



# TUSA TC1 (IQ1301) DIVE COMPUTER USER GUIDE [1st/en]

The CE mark is used to mark conformity with the European Union EMC directive 2014/30/EU.

# TUSA® ---- USER GUIDE [1st.]

Thank you for choosing the TUSA TC1(IQ1301) Dive Computer.

◆This dive computer does not conform to Dive watches (100m) stated in the ISO6425 and JISB7023.

# **Applications**

This is a dive computer to support no decompression diving safely. The TUSA TC1(IQ1301) functions as a watch, alarm, timer, stopwatch. In Dive Mode, information of water depth, water temperature, dive time, ascent rate and decompression are provided. When divers exceed no decompression limits, the dive computer will show audible and visual alarms.

Comprehensive accelerated decompression is possible because each fraction of oxygen ( $O_2$ ) % can be set from 21% to 56% in 1% increments.

The calculation model used for decompression is based on the decompression theory of Dr. A. Buhlmann (ZHL-16C).

Before use, you need understand all warnings and cautions of the dive computer written in this Instruction Manual. To avoid any serious accidents, please make sure to read and fully understand the dive computer and its functions.

Understanding and using the functions of the dive computer ensures your safe diving.

# **Safety Precautions**

Please read the following before use.

TUSA shall assume no responsibility on damage, lost profit and/or any claims caused in use or by malfunctions of this dive computer from customers and any third parties.

# **Danger**

- Make sure you understand how to use the warnings, and cautions of this dive computer within this Instruction Manual before use.
- Before using the dive computer for scuba diving, you must first complete a dive training course, and obtain a certification card issued by an internationally acknowledged dive training organization.
- Before using the dive computer with Enriched Air Nitrox (EANx), you must first receive certification in an Enriched Air Nitrox (EANx) dive training course.
   (EANx: Enriched Air Nitrox (commonly called Nitrox). Contains mixed gas with higher O<sub>2</sub>% than normal compressed air (O<sub>2</sub> is 21%))
- If "Decompression stop violation" warning and/or "Out of measurement range" warning is activated, discontinue diving. Monitor your health and seek medical attention if necessary.
- When you notice abnormal conditions on the dive computer, immediately stop using it and contact your retailer or TUSA for assistance.

- Always follow the display warnings, messages, and cautions on the dive computer.
- When using dive computers, it is recommended to use a back-up dive computer, dive watch, and/or depth and pressure gauge.
- This dive computer is to be used for recreational diving only. Do not use this dive computer for any other type of diving.
- Never lend or share dive computers as residual nitrogen may still exist in the body after use of the dive computer.
- Make sure to set the O<sub>2</sub>% for every dive. It is extremely dangerous if the O<sub>2</sub>% in the scuba cylinder does not match the computer setting.
- Dot not disassemble, attempt repair, modify, exchange the battery or conduct pressure chamber tests on the dive computer.
- Before any dive, always check your dive computer status, complete all related settings and check for sufficient battery power.
- Have your dive computer checked by a TUSA technician once a year or before any major trip.
- The dive computer may be set to air with O<sub>2</sub>21 % and Nitrox (EANx) gas with O<sub>2</sub>22-56%. The dive computer cannot be used with any other mixed gas type.
- Divers should be responsible in planning safe diving while considering current conditions.
- Dive with caution. DO not exceed the computers limits. Exceeding the computers limits may put you at risk of decompression sickness (DCS).
- The dive computer does not measure or display the tank air pressure. Use a pressure gauge to monitor your air consumption.
- Do not remove the battery from the dive computer. Return the unit to the manufacturer for service of the battery if necessary.
- The battery may pose as a choking hazard. Keep out of reach of children.

### **CAUTION!**

To prevent leakage, heat, smoke, fire, explosion of battery,

- Do not charge, use, or leave this product in the excessive heat such as near a fire, blazing sun, or excessive low temperature.
- Do no throw this product in a fire or heat.
- Do not expose in excessive impact or external force such as nailing.
- Estimate Memory Capacity: \*900 dives.
   (\*Estimated dives storage calculation is based on 40 minutes to 50 minutes per dive. Actual dive log capacity may vary based on actual dive time.)

When the storage capacity is reached, Scuba Mode, FREEDIVING Mode and Gauge Mode will remain locked. Please contact your retailer when your DIVE LOG is over 800dives or 32,000min (total dive time). Once executing LOG CLEAR, all dive logs and history information will be deleted.

#### **《CHARGING》**

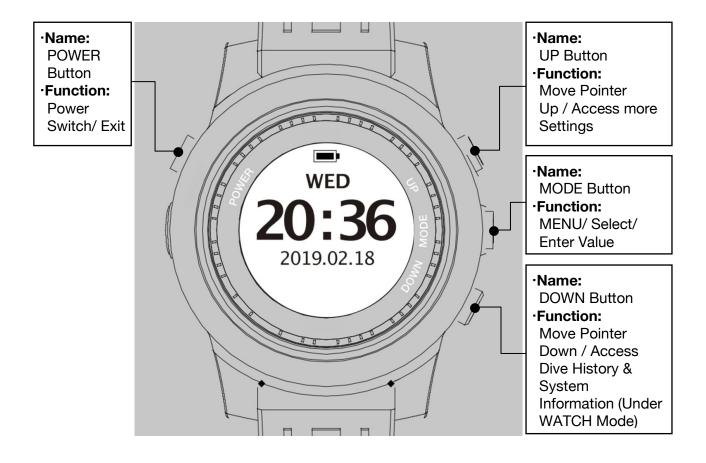
- To charge your TUSA TC1(IQ1301) dive computer, first plug the cable into the Clip using a safe, qualified USB adaptor; then connect it to the power supply. Do not use unsafe, unqualified USB adaptors.
- Match the Clip to the contact points on the back of TUSA TC1(IQ1301). Once
  it's in place, you should see the motion indicator of battery on the monitor.

# TUSA TC1 (IQ1301) Dive Computer User Guide

1. SCREEN AND FUNCTIONS	7
1.1 Button function	7
1.2 MENU	8
1.3 WATCH Mode and Dive History & System Information	11
1.3.1 WATCH Mode	11
1.3.2 Dive History & System Information	13
1.3.3 WATCH Mode SETTINGS	14
1.4 SCUBA Mode and SETTINGS	19
1.4.1 SCUBA Mode	19
1.4.2 SCUBA Mode SETTINGS	24
1.5 FREEDIVING Mode and SETTINGS	31
1.5.1 FREEDIVING Mode	31
1.5.2 FREEDIVING Mode SETTINGS	33
1.6 GAUGE Mode	37
1.7 PLAN Mode	39
1.8TIMER Mode	41
1.9 LOG Mode	42
1.10 SETTINGS Mode	43
2.SPECIFICATION	47

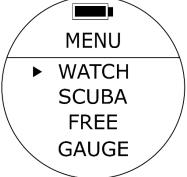
# 1. Screen and Functions

# 1.1 Button function



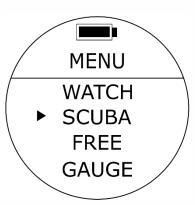
# **1.2 MENU**

# **1.2 MENU**



#### **WATCH Mode**

- To Access: From default time screen, press MODE button. Move cursor with UP or DOWN buttons to position at WATCH and press MODE button again to enter WATCH mode.
- To Exit: Press POWER button once.

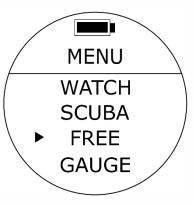


#### **SCUBA Mode**

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at SCUBA and press MODE button again to enter SCUBA Mode (preview).

Please refer to 1.4 for details.

• To Exit: Press POWER button once.

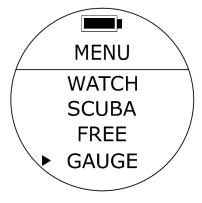


#### **FREEDIVING Mode**

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at FREE and press MODE button again to enter FREEDIVING Mode (preview).

Please refer to 1.5 for details.

• To Exit: Press POWER button once.



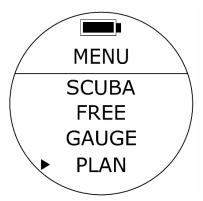
#### **GAUGE Mode**

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at GAUGE and press MODE button again to enter GAUGE Mode (preview).

Please refer to 1.6 for details.

• To Exit: Press POWER button once.

## **1.2 MENU**

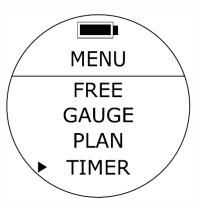


#### **PLAN Mode**

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at PLAN and press MODE button again to enter PLAN Mode (preview).

Please refer to 1.7 for details.

• To Exit: Press POWER button once.

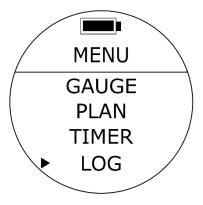


#### TIMER Mode

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at TIMER and press MODE button again to enter TIMER Mode.

Please refer to 1.8 for details.

• To Exit: Press POWER button once.

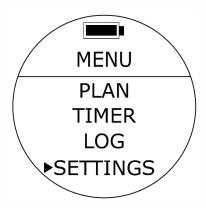


#### LOG (Dive Logs) Mode

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at LOG and press MODE button again to enter LOG Mode.

Please refer to 1.9 for details.

• To Exit: Press POWER button once.



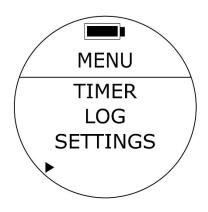
#### **SETTINGS Mode**

 To Access: Under MENU, move cursor with UP or DOWN buttons to position at SETTINGS and press MODE button again to enter SETTINGS Mode.

Please refer to 1.10 for details.

• To Exit: Press POWER button once.

# **1.2 MENU**



#### **Maintenance Mode**

This mode is used for inspection and maintenance service at factory. It is locked and user cannot use it.

# 1.3 WATCH Mode and Dive History & System Information

## 1.3.1 WATCH Mode

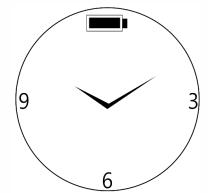
Default mode when your turn on.

**To Access:** Under MENU, press MODE button to select WATCH mode or press POWER button to go back to default.

**Upper:** ANALOG FACE **Lower:** DIGITAL FACE

### **Events during this function:**

- Default Status: Default display Once you turn on the dive computer. Under this status, dive computer will show default display with backlight on.
- 2. Standby Status: Once you cease operating the dive computer after 30 seconds under Default Status, dive computer will enter Standby Status automatically. Under this status, dive computer will show default display without backlight.
  - If you would like to wake up the backlight, simply press any buttons.
- 3. Sleep Status: Once you cease operating the dive computer for 5 minutes, 10 minutes, or 30 minutes (You can change the time Setting) under Standby Status, dive computer will enter Sleep Status automatically. Under this status, dive computer will not show default display and backlight will remain dark. You may wake up dive computer by twisting it over 45 degrees for 1 second to 2 seconds to activate or press any button.
  - If you twist it to activate, dive computer will show default display with backlight on for 30 seconds and resume Sleep Status.

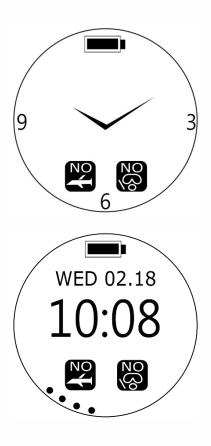


SAT 10:08 2020.05.30

# 1.3.1 WATCH Mode

- If you press any key to activate, dive computer will resume Default Status.
- 4. Auto Shutdown Status: Once you cease operating the dive computer 24 under Sleep Status, dive computer will enter Auto Shutdown Status automatically.
  - If you need to operate dive computer, please press Power Button to activate.

WARNING: Before any dive, always check your dive computer status, complete related settings and go back to Watch mode for dive computer to automatically start when you enter water.



Displays No FLY Reminder and NO DIVE Reminder after dives executed under SCUBA Mode and/or GAUGE Mode.

 No FLY Reminder: if this icon shows on the screen, DO NOT take flights or head to high altitude environment. For exact No FLY recommendation time countdown please check Dive History page.



2. NO DIVE Reminder: if this icon shows on the screen, DO NOT continue diving activities. For exact NO DIVE recommendation time countdown please check Dive History page.

SCUBA Mode, FREEDIVING Mode and PLAN Mode will remain locked during NO DIVE recommendation time countdown.

 N2 Indicator: Risk degree of nitrogen accumulated in the body is shown with 1 to 10 levels

# 1.3.2 Dive History & System Information



#### LAST DIVE

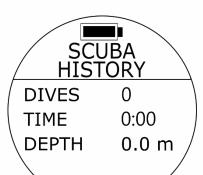
 To Access: Under WATCH Mode, press DOWN button once.

#### Displays latest dive log:

Calendar Date, Time leaving the water; **NO FLY:** No FLY recommendation time countdown:

**NO DIVE:** NO DIVE recommendation time countdown:

**SI:** Surface Interval time counting (continues until diver starts a new dive).



#### **SCUBA HISTORY**

 To Access: Under WATCH Mode, press DOWN button twice.

#### **Displays dives under SCUBA Mode:**

**DIVES:** Dive counts

TIME: Accumulated dive time

(clock: minute)

**DEPTH:** Maximum depth of all scuba

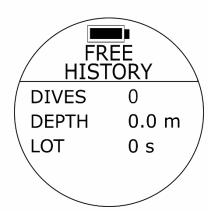
dive logs

## TC1 Estimate Memory Capacity: \*900

dives. (\*Estimated dives storage calculation is based on 40 minutes to 50 minutes per dive. Actual dive log capacity may vary based on executed dive time.)

When the storage capacity is reached, Scuba Mode, FREEDIVING Mode and Gauge Mode will remain locked. Please contact your retailer when your DIVES is over 800 or TIME is over 32,000 mins Once executing LOG CLEAR, all dive logs and history information will be deleted.

# 1.3.2 Dive History & System Information



#### FREEDIVING HISTORY

 To Access: Under Watch Mode, press DOWN Button three times.

# Displays dives under FREEDIVING

Mode:

**DIVES:** Dive counts

**DEPTH:** Maximum depth of all

FREEDIVING logs

LOT: The longest time of all FREEDIVING

logs



SW: TU1-5C SN: TBK202 -90001

#### **VERSION**

 To Access: Under Watch Mode, press DOWN Button four times.

Displays system information of dive computer.

**HW:** Hardware version of dive computer **SW:** Software version of dive computer **SN:** Serial Number of dive computer

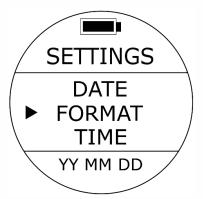
# 1.3.3 WATCH Mode SETTINGS



#### **DATE Settings**

 To Access: Under WATCH Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at DATE and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

Changes the values of 3 groups of digits corresponding to Month, Day and Year using UP/ DOWN button to select and accept the selection with MODE button.



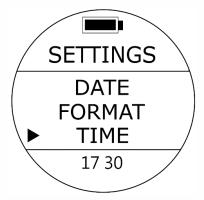
#### **DATE FORMAT Settings**

 To Access: Under WATCH Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at FORMAT and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

Changes the order in which the Day, Month and Year are displayed on dive computer to accommodate the region of the world you live in. Use UP/ DOWN button to select and accept the selection with MODE button.

**Default:** YYMMDD **Setup range:** 

YYMMDD/DDMMYY/MMDDYY



#### **TIME Settings**

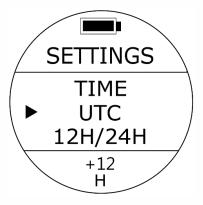
 To Access: Under WATCH Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at TIME and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

Changes the values for Hours and Minutes so the correct time can be displayed on dive computer. Use UP/DOWN button to select and accept the selection with MODE button.

#### Note:

Before adjusting TIME, please finish UTC Settings first.

Please be aware that this dive computer will not self-adjust for daylight saving time.



# UTC Settings (Coordinated Universal Time Settings)

 To Access: Under Watch Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at UTC and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

Change the values corresponding with your particular time zone with the UP/DOWN button and accept the selection with MODE button.

Default: UTC+8.

Setup range: UTC -12  $\sim$  +12.

Note:

Make sure you edit your CORRECT UTC + or - hours for your particular time zone first then go to settings again and, if needed, edit your TIME settings. If you do it backwards, time will not coincide & information will be inaccurate.



#### 12 / 24 Hours Settings

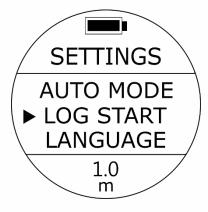
 To Access: Under Watch Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at 12H/24H and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

Use UP/ DOWN button to select and accept the selection with MODE button.

**Default:** 24H

Setup range: 12H / 24H





# **AUTO MODE (Auto Active Mode at depth)**

 To Access: Under Watch Mode, press the UP Button once, and press UP Button / DOWN Button to locate the cursor at AUTO MODE and then press MODE Button once to select the desired settings. The values at the bottom of the screen will blink.

Auto Active Mode will be the automatic default mode dive computer access immediately after it senses a depth of at least 1.0 m (3.3 ft.).

**Default:** SCUBA (SCUBA Mode)

Setup range:

SCUBA Mode, FREEDIVING Mode, or

**GAUGE Mode** 

# LOG START (Log Start at Depth Setting)

 To Access: Under WATCH Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at LOG START and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

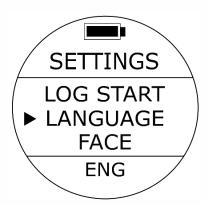
**Default:** 1.0 m (3.3 ft.)

Setup range:

1.0 m (3.3 ft.), 1.5 m (4.9 ft.), 2.0 m (6.6 ft.), 2.5 m (8.2 ft.), 3.0 m (9.8 ft.)

#### Note:

This setting will automatically apply to SCUBA Mode, GAUGE Mode and FREEDIVING Mode.





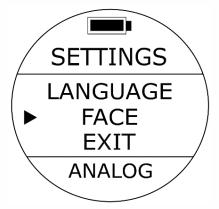
 To Access: Under WATCH Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at LANGUAGE and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

Default: ENG (English).

Setup range:

ENG (English), CH (Traditional Chinese),

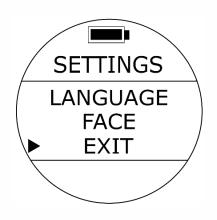
SPN (Spanish)



#### **FACE Settings**

 To Access: Under WATCH Mode, press the UP button once, and press UP/ DOWN button to locate the cursor at FACE and then press MODE button once to select the desired settings. The values at the bottom of the screen will blink.

**Default:** ANALOG. **Setup range:** ANALOG, DIGITAL



#### **EXIT**

 To Access: Locate the cursor at EXIT and then press MODE button to resume WATCH screen.

# 1.4 SCUBA Mode and SETTINGS

## 1.4.1 SCUBA Mode



#### SCUBA Mode – UI (User Interface) Setting

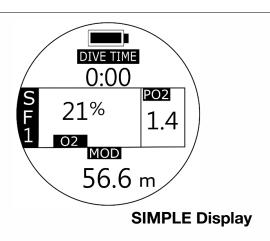
 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at UI and then press MODE button to select.

One of the sampling options will be blinking at the bottom. Press the Up/ Down buttons to select other sampling options as needed. Press the MODE button to accept your selection.

**Default:** NORMAL (NORMAL Display)

Setup range:

NORMAL (NORMAL Display) / SIMPLE(SIMPLE Display)



# SF1 1.4 56 m 00 21 02% NORMAL Display

#### **SCUBA Preview Mode**

Battery Status

OC: Open-Circuit Scuba

000.0 m: Current depth.

**SF:** Safety Factor. **Default:** SF1(Normal)

Setup range:

SF1 (Normal), SF2 (Conservative).

PO2: Current setup of PO2(partial

pressure of oxygen).

Default: 1.4.

**Setup range:** 1.2 - 1.6.

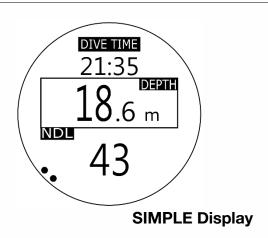
MOD: Maximum Operating Depth

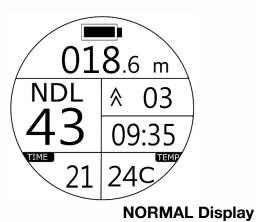
suggestions.

**O2%:** Oxygen percentage value.

Default: 21%.

**DIVE TIME (SIMPLE Display) / TIME (NORMAL Display):** Dive time





#### **SCUBA Mode Underwater**

**18.6m (DEPTH):** Current Depth **NDL:** The Non-Decompression Limit time in minutes, will show 99 when NDL exceeds 99 minutes.

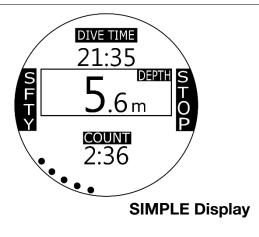
∴ Ascent speed
 (03 means 3meter/minute)
 If diver exceeds 10meter/minutes,
 there will be alarm warning (short beeping repeated) with vibration.

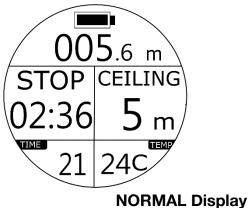
∴ Descent speed (in meter/minute)

**09:35:** Current time.
DIVE TIME (SIMPLE Display) / TIME (NORMAL Display): Dive time

**TEMP:** Water temperature.

 N2 Indicator: Risk degree of nitrogen accumulated in the body is shown with 1 to 10 levels (Only SIMPLE Mode)





COUNT (SIMPLE Mode) / STOP (NORMAL Mode): Safety Stop

countdown

# **SCUBA Mode – SAFETY STOP** (When the NDL has not been exceeded)

DEPTH (Current Depth) 5.6m(SIMPLE Display) 005.6m (NORMAL Display)

SFTY • STOP (SIMPLE Display) / STOP (NORMAL Display): When divers ascend to 5m (16.4 ft), diver computer will start Safety Stop countdown of 5 minutes automatically. If diver do not complete Safety Stop and ascent, there will be alarm warning (short beeping repeated) with vibration, and this dive will end according to LOG STOP settings.

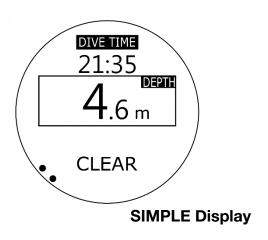
**DIVE TIME (SIMPLE Display) / TIME** 

(NORMAL Display): Dive time

**CEILING:** The depth at which divers should ascend to and remain.

**TEMP:** Water temperature. (Only

NORMAL Mode)



004.6 m CLEAR ↑ 03 09:35 21 24C SCUBA Mode – After finishing SAFETY STOP (When the NDL has not been exceeded)

DEPTH (Current Depth) 4.6m(SIMPLE Display) 004.6m (NORMAL Display)

**CLEAR:** When divers finish Safety Stop at the CEILING depth, dive computer will show the word "CLEAR" indicating that it is OK to perform a slow ascent to the surface.

(03 means 3meter/minute)

Descent speed (in meter/minute)

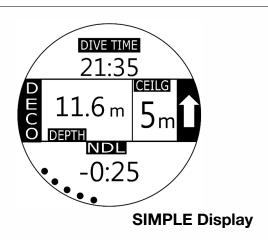
**NO arrow icon:** Diver is stationary.

09:35: Current time (Only NORMAL

Mode)

**DIVE TIME (SIMPLE Display) / TIME (NORMAL Display):** Dive time

**TEMP**: Water temperature.





**NORMAL Display** 

**NORMAL Display** 

# SCUBA Mode – When NDL is exceeded (first 3mins)

**NDL:** The Non-Decompression Limit time in minutes, will show 99 when NDL exceeds 99 minutes.

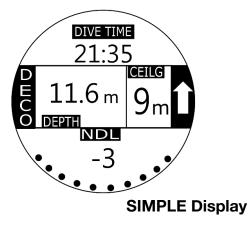
If it reaches 4 minutes remaining, there will be alarm warning (short beeping repeated) with vibration. Divers should ascend to safety stop depth slowly.

**DECO:** Decompression dive mark. Shows when NDL is exceeded. (Only SIMPLE Mode)

When exceeds NDL time, the first 3 minutes will be shown in:

- minutes: seconds

**CEILING:** The depth at which divers should ascend to and remain when they are required to perform decompression stops.



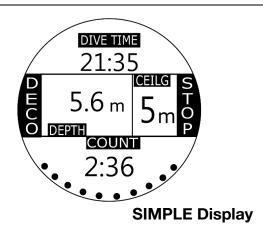


SCUBA Mode – When NDL is exceeded (passed over 3mins)

**DECO:** Decompression dive mark. Shows when NDL is exceeded.

When exceeded time passes over 3 minutes, it will show in: - minutes.

**CEILING:** The depth at which divers should ascend to and remain when they are required to perform decompression stops.





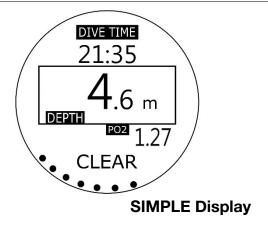
**NORMAL Display** 

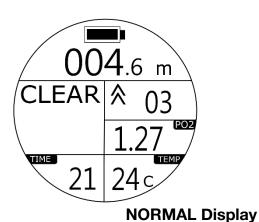
SCUBA Mode – When NDL is exceeded and ascent to ceiling depth.

STOP: (Decompression Stop)
After reaching CEILING depth, the remaining amount of time indicated on the screen will be displayed as countdown timer. Please remain at the ceiling depth the entire duration indicated by the countdown timer if you have enough air and no other potential risks are evident.

If you do not remain at the ceiling depth for the entire duration indicated by the countdown timer, there will be alarm warning (short beeping repeated) with vibration.

**CEILING:** The depth at which divers should ascend to and remain when they are required to perform decompression stops.

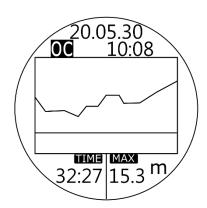




SCUBA Mode – When NDL is exceeded, and finishing Decompression Stop at CEILING

**CLEAR:** When divers finish decompression stop at ceiling depth, dive computer will show CLEAR and indicates divers can now slowly ascend to the surface.

**PO2:** when accumulated PO2 calculation exceeds your PO2 setting, it will show current accumulated PO2 value. If accumulated PO2 calculation does not exceed your PO2 setting, it will show current time.



#### SCUBA Mode - End

Screen will show Dive Profile of current dive for approximately 1 minute.

To check entire history dive logs and dive profiles, go to LOG Mode and press UP Button / DOWN Button to scroll up or down to view other logs, press MODE button to select designated dive and press UP Button to see dive profile.



#### **SCUBA Mode - NO DIVING**

If NO DIVING recommendation time countdown shows on the screen, DO NOT continue diving activities.

For exact NO DIVING recommendation time countdown please check DIVE HISTORY page.

#### Note:

SCUBA Mode, FREEDIVING Mode and PLAN Mode will remain locked during NO DIVING recommendation time countdown.

# 1.4.2 SCUBA Mode SETTINGS



#### SCUBA Mode – NITROX Setting

• To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at NITROX and then press MODE button to select. The Oxygen percentage value at the bottom of the screen will start blinking. Switch the option with UP/ DOWN button, once the desired NITROX option appears, select it by pressing MODE button once to accept the value.

Default: 21%

Setup range: from 21% to 56%

#### **WARNING:**

Please make sure you have measured the EANx gas of the cylinder you are about to dive with and correctly input that value in your computer. Before using NITROX, you MUST have received proper training and a certification that qualifies you to use such gas. Diving with Oxygen enriched mixes carries an additional layer of risk.



#### SCUBA Mode – PO2 Setting

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at PO2 and then press MODE button to select.

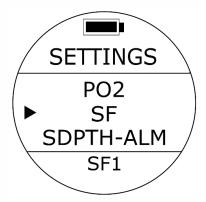
The PO2 value at the bottom of the screen will start blinking. Switch the option with UP/ DOWN Button, once the desired PO2 option appears, select it by pressing MODE button once to accept the value.

Default: 1.4

**Setup range:** 1.2 – 1.6

**WARNING:** 

Before changing PO2 value, you must understand related risk of adjusting it.



# SCUBA Mode – SF (Safety Factor) Settings

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at SF and then press MODE button to select.

SF value at the bottom of the screen will start blinking. Switch the option with the UP/ DOWN button once the desired SF option appears select it by pressing the MODE button once to accept the value.

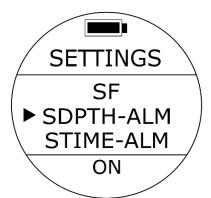
**Default:** SF1(Normal)

Setup range:

SF1 (Normal), SF2 (Conservative).

#### **WARNING:**

Please make sure you fully understand that changing this setting will affect algorithm calculations and the related risks.



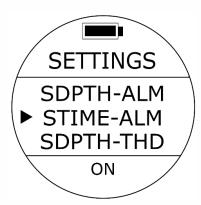
# SCUBA Mode – SDPTH – ALM(Depth Alarm) Settings – ON/OFF

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at SDPTH-ALM and then press MODE button to select.

One of the two options will be blinking at the bottom. Press UP/ DOWN button to select and press MODE button once to accept your selection.

**Default: ON** 

Setup range: ON / OFF



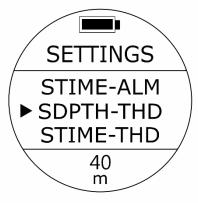
# SCUBA Mode – STIME – ALM (SCUBA Dive Time Alarm) Settings – ON/OFF

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at STIME-ALM and then press MODE button to select.

One of the options will be blinking at the bottom. Press UP/ DOWN button to select turning the Scuba Time Alarm either ON or OFF. Press MODE button to accept your selection. If you set the STIME-ALM on, when you reach the preset time, the alarm will activate.

**Default: ON** 

Setup range: ON / OFF



# SCUBA Mode – SDPTH – THD (SCUBA Depth Alarm) Setting

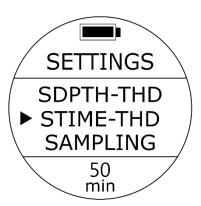
 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at SDPTH-THD and then press MODE button to select.

One of the depth options will be blinking at the bottom. Press the Up/ Down buttons to select other options as needed. Press MODE button to accept your selection.

**Default:** 40m (131 ft.)

**Setup range:** 0 m (0 ft.) – 99m (325 ft.)

During a dive, when you reach the selected depth, alarm warning will activate: one long beeping repeated two times with vibration and depth value blinking.



# SCUBA Mode – STIME – THD (SCUBA Dive Time Alarm) Setting

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at STIME-THD and then press MODE button to select.

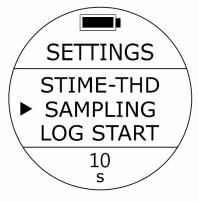
One of the time options will be blinking at the bottom. Press the Up/ Down buttons to select other options as needed. Press the MODE button to accept your selection.

**Default:** 50 minutes

Setup range: 0minute - 90 minutes

During a dive, when you reach the selected time, alarm warning will activate: one long beeping repeated

three times with vibration.



# SCUBA Mode – SAMPLING (Sampling Rate) Settings

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at SAMPLING and then press MODE button to select.

One of the sampling options will be blinking at the bottom. Press the Up/ Down buttons to select other sampling options as needed. Press the MODE button to accept your selection.

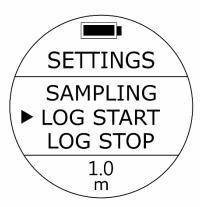
**Default:** 10 seconds

Setup range:

10seconds / 20 seconds / 30 seconds / 60 seconds

#### Note:

This setting will automatically apply to GAUGE Mode.



# SCUBA Mode – LOG START (Log Start at Depth) Setting

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at LOG START and then press MODE button to select.

One of the depth options will be blinking at the bottom. Press the Up/ Down buttons to select other depth options as needed. Press the MODE button to accept your selection.

**Default:** 1.0 m (3.3 ft.)

**Setup range:** 

1.0 m (3.3 ft.), 1.5 m (4.9 ft.), 2.0 m (6.6 ft.), 2.5 m (8.2 ft.), 3.0 m (9.8 ft.)

#### Note:

This setting will automatically apply to FREEDIVING Mode and GAUGE Mode.



# SCUBA Mode – LOG STOP (Log Stop Time after ascending to 0.5m) Setting

 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at LOG STOP and then press MODE button to select.

One of the time options will be blinking at the bottom. Press the Up/ Down buttons to select other time options as needed. Press the MODE button to accept your selection.

**Default:** 1 minute **Setup range:** 

1 minute, 2 minutes, 5 minutes, 10 minutes



## SCUBA Mode – UI (User Interface) Setting

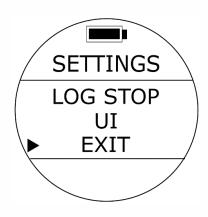
 To Access: Under SCUBA Preview Mode, press UP button Or from SETTINGS, press UP/ DOWN Button to locate the cursor at UI and then press MODE button to select.

One of the UI options will be blinking at the bottom. Press the Up/ Down buttons to select other UI options as needed. Press the MODE button to accept your selection.

**Default:** NORMAL (NORMAL Display)

Setup range:

NORMAL (NORMAL Display) / SIMPLE(SIMPLE Display)

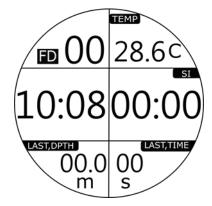


#### **EXIT**

 To Access: Locate the cursor at EXIT and then press MODE button to resume WATCH screen.

# 1.5 FREEDIVING Mode and SETTINGS

# 1.5.1 FREEDIVING Mode



FREEDIVING Mode - Preview

FD: FREEDIVING Mode

**Default sampling:** 0.5 seconds

00: Total FREEDIVING counts within 11

hours

Note: Total FREEDIVING counts will be

Return-to-Zero after 11 hours

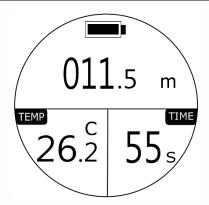
**TEMP:** Water temperature

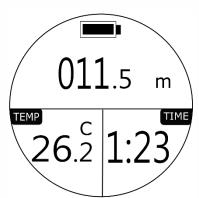
10:08: Surface time

SI: Surface Interval

**LAST, DPTH:** Max Depth of previous dive **LAST, TIME:** Dive Time of previous dive (Less than 1 min: only shows in seconds; reaching 1min: shows in minutes:

seconds)





FREEDIVING Mode – Underwater

011.5m: Current depth

**TEMP:** Water temperature

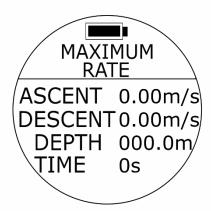
TIME: Dive time

(Less than 1 min: only shows in seconds;

reaching 1min: shows in minutes:

seconds)

# 1.5.1 FREEDIVING Mode



# FREEDIVING Mode – MAXIMUM RATE (Maximum History)

(Maximum History calculation are based on total FREEDIVING history executed with this dive computer within 11 hours)

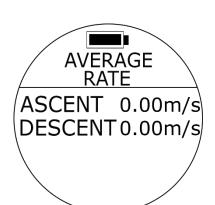
 To Access: Press DOWN button under FREEDIVING Mode.

**ASCENT:** MAX Ascent Speed per second **DESCENT:** MAX Descent Speed per

second

**DEPTH:** MAX Depth **TIME:** MAX Descent time

Note: Maximum History Information will be Return-to-Zero after 11 hours.



FREEDIVING Mode – AVERAGE RATE (AVERAGE RATE calculation based on total FREEDIVING history within 11 hours)

• To Access: Press DOWN Button twice under FREEDIVING Mode.

**ASCENT:** Average Ascent speed per

second

**DESCENT:** Average Descent speed per

second

Note: AVERAGE RATE Information will be Return-to-Zero after 11 hours.

 To Exit: Press DOWN button and return to FREEDIVING Preview Mode.

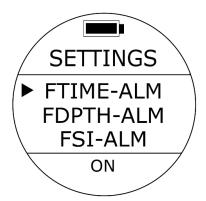


FREEDIVING Mode – NO DIVING
If NO DIVING recommendation time
countdown shows on the screen, DO
NOT continue diving activities.

For exact NO DIVING recommendation time countdown please check DIVE HISTORY page.

#### Note:

SCUBA Mode, FREEDIVING Mode and PLAN Mode will remain locked during NO DIVING recommendation time countdown.



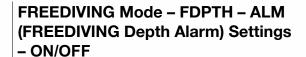


To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with
 FTIME-ALM. Press MODE button once.

One of the FTIME-ALM options will be blinking at the bottom. Press UP/ DOWN Button to select other options as needed. Press MODE button to accept your selection.

**Default: ON** 

Setup range: ON / OFF

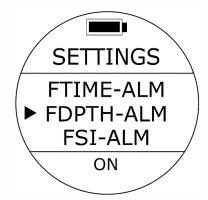


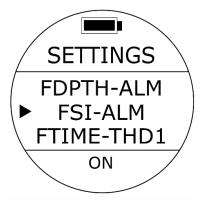
To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with
 FDPTH-ALM. Press MODE button
 once.

One of the FDPTH-ALM options will be blinking at the bottom. Press UP/ DOWN Button to select other options as needed. Press MODE button to accept your selection.

**Default: ON** 

Setup range: ON / OFF







To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with FSI ALM. Press MODE button once.

One of the FSI-ALM options will be blinking at the bottom. Press UP/ DOWN Button to select other options as needed. Press MODE button to accept your selection.

**Default:** ON

Setup range: ON / OFF

# FREEDIVING Mode - FTIME - THD (FREEDIVING Time Alarm) Settings

To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with
 FTIME-THD1/2/3. Press MODE button
 once.

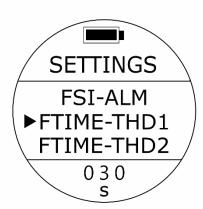
One of the FTIME-THD1/2/3 options will be blinking at the bottom. Press UP/DOWN button to select other options as needed. Press MODE button to accept your selection.

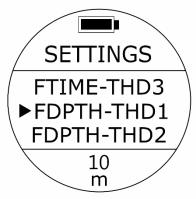
3 different settings are available (FTIME-THD1~FTIME-THD3)

**Default:** 30 seconds (THD1), 60 seconds (THD2), 90 seconds (THD3).

Setup range: 0 seconds – 360 seconds

If you set the FTIME-ALM on, when you reach the preset time, alarm warning will activate: one long beeping repeated three times with vibration and time blinking.





# FREEDIVING Mode – FDPTH – THD (FREEDIVING Depth Alarm) Settings

To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with
 FDPTH-THD1/2/3. Press MODE button
 once.

One of the FDPTH-THD1/2/3 options will be blinking at the bottom. Press UP/DOWN button to select other options as needed. Press MODE button to accept your selection.

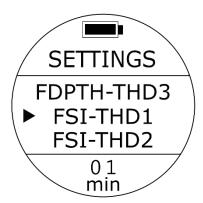
3 different settings are available (FDPTH-THD1~FDPTH-THD3)

**Default:** 10m (32 ft.) (THD1)/20m (65 ft.)

(THD2)/30m (98 ft.)(THD3)

**Setup range:** 0m (0 ft.) – 99m (325 ft.)

If you set the FDPTH-ALM on, when you reach the preset depth, alarm warning will activate: one long beeping repeated two times with vibration and depth value blinking.



## FREEDIVING Mode – FSI – THD (FREEDIVING Surface Interval Alarm) Settings

To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with FSI THD1/2/3. Press MODE button once.

One of the FSI-THD1/2/3 options will be blinking at the bottom. Press UP/ DOWN button to select other options as needed. Press MODE button to accept your selection.

3 different settings are available (FSI-THD1~FSI-THD3)

Default: 1minute (THD1)/ 3 minutes

(THD2)/ 5 minutes (THD3).

**Setup range:** 0minute – 60 minutes

If you set the FSI-ALM on, when you reach the preset time, alarm warning will **activate:** one long beeping repeated two times with vibration and time blinking.

# SETTINGS FSI-THD3 LOG START EXIT 1.0 m

# FREEDIVING Mode – LOG START (Log Start at Depth) Settings

To Access: Under FREEDIVING
 Preview Mode, press UP button Or
 from SETTINGS, press UP/ DOWN
 button; until the cursor aligns with LOG
 START. Press MODE button once.

One of the LOG START options will be blinking at the bottom. Press UP/ DOWN button to select other options as needed. Press MODE button to accept your selection.

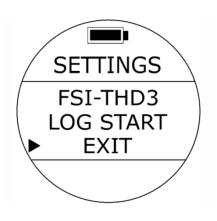
**Default:** 1.0 m (3.3 ft.)

Setup range:

1.0 m (3.3 ft.), 1.5 m (4.9 ft.), 2.0 m (6.5 ft.), 2.5 m (8.2 ft.), 3.0 m (9.48 ft.)

#### Note:

This setting will automatically apply to SCUBA Mode and GAUGE Mode.



#### **EXIT**

 To Access: Locate the cursor at EXIT and then press MODE button to resume WATCH screen.

### 1.6 GAUGE Mode

### 1.6 GAUGE Mode

m

#### **GAUGE Mode**

**GA:** GAUGE Mode

**Battery Indication** 

000.0m: Current depth

**AVG:** Average Depth

STPW: STOP Watch

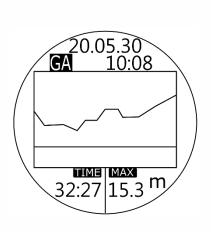
**TIME:** Dive Time

**TEMP:** Water temperature.

 To Access:Press DOWN button to calculate Average Depth automatically. STPW will Return-to-Zero and start calculating dive time in current stage.

#### **WARNING:**

GAUGE Mode is only a bottom timer. It will only indicate the depth and time parameters during a dive. It will NOT provide NDL calculations. Please make sure you receive proper training and have adequate dive equipment with you. You will need to execute dive plans strictly and understand the related risks using GAUGE Mode.



#### **GAUGE Mode - End**

Screen will display Dive Profile of current dive for approximately 1 minute.

No FLY Reminder and NO DIVE Reminder countdown will start with 24 hours after dives executed under GAUGE Mode.

To check entire history dive logs and dive profiles, go to LOG Mode and press UP/DOWN Button to scroll up or down to view other logs, press MODE button to select designated dive and press UP button to see dive profile.

# 1.6 GAUGE Mode



#### **GAUGE Mode - No Diving**

DIVE recommendation time countdown will show on the screen after a dive is completed under Gauge Mode.

DO NOT continue diving activities during countdown.

For exact NO DIVING recommendation time countdown please check DIVE HISTORY page.

#### Note:

SCUBA Mode, FREEDIVING Mode and PLAN Mode will remain locked during NO DIVING recommendation time countdown.

### 1.7 PLAN Mode

### 1.7 PLAN Mode

#### **PLAN Mode**

: Battery Indication

**Upper Left (O2%):** Oxygen percentage value.

**SF:** Safety Factor Default: SF1(Normal) **Setup range:** 

SF1 (Normal), SF2 (Conservative).

**DPTH:** Water Depth

**NDL:** The Non-Decompression Limit time in minutes (it will show 99 when NDL exceeds 99 minutes.)

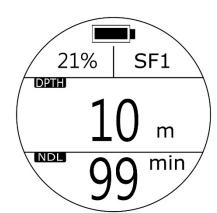
Under PLAN Mode, divers can check NDL values and MOD limits and plan future dives.

Press UP/ DOWN button to change DEPTH, and NDL values will vary accordingly.

The depth limit under PLAN mode is 40 m / 131 ft. for recreational diving activities.

#### Note:

- Changing settings of SCUBA mode such as: O2%, SF values and PO2 will affect the calculation of NDL and MOD values shown in PLAN Mode.
- 2. Previous dives executed on this dive computer and its residual nitrogen calculation will be taken into account.
- 3. Please make sure you receive proper training and have adequate dive equipment with you. You will need to execute dive plans strictly



### 1.7 PLAN Mode

and understand the related risks using PLAN Mode.

4. To change related settings, please refer to: SCUBA Mode and SETTINGS.



#### **PLAN Mode – Warning**

When you reach the preset PO2 value, alarm warning will activate.

Warning: One long beeping with vibration and PO2 value blinking.

#### Note:

Once there is a warning, adjusting your dive plan accordingly is highly recommended.



#### PLAN Mode - NO DIVING

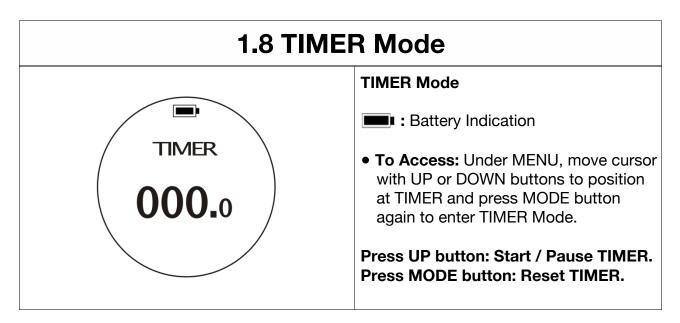
NO DIVING recommendation time countdown will show on the screen after a dive is completed under GAUGE Mode. DO NOT continue diving activities during countdown.

For exact NO DIVING recommendation time countdown please check Dive History page.

#### Note:

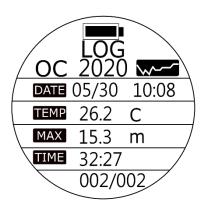
SCUBA Mode, FREEDIVING Mode and PLAN mode will remain locked during NO DIVING recommendation time countdown.

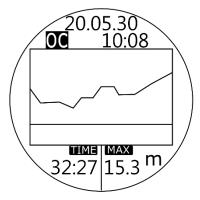
# 1.8TIMER Mode



### 1.9 LOG Mode

### 1.9 LOG Mode







#### LOG Mode - Log

OC: Open Circuit Scuba mode

**FD**: Freediving mode **GA**: Gauge mode

**DATE:** Dive Date and Time **TEMP:** Water temperature **MAX:** Max depth of the dive

TIME: Dive time

**002 / 002 :** Log Number / Total Logs (They are in chronological order.)

Estimate Memory Capacity: \*900 dives. (\*Estimated dives storage calculation is based on 40 minutes to 50 minutes per dive. Actual dive log capacity may vary based on executed dive time.)

When the storage capacity is reached, Scuba Mode, FREEDIVING Mode and Gauge Mode will remain locked. Please contact your retailer when your DIVES is over 800.

Once executing LOG CLEAR, all dive logs and history information will be deleted.

 To Access: To check entire history dive logs and dive profiles, go to LOG Mode and press UP/ DOWN button to scroll up or down to view other logs, press MODE button to select designated dive and press UP button to see dive profile.

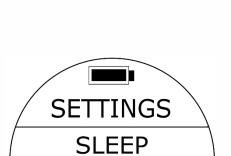
#### LOG Mode - WARING (MEMORY FULL)

**Memory Full:** Storage capacity of dive computer TC1 has been reached.

#### Note:

SCUBA Mode, FREEDIVING Mode and GAUGE Mode will remain locked under this display image. Please contact your retailer. Once executing LOG CLEAR, all dive logs and history information will be deleted.

1.10 SETTINGS Mode	
WATCH Mode and SETTINGS	Please check page 15 to page 18.
SCUBA Mode and SETTINGS	Please check page 19 to page 30.
FREEDIVING Mode and SETTINGS	Please check page 31 to page 36.
SETTINGS	UNIT Setting
	<ul> <li>To Access: From SETTINGS, press the UP/DOWN button until the cursor aligns with UNIT. Press MODE button once.</li> <li>One of the UNIT options will be blinking at the bottom. Press UP/ DOWN button</li> </ul>
	to select other options as needed. Press
► UNIT	MODE button to accept your selection.
SLEEP	Default: M/C
BUZZER	Setup range:  M/C: Metric (Meter and Celsius)
M/C	Ft/F: Imperial (Feet and Fahrenheit)
	Note: Changing this setting will affect all the related displays. There will be round u of values within calculations when switching units.
	SLEEP Mode Setting
SETTINGS  UNIT SLEEP BUZZER  5 min	To Access: From SETTINGS, press th UP/DOWN button until the cursor aligns with SLEEP. Press MODE butto once.
	One of the SLEEP options will be blinking at the bottom. Press UP/ DOWN button to select other options as needed Press MODE button to accept your selection.
	Default: 5 minutes. Setup range: 5 minutes, 10 minutes, 30 minutes.



**BUZZER** 

**BACKLIGHT** 

ON

#### Note:

SLEEP Settings only applies settings of Watch Mode. While using the dive computer to execute all diving mood, the screen will remain turned on.

#### **BUZZER Setting**

 To Access: From SETTINGS, press the UP/DOWN button until the cursor aligns with BUZZER. Press MODE button once.

One of the BUZZER options will be blinking at the bottom. Press UP/ DOWN button to select other options as needed. Press MODE button to accept your selection.

**Default:** ON

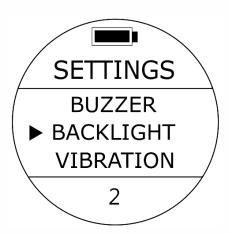
Setup range: ON / OFF

#### Note:

Changing this setting only applies to settings of Watch Mode.

Alarm Setting of all diving mode will

not be affected.



#### **BACKLIGHT Setting**

 To Access: From SETTINGS, press the UP/DOWN button until the cursor aligns with BACKLIGHT. Press MODE button once.

One of the BACKLIGHT options will be blinking at the bottom. Press UP/ DOWN button to select other options as needed. Press MODE button to accept your selection.

#### Default: 3

Setup range: 5 levels of brightness (from the darkest to the brightest)

1 2, 3, 4, and 5.



Higher brightness settings will consume more battery power and will affect the running time of dive computer.

#### **VIBRATION Setting**

 To Access: From SETTINGS, press the UP/DOWN button until the cursor aligns with VIBRATION. Press MODE button once.

One of the VIBRATION options will be blinking at the bottom. Press UP/ DOWN button to select other options as needed. Press MODE button to accept your selection.

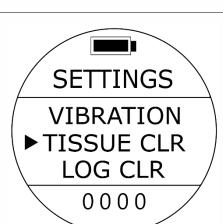
**Default:** ON

Setup range: ON / OFF

#### Note:

Changing this setting only applies to settings of Watch Mode.

Alarm Setting of diving mode will not be affected.



**SETTINGS** 

**BACKLIGHT** 

TISSUE CLR

ON

▶ VIBRATION

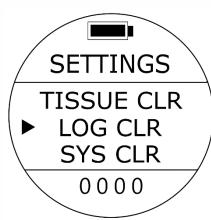
#### TISSUE CLEAR

This mode is for TUSA Dealers (Rental purpose). DO NOT USE this function.

#### **WARNING:**

This mode will affect residual nitrogen calculation and there is risk of decompression sickness.

DO NOT USE this function.



#### **LOG CLEAR**

This mode is for factory and TUSA dealers. DO NOT USE this function. Please contact your dealer when LOG CLEAR is necessary.

#### **WARNING:**

All dive logs and history information will be deleted permanently. There is no way to restore them.

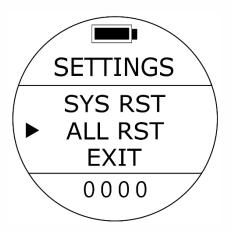


#### SYS RST

This mode is for factory and TUSA dealers. DO NOT USE this function.

#### **WARNING:**

This function will have all settings be reset as default.



#### **ALL REST**

This mode is for factory and TUSA dealers. DO NOT USE this function.

#### **WARNING:**

This mode will affect residual nitrogen calculation and there is risk of decompression sickness.

DO NOT USE this function.

Besides, all settings will be reset as default. All dive logs and history information will be deleted permanently.

# 2.Specification

#### (1) Accuracy

- · Time: ±25 seconds a month at 20°C
- Water depth:  $\pm 1\%$  (Guaranteed in the water depth range of  $0m \sim 80m$ )
- Temperature: ±2.0°C at 0~40°C (Temperature change within 20 minutes)

#### (2) Measuring range

- Water depth : 0.0  $\sim$  99m
- Temperature : 0  $\sim$  40°C (Measuring interval : 1 second)

#### (3) Operating temperature

- Operating temperature :  $-5 \sim 40^{\circ}\text{C}$
- Recommended storage temperature : 0  $\sim$  40°C

### (4) Nitrox settings

 $\cdot$  Setting range : 21  $\sim$  56% , Setting interval : 1%

### (5) Body size

Case length: 50 mmThickness: 17.95 mmWeight: 95g±5g

#### (6) SW (Software)

· SW version : TU1-5C



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