



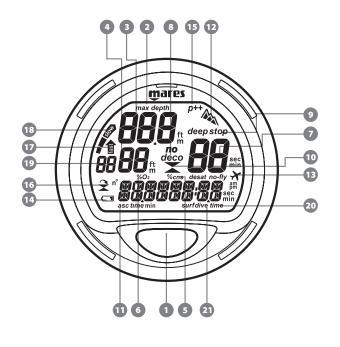
PUCK

Dive Computer

# • TABLE OF CONTENTS

QUICK GUIDE	2	SURFACING - AIR	8
PUCK DIVE COMPUTER	3	SURFACE MODE - AIR	9
IMPORTANT WARNINGS	3	DIVE - EAN	9
RESPONSIBLE DIVING PRACTICES	3	CHECKING THE GENERAL DIVE PARAMETERS	9
HOW THE PUCK DIVE COMPUTER WORKS	4	PREDIVE - EAN	9
SETTING PARAMETERS FOR THE PUCK COMPUTER	4	DIVE - EAN: "NO-DECOMPRESSION" DIVE	9
ADJUSTING THE WATCH: WATCHSET	4	DIVE - EAN: "DECOMPRESSION STOP" DIVE	10
ADJUSTING THE GENERAL DIVE PARAMETERS: SET DATA	5	SURFACING – EAN	10
ADJUSTING THE DIVE PARAMETERS: SET MODE	5	SURFACE MODE – EAN	10
AIR	5	DIVE - BOTTOM TIME (GAUGE)	10
EAN	6	SURFACE MODE – BOTTOM TIME	11
BOTTOM TIME	6	BOTTOM TIME WITH BEHAVIOR ERROR	11
TIME MODE	7	LOGBOOK	11
DIVING WITH PUCK	7	PLANNING: SCROLLING OF NO DECOMPRESSION LIMITS	12
PREDIVE - AIR	7	SYSTEM	12
DIVE - AIR: "NO-DECOMPRESSION" DIVE	7	FAQ	12
DIVE - AIR: "DECOMPRESSION STOP" DIVE	7	MAINTENANCE	12
TIME TO SURFACE (ASC TIME)	8	TECHNICAL/FUNCTIONAL CHARACTERISTICS	13
DECOMPRESSION STOPS	8	TECHNICAL FEATURES	13
DEEP STOPS	8	FUNCTIONAL CHARACTERISTICS	13
ASCENT	8	WARRANTY	13
SAFETY STOP	8	DISPOSAL OF THE DEVICE	13

# • QUICK GUIDE



- 1 Button
- 2 DIVE maximum depth
- 3 DIVE depth
- 4 DIVE DEEP STOP depth
  DIVE decompression stop depth
- 5 DIVE % CNS
- 6 DIVE % oxygen
- 7 DIVE no-decompression time remaining
  - DIVE duration of the decompression stop DIVE DEEP STOP time remaining
- DIVE Minutes remaining for the safety stop 8 No-decompression dive indicator (NO DECO) Decompression-stop diving indicator (DECO)
- 9 DEEP STOP Indicator
- 10 Decompression stop indicator
- 11 Total ascent time
- 12 Altitude level
- 13 "No fly" indicator
  14 Low battery indicator
- 15 Personal factor
- 16 Omitted stop indicator
- 17 Uncontrolled ascent indicator
- 18 % ascent speed
- 19 Ascent speed
- 20 Dive time
- 21 Display bar: various types of information are displayed based on usage



# PUCK DIVE COMPUTER

#### Congratulations!

Your new PUCK Dive Computer is the result of the latest Mares technology, and has been designed to guarantee maximum safety, efficiency, reliability and long life.

Simple and easy to use, it is ideal for all types of dives.

This manual contains all the instructions for its use

Mares thanks you for your choice and urges you to always practice safe and responsible diving. Enjoy!

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form without the written permission of Mares S.p.A.

Mares adopts a policy of continuing improvement, and therefore reserves the right to make changes and enhancements to any of the products described in this manual without notice.

Under no circumstances shall Mares be held responsible for any loss or damage sustained by third parties deriving from the use of this instrument.

#### IMPORTANT WARNINGS

#### Important:

Any critical information or warnings that might affect the performance or result in the injury of the technician, PUCK Computer owner, or other persons are highlighted with the following symbols:

# △ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

### **⚠** WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

#### **A** DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

Before diving, make sure you have read and understood all parts of this manual.

#### **⚠** WARNING

The PUCK computer is designed exclusively for recreational use and is not intended for professional applications.

### **⚠** WARNING

In addition to the dive computer, also use a depth gauge, a submersible pressure gauge, a timer or watch, and dive tables.

#### **⚠** WARNING

Never dive alone; PUCK is no substitute for a diving buddy.

# **⚠** WARNING

Do not dive if the readings on the instrument appear irregular or unclear.

# **⚠** WARNING

The dive computer cannot ensure against possible decompression sickness. The dive computer cannot take into account the physical conditions of the individual diver, which may vary from one day to the next. For your safety, have a general medical check-up before undertaking a dive.

# **⚠** WARNING

Always check the battery power level before starting the dive. Do not dive if the icon indicates that the battery is low. Replace the battery.

#### **⚠** WARNING

Do not fly within 24 hours of your last dive, and in any case wait until the PUCK ("no fly") indication disappears.

#### **⚠** WARNING

Recreational divers should not dive deeper than 40 m (130 feet). Although this computer will continue to provide information for compressed-air dives deeper than 40m (130 ft.), the risk of nitrogen narcosis and decompression sickness (DCS) is greatly increased; therefore this information should be treated as only approximate.

# **⚠** WARNING

Never dive to depths greater than 40 m (130 feet), and never take decompression dives with PUCK unless you possess the specific license (IANTD, NAUI, PADIDSAT, PSA, SSI, TDI, etc.) for deep scuba diving to depths of more than 40 m (130 ft) and fully understand the risks and the skills that this type of dive requires. This type of dive can entail a greater risk of decompression sickness, even for the most qualified and expert divers, and regardless of the instrumentation or computer used. Divers attempting these types of dives must have completed a specialist course and gained the necessary experience.

The safety of a dive can only be increased through adequate preparation and training. Mares therefore recommends using the dive computer only after having completed a specialist diver training course.

Mares recommends scrupulous adherence to the simple rules of behavior listed below:

# **RESPONSIBLE DIVING PRACTICES**

- Always plan your dives in advance.
- Never exceed the limits of your skill and experience.
- Go to your deepest planned depth at the beginning of the dive.
- Check your computer frequently during the dive.
- Comply with the ascent rate indicated by the computer.
- Always do a safety stop between -6 and -3 meters (-20 and -10 feet) for at least 3 minutes.
- After any decompression stops, ascend very slowly to the surface.
- Avoid yo-yo dives (repeatedly ascending and descending underwater).
- Avoid strenuous activity during the dive and for half an hour after surfacing.
- When diving in cold water or after intense exertion, start ascending well before reaching the no-decompression limits.
- In the case of a decompression dive, prolong the decompression stop nearest the surface for safety.
- Repetitive dives should be separated by a surface interval of at least 2 hours.
- Your deepest dive should be the first one of the day.
- Avoid diving until the computer memory has cleared from the preceding day's dive.
- When doing repetitive dives for several consecutive days, take at least one day off from diving every week. In the case of decompression-stop diving, it is recommended to take one day off from diving every three days.
- Avoid decompression-stop dives and do not dive deeper than 40 meters (130 ft) unless you have been specifically trained in this type of technical diving.
- Avoid repetitive "square profile" dives (dives to a single depth) deeper than 18 meters (60 ft).
- Always wait at least 12 hours, and preferably 24 hours, after a dive before flying, in accordance with the recommendations of the Divers Alert Network (DAN).

# HOW THE PUCK DIVE COMPUTER WORKS

Press the button to switch on PUCK, which starts in PREDIVE - AIR mode (Figure 1).



Fig. 1

Press the button to scroll through the main menu, which offers 9 operating modes (Figure 2).

- PREDIVE
- SET MODE
- SET DATA
- TIME
- WATCHSET
- PC
- LOGBOOK
- PLANNING
- SYSTEM



Fig. 2

The buttons follow the same logic in all operating modes:

- Press and release to scroll through the menu items.
- Holding down the button for approximately 2 seconds will enter a specific menu or confirm the selections you have made.

### **CHECK THE BATTERY POWER LEVEL**

PUCK will periodically check the battery power level; you can view an indicator in SYSTEM mode.

There are three power levels:

- BATT OK
- BATT LO 1
- BATT LO 2

If a low charge level is detected (BATT LO 1), the battery icon turns on and the display backlight function is disabled (Figure 3).



Fig. 3

When the icon first appears, replace the battery as soon as possible.

If the level reaches the minimum level (BATT LO 2), all the PUCK functions will be disabled, and only SYSTEM mode can be accessed.

#### **△** WARNING

When the computer has not been used for a long time, we recommend that you check the battery power, and replace it if necessary.

#### BACKLIGHTING

Pressing the button for 4 seconds will temporarily turn on the backlight (for about 4 seconds).

When the backlight is on, pressing the button will prolong illumination of the display.

# **⚠** WARNING

Temperature can noticeably affect battery voltage.

The icon that signals a low battery level may appear due to low temperatures, even if the battery still has sufficient capacity. In this case, backlighting is disabled.

If backlighting has been disabled due to low temperature, you can repeat the battery status check by entering SYSTEM mode.

If the battery icon disappears, the backlighting function has been re-enabled.

#### **⚠** WARNING

We advise that you replace the battery if you intend to dive in cold water.

# **AUTOMATIC SWITCH-OFF**

If PUCK is turned on but no button is pressed for a certain period of time, it will turn off automatically. The delay before automatic switch-off varies depending on the current operating mode.

# SETTING PARAMETERS FOR THE PUCK COMPUTER

# ADJUSTING THE WATCH: WATCHSET

The WATCHSET menu is divided into three submenus, where you can adjust the following parameters:

- ADJ TIME
  - Time
  - Watch display (12h-24h)
  - Date
- CONTRAST
- Display contrast
- KEY BEEP
  - Enable/disable the beep that sounds when the button is pressed

Scroll through the main menu and move to WATCHSET.

To enter the WATCHSET menu, press and hold the button. The words ADJ TIME will appear.

#### **WATCHSET - ADJ TIME**

When the words ADJ TIME appear, press and hold the button.

The minutes number will flash.

Press the button to increase the minutes. Press and hold the button to save the current minutes value.

The hour number will flash.

Change and set the number using the same procedure as for the minutes.

In sequence, the other information displayed is:

- Minutes
- Hour
- Time Format
- Year
- Month
- Day

Setting the day returns you to the ADJ TIME menu. Press the button to move to the CONTRAST menu.

#### **WATCHSET - CONTRAST**

Press and hold the button to enter this mode. The current contrast value will flash. Press the button to increase the contrast (maximum value 15)

Press and hold the button to select the desired value.

### **WATCHSET - KEY BEEP**

Press and hold the button to enter this mode. The current value, ON or OFF, will flash.

Press the button to change your selection. Press and hold the button to confirm your selection.

Press the button to move to the ESC position (Figure 4).



Fig. 4

Press the button to return to the WATCHSET menu.

Press and hold the button to exit this menu and return to the main menu.



#### NOTE

The ESC position is available in all menus. When you are in this position, if you press the button, it takes you to the beginning of the current menu.

If you press and hold the button, it will exit the current menu and go back to the main menu.

# ADJUSTING THE GENERAL DIVE PARAMETERS: SET DATA

In this menu you can adjust the general dive parameters selected.

- SALT / FRESHWATER
- METERS DEGREES CELSIUS / FEET DEGREES FAHRENHEIT
- CLEAR RESIDUAL NITROGEN

Scroll through the main menu and move to SFT DATA

To enter the SET DATA menu, press and hold the button. Either FRESH or SALT will appear.

#### SET DATA - FRESH / SALT

To ensure maximum accuracy, you need to set PUCK for either fresh water ("Fresh") or seawater ("Salt") as appropriate. Check this setting often, especially if you use the instrument in a variety of environments (lake, sea, swimming pool).

Press and hold the button to enter change settings mode.

Press the button to select the desired mode. Press and hold the button to confirm your selection.

Press the button to move to the next selection.

#### **⚠** WARNING

Before diving, make sure you have correctly set the units of measurement. An incorrect setting may give rise to confusion during the dive, and hence to underwater behavior errors.

#### SET DATA - °C METERS / °F FEET

You can select the units of measure to use: metric (°C and m) or Imperial (°F and ft). Press and hold the button to enter change settings mode.

Press the button to select the desired unit of measure.

Press and hold the button to confirm your selection.

Press the button to move to the next selection.

# SET DATA - DELETE TISSUE

#### **⚠** WARNING

This option is intended only for highly experienced divers. Users who clear the residual nitrogen memory cannot use the instrument for repetitive dives. After this operation, do not dive with PUCK if you have already dived within the previous 24 hours.

Use this function to clear the residual nitrogen memory.

In Set DATA mode, display the word DELETE (Figure 5).



Fig. 5

Press and hold to enter; the word NO will begin to flash.

Press the button to change the selection. To clear the residual nitrogen memory in the tissue compartments, press and hold when the word "YES" appears.

If you do not want to clear the residual nitrogen memory in the tissue compartments, press and hold when the word "NO" is displayed.

Press the button to move to the ESC position. Press and hold the button to exit this menu and return to the main menu.

# ADJUSTING THE DIVE PARAMETERS: SET MODE

In SET MODE you can define the specific parameters for the type of dive you intend to take.

When "SET MODE" appears, press and hold to enter that menu.

The current setting will be displayed:

- AIR
- EAN
- BOTTOM TIME

At this point you can choose to keep the current dive mode or select another.
Press and hold to change the desired dive type.

The last operating mode will begin to flash (Figure 6).



Fig. 6

Press the button to scroll through the 3 dive mode options (Figure 7).

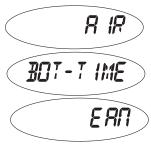


Fig. 7

When the dive type you want is displayed, press and hold the button. This will save the selected mode. Press the button to move to subsequent settings.

#### NOTE

If you have completed an EAN dive and wish to do a repetitive dive with air, set the computer for "EAN" with  $\rm O_2$  at 21%. By so doing, the calculation of the %CNS will remain active.

#### **AIR**

In this mode you can set:

- Personal Correction Factor
- Fast Asc (Uncontrolled ascent)
- Altitude
- Audible alarms

#### **SET AIR - PERSONAL CORRECTION FACTOR**

PUCK allows you to set an additional personal safety factor to make the computer more conservative. The correction factor should be used by inexperienced divers, for strenuous dives or when diving after a prolonged period of inactivity. The PF 0 program introduces no additional margin of safety. When activated, the current personal correction factor will be displayed. This can be PF0, PF1, or PF2.

To change the desired value, press and hold when the letters PF appear (Figure 8).



Fig. 8

The number next to PF will flash.

If the value selected is PF1 or PF2, an icon will appear that will remain visible during the dive to indicate that the personal correction factor is enabled and at what level (Figure 9).



Press the button to select the desired safety factor.

Press and hold the button to record your selection and move to the next setting.

#### SET AIR - FAST ASC

This function enables or disables the "Stop" function in case of uncontrolled ascent, to prevent the dive computer from locking out after a rapid ascent. The feature can be useful for instructors who need to practice emergency ascents.

Press and hold the button if you wish to change this setting (Figure 10).



Fig. 10

The current selection ("ON" or "OFF") will flash:

- ON indicates that the function is enabled
- OFF indicates that the function is disabled

Press the button to select the chosen function. Press and hold the button to save your selection.

### **⚠** WARNING

A rapid ascent increases the risk of decompression sickness (DCS).

#### **⚠** WARNING

This function is intended only for highly experienced divers, who take full responsibility for the consequences of disabling the "Stop" on uncontrolled ascent.

#### **SET AIR - ALTITUDE**

When this item is accessed, it displays an indication of the current altitude program (P0, P1, P2, P3). To set the desired selection, when the word ALT appears, press and hold the button (Figure 11).



Fig. 11

### Altitude programs:

(0-700 m) (0-2296 ft)



(700-1500 m) (2296-4921 ft) P2



(1500-2400 m) (4921-7874 ft) P3

(2400-3700 m) (7874-12139 ft)

The word ALT and the number corresponding to the maximum altitude will flash.

Press the button to change the desired altitude.

Press and hold the button to confirm your selection.

Press the button to move to the next selection.

#### NOTE

This setting cannot be changed during the dive. Therefore, carefully check all settings before going underwater.

# **⚠** WARNING

Do not dive in mountain lakes without having first checked that the appropriate altitude program is selected.

#### **SET AIR - AL BEEP**

This function enables or disables the audible alarms. To set the desired selection, press and hold the button when the words AL-BEEP appear.

The word ON or OFF will flash.

Press the button to change the setting. Press and hold the button to confirm your selection.

Press the button to move to the ESC position. Press and hold the button to exit this menu and return to the main menu.

#### NOTE

The alarm for any DEEPSTOPS is always enabled.

# **⚠** WARNING

The audible alarms should only be disabled by experienced divers, who take full responsibility for this operation.

#### **EAN**

In this mode you can set:

- Personal correction factor
- Fast Asc (Uncontrolled ascent)
- Altitude
- Audible alarms
- Oxygen percentage (%0<sub>2</sub>) in the mix
- Maximum O<sub>2</sub> partial pressure (PPO<sub>2</sub>)

The general parameters for EAN dives are the same as those for compressed air dives (AIR), with the addition of settings for the percentage of oxygen and its maximum partial pressure. We recommend that you carefully read the "Set Mode - AIR" section before proceeding further.

# **⚠** WARNING

The use of oxygen rich mixes exposes the diver to different hazards from those associated with compressed air. The diver should be aware of these risks and understand how to avoid them

# **⚠** WARNING

Do not use breathing mixes with an oxygen percentage greater than 50%.

# **⚠** WARNING

It is essential to correctly set the oxygen percentage in the mix to ensure correct readouts of:

- No decompression time remaining
- Decompression stop times
- Alarm on exceeding the maximum permitted PPO<sub>2</sub>.

#### SET EAN - %0<sub>2</sub>

The percentage of oxygen in the mix can be adjusted within the interval 21% - 50%, in increments of 1%. To set the desired value, press and hold the button when the oxygen percentage appears (Figure 12).



Fig. 12

The oxygen percentage will flash.

Press the button to increase the value.

Press and hold the button to set the selected value.

Press the button to move to the next setting.

#### SET - EAN - PPO<sub>2</sub>

PUCK sounds an alarm when the partial pressure of oxygen reaches a pre-established limit. This limit can be varied from a minimum 1.2 bar to a maximum of 1.6 bar, in increments of 0.1 bar.

As this value changes, PUCK will show the maximum dive depth compatible with the oxygen percentage and maximum partial pressure that have been programmed. To set the desired value, press and hold the button when the display reads PPO<sub>2</sub> (Figure 13).



Fig. 13

The word  $\mathsf{PPO}_2$  and the number alongside will flash

Press the button to select the desired value. Press and hold the button to confirm the selected value.

Press the button to move to the ESC position.

Press and hold the button to exit this menu
and return to the main menu

#### **BOTTOM TIME**

In this mode you can set:

AUDIBLE ÁLARMS

# SET BOTTOM TIME - AL BEEP

This function enables or disables the audible alarms.

To save the desired setting, press and hold the button when AL-BEEP appears. The current setting, ON or OFF, will flash.

Press the button to change your setting.
Press and hold to confirm your selection.
Press the button to move to the ESC position.
Press and hold the button to exit this menu and return to the main menu.



# **⚠** WARNING

The audible alarms should only be disabled by experienced divers, who take full responsibility for this operation.

#### **TIME MODE**

In this menu you can view the watch, date, and temperature.

Scroll through the main menu to TIME. Press and hold the button to enter TIME mode; the current time will appear.

Press the button to display the date. Finally, press the button to display the temperature.

Press the button to move to the ESC position. Press and hold the button to exit this menu and return to the main menu.

#### DIVING WITH PUCK

PUCK manages three different dive types:

- AIR
- EAN
- BOTTOM TIME (GAUGE)

To help clarify how PUCK operates during the dive, the display screens have been grouped into four stages:

- Predive
- Dive
- Surfacing
- Surface mode

#### NOTE

Hold down the button for 4 seconds to activate the display backlight.

# **PREDIVE - AIR**

This operating mode remains active until the diver goes below 1.2 meters (4 feet). The following details are displayed (Figure 14):

- Type of dive (AIR)
- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 14

#### NOTE

Before every dive, you should check that all parameters have been set correctly.

#### NOTE

If you stay in predive for more than 10 minutes without pressing any buttons, PUCK will turn off.

# **⚠** WARNING

We advise that when diving you always put PUCK into PREDIVE mode. Early in your dive, always check that the dive computer is switched on.

# DIVE - AIR: "NO-DECOMPRESSION" DIVE

When the diver descends below 1.2 meters (4 feet) PUCK automatically switches to Dive Mode and starts displaying the dive data. Remaining in this mode for more than 20 seconds will make Puck begin recording the dive details in the Log Book memory.

The following details are displayed (Figure 15):

- Current depth (in "m" or "ft")
- The duration of the dive so far (dive time) in numbers
- No decompression time remaining, expressed in minutes
- · "No deco" icon
- The temperature (in °C or °F)
- The DEEPSTOP icon (if the stop is required)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 15

Pressing the button will display additional information (Figure 16):

- The maximum depth reached
- The DEEPSTOP if applicable
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)

Pressing the button again will display:

- Type of dive (AIR)
- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 16

#### NOTE

When the DEEP STOP icon appears, pressing the button will display the estimated stop required. The data displayed during the ascent may vary as a result of the diver's behavior. Divers should check this data during the ascent for more precise information on the estimated stop.

#### NOTE

When the no decompression time remaining is one minute, an audible alarm is sounded to indicate that the diver is about to exceed the no-decompression limits

# DIVE - AIR: "DECOMPRESSION STOP" DIVE

If the diver does not ascend when the residual time has expired, PUCK switches to "decompression stop" mode, indicated by the appearance of the "deco" message and by an audible alarm.

The following data are displayed in this mode (Figure 17):

- "Deco" icon
- Current depth (in "m" or "ft")
- Depth of deepest decompression stop (in "m" or "ft")
- Duration of the deepest decompression stop
- The DEEPSTOP icon (if the stop is required)
- The Ascent time
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 17

Pressing the button will display additional information (Figure 18):

- The maximum depth reached
- The DEEPSTOP if applicable
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 18

Pressing the button again will display (Figure 19):

- "Deco" icon
- Current depth (in "m" or "ft")

- Depth of deepest decompression stop (in "m" or "ft")
- Duration of the deepest decompression stop
- The current temperature
- The DEEPSTOP icon (if the stop is required)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 19

Pressing of the button again will display:

- Type of dive (AIR)
- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)

#### TIME TO SURFACE (ASC TIME)

The Ascent time is given by the sum of:

- The durations of the various decompression stops
- Time required to ascend at an average speed of 10 m/min (32 ft/min)
- · Any deep stops.

#### **DECOMPRESSION STOPS**

PUCK will also check that the decompression stops have been observed; two icons graphically indicate what action the diver should take.

- 2 triangles: correct decompression stop depth
- Upward triangle: diver below decompression stop depth, ascend!
- Downward triangle: diver has ascended beyond decompression stop depth, descend!

# **⚠** WARNING

When the omitted deco stop alarms are triggered, desaturation of the simulated tissue compartments is halted and resumes only when the diver returns to the correct stop depth.

If the decompression stop depth is exceeded by more than 30 cm (11 inches), the "downward triangle" icon will flash; if it exceeds 1m (3 ft) it keeps flashing and an audible alarm will sound. These warnings remain active until the diver returns to the correct depth.

# **⚠** WARNING

Never ascend above the correct decompression stop depth.

#### NOTE

If the deco-stop overshoot exceeds one meter and lasts more than three minutes, the computer switches to "Omitted Stop" mode and the corresponding icon appears. In this case, if after surfacing the diver attempts a repetitive dive, PUCK will only function as a depth gauge and timer (BT mode), and will display the errors of the preceding dive.

# **DEEP STOPS**

To minimize the likelihood of critical bubble seed formation, in the case of decompression dives or dives close to the no-deco limit, PUCK prompts for a series of one-minute deep stops at different depths depending on the dive profile.

Thus, whenever the applicable conditions have been met, PUCK will display an icon during the dive that reads DEEPSTOP. This indication is helpful in planning for your deep stop during your ascent. Near the deep stop depth, PUCK will sound an audible alarm, and the word DEEPSTOP appears.

At the indicated depth, a countdown also appears that will show you how much time remains in the DEEPSTOP. There can be more than one deep stop during a dive. This depends on the dive profile and on the type of decompression.

#### NOTE

During the dive, when the button is pressed, PUCK will display the estimated DEEP STOP required. The data displayed during the ascent may vary as a result of the diver's behavior. Divers should check this data during the ascent for more precise information on the estimated stop.

### **ASCENT**

# **⚠** WARNING

A rapid ascent increases the risk of decompression sickness (DCS).

#### **⚠** WARNING

Disabling the "Stop" on an uncontrolled ascent should only be done by highly experienced divers, who take full responsibility for the consequences of this action

As soon as the depth decreases, PUCK activates the ascent rate control algorithm, displaying the value both in m/min (ft/min) and graphically; when the ascent rate exceeds 12 m/min (39 ft/ min) the bar appears with the word "Slow", and PUCK emits an audible alarm that continues until the ascent rate returns to within the maximum allowable limit (12 m/min - 39 ft/min). At the same time as the audible alarm is triggered, the computer begins monitoring an "Uncontrolled Ascent". An ascent is considered "uncontrolled" when the diver exceeds the maximum rate for a stretch equal to at least two thirds of the depth at which the audible alarm was triggered.

This criterion only applies to alarms triggered below a depth of 12 m (39 ft). In case of an uncontrolled ascent, upon surfacing PUCK disables the AIR and EAN functions of Dive Mode, and will only function as a timer and depth gauge (BOTTOM TIME). The other operating modes remain active. The "Stop" on uncontrolled ascent function can be disabled in SET DATA mode.

#### **SAFETY STOP**

If the maximum depth of a dive exceeds 10 meters, a "Safety Stop" is activated for the ascent. PUCK suggests that divers take a 3-minute safety stop between 2.5 and 6 m in depth (8 - 19 ft), and will display the word "SAFE". A timer indicates the time needed to complete the stop.

If the diver moves outside the depth range mentioned above, the safety stop timer is halted. When the diver re-enters the correct depth range, the safety stop timer resumes from where it left off.

If the diver returns to a depth below 10 m (32 ft), the "Safety Stop" timer will ignore the previously aborted stop and will start over from zero. In the case of a decompression-stop dive, the safety stop extends the duration of the decompression stop at 3 m (10 ft) by an additional 3 minutes, displaying the safety stop information as described previously.

#### **SURFACING - AIR**

When the measured depth is less than 1 m (3 ft), Puck considers the dive to be suspended ("Surfacing") and halts the dive timer. If the diver does not return below 1.2 m (4 ft) within the next 3 minutes, Puck considers the dive to be finished and records its data in the LOGBOOK. If the diver does re-descend within 3 minutes, the dive continues and the dive timer resumes from where it left off. Data displayed in Surface mode (Figure 20):

- Duration of the dive
- Max depth
- Icons for any mistakes made during the dive(omitted stop, uncontrolled ascent)
- Coldest logged temperature



Fig. 20

#### **⚠** WARNING

If an AIR or EAN dive ends with an uncontrolled ascent or an omitted stop, PUCK will restrict AIR and EAN modes for 24 hours and will only allow the BOTTOM TIME operation mode.

#### NOTE

The backlight function is operational in surface mode



# **⚠** WARNING

Do not fly or travel to high altitudes while the no-fly indication remains active.

#### **SURFACE MODE - AIR**

When PUCK considers the dive to be concluded, it moves from Dive mode to TIME mode, showing the desaturation time and the NO FLY icon.

In addition, PUCK displays the icons for any errors made during the dive (omitted stop, uncontrolled ascent).

Press the button to display the NO FLY time and the SURF TIME.

Press the button to move to the ESC position.

Press and hold the button to exit this menu
and return to the main menu

#### **DIVE - EAN**

Due to the lower percentage of nitrogen in the breathing mix, oxygen-rich mixtures make it possible to extend the no-decompression limits, as compared to the same dive with air. However, the higher oxygen content in the mix exposes the diver to oxygen toxicity hazards which are not generally encountered in recreational dives with compressed air. In EAN mode, PUCK computes oxygen toxicity on the basis of the dive time, the depth and the oxygen percentage setting, providing indications that enable the diver to remain within the safe limits for oxygen exposure. To dive with an EAN mix, you must select the EAN mode in the Set Mode menu. PUCK handles EAN dives in a similar manner to compressed air dives. That means that you will have the same functions and procedures for selecting the Dive mode. The only differences in managing the two types of dives lie in setting the general parameters for EAN dives and in the display of these parameters in addition to the normal air dive parameters (discussed in the preceding section). This section will examine the general parameters that are specific to EAN dives monitored by PUCK and the differences in how the data are displayed.

# **⚠** WARNING

It is essential to correctly set the oxygen percentage in the mix to ensure correct readouts of:

- · No decompression time remaining
- Decompression stop times
- Alarm on exceeding the maximum permitted PPO<sub>2</sub>

# **⚠** WARNING

Before the dive, make sure you have correctly set up all the EAN dive parameters: percentage of oxygen in the mix and limit for the partial pressure of oxygen, which together determine the maximum depth of the dive.

# **⚠** WARNING

The use of oxygen rich mixes exposes the diver to different hazards from those associated with compressed air. The diver should be aware of these risks and understand how to avoid them.

# **⚠** WARNING

PUCK should only be used for diving with oxygen rich mixes (EAN) by divers who have the necessary certification. Lack of appropriate diver training may result in possibly serious injury.

# **⚠** WARNING

The user is advised to carefully read the section on compressed air diving before reading the section on EAN dives.

# CHECKING THE GENERAL DIVE PARAMETERS

#### **OXYGEN PARTIAL PRESSURE**

When the diver reaches a depth at which the  $PPO_2$  exceeds the maximum limit entered in the corresponding parameter, (from 1.2 to 1.6 ATM), Puck triggers an alarm condition signaled by:

- blinking depth indication
- audible alarm

The alarm continues until the diver ascends enough to bring the  $\mbox{PPO}_2$  back to within the programmed limit.

### **⚠** WARNING

When the MAX PPO<sub>2</sub> alarm is triggered, ascend immediately until it deactivates.

# EFFECTS ON THE CENTRAL NERVOUS SYSTEM

Oxygen toxicity exposure is monitored by means of a CNS (Central System Calculation), based on currently accepted recommendations for exposure limits.

This toxicity is expressed as a percentage value which ranges from 0% to 100%. When the CNS percentage value shown on the display exceeds 75%, an alarm is triggered and the figure will flash.

#### PREDIVE - EAN

This operating mode remains active until the diver goes below 1.2 meters (4 feet). The following details are displayed: (Figure 21):

Type of dive (EAN)

- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)
- Icon for %0<sub>2</sub>



Fig. 21

#### NOTE

If you stay in predive for more than 10 minutes without pressing any buttons, PUCK will turn off.

#### NOTE

Before every dive, it is advisable to enter Set Dive mode and check all the parameter settings and the EAN parameters in particular.

#### **⚠** WARNING

We advise that when diving you always put PUCK into PREDIVE mode. Early in your dive, always check that the dive computer is switched on.

# DIVE - EAN: "NO-DECOMPRESSION" DIVE

When the diver descends below 1.2 meters (4 feet) PUCK automatically switches to Dive Mode and starts displaying the dive data. Remaining in this mode for more than 20 seconds will make Puck begin recording the dive details in the Log Book memory. The following details are displayed (Figure 22):

- Current depth (in "m" or "ft")
- No decompression time remaining, expressed in minutes
- "No deco" icon
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)
- The % CNS
- The duration of the dive so far (dive time) in numbers
- The DEEPSTOP icon (if the stop is required)



Fig. 22

Pressing the button will display:

- The maximum depth reached
- The DEEPSTOP if applicable
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)

Pressing the button again will display:

- Current depth (in "m" or "ft")
- No decompression time remaining, expressed in minutes

- "No deco" icon
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)
- The temperature (in °C or °F)

Pressing the button again will display:

- Type of dive (EAN)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)
- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)
- The %0<sub>2</sub>

#### NOTE

Hold down the button for 4 seconds to activate the display backlight.

# **DIVE - EAN: "DECOMPRESSION** STOP" DIVE

If the diver does not ascend when the residual time has expired, PUCK switches to "decompression stop" mode, indicated by the appearance of the "deco" message and by an audible alarm. The following data are displayed in this mode (Figure 23):

- "Deco" icon
- Current depth (in "m" or "ft")
- Depth of deepest decompression stop (in "m" or "ft")
- Duration of the deepest decompression stop
- The DEEPSTOP icon (if the stop is required)
- · The Ascent time
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)
- The % CNS
- The duration of the dive so far (dive time) in numbers



Fig. 23

Pressing the button will display (Figure 24):

- The maximum depth reached
- DEEPSTOP icon
- The DEEPSTOP if applicable
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fig. 24

Pressing the button again will display (Figure 25):

- "Deco" icon
- Current depth (in "m" or "ft")
- Depth of deepest decompression stop (in m" or "ft")
- Duration of the deepest decompression stop
- The current temperature
- The DEEPSTOP icon (if the stop is required)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)



Fia. 25

Pressing the button again will display:

- Type of dive (EAN)
- Altitude program and level (if enabled)
- Personal correction factor and level (if enabled)
- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)
- The %0<sub>2</sub>

#### NOTE

During the dive, when the button is pressed, PUCK will display the estimated DEEP STOP required. The data displayed during the ascent may vary as a result of the diver's behavior. Divers should check this data during the ascent for more precise information on the estimated stop.

# **⚠** WARNING

To fully understand how to perform decompression with EAN, the user should also carefully read the corresponding section for compressed-air deco stop dives.

# NOTE

If you have completed an EAN dive and wish to do a repetitive dive with air, set the computer for "EAN" with  $O_2$  at 21%. By so doing, the calculation of the %CNS will remain active.

# **SURFACING - EAN**

When the measured depth is less than 1 m (3 ft), Puck considers the dive to be suspended ("Surfacing") and halts the dive timer. If the diver does not return below 1.2 m (4 ft) within the next 3 minutes, Puck considers the dive to be finished and records its data in the LOGBOOK. If the diver does re-descend within 3 minutes, the dive continues and the dive timer resumes from where it left off.

Data displayed in Surface mode (Figure 26):

- · Duration of the dive
- Max depth
- · Icons for any mistakes made during the dive(omitted stop, uncontrolled ascent)
- Display of % CNS



Fig. 26

The backlight function is operational in surface mode.

#### SURFACE MODE - EAN

When PUCK considers the dive to be concluded, it moves from Dive mode to TIME mode, showing the desaturation time and the NO FLY icon. In addition, PUCK displays the icons for any errors made during the dive (omitted stop, uncontrolled ascent).

Press the button to display the NO FLY time, the SURF TIME, and the %CNS.

Press the button to move to the ESC position. Press and hold the button to exit this menu and return to the main menu.

#### **DIVE - BOTTOM TIME (GAUGE)**

In this mode PUCK functions as an electronic timer and depth gauge, but does not perform any calculations for no-deco limits or for deco-stop times. Responsibility for planning the no-decompression limits or an adequate decompression therefore lies entirely with the user.

The details displayed in Predive and Surfacing mode are the same as those already described for air or EAN dives.

The data displayed in Dive mode are (Figure 27):

- Dive time
- Current depth
- Ascent rate



Fig. 27

Pressing the button will display (Figure 28):

- Temperature (in °C or in °F)
- The maximum depth reached



Fig. 28



Pressing the button again will display (Figure 29):

- Type of dive (BT)
- Units of measurement (m-°C or ft-°F)
- Type of water (Salt, Fresh)



Fig. 29

# **⚠** WARNING

We advise that when diving you always put PUCK into predive mode. Early in your dive, always check that the dive computer is switched on.

#### NOTE

After a dive in "BT" mode, the transition to "AIR" or "EAN" mode will be disabled for 24 hours (you can bypass this block by resetting the residual nitrogen in the tissue compartments in the SET DATA menu).

### **⚠** WARNING

This option is intended only for highly experienced divers. Users who clear the residual nitrogen memory cannot then use the instrument for repetitive dives. After clearing the residual nitrogen memory, do not dive with PUCK if you have already dived within the previous 24 hours.

### NOTE

Hold down the button for 4 seconds to activate the display backlight.

# **SURFACE MODE - BOTTOM TIME**

The desaturation time and the delay before flying or traveling to high altitudes are displayed in the same way as for Air or Nitrox dives (Figure 30).



Fig. 30

# BOTTOM TIME WITH BEHAVIOR ERROR

The following errors can occur during an air or EAN dive:

- Uncontrolled ascent
- Omitted deco stop

In this case, PUCK will inhibit the Dive - AIR and Dive - EAN modes for 24 hours, allowing

operation in BOTTOM TIME mode only, and will continue to display the error committed during the previous dive.

#### PC MODE

Using a special interface unit and a dedicated Windows software application, you can transfer all the data from the PUCK Log Book to a personal computer.

Puck and the computer communicate through a special USB interface module (optional). Scroll through the main menu to PC (Figure 31).

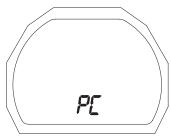


Fig. 31

Press and hold the button to enter PC mode. The letters "PC" will appear in the middle of the screen (Figure 32).

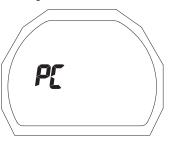


Fig. 32

Lay Puck so the display faces down, and insert the interface into the special port.

More detailed information is available in the software needed to communicate with PUCK. For more information about options for interaction between PUCK and the PC, check the special section of the www.mares.com web site.

You can download the dedicated software and any updates from the web site.

Press the button to move to the ESC position. Press and hold the button to exit this menu and return to the main menu.

#### **LOGBOOK**

LOGBOOK mode is used for viewing the details of past dives on the display. The dives are organized as in the pages of a "log book", with the number "1" assigned to the most recent dive, "2" to the preceding dive and so forth, until the memory is full. If the memory is full, when the user dives again the oldest record is deleted to free up memory for the new dive. Maximum capacity of approximately 40 hours of diving with profile points at twenty second intervals.

Scroll through the main menu to LOGBOOK. Press and hold the button to enter the LOGBOOK.

The first page of the LOGBOOK contains the history of the dives saved (Figure 33):

- maximum depth reached;
- total dive time (hours)
- total number of dives done;
- coldest logged temperature

Pressing the button will display the information for the dives stored (the first dive displayed is the most recent one).

Press and hold the button to select the ESC position. In this position, press and hold the button to return to the main menu.

From the first LOGBOOK screen, pressing the button takes you to the information about the most recent dive stored.



Fig. 33

#### NOTE

For more extensive data storage, management and viewing functionality, use a PC with a USB interface (optional).

#### LOGBOOK - DIVE #

The dives are numbered in order, from the most recent to the oldest.

The following details are displayed:

- type of dive (AIR, EAN, BOTTOM TIME)
- sequential dive number
- alternating dive start date and time

Press and hold the button to view additional information

# LOGBOOK - TECH DATA

This mode displays the summary details of each individual dive:

- Maximum depth reached
- Maximum ascent rate reached
- "Uncontrolled ascent" icon
- Omitted deco stop (only Air, EAN)
- "deco" icon for decompression-stop dives (only Air. EAN)
- Omitted deco stop (only Air, EAN)
- Selected personal correction factor (only Air, EAN)
- "No deco" icon for no-decompression dives (only Air, EAN)
- Selected altitude program (only Air, EAN)
- Duration of the dive
- Coldest logged temperature

Pressing the button will display:

- %0<sub>2</sub> in the breathing mix (EAN only)
- %CNS maximum (EAN only)

Press and hold the button to return to the first screen of information about the current dive. Press the button to scroll through the dives to the end. Press the button again to move to the ESC position.

Press and hold the button to exit this menu and return to the main menu.

#### NOTE

For dives in BOTTOM TIME mode, the uncontrolled ascent and omitted deco stop icons refer to errors committed during the preceding dive.

# PLANNING: SCROLLING OF NO DECOMPRESSION LIMITS

This function allows the user to scroll through the no decompression limits, automatically taking into consideration the residual nitrogen level in the tissue compartments from a previous dive.

The times displayed take into account all the settings under SET MODE.

Scroll through the main menu to PLANNING. Press and hold the button to enter PLANNING (Figure 34).



Fig. 34

Pressing the button increases the depth shown by three meters each time, up to a maximum of 48 m (157 ft).

For each depth, the display shows the corresponding no decompression time expressed in minutes.

If "EAN" mode is selected, the display also shows the programmed oxygen percentage value. The maximum depth allowed in this case varies as a function of the %  $O_2$  and maximum PPO<sub>2</sub> that have been entered.

Upon reaching the maximum depth, pressing the button again moves to ESC mode.

Press and hold the button to return to the main menu

#### NOTE

The Plan function will only be active after having selected AIR or EAN mode in SET DIVE.

#### NOTE

To switch to ESC mode and easily exit the PLANNING function, simply press and hold down the button at any point during scrolling.

### **SYSTEM**

Scroll through the main menu to SYSTEM.
Press and hold the button to enter SYSTEM.
Here you can view:

- The serial number
- Firmware Version
- The number of times the battery has been replaced
- The charge level of the battery, with three possible levels:
  - BATT OK
  - BATT LO 1
  - BATT LO 2

Press the button to move to the ESC position. Press and hold the button to exit this menu and return to the main menu.

#### NOTE

When the battery charge level is displayed, press and hold the button to run an instant battery check.

#### • FAQ

**Q**: What happens if I replace the battery after a dive, before the desaturation time has gone to zero?

**A:** The residual nitrogen memory will be cleared, and the RGBM calculations for any previous dives will be aborted. The diver who used the computer in the previous dive must not dive for at least 24 hours.

**Q:** What happens if I start a dive while PUCK is still in SYSTEM mode?

**A:** If left in SYSTEM mode when you begin the dive, PUCK will still activate DIVE mode within 20 seconds of descending past 1.2 m (4 ft).

**Q:** When I replace the battery, will my Log Book dive data be lost?

A: No

**Q:** What happens if there is an uncontrolled ascent or omitted decompression stop during an AIR or EAN dive?

**A:** After the dive, PUCK switches automatically to "Stop". Only BOTTOM TIME mode will remain operational.

**Q:** What indicates that "Bottom Time" mode was chosen by the user, rather than forced as a result of diver errors during the preceding dive?

**A:** In the latter case, during the dive and in surface mode, the pertinent error icons are displayed along with the standard "Bottom Time" indications.

**Q:** If AIR or EAN mode is selected after completing a dive in "BOTTOM TIME" mode, how will the new dive be managed?

**A:** PUCK does not allow you to do an AIR or EAN dive in the 24 hours immediately following a BOTTOM TIME dive.

**Q:** Why is the PLANNING mode sometimes disabled after a dive?

**A:** This happens if you end a dive with an omitted stop or an uncontrolled ascent. If this happens, Puck switches to BOTTOM TIME and prevents use of the Dive - AIR and Dive - EAN for 24 hours.

Q: What is SYSTEM mode for?

**A:** Putting PUCK into SYSTEM mode allows you to view specific information about your dive computer.

**Q:** Where can I find the product serial number? **A:** In SYSTEM mode.

**Q:** If I already own the Iris interface, can I use it with PUCK?

A: No.

**Q:** Sometimes the temperature indication is too high in time mode.

A: The thermometer was calibrated for use underwater; out of the water PUCK is affected by your body temperature. Therefore if you want a more accurate temperature reading, we suggest that you take the PUCK off your wrist and leave it for a few minutes on a surface that is not influenced by other temperatures.

q: Are the 3 minutes of the safety stop included in the Ascent time?

**A:** The 3 minutes of the safety stop are not included in the Ascent time.

Q: What is a DEEP STOP?

A: To reduce the chances of micro-bubbles

forming and growing, during decompressionstop dives or dives very close to the nodecompression limits, Puck will prompt for a series of deep stops of a minute each at variable depths, as a function of the dive profile. This is one of the special characteristics of the RGBM Mares-Wienke Algorithm. For more information visit: www.rgbm.mares.com

**Q:** If I ascend above the depth for the DEEP STOP can I go back down to do the stop?

**A:** If you surpass the DEEP STOP by more than a meter (3 ft), the stop is canceled.

**Q:** Why doesn't the DEEP STOP icon appear during the dive?

**A:** The DEEP STOP only appears for decompression dives or dives close to the decolimit.

**Q:** If I start my DEEP STOP and then go back down what happens?

**A:** If you begin the DEEP STOP and then descend, the countdown stops. It resumes when you return to the DEEP STOP depth.

Q: Why doesn't PUCK turn off after a dive?
A: If the no-fly period has not expired, after a dive PUCK switches to TIME mode and shows information about the most recent dive.

#### MAINTENANCE

After diving in seawater it is recommended that you rinse PUCK with fresh water to remove any salt residues.

Do not use chemical products. Simply hold PUCK under running water.

#### NOTE

If you notice signs of moisture on the inside of the plastic lens, take your PUCK to an authorized Mares service center immediately. In any case, Mares declines responsibility for any water seepage resulting from an incorrect battery replacement procedure.

# **⚠** WARNING

The plastic lens is not immune to scratches caused by improper use.

# **⚠** WARNING

The plastic lens is protected by a plastic lens cover that is easily replaceable [Mares spare part Code 44200617].

# REPLACING THE BATTERY

Replacing the battery is a delicate operation, and requires close attention. We suggest that you visit an authorized Mares center. Mares declines all responsibility for any damage caused by replacing the battery.

#### NOTE

Do not discard the old battery in the environment. Mares adopts a policy of respect for the environment, and urges use of the appropriate separated waste collection service.



# **⚠** WARNING

Inspect the O-ring carefully, checking for any signs of damage, tearing or warping. If necessary, replace it with a new O-ring [Mares spare part Cod. 44200654].

Unscrew the waterproof cover on the back of PUCK, rotating counter-clockwise.

Lift the cover, prying in the two grooves. Remove the battery, paying close attention to the proper polarity.

Insert a new battery, Lithium CR 2450, making sure the polarity is correct.

Check the gasket in the cover. Insert the cover onto PUCK so that the icons

are correctly positioned.

Press the cover inward.

Turn clockwise, pressing the cover until the icons are aligned.

#### **STRAP**

The adjust the length of the strap to your needs (for PUCK with a strap), grooves have been provided at points in which it can be cut.

# **⚠** WARNING

Mares reserves the right to refuse to provide service under the warranty if the maintenance instructions are not followed.

# • TECHNICAL/FUNCTIONAL CHARACTERISTICS

#### **TECHNICAL FEATURES**

#### Depth measurement

- Maximum displayed depth: 150 m (492 ft)
- Measurement resolution:
  - 10 cm (3.95 in) in the 0-100 m (0-328 ft) range
  - 1 m (3.28 ft) in the 100-150 m (328-492 ft) range
- Temperature compensation of the measurement between -10 and +50 °C (14/122 °F)
- Measurement accuracy from 0 to 80 m (0-262 ft): ±1% of full scale
- Depth display: meters (m) / feet (ft)
- Manual fresh/seawater selection
- Difference between fresh/seawater: 2,5%

# Temperature measurement

- Measurement range: -10/+50 °C (14/122 °F)
- Measurement resolution: 1°C (1°F)
- Measurement accuracy: ±2 °C (±4 °F)
- Temperature display: Celsius (°C)/ Fahrenheit (°F)
- Operating temperature: from -10 to +50 °C [14/122 °F]
- Storage temperature: from -20 to +70 °C [-4/+158 °F]

#### Battery

- Lithium 3V CR 2450 battery
- Life: over 170 dives\*

#### \* NOTE

Data refer to calculations performed with the following parameters:

- Average length of each dive 45 min
- •12 months of SWITCH-OFF Mode
- Battery life is affected by the operating temperature
- Battery life decreases at lower temperatures
- •The life of the battery will vary depending on use

# Algorithm

- RGBM Mares-Wienke, the result of a collaboration between Dr. Bruce R. Wienke and the Mares Research and Development Center.
- 10 tissue compartments
- Reduction of permissible gradient (M factors) in case of repetitive dives, deeper-than-previous dives or dives on multiple consecutive days.
- Deep decompression stops
- · Safety stop
- Ascent rate: 10 m/min
- Altitude programs:
  - P0 from 0 to 700 meters ASL (0-2296 ft);
  - P1 from 700 to 1500 meters ASL (2296-4921 ft)
  - P2 from 1500 to 2400 meters ASL [4921-7874 ft]
  - P3 from 2400 to 3700 meters ASL (7874-12139 ft)
- Personal correction factor for added safety

## Mechanical characteristics

- Plastic lens
- Plastic lens cover
- 1 button

# **FUNCTIONAL CHARACTERISTICS**

# DIVE operating mode

- AIR
- EAN
- BOTTOM TIME

# Scrolling of no decompression limits

• From 12 to 48 m (39 -157ft)

#### LOGBOOK

- History
- All dives are stored with profile points at 20 second intervals, for a total of max 40 hours.

### Backlighting

Temporary

#### Audible alarms

- Omitted decompression stop
- Excessive ascent rate
- No-decompression limit reached
- Deep stop
- Maximum depth allowed by the max PPO<sub>2</sub> setting

#### **PC INTERFACE**

USB (optional)

#### WARRANTY

Mares products are guaranteed for a period of two years subject to the following limitations and conditions:

- The warranty is non-transferable and applies strictly to the original purchaser.
- Mares products are warranted free from defects in materials and workmanship: upon serious technical inspection, any components that are found to be defective will be replaced free of charge.
- Mares S.p.A. declines all responsibility for accidents of any kind that result from tampering or incorrect use of its products.

#### **VALIDATION OF THE WARRANTY**

To validate the warranty, the first purchaser must mail this certificate complete with the vendor's stamp to Mares S.p.A. within 10 days of the date of purchase. Any products returned for overhaul or repairs under warranty, or for any other reason, must be forwarded exclusively via the vendor and accompanied with a proof of purchase slip. Products travel at the risk of the sender.

#### **WARRANTY EXCLUSIONS**

- Damage caused by water seepage resulting from improper use (e.g. dirty seal, battery compartment closed incorrectly, etc.)
- Rupture or scratching of the case, glass or strap as a result of violent impact or blows
- Damage resulting from excessive exposure to elevated or low temperatures.

#### HOW TO FIND THE PRODUCT CODE

To view the product code, enter the SYSTEM menu

The product serial number is indicated here. You should note this number on the warranty certificate inside the packaging. The serial number can also be found on the PUCK packaging.

# • DISPOSAL OF THE DEVICE



Dispose of this device as electronic waste. Do not throw it away with regular rubbish. If you prefer, you can return the device to your local Mares dealer.





Deep Stop



