instruct the diver to ascend.

#### FREEDIVE

DONATELLO/MICHELANGELO features a mode dedicated to freedivers that offers specific functions, such as the dive count (time and depth) and recovery time on the surface.

**WARNING:** This device should only be used by certified divers. No computer can replace proper dive training. Remember that only adequate training can ensure a safe freedive.

**DANGER:** NO DIVE COMPUTER CAN PROTECT AGAINST SYNCOPE OR TARAVANA. THE COMPUTER'S SOLE FUNCTION IS TO SHOW DIVE TIME AND SURFACE TIMES, THE DEPTHS, AND THE RELATIONSHIP AMONG THESE. THE INFORMATION PROVIDED TO THE DIVER IS MERELY DATA, AND IT BECOMES SAFETY INFORMATION ONLY ONCE IT HAS BEEN EXAMINED AND PROCESSED BY THE HUMAN MIND. WE THEREFORE RECOMMEND THOROUGH AND SOLID TECHNICAL TRAINING.

# When used in FREE mode, during the dive the computer will display the following information from the first to the last line:

- · Max depth reached (Max m.)
- · Time elapsed in the current dive in minutes and seconds
- · Current depth value (Depth m.)
- Number of the current dive
- · Current temperature, in °C or °F



Additional important information may be obtained by pressing the Short

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button during the dive. It will show:

- $\cdot$  The total time of the freedive session in minutes
- · The deepest logged depth during the session
- $\cdot$  The current time



#### FREE ON THE SURFACE

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In the surface interval between two dives, the display will show:

- · Deepest logged depth of the previous dive
- $\cdot$  Dive time of the previous dive
- Surface time in minutes and seconds
- $\cdot$  Total number of dives
- Temperature



**NOTE**: After 30 minutes on the surface the session will be closed automatically.

**NOTE**: To avoid the risk of decompression sickness in FREE dives, no other dive modes are permitted for the 24 hours that follow.

#### GAGE MODE (depth gauge and timer).

In addition to the AIR, NITROX, and FREE modes, the computer also features a fourth program called GAGE (depth gauge and timer) that can be used by those who engage in "technical" dives. In this case, the instrument provides just the basic dive parameters, i.e. depth, dive time, average depth, and temperature. It does not calculate tissue saturation and desaturation, which must be programmed and calculated using special software and/or tables. Cressi strongly recommends that all recreational diving activities be conducted within the guidelines for no-decompression diving and to a maximum depth of 132 ft./40 m. Exceeding these perimeters dramatically increases the likelihood of decompression sickness.

When set to GAGE mode, during a dive within the no decompression limits, the display will show the following information:

- Maximum depth reached
- · Dive time (minutes)
- Current depth
- · Dive time (seconds)
- · Average depth (A.)
- $\cdot$  Temperature



To show the current time, Short  $\bigcirc$  press the button.

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**WARNING:** The DONATELLO/MICHELANGELO computer is designed for recreational diving only. It is not intended for commercial or professional use, requiring longer dive times and greater depths. Diving beyond the parameters of recreational diving dramatically increases the risk of decompression sickness.

**DANGER:** Cressi discourages diving with gaseous mixtures other than air without proper training. This is because the so-called "technical" dives can expose the diver to different risks than recreational dives, which can include serious physical harm and in extreme cases even death.

**WARNING:** After a dive in GAGE mode, the instrument will not calculate saturation and desaturation for the following 48 hours.

**DANGER:** Should you decide to reset the instrument by accessing the system mode, the nitrogen memory will be deleted. Therefore, the instrument will not be able to calculate the following dive. Before using this function, wait for at least 48 hours after the most recent diving activity.

When the Gage function is active, the GAGE icon will appear.

**NOTE**: The DONATELLO/MICHELANGELO is set to MODE SET (MODE-S) AIR at the factory.

#### **USE OF THE COMPUTER WITH POOR VISIBILITY**

If at any time during the dive poor light conditions make it difficult to read the display, the diver can turn on the backlight function by pressing the LIGHT button. The display's backlight lasts for a few seconds, and then automatically switches off. When the backlight is on some dark patches may also appear on the display. The patches are not a defect. They are caused by the use of a high-contrast display.

#### SURFACE INTERVAL

After a dive in AIR MODE or NITROX MODE, when you reach depths shallower than 4 ft./0.8 m, the display provides the following information:

- · Surface interval given in hours and minutes (SURF.T).
- Desaturation time (DESAT) to be respected before embarking on a flight (in hours and minutes).
- NoFly time and the corresponding icon. When this icon is visible divers must avoid air travel and travel to altitudes higher than the dive location.
- Max depth reached in the latest dive.
- Duration of the latest dive.

**WARNING:** In accordance with the instructions provided by the major organizations that study diving and hyperbaric medicine, DONATELLO/ MICHELANGELO applies the no-fly time as follows: 12 hours after a single dive without decompression. 24 hours after a dive with decompression or after repetitive or multiday dives, if correctly performed. 24 or 48 hours after the use of the GAGE function, or if severe mistakes in dive management occurred.

**NOTE**: Should a dive begin with less than 2 minutes of surface interval time, DONATELLO/MICHELANGELO will consider this a continuation of the previous dive; the dive number remains the same, and dive time calculation will pick up from where it left off. Dives executed after at least 2 minutes of surface interval are considered a new dive. If a dive is taken using the GAGE function, the device cannot calculate saturation or desaturation for the 48 hours following the end of the dive, represented by the surface interval SURF.T.

#### CARE AND MAINTENANCE

DONATELLO/MICHELANGELO by Cressi has been designed to operate in extreme conditions with extensive underwater use. You should remember that it is a precision instrument deserving appropriate care. Please avoid any violent shocks, protect it from extreme heat sources, always rinse it with fresh water after use, dry it carefully, do not store it wet, and avoid contact with heavy equipment, like diving cylinders.

**WARNING:** Avoid contact between the computer and solvents or chemical substances. Do not use compressed air to dry the computer. The button does not need any particular maintenance; never grease it with oil or sprays of any kind.

**NOTE**: When replacing the battery, check its housing; should any signs of moisture be visible, please have the instrument checked by an authorized service center. Should you notice any anomaly in its operation, do not use the instrument to dive and have it checked by an authorized Cressi retailer.

#### **BATTERY REPLACEMENT.**

Replacing the battery is a very delicate operation that must be performed any time the device display indicates a low battery.

If the fixed battery icon appears on the display, DONATELLO/ MICHELANGELO can perform all functions. In any case, if the computer will be used in a cold location we recommend that the battery be replaced as soon as possible.



If the flashing battery icon appears on the display, the dive functions will be disabled for safety reasons.



**WARNING:** Please do not replace the battery when desaturation is in progress, since all information relating to desaturation computing would be deleted. In this event do not dive for the next 48 hours. After replacing the battery, all settings return to the latest value set by the user. Time and date must be reset. To replace the battery, unscrew the battery cover on the back of the device using a coin. Remove the cover and inspect the condition of the battery and its compartment. If you see any traces of corrosion resulting from leaks, contact an authorized Cressi center to have the device overhauled. If everything appears in good condition, remove the battery from its housing by holding the computer face down. Replace the battery, checking the correct polarity (incorrect polarity may damage the device). Before closing the cover, check that the compartment is perfectly clean, and spread a thin layer of silicone grease on the battery compartment sealing ring.

**NOTE**: It is important to keep in mind that a number of factors affect average battery life, including: how long the device is warehoused before it is sold, length of dives, use of backlighting, and the quality of the batteries themselves, whose average life varies with temperature, for example.

**NOTE**: Do not over-tighten the battery cover! Over-tightening the cover does not create a better seal; on the contrary, it can crack the cover or make it more difficult to remove in the future. **Do not touch or attempt to clean the pressure sensor!** Any malfunctions will be excluded from the warranty.

NOTE: Make sure that the instrument is watertight!

**WARNING:** Any malfunctions or water infiltration due to incorrect battery replacement will void the warranty.

#### Algorithm: CRESSI RGBM algorithm.

Sample tissues: 9 with tissue saturation half-times between 2.5 and 480 minutes

#### Depth sensor:

- Sea water setting (fresh water depths are about 3% lower)
- Range of measurement: 0 ft. 393 ft. (0 120 m), measured every second.
- Precision: +/- 1% (T 20°C/68°F).
- Reading resolution: 10 cm (0 to 100 m) / 1 m (100 to 120 m) / 1 ft (0 to 316 ft).
- Data acquisition frequency: 20 sec. on the surface and 1 sec. during the dive.

#### THERMOMETER:

- Resolution: 1°F
- Range of measurement: 23°F/-5°C +104°F/40°C
- Precision: +/- 35,6°F/2 °C /10 min change °T.

#### WATCH:

- Precision: +/- 30 seconds average/month
- 24 hours display.

#### BATTERY:

#### CR 2430 - 3V battery.

#### WARRANTY

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CRESSI LIMITED WARRANTY FOR CRESSI UNDERWATER COMPUTERS AND RELATED ACCESSORIES.

**IMPORTANT NOTICE:** this warranty does not limit the statutory rights granted to the consumer by the applicable National Laws concerning the sales of consumer products.

Cressi provides this limited warranty to the purchaser of the Cressi underwater computer and of the related accessories (product).

During the warranty period, Cressi, or a Cressi authorized service center, according to their exclusive judgment, will remove any defect in terms of material, design and workmanship, free of charge, by means of repair or replacement of the product according to this limited warranty.

This limited warranty is valid and effective exclusively in the country where the product was purchased, provided that Cressi has provided for the sale of the product in that country. However, in case of a product purchased in one of the member states of the European Union or in Iceland, Norway, Switzerland, or Turkey, and if Cressi has originally foreseen the sale of the product in one of these countries, this limited warranty is valid and effective in all these countries.

Limitations to the service provided by this warranty may result from the presence in the products of items that are specific for a country.

For countries not belonging to the European Union, other than Iceland, Norway, Switzerland and Turkey, provided that the purchaser agrees to pay a service fee and a refund for shipping expenses borne by Cressi or by a Cressi authorized center, the service foreseen by the warranty can be obtained in countries other that where the product was purchased. In that case, any spare parts will be provided free of charge.

#### Warranty period

The warranty period starts from the retail purchase date by the first purchaser.

The product can consist of several components which may be covered by a different warranty period. In particular, this limited warranty is valid for a period of:

A) two years for underwater computers

B) one year for consumables and accessories, including by way of example, straps, buckles, etc. (both included in the dive computer original packaging or purchased separately).

Within the limits allowed by the applicable National Laws, the warranty period will not be extended or renewed or changed in any way following a later resale, product repair, or product replacement authorized by Cressi. However, the parts of the product repaired or replaced during the warranty period, or the replaced product, are guaranteed for the remaining original warranty period or for three months from the repair or replacement date, depending on which period is longer.



If you want to submit a claim under this limited warranty, contact your Cressi authorized dealer for information about claim submission; information will be provided about how to request the application of the warranty to your product. If you want to return the product by shipping it to your authorized Cressi dealer, make sure that shipping is prepaid. The validity of the claims submitted under to this limited warranty is subject to notification to Cressi or to a Cressi authorized service center of the alleged defect within a reasonable time from its observation, but not beyond the expiry of the warranty period.

Based on this limited warranty, any claim must include the buyer's name and address, the proof of purchase which shall clearly indicate the name and address of the seller, the date and place of purchase, and the type of product. The request for repair under warranty will be satisfied free of charge by Cressi or by a Cressi authorized service center, according to their exclusive judgment, and the product will be repaired or replaced within a reasonable time.

If the product is deemed non-compliant with the terms and conditions of this limited warranty, Cressi or a Cressi authorized service center reserve the right to charge service and/or repair costs.

#### Other important notes

In case of product repair or replacement, the data and contents stored in it may be lost. Cressi or a Cressi authorized service center will not be liable for any damage or loss of contents or data during Product repair or replacement.

Cressi recommends that you make back-ups or take written note of important content or data stored in the product.

When replaced, the product or part of it will become property of Cressi. If a refund is granted, the product in question must be returned to a Cressi authorized service center, since it becomes the property of Cressi and/or the Cressi authorized center.

In the event the product is repaired or replaced, Cressi or a Cressi authorized service center can use new, as new, or repaired products or parts.

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#### Need support?

Cressi products are supported by a worldwide branches network, and they can provide support and warranty to customers. Ask for the closest one to you:

#### Headquarters

Italy: Cressi Sub S.P.A. Via G. Adamoli, 501

16165 Genova - Italy info@cressi.com

#### France:

Cressi Sub France Espace La Gaude, 9565 Route De Saint Laurent 06610 La Gaude - France info@cressi.com

#### España:

Cressi-Sub España S.A. NIF: A60130978 C/Castellassa, 24 Nave 3, Poligono Can Petit, 08227 Terrassa Barcelona, Spain cressi@cressi.es

#### **Brasil**:

Cressi Brasil COM. MAT. ESP. LTDA Avenida Padre Anchieta, 175 Jordanópolis São Bernardo do Campo, SP. 09891-420 CNPJ: 35.112.958/0001-59 contato@cressisub.com.br

#### **Thailand and South East Asia:**

Cressi South East Asia LTD Thailand 1010/8, 1010/9, 1010/11 MOO 3, Thepharak Road, Thepharak Sub-District, Muang District, Samutprakarn 10270 cressithai@cressi.com

#### **United States:**

Cressi Sub U.S.A. 3 Rosol Lane, Saddle Brook NJ 07663 - USA info@cressiusa.com

#### China:

Cressi China Watersports Products Co.,Ltd No.4 Zhuhai Road, Kunshan Jiangsu province, China cressichina@vip.163.com

#### **Mexico:**

Cressiwater S.A.P.I De C.V. Central de Abastos, Carretera Cancun-Aeropuerto km 17, Cancun Quintana Roo. C.P. 77565 Mexico, VAT NO. CRE161110812 info@cressimexico.mx

#### Australia:

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