Dive Computer **Nemo Sport**

Manuale d'istruzioni • User's Guide • Bedienungsanleitung • Manuel d'utilisation
Manual de instrucciones • Manual de instruções • Gebruikershandleiding • Användarinstruktioner
Οδηγίες χρήσης • Käyttäjän Opas • Instrukcja użytkowania • Felhasználói útmutató

mares®
just add water

NEMO SPORT DIVE COMPUTER

Congratulations!
NEMO SPORT is a mobile dive computer for underwater diving that measures depth during dives and, based on the measured values, calculates and displays a variety of dive data, including such critical data as a diver's body oxygen level and the level of nitrogen that has dissolved into the diver's body.

In this manual you will find all the instructions for its use.
Mares thanks you for your choice and urges you to always practice safe and responsible diving.
Enjoy!

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, Nemo Sport 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.

⚠ 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 Nemo Sport dive computer is designed exclusively for recreational sports use and not 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, Nemo Sport cannot 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. Have the battery replaced.

⚠ WARNING
Do not fly within 24 hours of your last dive, and in any case wait until the Nemo Sport ("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 ft), and never take decompression dives with Nemo Sport 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 an 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 desaturation time deriving from the previous dive has elapsed.
- 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 feet) 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 feet).
- Always wait at least 12 hours, and preferably 24 hours, before flying after a dive, in accordance with the recommendations of the Divers' Alert Network.

1. OVERVIEW

1-1. FUNCTION OVERVIEW

The functions of the dive computer are outlined below.

- Clock function: internal full-auto calendar clock (with auto leap year recognition and auto month-end recognition).
- Daily alarm function.
- Time tone function.
- Dual time function.
- 12-hour clock/ 24-hour clock selector function.
- EL backlight function.
- Dive data functions:
  - depth measurement
  - dive time measurement
  - water temperature measurement
  - surface interval count
  - don't fly time
  - warning
- Log memory function: Saves and displays logs for up to 30 dives.
- History function: Saves and displays the total number of dives (up to 999) and total dive time (up to 999 hours and 59 minutes).
- Profile function: Saves depths at set times during a dive, and read from PC.
- Profile time (Pt) setting function.
- PC download function: Transfers log and profile data to a PC.
- Altitude measurement / altitude rank function.
- User safety factor (USF) setting function.
- m/ft selector function.

1-2. OPERATION KEYS

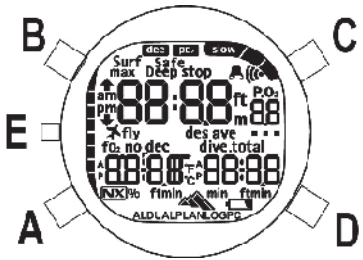
- There are four keys for user operations: the A key, B key, C key, and D key.
- The E wet contact serves as a water detection switch.

1-3. SETTINGS WHEN THE SYSTEM IS RESET

Item	State
Mode	Time mode
Time	12:00 00 sec. AM (12-hour clock)
Time (dual time)	12:00 00 sec. AM (12-hour clock)
Daily alarm	12:00 AM (chime: off)
Time tone	Off
Ascent rate warning alarm	On
Calendar	January 1, 2005
Depth	0 m
Altitude rank	Determined by measured value after reset
FO_2 setting	Air (21%)
Inert gas level (PGT)	0 (none)
Oxygen limit indicator (OLI)	0 (none)
Desaturation time (DESAT)	0 (none)
Profile time (Pt)	30 sec.
User safety factor (USF)	0
Units	m / °C (Celsius)
Log memory	Continued from before
History memory	Continued from before
Profile memory	Continued from before
Other data memory	All cleared (0)

2. DISPLAY AND OPERATION SPECIFICATIONS

2-1. LCD PANEL LAYOUT



2-2. FUNCTION OF OPERATION KEYS

- Operations are performed with the push-keys (the A key, B key, C key, and D key) and the water detection switch (E wet contact).

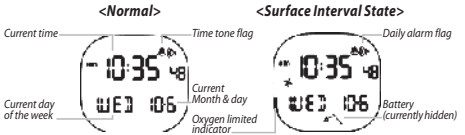
Key	Main Function
A key	Changes the mode
B key	Lock button
C key	Changes the column to be adjusted / UP button
D key	EL backlight button / DOWN button
E wet contact	To Dive mode Returns from Dive mode (at a depth of 1.4 m or less)

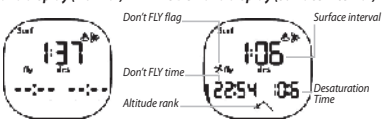
3. DESCRIPTION OF MODE STATES & OPERATION DISPLAY

3-1. TIME MODE

- Time mode is the default state during normal use and during surface intervals.
- All display segments flash when the dive computer is locked in the out-of-range state or when it is locked in the decompression stop violation state.
- The demand displays for the don't fly time, DESAT, and surface interval interfaces appear while the C key is pressed.

3-1-1. Display





3-1-2. Key operations

State Key Entry	Time	Surface Interval of under 10 min.
A key	To Alarm mode	←
B key	To Time Set mode	Invalid (audible alarm)
C key pressed	Time demand display and backlight on	←
D key	Backlight on	←
C + D key	Alarm test	←
E wet contact: water detection switch	To Dive mode	←
E wet contact (when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (audible alarm sounds while ON)	←

3-1-3. Description of Time mode functions

(1) CLOCK FUNCTION
- Keeps time, and displays a calendar and the current time.

(2) DEMAND DISPLAY FUNCTION
- Press the C key to invoke the demand display.

(3) EL BACKLIGHT FUNCTION
- The electroluminescent backlight illuminates for 2 to 3 seconds after the C key or D key is pressed.
- When the C key is entered, the demand display simultaneously appears.
- Continuously pressed and held keys are ignored. (The backlight illuminates for 2 to 3 seconds from the time the key is first pressed.)
- Input from the C and D key is ignored while the backlight is illuminated. (The backlight goes off 2 to 3 seconds after the key is first pressed.)
- If a mode changing key is pressed while the backlight is on, the backlight immediately goes off and the selected mode is invoked.

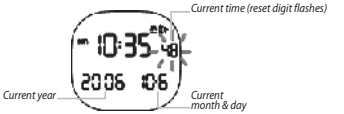
(4) ALARM TEST FUNCTION
- Simultaneously press the C key and D key to test the audible alarm.

(5) LOCK STATE RESET FUNCTION
- In the out-of-range lock state and decompression stop violation lock state, simultaneously press and hold the C key and D key for 15 seconds to clear the lock state and access the normal state.

3-2. TIME SET MODE

- Time Set mode is used to set the current time, the current date, and the time format (12- or 24-hour clock).
- Time Set mode cannot be accessed until a surface interval of at least 10 minutes has elapsed.

3-2-1. Display



3-2-2. Key operations

State Key Entry	Set Seconds	Set Minutes	Set Hour	Set Year	Set Month	Set Day	Set Time Format
A key	Invalid	←	←	←	←	←	←
B key	To Time mode	←	←	←	←	←	←
C key	To minute setting	To hour setting	To year setting	To month setting	To day setting	To clock format setting	To seconds setting
D key	Reset	00 – 59 Minute setting	0 – 23 Hour setting	2003 - 2050 Year setting	1 – 12 Month setting	Day setting	Toggle between 12 h & 24 h
D key pressed	Invalid	Minute setting (Fast-forward)	Hour setting (Fast-forward)	Year setting (Fast-forward)	Month setting (Fast-forward)	Day setting (Fast-forward)	Invalid
C + D key	Fully illuminated display	←	←	←	←	←	←
No key operated for 2 - 3 minutes	To Time mode	←	←	←	←	←	←
E wet contact: water detection switch	To Dive mode	←	←	←	←	←	←
E wet contact (when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (Alarm sounds while ON)	←	←	←	←	←	←

3-2-3. Description of Time Set mode functions

(1) SELECTING COLUMNS TO BE ADJUSTED

- Press the C key to select the column to be adjusted.
- The columns are selected in the following order: second → minute → hour→ year → month → day → 12/24-hour clock selection → second → … (loop)
- The selected column flashes.
- Columns continue to flash at the same pace during data adjustment, even if a valid key entry is made.

(2) ADJUSTMENT METHOD

- Columns are incremented by a value of 1 each time the D key is pressed.
- Pressing and holding down the D key for 1 to 2 seconds speeds up D key entry (fast-forwarding).

a) Adjusting the seconds display

Pressing the D key once between 0 and 29 seconds causes the seconds to be rounded down to 0 without changing the minutes column.
Pressing the D key once between 30 and 59 seconds causes the minute column to be rounded up. (One minute is added to the minute column).
When the minute column shows 59 minutes, a one is added to the number in the hour column.
The day, month, and year columns are similarly incremented.
For example, if the seconds column is reset on December 31, 2003, at 23 hours, 59 minutes, and 45 seconds, the time will change to January 1, 2004, 0 hours, 0, minutes, 0 seconds.

b) Adjusting the day display

Months that have 31 days can be set to any day up to 31.
Months that have 30 days can be set to any day up to 30.
February can be set to any day up to 28, except in a leap year, when it can be set up to the 29th.
(Days that do not exist, such as June 31, November 31, and so forth, are not displayed.)
When the day is being adjusted, the month column does not change even after the last day in the month is passed. (The day loops, without affecting the month.)

c) Adjusting the month display

The end of the month is controlled during adjustment of the month column, and days that do not exist are handled as follows. If the dive computer indicates the 31st day of a month when the display is reset to a month with 30 days, the day column will indicate the first day of that month, since the 31st day does not exist.

Examples:

If the D key is pressed once when the dive computer indicates May 31, the date will change to June 1 (because there are not 31 days in June).
If the D key is pressed once when the dive computer indicates January 30, the date will change to February 1 (because February 30 does not exist).
Note: In the case of a leap year, if the D key is pressed once when the dive computer indicates January 29, the dive computer will indicate February 29.
The year column does not change when the month column changes from December to January. (The month loops, without affecting the year column.)

d) Adjusting the year display

The year can be set from 2003 up to 2050. (After passing 2050, the year display loops back to 2003.) Leap years are automatically detected.

(3) Carrying of numbers during adjustments

- Numbers are carried over normally.
- Except when the seconds setting is being adjusted, numbers are not carried over to the next highest place during adjustments. For example, when the D key is used to adjust the minutes setting from 59 minutes to 00 minutes, the hour column is not changed. Or, when the D key is used to adjust the hour setting from 23 hours to 0 hours, the day does not change.

(4) SELECTING THE 12- OR 24-HOUR CLOCK

- Either a 12-hour clock format or a 24-hour clock format can be selected. Toggle between the 12-hour and 24-hour clock formats by pressing the D key.
- In the 12-hour format, an "A" appears from the hours of 12:00 a.m. to 11:59 a.m., and a "P" appears from the hours of 12:00 p.m. to 11:59 p.m.

(5) FULL ILLUMINATION FUNCTION

- Simultaneously pressing the C and D keys causes the entire display to light up.

- The dive computer does not automatically return to Time mode from the fully illuminated screen.
- Pressing any key while the screen is fully illuminated invokes Time mode.

3-3. ALARM MODE

- Alarm mode turns the daily alarm and time tone ON/OFF.
- All display segments flash when locked in the out-of-range state or when locked in the decompression stop violation state.

3-3-1. Display

3-3-2. Key operations

State Key Entry	Alarm Mode
A key	To Dual Time mode
	To Time mode after key operation *1
B key	To Alarm Set mode
C key	Sets the alarm
D key	Backlight on
No key operated for 2 - 3 minutes	To Time mode
E wet contact: water detection switch	To Dive mode
E wet contact (when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (audible alarm sounds while ON)

**1 After a key is operated in Alarm mode (for example, the C key was pressed to set the alarm, the B key was used to access and then return from Alarm Set mode, or the D key was pressed to turn on the backlight), the dive computer jumps to Time mode when the A key is pressed. (This function is hereafter referred to as a "jump function.")*

3-3-3. Description of Alarm mode functions

(1) DAILY ALARM/TIME TONE SETTING FUNCTION

- Pressing the C key switches the daily alarm and time tone ON/OFF. (Daily alarm : Time tone) = (OFF:OFF) → (ON:OFF) → (OFF:ON) → (ON: ON) → (OFF:OFF) → …(loop)
- The daily alarm flag lights up when the daily alarm is turned ON. The time tone flag is lights up when the time tone is turned ON.
- When they are ON, the alarm flag and the time tone flag are on in all modes except Log mode, History Clear mode, Dive Profile mode, and PC Transfer mode.

3-4. ALARM SET MODE

- A mode for setting the daily alarm clock

3-4-1. Display

3-4-2. Key operations

State Key Entry	Daily Alarm Minute column setting	Daily Alarm Hour column setting
A key	Invalid	←
B key	To Alarm mode	←
C key	To daily alarm hour column setting	To daily alarm minute column setting
D key	00 – 59 min. setting	0 – 23 hour setting*1
D key pressed continuously	Minute setting (fast-forward)	Hour setting (fast-forward)
No key operated for 2 - 3 minutes	To Time mode	←
E wet contact: water detection switch	To Dive mode	←
E wet contact(when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (Audible alarm sounds while ON)	←

**1 For the 12-hour clock format, set from 1 to 12.*

3-4-3. Description of Alarm Set mode functions

(1) SELECTING THE COLUMN TO BE ADJUSTED ON THE DAILY ALARM CLOCK
- Press the C key to select the column to be adjusted.
- The columns are selected in the following order:
  Minute column → Hour column → Minute column → …(loop)
- The selected column flashes.

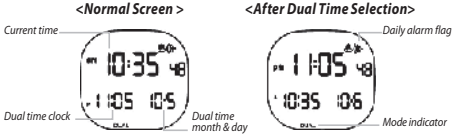
(2) ADJUSTMENT METHOD
- A value of 1 is added each time the D key is pressed.
- Adjustments are speeded up if the D key is held down for 1 to 2 seconds.
- If the daily alarm is OFF at the time the daily alarm clock setting is changed, the daily alarm is automatically turned ON.

(3) CARRYING NUMBERS DURING ADJUSTMENT
- Numbers are not carried over to the next column during adjustments. For example, if the D key is used to change the minutes setting from 59 minutes to 00 minutes, the hour column does not change.

3-5. DUAL TIME MODE

- A mode for selecting dual time.
- All display segments flash when locked in the out-of-range state or when locked in the decompression stop violation state.

3-5-1. Display



3-5-2. Key operations

State Key Entry	Dual Time	Surface Interval of Under 10 min.	When Locked
A key	To Dive Plan mode To Time mode after key operation	←	To Dive Log mode To Time mode after key operation
B key	To Dual Time Set mode	Invalid (audible alarm)	To Dual Time Set mode
C key	Dual time selection	Invalid (audible alarm)	Dual time selection
D key	Backlight on	←	←
No key operated for 2 - 3 minutes	To Time mode	←	←
E wet contact: water detection switch	To Dive mode	←	Invalid (audible alarm sounds while ON)
E wet contact (when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (audible alarm sounds while ON)	←	←

3-5-3. Description of Dual Time mode functions

(1) DUAL TIME FUNCTIONS
- In addition to the current time, the dive computer can display the time in one other time zone. (This function is known as "dual time.")
- Dual time is set within ±23 hours and 30 minutes of the current time.

(2) DUAL TIME SELECTOR FUNCTION
- Press the C key to toggle between the time zones (dual times).
- If the surface interval is less than 10 minutes, dual time cannot be switched, and an alarm sounds when the C key is ON.

3-6. DUAL TIME SET MODE

- Dual Time Set mode is used to set the dual time clocks.
- If the surface interval is less than 10 minutes, Dual Time Set mode cannot be accessed.

3-6-1. Display

3-6-2. Key operations

State Key Entry	Dual Time Set
A key	Invalid
B key	To Dual Time mode
C key	Dual time clock UP (30 min)
C key pressed and held	Dual time clock UP (fast-forward)
D key	Dual time clock DOWN (30 min)
D key pressed and held	Dual time clock DOWN (fast-forward)
No key operated for 2 - 3 minutes	To Time mode
E wet contact: water detection switch	To Dive mode
E wet contact (when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (audible alarm sounds while ON)

3-6-3. Description of Dual Time Set mode functions

(1) ADJUSTMENT METHOD

- Press the C key once to add 30 minutes.
- Press the D key once to subtract 30 minutes.
- The adjustable range is up to ±23:30. Key entries after the time has been adjusted up to the limit are ignored. For example, if the current time is 14:23 on February 15, the C key can be used to adjust dual time up to 13:53 on February 16. Once that time setting has been reached, no additional time can be added and all C key entries are ignored. (There is no particular beep or other sound to indicate when C key entries are being ignored.)
- Time loops between December 31, 2050 and January 1, 2003.
- Hold down either the C key or the D key to speed up (fast-forward) adjustments.

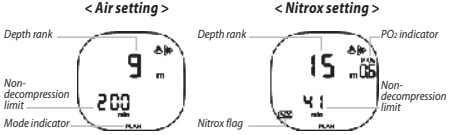
(2) CARRYING NUMBERS DURING ADJUSTMENT

- Numbers are carried over to the next column (hour, day, month) when needed during adjustments. For example, if the C key is used to reset the minutes setting from 30 minutes to 00 minutes, a value of one will be added to the hour column when 00 is reached. Similarly, if the D key is used to change the minutes setting from 00 minutes to 30 minutes, a value of one will be subtracted from the hour column. If the C key is used to reset the time from 23:30 to 0:00, a value of one will be added to the date in dual time.

3-7. DIVE PLAN MODE

- Dive Plan mode is used to set the depth rank and to derive the non-decompression limit at that depth.
- When the dive computer is locked in the out-of-range state or locked in the decompression stop violation state, Dive Plan mode is skipped.

3-7-1. Display



3-7-2. Key operations

State Key Entry	Dive Plan	Surface Interval of Under 10 min.
A key	To Dive Log mode To Time mode after key operation	←
B key	To Dive Set mode	Invalid (audible alarm) However, if FO_2 is in the default state, Dive Set mode can be accessed
B key pressed and held for 14 – 15 sec.	Toggles between meters and feet. (on the face of Dive Set mode)	←
C key	Increases the depth rank count (in 3 m/10 ft increments)	←
D key	Decreases the depth rank count (in 3 m/10 ft increments)	←
C + D key pressed and held for 14 – 15 sec.	Toggles audible ascent rate warning alarm ON/OFF	←
No key operated for 2 - 3 minutes	To Time mode	←
E wet contact: water detection switch	To Dive mode	←
E wet contact (when BLD is detected or upon an altitude rank error)	Invalid (audible alarm sounds while ON)	←

3-7-3. Description of Dive Plan mode functions

(1) DEPTH RANK SELECTION FUNCTION

- Each time the C key is pressed, 3 m (10 ft) is added [from 9 m (30 ft) up to 48 m (160 ft)].
  9 m (30 ft) → 12 m (40 ft) → … → 45 m (150 ft) → 48 m (160 ft) (no loop)
- Each time the D key is pressed, 3 m (10 ft) is subtracted [from 48 m (160 ft) up to 9 m (30 ft)].
  48 m (160 ft) → 45 m (150 ft) → … → 12 m (40 ft) → 9 m (30 ft) (no loop)
- Holding the keys down does not speed up adjustments.
- After Dive Plan mode is accessed, the display always starts from 9 m (30 ft) (display order 1).
- As shown in the following table, there are 14 depth ranks.

Display Order	Depth Rank	Display Order	Depth Rank	Display Order	Depth Rank
1	9 m (30 ft)	6	24 m (80 ft)	11	39 m (130 ft)
2	12 m (40 ft)	7	27 m (90 ft)	12	42 m (140 ft)
3	15 m (50 ft)	8	30 m (100 ft)	13	45 m (150 ft)
4	18 m (60 ft)	9	33 m (110 ft)	14	48 m (160 ft)
5	21 m (70 ft)	10	36 m (120 ft)		

(2) DIVE PLAN FUNCTION

- Used to set the depth rank data and to check the non-decompression limit (NDL) for the first dive and for repetitive dives at that depth rank.
- However, if PO_2 reaches or exceeds 1.4, the bar display shows "- - -".

(3) M/FT SELECTOR FUNCTION

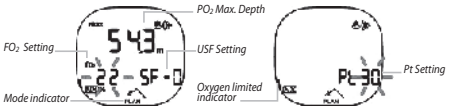
- Press and hold the B key for approximately 15 seconds to toggle the depth and temperature display units between meters and degrees Celsius (m & °C) and feet and degrees Fahrenheit (ft & °F). (The default setting is m & °C).
- The Dive Set mode screen appears once the B key is pressed. The unit display changes if the B key is held down continuously.

(4) AUDIBLE ASCENT RATE VIOLATION ALARM ON/OFF SELECTOR FUNCTION
- Simultaneously press and hold the C key and D key for approximately 15 seconds to toggle the audible ascent rate warning ON/OFF. (The default setting is ON.)
- When the audible alarm is switched ON or OFF, a confirmation tone sounds once.
- When the audible alarm is turned back ON, the SLOW flag flashes for 1 second.

3-8. DIVE SET MODE

- A mode for setting the fraction of oxygen (FO_2), the User Safety Factor (USF), and the profile time (Pt).
- Dive Set mode cannot be accessed if the surface interval is less than 10 minutes and FO_2 is not in the default state.
- Dive Set mode can be accessed if the surface interval is less than 10 minutes but FO_2 is in the default state.
- When the out-of-range state or decompression stop violation state are locked, Dive Set mode cannot be accessed, since Dive Plan mode is skipped.

3-8-1. Display



3-8-2. Key operations

State Key Entry	FO_2 Setting	User Safety Factor (USF) Setting	Profile Time (Pt) Setting
A key	Invalid	←	←
B key	To Dive Plan mode	←	←
C key	To USF setting	To Pt setting	To FO_2 setting
D key	Air (21%) – 99% setting	Toggles between 0 & 1	Toggles between 30 & 15
D key pressed & held	FO_2 setting (Fast-forward)	Invalid	Invalid
No key operated for 2 - 3 minutes	To Time mode	←	←
E wet contact: water detection switch	To Dive mode	←	←
E wet contact (when BLD is detected or an altitude rank error occurs)	Invalid (audible alarm sounds while ON)	←	←

3-8-3. Description of Dive Set mode functions

(1) SELECTING THE DATA TO BE ADJUSTED
- Press the C key to select the data to be adjusted.
- The data are selected in the following order:
  FO_2 → USF → Pt → FO_2 → …(loop)
- When the surface interval is less than 10 minutes in the default state, C key entries are invalid. (Only FO_2 can be adjusted.)
- The selected data flashes.

(2) ADJUSTMENT METHOD

a) Adjusting the FO_2 setting

- The FO_2 setting is increased by 1% each time the D key is pressed.
- Setting range: Air (21) → 22 → 23 → … → 98 → 99 → Air (21)→ 22 → …(loop)
- To speed up FO_2 adjustments, press and hold the D key for 1 to 2 seconds.
- The FO_2 indicator temporarily stops at 32% and at 99% during fast-forwarding with the D key.
- When in the default state (entered when the date changes when FO_2 is 22% or higher), the FO_2 indicator shows " – – ".
- Press the D key from the default state to invoke the Air setting.
- When FO_2 is set to any percentage from 22% to 99%, the NX flag lights up when the dive computer is in Time mode, Alarm mode, Dual Time mode, Dive Plan mode, Dive Set mode, or Dive mode. If FO_2 is set to the default, the NX flag flashes in the aforesaid modes.

b) Adjusting the USF setting

- The USF setting toggles between 0 and 1 each time the D key is pressed. (The default setting is 0.)
- Pressing and holding the D key does not speed up USF adjustment.

c) Adjusting the Pt setting

- The Pt setting toggles between 30 and 15 each time the D key is pressed. (The default setting is 30).
- Pressing and holding the D key does not speed up the Pt adjustment.

(3) PO_2 MAXIMUM DEPTH DISPLAY FUNCTION

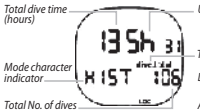
- Displays the maximum depth at which a PO_2 will remain below 1.4 at the FO_2 setting.
- When FO_2 is set to the default, bars appear in the FO_2 segment. When set to Air, the display does not appear.

3-9. DIVE LOG MODE

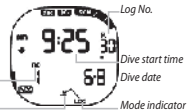
- A mode in which data displayed, the data is saved if the diver stays submerged for at least three minutes at a depth of 1.5 m or greater.
- Data is sequentially saved each time a dive is made. The dive computer can hold log data for up to 30 dives. Once the 30-dive limit is reached, the oldest log data is cleared each time a new dive is made.

3-9-1. Display

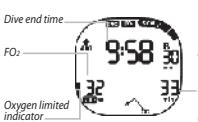
< History Display >



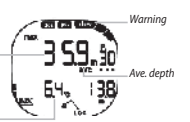
< Screen 1 >



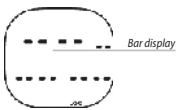
< Screen 2 >



< Screen 3 >



< When there is no data >



3-9-2. Key operations

State Key entry	Dive Log *1	Surface Interval of under 10 min.	No log data
A key	To PC Transfer mode To Time mode after key operation	To Time mode	To PC Transfer mode
B key	Invalid	Invalid	Invalid
C key	Increases the log No.	←	Invalid
C key pressed and held	Increases the log No. (fast-forwards to screen 1)	←	Invalid
D key	Moves to log screen 1 or decreases the log No.	←	Invalid
D key pressed and held	Decreases the log No. (fast-forwards to screen 1)	←	Invalid
No key operated for 2 - 3 minutes	To Time mode	←	←
E wet contact: water detection switch	To Dive mode	←	←
E wet contact (when BLD is detected, an altitude rank error occurs, locked in the decompression stop violation state, locked in the out-of-range state)	Invalid (audible alarm sounds while ON)	←	←

**1 The history display (or bar display when there is no data) appears as soon as Dive Log mode is accessed.*

3-9-3. Description of Dive Log mode functions

(1) MEMORY RECALL FUNCTION

- The following history data and log data saved in Dive mode are displayed:

Total number of dives	Lowest water temperature
Total dive time	Log number
FO_2 concentration	PGT level at end of dive
Dive date	Oxygen limit indicator at end of dive
Altitude rank at dive start	Decompression dive warning
Number of dives that day	Decompression stop violation warning
Dive start time	Ascent rate graph and warning
Dive end time	Out-of-range warning
Dive time	PO_2 warning
Maximum depth	OLI warning
Average depth	

- Data limits are as shown in the following table.

History Data	Total number of dives	Total dive time			
	999	999:59 (h:m)			
Log Data	Dive time	Maximum depth	Average depth	Lowest water temperature	Altitude Rank
	599 minutes	99.9 m (328 ft)	99.9 m (328 ft)	- 5.0 to 45.0 °C (23 to 113 °F)	3
		OLI level	No. of dives	FO_2	Log No.
		8	30	21 – 99%, default	30

- History data and log data are saved in memory if the diver descends to a depth of 1.5 m (5 ft) or more and stays at that depth for 3 minutes or more when the dive computer is in Dive mode.

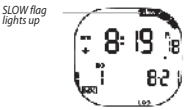
- If the total number of dives in the history exceeds 999 dives, the counter rolls over from 999 to 0 → 1 → …. (In other words, dive number 1000 would be 0, dive number 1001 would be 1, dive number 2002 would be 2, and so forth.)
- If the total dive time in the history exceeds 999 hours and 59 minutes, the counter rolls over from 999h59 to 0h00 → 0h01 → …. (In other words, the 1000th hour would be 0h00; 1000 hours and 1 minute would be 0h01; 2000 hours and 2 minutes would be 0h02; and so forth.)
- Log data and profile data are a set. A maximum of 30 logs/profiles can be saved in memory. Once the 30 logs/profiles limit is exceeded, the oldest log/profile data is automatically cleared.
- Even if the 30 logs/profiles limit has not been reached, the oldest log/profile data is automatically cleared when there is no more available space in memory.
- Dive numbers are saved in memory from numbers 1 through 10. The 11th dive is saved as 1.
- The history display is always the first display to appear when Dive Log mode is accessed. If the D key is then pressed, the most recent data saved in memory (that with the highest number) is displayed. For example, if the memory contains logs 1 through 13, the history display appears first, and log 13-1 appears when the D key is pressed.
- Press the C key to switch the log data display.
  (oldest) 1-1 → 1-2 → 1-3 → 2-1 → …→ 29-3 → 30-1 → 30-2 → 30-3 (newest) → history display
- If the D key is pressed when either Screen 2 or Screen 3 is displayed, the dive computer moves to Screen 1 of that log. If Screen 1 is displayed, the dive computer moves to Screen 1 of the next oldest log (the next lowest log number).
  - Ex. 1) If Screen 2 of log number 5 is displayed, then the dive computer moves as follows:
    5-2 → 5-1 → 4-1 → 3-1 → 2-1 → 1-1
  - Ex. 2) If Screen 3 of log 17 is displayed, the dive computer moves as follows:
    17-3 → 17-1 → 16-1 → 15-1 → … → 2-1 → 1-1
- The log does not loop but only moves back and forth as follows:
  history display ⇆ newest ⇆ …⇆ oldest
- Press and hold the C key or the D key to fast-forward to Screen 1 of each log.
  Holding the C key:
  1-1 → 2-1 → 3-1 → … → 29-1 → 30-1 → history display
  Holding the D key:
  history display → 30-1 → 29-1 → 28-1 → … → 2-1 → 1-1
- If there is no log data, a bar display will appear when Dive Log mode is accessed.
- When the bar display appears, History Clear mode cannot be accessed.
- If FO_2 is the default state, the display will show "– –"%, and the NX flag will flash.

Alarm indicators

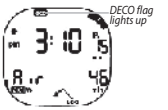
The following warnings are displayed in the log if they are recorded in Dive mode:

- Ascent rate warning. If an ascent warning is ocuured during a dive and an ascent rate warning is saved in memory, the all SLOW flag lights up.
- Decompression dive warning. If a decompression dive has been entered even one time, a decompression dive warning is saved in memory and the DECO flag lights up when the log is displayed.
- Decompression stop violation warning. If a decompression violation has occurred even one time, a decompression stop violation warning is saved in memory and the DECO flag flashes when the log is displayed.
- Out-of-range warning. If the diver dives beyond the measurement range, an out-of-range warning is saved in memory and the display segment flashes when the log is displayed.
- PO_2 warning. If a PO_2 warning is issued even one time, a PO_2 warning is saved in memory and the PO_2 flag flashes when the log is displayed.
- OLI warning. If the OLI reaches 8 even one time, an OLI warning is saved in memory and the OLI flag flashes when the log is displayed. (When the OLI is 0, the OLI flag does not appear.)

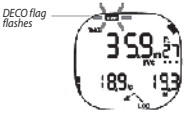
< Ascent rate warning >



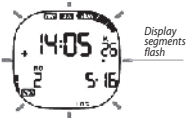
< Decompression Dive >



< Decompression stop violation warning >

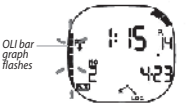


< Out-of-range warning >



< PO_2 warning >

< OLI warning >



3-12. PC TRANSFER MODE

- A mode in which dive computer data can be transferred between a PC and the dive computer.
- PC Transfer mode cannot be accessed if the surface interval is less than 10 minutes, if there is no log data.
- In PC Transfer mode, neither altitude rank nor BLD is measured.

3-12-1. Display

3-12-2. Key operations

State Key Entry	PC Transfer
A key	To Time mode
B key	Invalid
C key	Invalid
D key	Invalid
No key entry for 14 – 15 min.	To Time mode
E wet contact: water detection switch	Invalid
At end of PC transfer	To Time mode

3-12-3. Description of PC Transfer mode functions

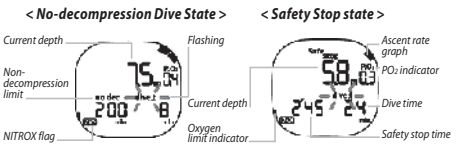
(1) PC TRANSFER FUNCTION

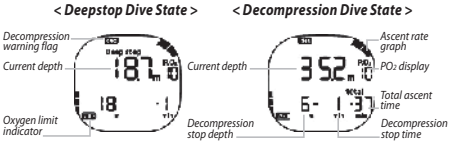
- Transfers data from the dive computer to a PC, or from a PC to the dive computer.

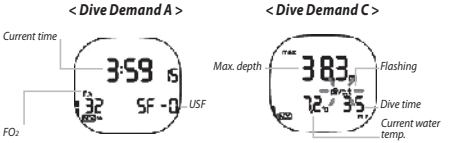
3-13. DIVE MODE

- A mode that indicates conditions during a dive, Dive mode includes the non-decompression state, the decompression state, Safety Stop state, and the out-of-range state.
- The non-decompression state is for dives that do not exceed the non-decompression limit.
- The decompression state is for dives that exceed the non-decompression limit. There are three decompression states: (1) the decompression dive state (invoked when the non-decompression limit has been exceeded, and indicates the depth at which a decompression stop is required); (2) the decompression stop violation state (invoked when the current depth is shallower than the indicated decompression stop depth in the decompression dive state); and (3) the decompression stop violation lock state (invoked if the surface interval has exceeded 10 minutes when the diver is at a depth of 1.4 m or less while the dive computer is in the decompression stop violation state. This state is locked at the same time the log is finalized.)
- Safety Stop state is a state wherein the diver is advised to make a 3-minute safety stop if he/she ascends to a depth of 6.0 m or less after diving to a depth of 10 m or more. Stop time is counted down between 6.0 m and 1.5 m. If during the stop time the diver descends again to a depth of 6.1 m or more, the stop time is temporarily halted. If the diver descends again to a depth of 10 m or more, the safety stop counter is reset.
- There are two demand displays: Dive Demand A, which shows the current time, FO_2, and USF; and Dive Demand C, which shows the maximum depth, current water temperature, and dive time. Dive Demand A is displayed while the A key is pressed. Dive Demand C is displayed while the C key is pressed.

3-13-1. Display







3-13-2. Key operations

State Key Entry	Non-decompression dive state	Decompression dive state, decompression stop violation state
A key pressed and held	Dive Demand A and backlight on	←
B key	Invalid	←
C key pressed and held	Dive Demand C and backlight on	←
D key	Backlight on	←
Depth of 1.4 m or less detected Switch OFF	To Time mode	Invalid
Depth of 1.5 m or more detected Switch OFF	Invalid (stays in Dive mode)	←

3-13-3. Description of Dive mode functions

< FUNCTIONS COMMON TO ALL STATES >

(1) EL BACKLIGHT FUNCTION
- In Dive mode, pressing the A key, C key, or D key causes the backlight to come on for 2 to 3 seconds. (The A key and C key also invoke the demand display at this time.)
- Continuously pressed and held keys are ignored. (The backlight stays on for 2 to 3 seconds from the time the key is first pressed.)
- Entries from the D key are ignored while the backlight is on. (The backlight goes off 2 to 3 seconds after a key is pressed once.)
- If the A key or C key is pressed while the backlight is on, a demand operation is performed, but the backlight stays on for 2 to 3 seconds from the time it was first turned on.

(2) DEPTH MEASUREMENT FUNCTION
- Measures depth by means of an A/D converter, and calculates and displays the depth value on the basis of the measurement.
- Measurement interval: 1 sec.
- Measurement range: 0.0 m – 99.9 m
- Measurement start: from E wet contact ON detection
- Measurement stop: to E wet contact OFF detection
- Display units: 0.1 m (1 ft)
- Anomolous display: when depth measurement exceeds 99.9 m, bars are displayed instead of numbers, as follows: "– – – .–" m ("– – – "ft)

(3) DIVE TIME MEASUREMENT FUNCTION
- This function measures dive time during depth measurment.
- Measurement range: 0 – 599 min.
- Measurement start: begins when a depth of 1.5 m or greater is detected
- Measurement stop: counting continues until the log is finalized upon the elapse of a 10-minute surface interval.
- A dive time of 3 minutes or more is considered to be one dive, and the dive number is incremented by a value of 1. At this point, log data can be saved in memory. (If 600 minutes elapse, thereby taking the dive computer out-of-range, the total dive time in the history will be saved as 600 minutes.) No log data is saved for dive times of less than 3 minutes.

(4) AVERAGE DEPTH CALCULATION FUNCTION
- This function calculates the average depth while in Dive mode.
- The average depth is displayed only in Dive Log mode.
- If the average depth exceeds 99.9 m (judged using meters), a bar display appears on the Dive Log mode display.

(5) MAXIMUM DEPTH MEMORY FUNCTION
- The maximum depth reached since the start of the dive is saved in memory and displayed in Dive Demand C.
- The maximum depth at the time the dive is finalized is saved in memory and displayed in Dive Log mode.
- If the maximum depth exceeds 99.9 m, a bar display appears.

(6) OXYGEN LIMITED INDICATOR BAR GRAPH DISPLAY FUNCTION
- The oxygen limited indicator (OLI) value is displayed by means of a bar graph.
- The bar graph has from 1 to 8 bars.

(7) PO_2 INDICATOR FUNCTION
- Displays the PO_2 level.
- The PO_2 indicator appears only if the FO_2 setting has been set to 22% or higher (nitrox), and when FO_2 setting is Air, the display does not appear.
- The display appears at a depth of 1.5 m or greater and disappears at a depth of 1.4 m or less.

(8) WATER TEMPERATURE MEASUREMENT FUNCTION
- Measures water temperature.
- The display appears in Dive Demand C.
- Measurement interval: 1 min.
- Display measurement range: -5.0 – 45.0°C (23 – 113°F)
- Display units: 0.1°C (1°F)
- Anomolous display: "Lo" appears if a temperature of less than –5°C is detected. "Hi" appears if a temperature of more than 45°C is detected.

(9) LOWEST WATER TEMPERATURE MEMORY FUNCTION

- The lowest water temperature at the time a dive is finalized is saved in memory and displayed in Dive Log mode.

(10) ASCENT RATE GRAPH AND VIOLATION WARNING FUNCTION

- The ascent rate graph is displayed.

The ascent speed (mt/min) : 0 to 3 4 to 6 7 to 10 over 10 (warning)

- The ascent rate warning is indicated by a 6-second flashing of the current depth and all SLOW flag displays. An audible alarm also sounds for 3 seconds for each warning.
- If the ascent rate warning disappears, the SLOW flag disappears.
- Maximum ascent rate graph are saved as log data.

(11) LOG, HISTORY AND PROFILE MEMORY FUNCTION

- Profile memory can be created for each dive, up to a dive time of 600 minutes.
- If the dive time for a single dive extends beyond 600 minutes, thereby going beyond the measureable range, the total dive time will be saved in the history as 600 minutes.
- If the total number of dives has exceeded 999, then the counter rolls over from 999 back to 0 → 1 …and the data is saved.
- If the total dive time has exceeded 999 hours and 59 minutes, then the counter rolls over from 999h59→to 0h00 → 0h01 → … and the data is saved.

(12) OUT-OF-RANGE WARNING FUNCTION (INCLUDING WARNINGS IN THE DECOMPRESSION DIVE STATE)

- The following conditions exceed the measureable range of the dive computer and cause an out-of-range warning display to appear and an audible alarm to sound.

(1) The depth exceeds the 99.9 m measurement limit → bars appear in the depth indicator

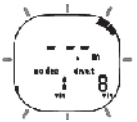
(2) The dive time exceeds the 599 minute measurement limit → bars appear in the dive time indicator

(3) Decompression becomes necessary at depths where the decompression stop depth exceeded 30 m (100 ft) → decompression stop depth displayed

(4) The decompression stop time at the indicated decompression stop depth during a decompression dive exceeded 99 minutes, or the total ascent time exceeded 99 minutes. → bars appear in each time indicator

- Out-of-range warnings cause all display segments to flash.
- As soon as an out-of-range numeric value returns to within the measurement range, the bars disappear and the measured value is indicated.
- An audible alarm sounds when a warning is issued, and the display segment continues to flash until a surface interval of 48 hours has passed.
- Out-of-range warnings are saved in memory when they occur.
- If the E wet contact goes OFF at a depth of 1.4 m or less, Dive mode cannot be accessed even if the E wet contact comes back ON. (An audible alarm sounds to indicate that accessing Dive mode is prohibited.) However, if the C key and D key are simultaneously pressed and held for approximately 15 seconds in Time mode when the E wet contact is OFF and the depth is 1.4 m or less, the lock state is reset, and the same processing is performed as when a surface interval of 48 hours has elapsed. (This reset operation also works even if the surface interval is less than 10 minutes.)
- When an out-of-range warning is issued, the lock state is instantaneously invoked the moment a depth of 1.4 m or less is reached and the E wet contact goes OFF.
- Logs are finalized as usual after a surface interval of 10 minutes has elapsed.

< Example of when the depth has exceed the measurement limit >



At the point where the depth exceeds 99.9 m, bars appear in the current depth and maximum depth segments, and all segments on the display flash.

(13) PO_2 WARNING DISPLAY

- If PO_2 increases from a state of 1.3 or less and reaches 1.4 or 1.5, the PO_2 value and PO_2 flag flash for 15 seconds and an audible alarm sounds twice, for three seconds each time.
- While PO_2 is 1.4 or 1.5, the PO_2 flag stays continuously lit.
- If PO_2 reaches or exceeds 1.6, an audible alarm sounds twice, for three seconds each time, and the PO_2 value, PO_2 flag, and OLI bar graph (all 8) flash. Flashing continues until the PO_2 falls back to 1.5 or less.
- PO_2 warnings are logged.
- If FO_2 is 21% (air), neither the PO_2 indicator nor the PO_2 warning appear.

(14) OXYGEN LIMITED INDICATOR WARNING DISPLAY

- If the oxygen limited indicator reaches 7, the OLI bar graph (7 bars) flashes for 15 seconds, and an audible alarm sounds twice, for three seconds each time.
- If the oxygen limited indicator reaches 8, an audible alarm sounds twice, for three seconds each time, and the OLI bar graph (8 bars) stays continuously lit until the oxygen limit indicator falls back to 7.
- The warning is logged at the point where the oxygen limit indicator reaches 8.
- If the water detection switch comes ON in the surface interval state when the OLI is either 7 or 8, the respective warnings described above are issued.

(15) DEFAULT WARNING FUNCTION

- If the E wet contact comes ON and Dive mode accessed when FO_2 is in the default state, an audible alarm sounds twice, for three seconds each time.
- The FO_2 values in Dive Demand A are replaced by bars.
- Default warnings are not logged.

(16) RESET FUNCTION

- If the water indicator switch is enabled during a plane trip, during the descent (1500 m or more) the computer can jam on a depth value of 1.5 m and remain in Dive mode, even after turning off the switch. To clear the computer and exit Dive mode, use the reset function by simultaneously pressing the C and D buttons for 15 seconds with the water indicator switch disabled.
  Dive information at the time a reset is performed is not logged.
- After a reset operation, the dive computer enters normal Time mode.

(17) DEEPSTOP FUNCTION

- When deep stop function is activated, DEEP icon flag is displayed.
- If current depth is reach to deep stop depth +/- 1mt, deep stop depth is displayed and DEEP STOP flag and current depth are 9 seconds flashing.
- An audible alarm sounds pattern is 3 seconds –ON, 3 seconds – OFF and 3 seconds –ON.
- When deep stop is not activated, DEEP icon flag is switched off.

< FUNCTIONS IN THE NON-DECOMPRESSION DIVE STATE >

- When the decompression dive state is entered, the DECO flag icon flashes and an audible alarm sounds twice, for three seconds each time. The DECO flag remains lit thereafter for the duration of the decompression dive.

(18) SAFETY STOP FUNCTION

- Prompts the diver to make a 3-minute safety stop when he or she ascends to a depth of 6.0 m from a depth of 10 m or more in Non-Decompression Dive state.
- The safety stop clock starts at 3 minutes and 00 seconds. Time is counted down in 1-second increments at a depth of less than 6.0 m and more than 1.5 m. After the display reaches 0 minutes and 01 seconds, the NDL display reappears after a 1-second interval.
- Once a depth of 1.4 m or less is reached, the counter is cleared and the NDL display reappears.
- If a depth of 6.1 m is measured again while the safety stop is indicated, the countdown clock is temporarily stopped and the value is saved as the NDL display reappears.
- If the diver descends again to 10 m or more, the counter is cleared.

- If a decompression dive is started on a dive that reaches 10 m or more, a 3-minute safety stop will begin after a decompression stop at 3 m is finished.
- If the dive computer is set to display feet, the safety stop clock starts at a depth of 20 ft.

< FUNCTIONS IN THE DECOMPRESSION DIVE STATE >

- A decompression dive starts when the PGT reaches 9. The dive computer returns to the non-decompression dive state at a PGT of 8 or less.
- Decompression dive information is displayed.
- If the dive computer enters the decompression dive state even once, the decompression dive is saved as log data.

① Decompression stop depth (ceiling)
- Once notification of a depth exceeding 30 m (33 m or more) is received, an out-of-range warning is issued.
- The decompression stop depth is indicated in 3 m intervals between the depths of 3 m and 99 m (or, when units are displayed in feet, at 10-foot intervals between the depths of 10 ft to 330 ft.)

② Decompression stop time (DECO STOP) and total ascent time (TOTAL STOP)
- If the indicated decompression stop time and total ascent time exceeds 99 minutes, the display segment shows "- -" and an out-of-range warning is issued.

(19) DECOMPRESSION STOP VIOLATION WARNING FUNCTION
- If the depth measurement is smaller than the indicated decompression depth during a decompression dive, a decompression stop violation warning is issued.
- When a decompression stop violation is issued, the indicated current depth, decompression depth, decompression time and DECO mark flash continuously.
- When a decompression stop violation occurs, an audible alarm sounds.
- If the depth measurement becomes equal to or greater than the decompression depth during the decompression stop violation state, the display stops flashing.
- If a decompression stop violation warning is issued even once, the decompression stop violation is saved in log data.
- When the dive computer is in the decompression stop violation state, even if a depth of 1.4 m or less is detected and the dive computer detects that the E wet contact is OFF, the display will continue to indicate a decompression stop violation (until the log is finalized).
- When the surface interval exceeds 10 minutes while the dive computer is in the decompression stop violation state and while at a depth of 1.4 m or less, the dive computer assumes the decompression stop violation lock state (the state is locked at the time the log is finalized). The display segment flashes and Dive mode cannot be accessed until a surface interval of 48 hours has elapsed. If the E wet contact is pressed in this state, an audible alarm sounds, indicating that the dive computer is locked in the current state.The decompression stop violation display is unlocked and normal operations are restored after a surface interval of 48 hours has elapsed, or if the C key and D key are simultaneously pressed and held for approximately 15 seconds in Time mode.

< WARNING DISPLAYS >

Ascent rate warning

If the ascent rate is too rapid, the diver is notified by a display such as that shown below and by an audible alarm. The display and alarm continue until the diver returns to a safe ascent rate or reaches a depth of 1.4 m or less. If the ascent rate warnings are issued, the warnings are logged.

The SLOW flag (all graph) and current depth indication flash for 6 seconds, and an audible alarm sounds for 3 seconds.

Decompression dive warning

If the non-decompression dive time limit is exceeded and the decompression dive state is entered, the diver is notified by a display such as that shown below and by an audible alarm. (After that, the decompression dive state display reappears). The warning is logged.

The DECO flag flashes for 15 seconds, and an audible alarm sounds twice, for 3 seconds each.

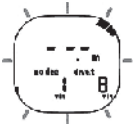
Decompression stop violation warning

If the current depth is shallower than the indicated decompression stop depth, the diver is notified by a display such as that shown below and by an audible alarm. The display and alarm stop if the diver returns to or below the indicated depth. If the diver does not return to the indicated depth, the warning continues, and if the diver ascends, the display is locked when the log is finalized. The lock state is cleared after 48 hours. The decompression stop violation is logged.

The DECO flag, current depth indication, decompression stop depth indication, and decompression stop time indication all flash, and an audible alarm sounds twice, for 3 seconds each time.

Out-of-range warning

If the dive computer is out of the measurement range, all display segments flash as shown below, and the diver is warned by an audible alarm when entering the out-of-range condition. After an out-of-range dive, the display remains locked for 48 hours from the time the water detection switch went OFF or from the time the log is finalized. The warning is logged.



All indicated flags flash, and an audible warning sounds twice, for 3 sec. each time.

OLI warning

When the oxygen limited indicator (an indicator of the calculated body oxygen level) reaches 7, the OLI bar graph (7 bars) flashes for 15 seconds and an audible alarm sounds twice, for three seconds each time.

When the oxygen limited indicator reaches 8, an audible alarm sounds twice, for three seconds each time, and the OLI bar graph (8 bars) stays continuously flashed until the OLI level reaches 7. As soon as the oxygen limited indicator reaches 8, the warning is saved in the log.

If the water detection switch comes ON when the dive computer is in the surface interval state and the OLI is at either 7 or 8, the aforesaid warnings are issued.

The OLI bar graph flashes and an audible alarm sounds.

PO_2 warning

When the FO_2 is air, the PO_2 indicator and PO_2 warning are not invoked, but if the FO_2 is 22% or greater (including when in the default state), the PO_2 indicator and PO_2 warning are invoked.

The PO_2 warning has two stages.

When PO_2 increases to 1.4 or 1.5, the PO_2 value and PO_2 flag flash for 15 seconds, and an audible alarm sounds twice, for three seconds each time. (If PO_2 decreases to 1.4 or 1.5, this does not happen.) The PO_2 flag remains lit while PO_2 is 1.4 or 1.5.

If PO_2 reaches 1.6 or higher, an audible alarm sounds twice, for three seconds each time, and the PO_2 value, PO_2 flag, and eight OLI flags all continue to flash until the PO_2 decreases to 1.5 or less. PO_2 warnings are saved in the log.

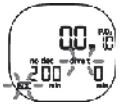
< PO2=1.4 > *< PO2=1.6 >*

The PO_2 flag and PO_2 value flash and an audible alarm sounds twice, for 3 seconds each time

The PO_2 flag, PO_2 value, and OLI bar graph flash and an audible alarm sounds

Default warning

When the E wet contact comes ON and causes Dive mode to be accessed while the FO_2 setting is in the default state, an alarm sounds twice, for three seconds each time. Default warnings are not saved in the log.



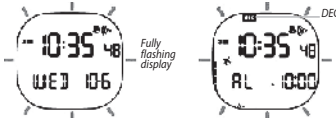
The NX flag flashes and an audible alarm sounds twice, for 3 seconds each time

3-14. LOCKED STATES

- The states in which the display is locked in the out-of-range state or decompression stop violation state.
- In Time mode, Alarm mode, and Dual Time mode, all display segments flash.
- Dive Plan mode, Dive Set mode, and Dive mode cannot be accessed while the dive computer is in the locked state. (Dive Plan mode is skipped.)
- The locked state is cleared when a 48-hour surface interval has elapsed or when a user reset is performed by simultaneously pressing and holding the C key and D key for 15 seconds in Time mode.

3-14-1. Display

< Out-of-Range Lock State > ***< Decompression Stop Violation Lock State >***



Fully flashing display

DECO flag

3-14-2. Key operations

State **Key Entry**	**Decompression stop violation lock state (DECO flags lit), and out-of-range state locked *1**
A key	Changes the mode *2 To Time mode after key operation However, Dive Plan mode is skipped and cannot be accessed.
B key	Normal operation
C key pressed and held	Performs the operation in the respective modes
D key	Performs the operation in the respective modes
Water detection switch ON	Invalid (an alarm sounds while ON)
C + D key pressed and held for 14 – 15 sec. in Time mode	Reset

**1 Basically, all display segments flash (except in Set mode, etc.)*
When the dive computer is locked in the decompression stop violation state, the DECO flag also flashes in modes where flashing occurs.

**2 Time → Alarm → Dual Time → Dive Log → Dive Profile → Time → … (loop)*

4. DESCRIPTION OF FUNCTIONS COMMON TO ALL MODES

4-1. CLOCK FUNCTION

4-1-1. Hours, minutes, seconds

- The time is displayed in hours, minutes, and seconds in either the 12-hour clock format or the 24-hour format.
- Time is carried over as shown in the following table.

12-Hour Clock Display	24-Hour Clock Display
PM 11:59(59)	23:59(59)
AM 12:00(00)	0:00(00)
↓	↓
AM 12:59(59)	0:59(59)
AM 1:00(00)	1:00(00)
↓	↓
AM 11:59(59)	11:59(59)
PM 12:00(00)	12:00(00)
↓	↓
PM 12:59(00)	12:59(59)
PM 1:00(00)	13:00(00)
↓	↓
PM 11:59(59)	23:59(59)

4-1-2. Calendar

- The day rolls over when the clock rolls over from 23:59 (59) to 0:00(00).
- Month end

January, March, May, July, August, October, December:	31 days
April, June, September, November:	30 days
February:	28 days (29 days in a leap year)

4-1-3. Day of the week display

- The day of the week is display using a three-letter abbreviation.

Day of the Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Display	SUN	MON	TUE	WED	THU	FRI	SAT

4-2. DAILY ALARM / TIME TONE FUNCTION

- When the daily alarm is set to ON and the set daily alarm time is reached, an alarm sounds.
- The daily alarm clock is set in Alarm Set mode.
- When the time tone is set to ON, a time tone sounds every hour on the hour.

4-3. ALTITUDE MEASUREMENT JUDGMENT FUNCTION

- Altidue is measured in all modes except Dive mode and PC Transfer mode.
- The altitude rank indicator is updated every ten minutes, when the number in the 10's place on the current time clock changes. In other words, updating occurs when the minutes place shows 10, 20, 30, 40, 50, or 00.
- The altitude rank flag is not displayed in Time Set mode, Alarm Set mode, Dual Time Set mode, History Clear mode, Dive Profile mode, PC Transfer mode, or when the history is displayed in Log mode.
- In Log mode, data saved in the log is displayed.
- Altitude ranks and altitudes are displayed as shown in the following table.

Altitude Rank	Altitude	Altitude Rank Display
0	1000 m or less	None
1	700 – 1800 m	Lights at rank 1
2	1500 – 2600 m	Lights at rank 2
3	2300 – 6000 m	Lights at rank 3
Error	6000 m or more	Flashes at rank 3

- If an A/D error occurs, all mountain icons flash, and the Plan mode NDL indicator shows "– –". If the E wet contact comes ON when there is an altitude rank error, an audible alarm sounds, and Dive mode cannot be accessed.
- Dive mode cannot be accessed at decompression condition due to a change in the altitude rank in the surface interval state. If the E wet contact comes ON in this state, don't fly icon flashing and an audible alarm continues to sound until the E wet contact goes OFF.

< Altitude Ranks 1, 2, 3 Display > < Altitude Rank Error Display>

4-4. AUDIBLE ALARMS

Function	Conditions	Alarm Time
Time tone	Sounds every hour on the hour while the time tone setting is ON	Time tone
Daily alarm	Sounds at the set alarm clock time when the alarm setting is ON • Along with the audible alarm, an alarm flag flashes for 20 seconds regardless of whether in normal operations or on a dive	Audible alarm Normal: 20 sec. During dive: 3 sec.
Ascent rate alarm ON/OFF selector	Sounds when the C + D keys are pressed and held continuously for 14 – 15 seconds in Plan mode	Confirmation tone
History clear	Sounds when reset was performed by pressing and holding the C key or D key for 4 – 5 seconds in History Clear mode	Confirmation tone
Ascent rate violation	Sounds when an ascent is too rapid	Audible alarm for 3 sec.
When transitioning to a decompression dive	Sounds when entering a decompression dive from a non-decompression dive	Audible alarms for 3 sec. x 2
Decompression stop violation	When the current depth becomes shallower than the decompression stop depth	
When entering out-of-range	• When depth exceeds 99.9 m • When dive time exceed 599 min. • When decompression stop depth exceeds 30 m • When decompression stop time exceeds 99 min. • When total ascent time exceeds 99 min.	
OLI warning	• When OLI increases and reaches 7 • When OLI reaches 8	
PO_2 warning	• When PO_2 increases and reaches 1.4, 1.5 • When PO_2 reaches 1.6	
Default warning	Sounds when Dive mode is accessed when FO_2 is - -%	
Entering deep stop zone	Sounds when current depth enters deep stop zone	Audible alarm for 3 sec. x 2 times
Set prohibited and Set mode access prohibited alarm	Sounds when the B key is ON in order to access Time Set mode, Dual Time Set mode, or History Clear mode before a surface interval of 10 min. has elapsed, or when the C key is ON in order to switch the dual time setting	Audible alarm for 3 sec.
Dive mode access prohibited alarm	• Sounds when the E wet contact is ON when an altitude rank error occurs • Sounds when the E wet contact comes ON when locked in out of range and locked in a decompression stop violation • Sounds when E wet contact comes ON when BLD is detected • Sounds when the E wet contact comes ON when nine bars on the PGT bar graph are shown due to a change in altitude	Audible alarm (sounds until E wet contact goes OFF)

* *Audible alarms cannot be turned off by pressing keys.*
* *If alarms overlap, the first alarm stops, and the next alarm begins.*
* *Only the daily alarm can be turned off by pressing a key. There is a 20-second window after the alarm starts for it to be turned off. Turning off the alarm also causes the flag to stop flashing and become solidly lit.*
* *Alarms in Dive mode stop when both a depth of 1.4 m or less is reached and the E wet contact goes OFF.*
* *Alarms indicating that setting is prohibited or that a setting mode cannot be accessed stop when the E wet contact comes ON.*

4-5. BLD DETECTION FUNCTION

- BLD is detected every 10 minutes in all modes and states except Dive mode and PC Transfer mode.
- The BLD has two stages. When battery voltage decreases, BLD1 comes ON first. BLD2 comes ON when voltage decreases further.
- Dive mode cannot be accessed while BLD1 or BLD2 is detected.
- BLD display: Indicated by a battery mark.

Voltage	BLD1	BLD2	Battery Mark
> 2.7 V	OFF	OFF	Off
2.7 V – 2.6 V	ON	OFF	Flashing
< 2.6 V	ON	ON	Lit

4-6. SURFACE INTERVAL DISPLAY FUNCTION

- After accessing Time mode from Dive mode, the display is invoked by a time demand.
- Measurement range: 0:00 – 48:00
- One minute after the elapse of 48:00, a bar display "- -:- -" appears.
- Time Set mode, Dual Time Set mode, Dive Set mode (except by default), History Clear mode, and PC Transfer mode cannot be accessed nor can the dual time setting be changed until a surface interval of 10 minutes has elapsed.

4-7. DESATURATION TIME DISPLAY FUNCTION

- After accessing Time mode from Dive mode, the display is invoked by a time demand.
- The desaturation time display is updated every minute on the minute or when the altitude rank changes based on altitude measurements.
- After the last 0:00 data is received, the desaturation time display columns show bars "– – : – – " after one minute has elapsed.

4-8. DON'T FLY TIME DISPLAY FUNCTION

- After accessing Time mode from Dive mode, the display is invoked by a time demand.
- If desaturation time is under 24:00, the don't fly time is settle 24:00. If desaturation time is over 24:00, the don't fly time is same as desaturation time.
- The time is updated every minute. (count down)
- After the last 0:00 data is calculated, the don't fly time display columns show bars "– – : – – " after one minute has elapsed.

4-9. OXYGEN LIMITED INDICATOR DISPLAY FUNCTION

- Displays the OLI bar graphs.
- When the altitude rank changes on the basis of altitude measurements, and when OLI are displayed, the display is updated every minute on the minute.
- The Oxygen Limited Indicator graph are not displayed in Time Set mode, Alarm Set mode, Dual Time Set mode, Log mode, the history screens in Log mode, or PC Transfer mode.
- Logged data is displayed on Screens 1, 2, and 3 of Log mode.

4-10. JUMP FUNCTION

- The dive computer jumps to Time mode when the mode is changed by pressing the A key after any of the other keys has been pressed (for example, after the B key was pressed to return from the set mode, after the C key was pressed to change a setting, or after the D key was pressed to turn on the backlight) while in Alarm mode, Dual Time mode, Dive Plan mode, or Dive Log mode (modes other than Time mode and Dive mode).

4-11. AUTO RETURN FUNCTION

- In all modes except Dive mode or Time Set mode (when all segments are lit), the dive computer automatically enters Time mode if no key is operated for 2 - 3 minutes (or, in PC Transfer mode, 14 – 15 minutes).

  (In Dive Profile mode, the dive computer enters Time mode 2 to 3 minutes after the display is automatically updated.)

4-12. DISPLAY UNIT SELECTOR FUNCTION

- By default, depth measurements are displayed in meters and water temperature in degrees Celsius. However, the units used to indicate depth and temperature can be switched to feet and degrees Fahrenheit by pressing and holding the B key for approximately 15 seconds in Dive Plan mode.

4-13. DEFAULT SETTING FUNCTION

- After passing the midnight hour (0:00) with the FO2 setting at 22% or higher (mixture other than air), the dive computer returns to the default state, bars ("– – ") appear in the FO2 indicator, and the NX flag flashes.
- Moving to Dive mode in the default state causes a default warning to be issued.
- During dives in the default state, calculations are performed using an algorithm that employs an oxygen concentration (FO2) of 99% and a nitrogen concentration of 79%.

MAINTENANCE

After diving in seawater it is recommended that you rinse Nemo Sport with fresh water to remove any salt residues. Do not use chemical products; just put the Nemo Sport under running water.

NOTE

if signs of moisture are observed on the interior of the mineral glass, take your Nemo Sport immediately to an authorized Mares service center. In any case, Mares declines responsibility for any water infiltrations resulting from an incorrect battery replacement procedure.

⚠ WARNING

The mineral glass is not exempt from scratches resulting from improper use.

REPLACING THE BATTERY

⚠ WARNING

The battery may only be replaced by an authorized Mares service center.

⚠ WARNING

Mares declines all responsibility in the event that the battery is NOT replaced at an authorized Mares service center.

REPLACING THE STRAP

The strap may only be replaced by an authorized Mares service center.

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

- Damages caused by water infiltration resulting from improper use (e.g. seal not clean, 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 SERIAL NUMBER

The product serial number can also be found on the back of the Nemo Sport.
You should note this number on the warranty certificate at the end of this manual.
The serial number can also be found on the Nemo Sport 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.

cod. 44200604 - 06/07 - ArtBooK 3123/07

rgbm®
Algorithm

Deep Stop

CE

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