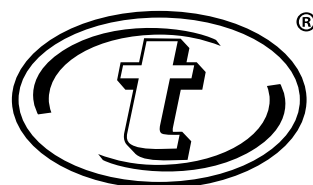


TALIS

IQ-1201

OWNER'S MANUAL



T U S A

DIVE COMPUTER

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WARNINGS AND SAFETY RECOMMENDATIONS

- It should not be considered that the capabilities built into the Talis provide an implied approval or consent from TUSA for individuals to exceed the defined limits for recreational diving, as agreed on by all internationally recognized training agencies.
- The oxygen features of the Talis are intended for use by recreational divers trained for Nitrox diving by an instructor certified by a recognized training agency to teach diving with Nitrox.
- Conducting repetitive dives using enriched nitrogen-oxygen mixtures can lead to oxygen buildup, reducing oxygen tolerance while increasing the risk of pulmonary oxygen toxicity.
- The Talis provides information based upon a personal dive profile, and therefore must not be shared between divers. It is impossible for two divers to stay precisely together underwater, and your computer's dive profile tracking of previous dives will be pertinent to you only. Nitrogen and oxygen loading of a second user may be significantly different and swapping dive computers could lead to inaccurate and dangerous predictions of decompression and oxygen accumulation status.

NOTICES

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TRADEMARK NOTICE

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PATENT NOTICE

U.S. Patents have been issued, or applied for, to protect the following design features:

Data Sensing and Processing Device (U.S. Patent no. 4,882,678), Ascent Rate Indicator (U.S. Patent no. 5,156,055), Dive Computer with Free Dive Mode (U.S. Patent no. 8,600,701).

CE

The CE mark is used to mark conformity with the European Union EMC directive 89/336/EEC. TUSA dive instruments fulfill the required EU directives.

EN 13319 "Diving accessories - Depth gauges and combined depth and time measuring devices - Functional and safety requirements, test methods" is a European diving depth gauge standard. The Talis is designed to comply with this standard.

DECOMPRESSION MODEL

The program within the Talis simulates the absorption of nitrogen into the body by using a mathematical model. This model is merely a way to apply a limited set of data to a large range of experiences. The Talis dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the Talis, just as using the Navy (or other) No Decompression Tables, is no guarantee of avoiding decompression sickness, i.e. "the bends."** Every diver's physiology is different, and can even vary from day to day. No machine can predict how your body will react to a particular dive profile.

LIMITED TWO-YEAR WARRANTY

For details, refer to the Product Warranty Registration Card provided.

NOTICE

STORAGE and INITIAL ACTIVATION

Talis Watch/Dive Computers are placed in a Deep Sleep mode prior to being shipped from the factory. The intent is to extend storage life of the Battery for up to 7 years, before the unit is initially placed in service.

In this mode, Date and Time are updated as they normally would be. However, they are not displayed. Upon waking the Talis up, the correct Date and Pacific Time will be displayed and it will be ready to operate with full functions.

To wake the Talis up from Deep Sleep mode, simultaneously depress the upper/right (S) and lower/left (A) buttons for 2 to 3 seconds until the display comes full ON displaying the Watch Default Time screen, then release them.

 **NOTE: Once the Talis is brought out of the Deep Sleep mode, it can only be placed back in it by the factory.**

FEATURES & DISPLAYS

Welcome to TUSA.

Thank you for choosing the Talis !

It is extremely important that you read this Owner's Manual in sequence and understand it completely before attempting to use the Talis as a dive computer.

Remember that technology is no substitute for common sense, and a dive computer only provides the person using it with data, not the knowledge to use it.

CONTROL BUTTONS

The Talis features 4 Control Buttons that allow you to select mode options and access specific information. They are also used to enter Settings, activate the Backlight, and acknowledge the Audible Alarm.

Throughout this manual they will be referred to as the M, S, L, and A buttons (Fig. 1).

- Upper/Left - Mode (M) button
- Upper/Right - Select (S) button
- Lower/Right - Light (L) button
- Lower/Left - Advance (A) button

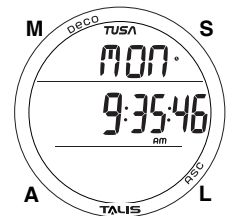


Fig. 1 - WATCH DEFAULT TIME (Main, at home)

OPERATING MODE STRUCTURE

Unless it is operating in Dive Computer mode, the Talis will be On in the Watch Default Time (home time) mode (Fig. 1), like a standard watch, until the mode is changed.

The M button is used to access other selections that include Alternate data, Countdown Timer, Chronograph, and Daily Alarm. It is also used to revert back to the Watch Default Time display and access Dive Computer Modes.

The screens of the Main Modes and Sub Modes will remain on display until a button is pressed to access another screen or Mode, activate a sequence, or for 2 minutes if no button is pressed. The Chronograph remains on display as long as it is running unless another Mode is accessed.

When Wet Activation is set On, the Talis will enter the selected Dive Mode upon descent to 5 FT (feet)/1.5 M (meters) for 5 seconds, regardless of what operating mode it is in.

⚠ WARNING: When Wet Activation is set OFF, the Talis must be in Dive Computer Surface Mode (NORM, GAUG, or FREE) prior to the first dive of a new series. Commencing a dive while in Watch modes will not activate Dive Mode unless Wet Activation is set ON.

OPERATION AS A DIVE COMPUTER

The Talis features 3 Dive Computer (DC) Operating Modes,

- >> NORM (Fig. 2) is used for Air and Nitrox dives.
- >> GAUG (Fig. 3) is used for dives in which Nitrogen-Oxygen calculations are not performed.
- >> FREE (Fig. 4) is used for breath hold activities that do not use SCUBA.

NORM and GAUG SURF Modes allow access to Settings, Fly, Desat, Log, and History Modes.

NORM SURF also allows access to Plan Mode.

FREE SURF Mode allows access to a separate group of settings.

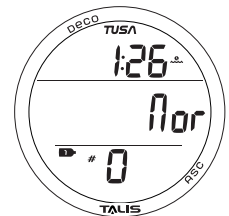


Fig. 2 - NORM MODE SURFACE MAIN

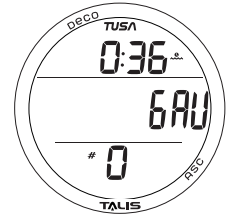


Fig. 3 - GAUG MODE SURFACE MAIN

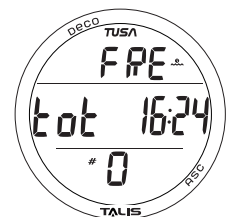


Fig. 4 - FREE MODE SURFACE MAIN

AUDIBLE ALARM

Most warning situations that activate the Audible Alarm while operating in NORM or GAUG Mode will sound 1 beep per second for 10 seconds, or until the situation is corrected, or it is acknowledged by pressing and releasing the S button (less than 2 seconds). After being acknowledged and the situation corrected, the Alarm will sound again upon reentry into the warning situation, or entry into another type of warning situation.

FREE Dive Mode has its own set of Alarms which emit 3 short beeps either 1 or 3 times that cannot be acknowledged or set Off.

The Audible will not be active if it is Set OFF (a group A setting).

Situations that will activate the NORM/GAUG 10 second Alarm include -

- Descent deeper than the Max Depth Set Point selected.
- Dive Time Remaining at the Set Point selected.
- Elapsed Dive Time at the Set Point selected.
- High PO₂ of 1.60 ATA or the Set Point selected for the Gas in use.
- High O₂ of 300 OTU (single or daily exposure).
- Nitrogen Bar Graph at the segment Set Point selected.
- NORM/GAUG Ascent Rate exceeds 60 FPM (18 MPM) when deeper than 60 FT (18 M), or 30 FPM (9 MPM) at 60 FT (18 M) and shallower.
- Entry into Decompression Mode (Deco).
- Conditional Violation (above a required Deco Stop Depth for less than 5 minutes).
- Delayed Violation (above a required Deco Stop Depth for more than 5 minutes).
- Delayed Violation (a Deco Stop Depth greater than 60 FT/18 M is required).
- Delayed Violation (Maximum Operating Depth of 330 FT/100 M is exceeded).
- A Gas Switch to another tank would expose the diver to PO₂ greater than 1.60 ATA.
- Watch Daily Alarm reaches time set (disabled during Dive Modes).
- Watch Mode Countdown Timer reaches 0:00.

A single short beep (which cannot be disabled) is emitted for the following -

- Upon completion of a Hot Swap battery change.
- Change from Delayed to Full Violation 5 minutes after the dive.

3 short beeps (which cannot be disabled) are emitted for the following -

- NORM/GAUG Ascent Rate is 51 to 60 FPM (15.1 to 18 MPM) when deeper than 60 FT (18 M), or 26 to 30 FPM (7.5 to 9 MPM) at 60 FT (18 M) and shallower.
- FREE Dive Elapsed Dive Time Alarm (3 beeps every 30 seconds if set On).
- FREE Dive Depth Alarms 1/2/3 (set sequentially deeper) - each 3 beeps 3 times.
- FREE Dive NIBG Alarm (Caution zone, 4 segments) - 3 beeps 3 times.
- Entry into Deco during a FREE Dive (Permanent Violation) - 3 beeps 3 times.
- Free Dive Mode Countdown Timer reaches 0:00 - each 3 beeps 3 times.

During the following NORM Dive situations, the 10 second continuous tone will be followed by a 5 second steady beep that will not turn off when acknowledged -

- Ascending above a required Decompression Ceiling Stop Depth for more than 5 minutes (referred to as a Delayed Violation).
- Decompression requires a Ceiling Stop Depth of 70 FT/21 M or deeper.
- Being on the Surface for 5 minutes after a Conditional Violation.

BACKLIGHT

To activate the Backlight - press the L (lower/right) button.

- The Backlight will activate and illuminate the display for button depression time* plus the user set Duration time of 0, 5, or 10 seconds, for a maximum of 20 seconds.
(*The Backlight turns Off if the button is held depressed for more than 10 seconds.)
- Press the button again to activate as desired.

△ NOTE: Extensive use of the Backlight reduces Battery life. Also, the Backlight does not operate during a Low Battery condition or when the Talis is connected to a PC or Mac.

POWER SUPPLY

The Talis uses (1) 3 volt CR2430 Lithium Battery. Used as a Dive Computer, the battery should operate normally for 1 year or 300 dive hours if 2 dives are conducted during each dive period. Voltage is checked every 2 minutes on the surface.

- If voltage of the Talis decreases to the Warning level (2.75 volts), the Battery icon will appear on Surface display screens (Fig. 5a) as an indication that the Battery should be changed prior to commencing a series of dives.
- If the Talis's voltage decreases to the Alarm level (2.50 volts), the Battery icon will flash and the graphics CHG > BAT will alternate (Fig. 6a) for 5 seconds, then operation will automatically revert to the Watch Default Time screen. The Talis would then only operate in Watch modes until the Battery becomes completely depleted.
- Low Battery conditions are not displayed during dives.
- If a Low Battery Condition was not displayed prior to starting a Dive, and a Low Battery Condition occurs during the dive, there will be sufficient Battery power remaining to maintain operation for the remainder of that dive.

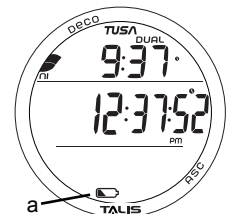


Fig. 5 - LOW BATTERY WARNING

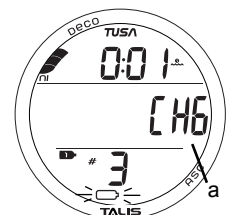


Fig. 6 - LOW BATTERY ALARM

WATCH MODE

WATCH TIMES

Main Time is the current Time at your home location and is normally selected as the Watch Default Time (Fig. 7A).

Alternate Time, which is set by Hour Differential, is the Time at a remote location (away). Upon arrival at the location, Alternate Time, identified by the AWAY icon (Fig. 7B a), can be selected to be the Watch Default Time.

Dual Time, identified by the AWAY icon (Fig. 7C a), is an additional time which is usually Alternate Time but can be Main Time depending on which one is not selected to be the Watch Default.

- When an Alternate Time is set, and Show Dual Time is set for YES, both Times will be displayed on the Watch Default Time screen (Fig. 7C).
- When an Alternate Time is set, and Show Dual Time is set for NO, Dual Time will be displayed on the Watch ALT screen (Fig. 8) accessed by pressing the M button.

Watch Mode selections, which can be accessed by pressing the M button while viewing the Default Time screen, include:

Watch ALT (additional data) >> Countdown Timer >> Chronograph >> Daily Alarm.

- M (< 2 sec) - to step forward through the selections.
- A (2 sec) - to step back through the selections.

WATCH DEFAULT TIME, information includes (Fig. 7A - 7D):

- > Graphic MON (or TUE, WED, THU, FRI, SAT, SUN); or Dual Time (hr:min) with icon, if an Alternate Time has been set and Show Dual is set for YES.
- > Daily Alarm icon (clock) if it is set On (Fig. 7a).
- > Time of Day (hr:min:sec) with AM (or PM) icon if 12 Hour Format, no icon if 24 Hour; and AWAY icon (Fig. 7B a) if Alternate Time is selected to be the Default Time.
- > Nitrogen Bar Graph, if any after NORM or FREE dives.
- > Battery icon, if a Low Battery condition exists.

- M (< 2 sec) - to access the Watch ALT screen, then step forward through Watch mode selections.
- M (2 sec) - to access Dive Computer Surface Modes (NORM, GAUG, or FREE).
- A (< 2 sec) - to access NORM/GAUG Log and History.
- A (2 sec) - to access the Show Dual Time selection, then step back through other Watch Set selections*.
- S (< 2 sec) - to silence and acknowledge the Daily Alarm.
- A + S buttons (2 sec) - to access Set Date Format then allow stepping forward through Watch Set selections*.
- L (press) - to activate the Backlight.

WATCH ALT DATA, information includes (Fig. 8A, 8B):

- > Dual (away) Time (hr:min) with icon if an Alternate Time has been set and Show Dual is set for NO; or graphic MON (or TUE, WED, THU, FRI, SAT, SUN) if Show Dual is set for YES (displayed on the Default Time screen).
- > Temperature with °F (or °C).
- > Date (Month.Day or Day.Month).
- > Altitude graphic (EL2 to EL7), if above 3000 feet (915 meters), blank if below.

- M (< 2 sec) - to step forward to CDT Status.
- A (< 2 sec) - to step back to Watch Default Time.
- Revert to Watch Default Time after 5 seconds if M or A is not pressed.
- L (press) - to activate the Backlight.

WATCH CDT (COUNTDOWN TIMER) STATUS

Upon accessing a dive computer mode, Watch CDT operation will be terminated and the time reset to the previous setting.

The CDT will run in the background until it counts down to 0:00, or it is set OFF, or Dive Computer Mode is accessed or a Dive is started in which case the countdown will terminate and revert to OFF with the hr:min time previously set.

When a set CDT reaches 0:00, the Audible will sound during which time the graphic CDT will flash on the Watch Main.

CDT Status, information includes (Fig. 9A):

- > Graphic CDT.
- > Graphic OFF (or ON) flashing. If OFF, 0:00 or the hr:min previously set. If ON, the hr:min countdown remaining.

- S (< 2 sec) - to toggle between OFF and ON. A toggle to ON will start the countdown if set and OFF.
- A + S (2 sec) - to access Set CDT.
- A (2 sec) - to step back to the Watch ALT screen.
- M (2 sec) - to revert to the Watch Default Time screen.
- Revert to Watch Default Time after 2 minutes if no button is pressed.
- L (press) - to activate the Backlight.

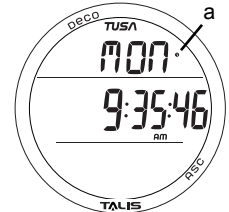


Fig. 7A - DEFAULT TIME
(Main selected, at home)

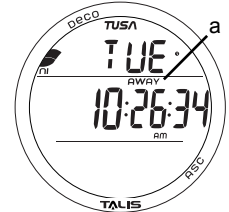


Fig. 7B - DEFAULT TIME
(away, Alternate selected)

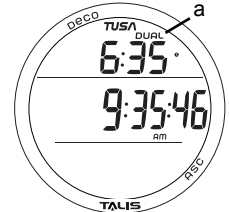


Fig. 7C - DEFAULT TIME
(Main with Dual)

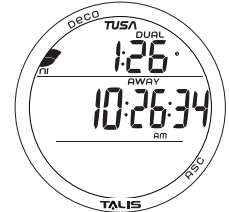


Fig. 7D - DEFAULT TIME
(away, Alternate with Dual)

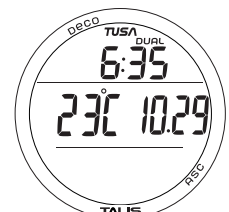


Fig. 8A - WATCH ALT
(Show Dual set for NO)

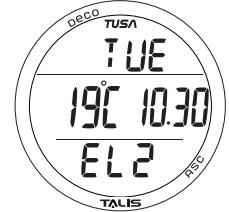


Fig. 8B - WATCH ALT
(Show Dual set for YES)

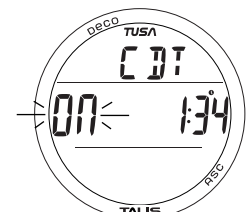


Fig. 9A - WATCH CDT
STATUS

Set CDT, information includes (Fig. 9B):

- > Graphics CDT and SEt.
- > Timer setting (hr:min), with Hour digits flashing.
- S (hold) - to scroll upward through Hour values (8/sec) from 0: to 23: in increments of 1: (hr).
- A (< 2 sec) - to step upward through Hour values one at a time.
- M (< 2 sec) - to step back (down) through Hour values one at a time.
- A (< 2 sec) - to save the Hour setting and flash the Minute digits.
- S (hold) - to scroll upward through Minute values (8/sec) from :00 to :59 in increments of :01 (min).
- S (< 2 sec) - to step upward through Minute values one at a time.
- M (< 2 sec) - to step back (down) through Minute values one at a time.
- A (< 2 sec) - to save the hr:min setting and revert to the CDT Status screen with the graphic OFF flashing.
- M (2 sec) - to revert to the Watch Default Time screen.
- Revert to Watch Default Time after 2 minutes if no button is pressed.
- L (press) - to activate the Backlight.

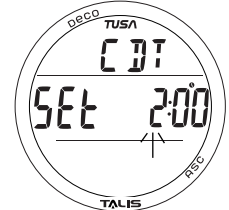


Fig. 9B - SET WATCH CDT

CHRONOGRAPH (Stop Watch/Lap Timer), information includes (Fig. 10A - 10C):

- > Graphic CHR.
- > Elapsed run time counting up to 9:59:59.99 (min:sec_.01 sec) if previously started with clock icon; 0:00:00.00 flashing if not yet started or after reset. *After the first 4.99 seconds, the .01 digits display 2 dashes (. - -).*
- > Graphic LAP #1 (up to #9) when running, blank if not started.
- S (< 2 sec) - to start the Timer which begins counting up in increments of .01 sec.
- S (< 2 sec) - to save that Lap's time and display the next Lap (up to #9, then restart with #1) with the Timer continuing to count up until stopped.
- A (< 2 sec) - to stop the Timer, save the Lap in progress (the final Lap) and total elapsed run time*, then recall LAP #1 (up to #9) with it's time (Fig. 10C). *Repeat to recall other Lap times.*
- A (2 sec), after the timer is stopped - to revert to Chrono Status with run time reset to 0:00:00.00 flashing.
- A (2 sec) - to step back from the Chrono Status screen to the CDT Status screen.
- M (< 2 sec) - to access Daily Alarm Status.
- M (2 sec) - to revert to Watch Default Time.
- L (press) - to activate the Backlight.



Fig. 10A - CHRONO STATUS

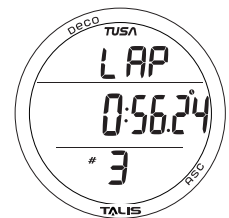


Fig. 10B - CHRONO RUNNING

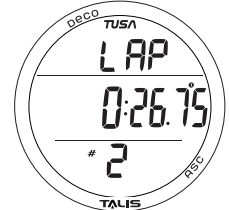


Fig. 10C - LAP RECALL

While the Chrono is running, it will remain on the screen until a button operation is performed. If another screen is accessed, it will then continue to run in the background.

Upon descending on a dive, Chrono operation will be terminated and reset to 0:00:00.00.

DAILY ALARM STATUS, information includes (Fig. 11A):

When set ON, the Daily Alarm will sound the Audible Alarm at the Time set every day.

- > Graphic AL and clock icon
- > Graphic ON (or OFF), flashing.
- > Alarm Time previously set (hr:min) with AM (or PM) icon.
- S (< 2 sec) - to toggle between ON and OFF.
- A + S (2 sec) - to access Set Daily Alarm.
- A (2 sec) - to step back to Chrono Status.
- M (< 2 sec) - to step forward to Watch Default Time.
- M (2 sec) - to revert to the Watch Default Time screen.
- Revert to Watch Default Time after 2 minutes if no button is pressed.
- L (press) - to activate the Backlight.

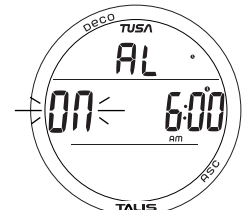


Fig. 11A - DAILY ALARM STATUS

Set Daily Alarm, information includes (Fig. 11B):

- > Graphics AL and SEt with clock (alarm) icon.
- > Alarm Time previously set (hr:min) with the Hour digits flashing.
- S (hold) - to scroll upward through the Hour values 8/sec in increments of 1: (hour).
- S (< 2 sec) - to step upward through the Hour values one at a time.
- M (< 2 sec) - to step back (down) through the Hour values one at a time.
- A (< 2 sec) - to save the Hour setting and flash the Minute digits.
- S (hold) - to scroll upward through the Minute values 8/sec in increments of :01 (minute).
- S (< 2 sec) - to step upward through the Minute values one at a time.
- M (< 2 sec) - to step back (down) through the Minute values one at a time.
- A (< 2 sec) - to save the Minute setting and revert to the Status screen with OFF flashing.
- M (2 sec) - to revert to the Watch Default Time screen.
- Revert to Watch Default Time after 2 minutes if no button is pressed.
- L (press) - to activate the Backlight.

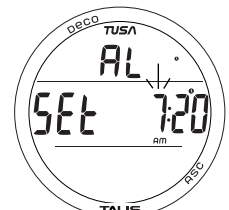


Fig. 11B - SET DAILY ALARM

WATCH MODE SETTINGS

Sequence of selections -- Date Format >> Hour Format >> Time >> Date >> Alt Time >> Default Time >> Show Dual.

- A (< 2 sec), repeatedly - to step forward through the selections.
- A (2 sec), repeatedly - to step back through the selections. This action will not save changes to settings.
- M (2 sec), at any time - to revert to the Watch Default Time screen. This action will save a flashing set point.
- Revert to Watch Default Time after 2 minutes if no button is pressed. This action will save a flashing set point.
- L (press) - to activate the Backlight.

- > Time of Day and Date settings will serve as the basis for Watch Main, Alternate, and Dual Time values.
- > Day of the Week is set automatically when the Date is set.

Set Date Format, information includes (Fig. 12):

This setting determines whether Day is shown on the right or left of Month when Date is displayed.

- > Graphic M - D (or D - M) flashing.
- > Graphic dAtE.
- S or M (< 2 sec) - to toggle between M - D and D - M.
- A (< 2 sec) - to save the setting and access Set Hour Format.
- A (2 sec) - to step back to the Watch Default Time screen, without changing the setting.

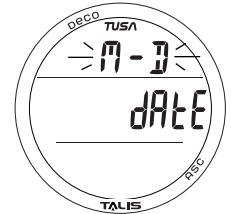


Fig. 12 - SET DATE FORMAT

Set Hour Format, information includes (Fig. 13):

This setting determines whether Time of Day is displayed as 1 through 12 hours Am and Pm, or 1 through 24 hours.

- > Graphic HR.
- > Graphic 12 (or 24) flashing.
- S or M (< 2 sec) - to toggle between 12 and 24.
- A (< 2 sec) - to save the setting and access Set Time of Day.
- A (2 sec) - to step back to Date Format, without changing the setting.

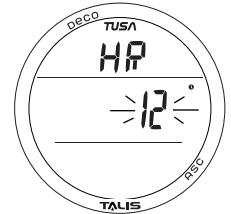


Fig. 13 - SET HOUR FORMAT

Set Time of Day, information includes (Fig. 14):

This setting will serve as the basis for Watch Main Time, Alternate Time, and Dual Time hr:min values.

- > Graphic SET.
- > Time with Hour digits flashing, clock icon, AM (or PM) icon if 12 Hour Format.
- S (press/hold) - to scroll upward through the Hour set points 8/sec in increments of 1: (1 hour).
- S (< 2 sec) - to step upward through the Hour set points one at a time.
- M (< 2 sec) - to step back (down) through the Hour set points one at a time.
- A (< 2 sec) - to save the Hour setting and flash the Minute digits.
- A (2 sec) - to step back to Set Hour Format, without changing the setting.
- S (press/hold) - to scroll upward through the Minute set points 8/sec in increments of :01 (1 minute).
- S (< 2 sec) - to step upward through the Minute set points one at a time.
- M (< 2 sec) - to step back (down) through the Minute set points one at a time.
- A (< 2 sec) - to save the Time setting and access Set Date.
- A (2 sec) - to step back to the Hour digits flashing, without changing the setting.

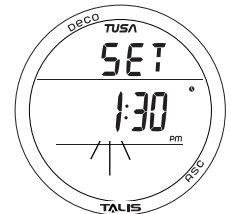


Fig. 14 - SET TIME of DAY

Set Date, information includes (Fig. 15):

Year is always set first, then Month, then Day, regardless of their positions on the screen.

- > Graphic YMD meaning Date is arranged as Year Month.Day, or YDM meaning Date is arranged as Year Day.Month.
- > Year, Month.Day (or Year, Day.Month) with the Year digits flashing.
- S (press/hold) - to scroll upward through the Year set points 8/sec from 2013 to 2056 in increments of 1 year.
- S (< 2 sec) - to step upward through the Year set points one at a time.
- M (< 2 sec) - to step back (down) through the Year set points one at a time.
- A (< 2 sec) - to save the Year setting and flash the Month digits.
- A (2 sec) - to step back to Set Time of Day, without changing the setting.
- S (press/hold) - to scroll upward through the Month set points 8/sec from 1 to 12 in increments of 1 month.
- S (< 2 sec) - to step upward through the Month set points one at a time.
- M (< 2 sec) - to step back (down) through the Month set points one at a time.
- A (< 2 sec) - to save the Month setting and flash the Day digits.
- A (2 sec) - to step back to the Year digits flashing, without changing the setting.
- S (press/hold) - to scroll upward through the Day set points 8/sec from 1 to 31 in increments of 1 day.
- S (< 2 sec) - to step upward through the Day set points one at a time.
- M (< 2 sec) - to step back (down) through the Day set points one at a time.
- A (< 2 sec) - to save the Date setting and access Set Alternate Time.
- A (2 sec) - to step back to the Month digits flashing, without changing the setting.

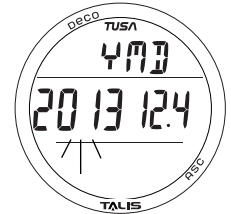


Fig. 15 - SET DATE

Set Alternate Time (Differential), information includes (Fig. 16):

This feature allows you to set an Hour based numeric time Differential ranging from - 23 through OFF to + 23 (hours). It provides a second (Alternate) Time equal to Watch Default Time +/- the Hour Differential selected.

- > Graphic OFF, or the Hour Differential (+ or - sign with numeric digits), flashing.
- > Graphics SET Alt.
- S (press/hold) - to scroll upward through the set points 8/sec from OFF to + 01 through + 23 then - 23 through - 01 in increments of 1 hour.
- S (< 2 sec) - to step upward through the set points one at a time.
- M (< 2 sec) - to step back through the set points one at a time.
- A (< 2 sec) - to save the setting and access Select Default Time.
- A (2 sec) - to step back to Set Date, without changing the setting.

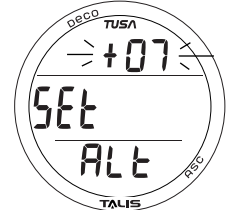


Fig. 16 - SET ALTERNATE TIME

Select Default Time, information includes (Fig. 17):

This selection allows you to choose which time is to be displayed as the primary time of day, and which by differential.

- > Graphic MAI (Main, home) or ALT (Alternate, away), flashing.
- > Graphics SEL dFlt.
- S or M (< 2 sec) - to toggle between MAI and ALT.
- A (< 2 sec) - to save the setting and access Show Dual Time.
- A (2 sec) - to step back to Set Alternate Time, without changing the setting.

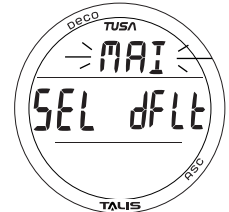


Fig. 17 - SELECT WATCH DEFAULT TIME

Show Dual Time, information includes (Fig. 18):

This selection determines whether the differential time set will be displayed on the main Watch screen with Default Time.

- > Graphic YES or NO, flashing.
- > Graphics SHO dUAL.
- S or M (< 2 sec) - to toggle between YES and NO.
- A (< 2 sec) - to save the setting and revert to the Watch Default Time screen.
- S (2 sec) - to step back to Select Default Time, without changing the setting.



Fig. 18 - SET SHOW DUAL TIME

DIVE COMPUTER FEATURES

BAR GRAPHS

The Talis features 2 Bar Graphs, the NiBG and ASC.

NiBG (Nitrogen Loading Bar Graph)

The NiBG (Fig. 19a) represents tissue loading of nitrogen, showing your relative no decompression or decompression status. As your depth and elapsed dive time increase, segments will add to the NiBG, and as you ascend to shallower depths, the segments will recede, indicating that additional no decompression time is allowed for multilevel diving.

The Nitrogen Loading Bar Graph monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive. It is divided into a No Decompression (normal) zone, a Caution zone (also No Decompression), and a Decompression (danger) zone.

While you cannot provide a guarantee against the occurrence of decompression sickness, you may choose your own personal zone of caution based upon age, physique, excessive weight, etc., to reduce the statistical risk.

ASC (Ascent Rate Indicator)

The ASC (Fig. 19b) provides a visual representation of ascent speed (i.e., an ascent speedometer).

The segments of the ASC represent two sets of speeds which change at a reference Depth of 60 FT (18 M). Refer to the chart for segment values.

⚠ WARNING: At depths greater than 60 FT (18 M), ascent rates should not exceed 60 FPM (18 MPM). At depths of 60 FT (18 M) and shallower, ascent rates should not exceed 30 FPM (9 MPM).

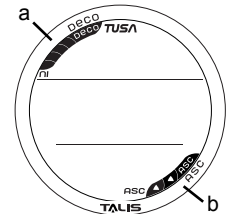


Fig. 19 - BAR GRAPHS

ASC values			
Deeper than 60 FT (18 M)			
Segments	Ascent Rate =		
Displayed	FPM	MPM	
0	0 - 20	0 - 6	
1	21-50	6.5-15	
2	51-60	15.5-18	
3	>60	>18	
60 FT (18 M) & Shallower			
Segments	Ascent Rate =		
Displayed	FPM	MPM	
0	0 - 10	0 - 3	
1	11-25	3.5-7.5	
2	26-30	8-9	
3	>30	>9	

ALPHA/NUMERIC DISPLAYS

Depth

During dives, Current Depth (Fig. 20a) and Maximum Depth (Fig. 21a) which is on an Alternate Display indicate Depths from 0 to 330 FT (100 M) in increments of 1 FT (0.1 M).

During a No Deco Safety Stop, the set Stop Depth is displayed and during Decompression, required Stop Depth is displayed.

Time

Most Time displays like Time of Day (Fig. 21b) are shown in hour:minute format (i.e., 10:26 represents 10 hours and 26 minutes). The colon that separates hr:min (min:sec) blinks once per second when the display is indicating real time (e.g., Time of Day, Elapsed Dive Time).

When Times are calculated projections such as Dive Time Remaining and Elapsed Dive Time (Fig. 20b/c), the colon is solid (non blinking).

FREE Dive Mode displays Times in minute:second format.

Temperature, Elevation

Ambient Temperature and Altitude can be viewed by accessing the Watch or Dive Computer Surface Alternate screens (Fig. 22).

When above the sea level range, which extends up to 3,000 feet (915 meters), Altitude is displayed as EL (Elevation Level) from 2 up to 7.

- EL2 = 3,001 to 5,000 feet (916 to 1,525 meters)
- EL3 = 5,001 to 7,000 feet (1,526 to 2,135 meters)
- EL4 = 7,001 to 9,000 feet (2,136 to 2,745 meters)
- EL5 = 9,001 to 11,000 feet (2,746 to 3,355 meters)
- EL6 = 11,001 to 13,000 feet (3,356 to 3,965 meters)
- EL7 = 13,001 to 14,000 feet (3,966 to 4,270 meters)

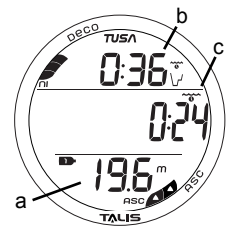


Fig. 20 - CURRENT DEPTH

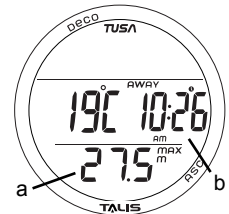


Fig. 21 - MAX DEPTH & TIMES

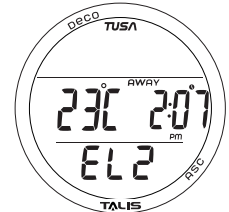


Fig. 22 - TEMPERATURE, ELEVATION

DIVE COMPUTER SURFACE MODES

DIVE COMPUTER (DC) OPERATING MODES

The Talis features 3 DC Operating Modes -

- NORM >> for Normal Air or Nitrox dives using scuba.
- GAUG >> for scuba dives with no nitrogen/oxygen calculations.
- FREE >> for breath hold dives with no SCUBA.

SURFACE MODE

M (2 sec), while the Watch Default Time screen is displayed - to access the DC Surface Main screen.

If no other dive has been conducted within the past 24 hours, the NORM Surface Main will appear as the default display indicated by the graphic Nor (Fig. 23). If a GAUG or FREE dive has been conducted within the past 24 hours, the Surface Main screen for that Operating Mode will be displayed.

- The GAUG and FREE Surface Main screens can be accessed by depressing M (2 sec). Their graphics will flash indicating that they can be selected as the Operating Dive Mode.
- To select a Mode for diving, press/release M (< 2 sec) while that graphic is flashing. When the graphic becomes solid, that Mode is selected for the type of dives to be conducted.
- The Operating Mode selected (NORM, GAUG, or FREE) will remain on display for 2 hours until a dive is made or another Operating Mode is selected.

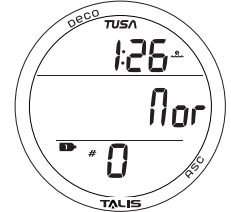


Fig. 23 - NORM SURF MAIN

At any time while operating in Surface Modes, the Talis will enter Dive Mode upon descent to 5 FT (1.5 M).

- During the 2 hour pre dive surface period, if other screens in the Watch Mode sequence are accessed, Surface Mode must again be accessed prior to the first dive of a series (if Wet Activation is set OFF).
- When Wet Activation is set ON, the Wet Contacts will activate the selected Dive Mode regardless of what Mode the Talis is operating in at the time of the descent.

The Talis will enter Post Dive Surface Mode following a dive upon ascent to 2 FT (0.6 M). The Surface Interval Time colon will flash during the first 10 minutes after a NORM or GAUG dive (Fig. 24), or 1 minute after a FREE dive.

During the first 10 minutes after a dive, the Surface Main screen for the operating mode remains on display. Watch Default Time can be viewed for 5 seconds during that period by pressing M (< 2 sec).

When the 10 minute Surface Time has elapsed, the Watch Default Time screen will replace the DC Surface Main screen which can then be accessed by M (2 sec).

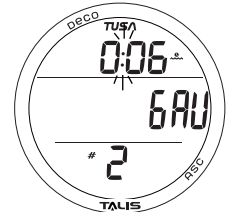


Fig. 24 - GAUG SURF MAIN
(< 10 min after a dive)

NORM SURF MAIN, information provided includes (Fig. 25):

- > Surface Interval Time (hr:min) with clock/wave icon.
- > Graphic Nor.
- > Tank 1 icon (default on surface); or 2 (the Gas in use during 10 minutes after a dive).
- > Number of that dive with # icon, 0 if no dive has been made yet.
- > Battery icon if a Low Battery condition exists.
- > NiBG, if any after a NORM or FREE dive.

- A (2 sec) - to access NORM SURF ALT.
- A (< 2 sec) - to access Log Mode and History.
- A & S (2 sec) - to access Set Modes.
- M (2 sec) - to access GAUG and FREE Surface Mains.
- M (< 2 sec) - to access to Watch Default Time.
- S (< 2 sec) - to access Plan, Fly, and Dsat.
- L (press) - to activate the Backlight.

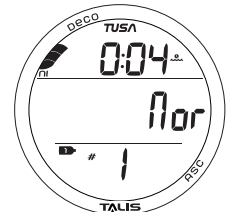


Fig. 25 - NORM SURF MAIN

NORM SURF ALT, information includes (Fig. 26):

- > % O2 saturation remaining after Nitrox dives with icons.
- > Temperature with °F (or °C).
- > Time of Day (hr:min) with Time (clock) icon, and AWAY icon if Alternate is selected as the Watch Default Time.
- > Altitude graphic (EL2 to EL7), if above 3000 feet (915 meters), blank if below.

- A (< 2 sec) - to revert to NORM Surface Main.
- Revert to NORM Surface Main after 5 seconds if A is not pressed.
- L (press) - to activate the Backlight.

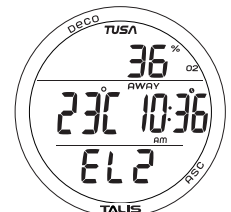


Fig. 26 - NORM SURF ALT

NORM/GAUG SET MODES

SURF MAIN > SET GAS > SET A > SET U > Serial Number.

A & S (2 sec) - to access then step through of the sequence.

Alarms (Set A) and Utilities (Set U) set points can also be set/changed using the PC/Mac settings upload program.

Set Gas (FO2 & PO2 Alarm) entries must be made using only the push buttons.

Settings remain at the values set until they are changed, and saved, as described by the following sections.

SETTING GAS FOR NITROX DIVES

For each value of FO2, the MOD (Max Operating Depth) that can be achieved for the PO2 Alarm value set, will be displayed.

When the FO2 50% Default is set On and FO2 for Gas 1 is set for a numerical value, 10 minutes on the surface after that dive, the FO2 for Gas 1 will be displayed as 50 and further dives will be calculated based on 50% O2 for oxygen calculations and 21% O2 for Nitrogen calculations (79% Nitrogen) unless the FO2 for Gas 1 is set before the dive.

FO2 for each Gas continues to reset to the FO2 50% Default after subsequent repetitive dives until 24 hours elapse after the last dive, or the FO2 50% Default is turned Off.

When the FO2 50% Default is set Off, the FO2 for each Gas will remain at the last settings for the remainder of that series of repetitive dives.

The default FO2 for Gas 1 and 2 each new dive Period is AIR.

When FO2 is set for AIR, the calculations are the same as when it is set to an FO2 of 21%. When FO2 is set to AIR, it remains set for AIR until it is set for a numerical FO2 value (21 to 100%).

When FO2 is set only to AIR, the O2 and PO2 values and/or warnings will not be displayed during the dive.

MODs affected by the PO2 value set will not be displayed when FO2 for Gas 1 is set to AIR.

Internally, the Talis keeps track of the O2 so that if FO2 for a Gas is subsequently set for a numerical value, the O2 accumulated during previous dives will be accounted for in the next Nitrox dive (during that dive period and series of repetitive dives).

Once FO2 is set for a numerical value (21 to 100%) and a dive is made, the AIR option is disabled until 24 hours elapse after the last dive. The AIR option will not be displayed in Set Gas until a full 24 hour Surface Interval has elapsed.

If the FO2 50% Default is set Off, FO2 for each Gas will remain at the values previously set until they are changed. If the FO2 50% Default is set On, FO2 will Default to 50% after the dive.

SET GAS (FO2 & PO2 ALARMS)

Group selections >> Gas 1 >> Gas 2 >> FO2 50% Default.

- A & S (2 sec), while viewing NORM Surface Main - to access the SET GAS lead-in screen (Fig. 27).
- A (< 2 sec) - to access Set Gas 1.

SET GAS 1, information includes (Fig. 28):

- > Graphic GAS (when Air), or PO2 (when Nitrox).
- > Max Depth allowed for the PO2 Alarm value displayed with MAX and FT (or M) icons (when Nitrox), blank when Air.
- > Tank 1 icon, representing Gas (mix) 1.
- > Graphic Air, or the Nitrox value of 21 to 100%, flashing.
- S (press/hold) - to scroll upward through FO2 set points 8/sec from AIR to 21 through 100% in increments of 1 %. The scroll will stop when S is released, or momentarily at 32%, then 50%, then 80%, 50%, then stop at Air (or 21%).
- S (< 2 sec) - to step upward through the FO2 set points one at a time.
- M (< 2 sec) - to step back (down) through the FO2 set points one at a time.
- A (< 2 sec) - to save the FO2 setting and flash the PO2 Alarm digits if Nitrox, or access Set Gas 2 if Air.
- S (< 2 sec) - to step upward through the PO2 Alarm set points from 1.00 to 1.60 ATA in increments of .05 ATA.
- M (< 2 sec) - to step back (down) through the PO2 Alarm set points one at a time.
- A (< 2 sec) - to save the PO2 Alarm setting and access Set Gas 2.
- A (2 sec) - to step back to the previous screen (SET GAS), without changing the setting.
- A & S (2 sec) - to revert to the SET GAS screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

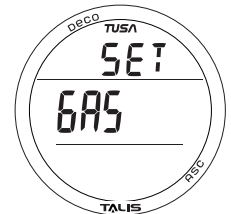


Fig. 27 - SET GAS LEAD-IN

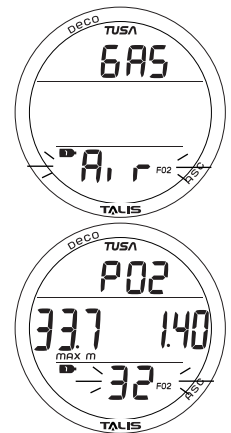


Fig. 28 - SET GAS 1
(FO2, then PO2 Alarm)

SET GAS 2 is similar to Set Gas 1.

SET FO2 50% DEFAULT, information includes (Fig. 29):

- > Graphics FO2, dFlt, and 50.
- > Graphic OFF (or ON), flashing.
- S or M (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and revert to the Set Gas screen.
- A (2 sec) - to step back to the Set Gas 2 screen, without changing the setting.
- A & S (2 sec) - to revert to the SET GAS screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

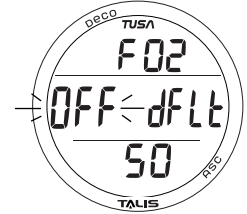


Fig. 29 - SET FO2 50% DEFAULT

SET A (ALARMS)

Group selections >> Audible >> Depth >> EDT >> NIBG >> DTR.

- > A & S (2 sec), while viewing the Set Gas screen - to access the SET A lead-in screen (Fig. 30).
- > A (< 2 sec) will then access Set Audible Alarm.

SET AUDIBLE ALARM, information includes (Fig. 31):

Due to their importance, some cautionary situations will force the Audible to sound even if this feature is set to Off.

- > Graphic AUD.
- > Graphic ON (or OFF), flashing.
- S or M (< 2 sec) - to toggle between ON and OFF.
- A (< 2 sec) - to save the setting and access Set Depth Alarm.
- A (2 sec) - to step back to the SET A screen, without changing the setting.
- A & S (2 sec) - to revert to the SET A screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

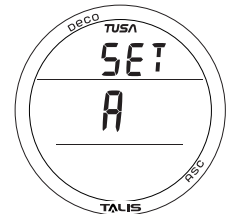


Fig. 30 - SET ALARMS LEAD-IN

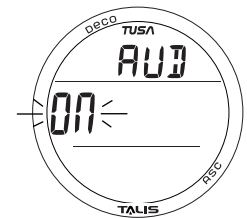


Fig. 31 - SET AUDIBLE ALARM

SET DEPTH ALARM information includes (Fig. 32):

- > Graphic DEP.
- > Depth digits, flashing, with MAX and FT (or M) icons.
- S (press/hold) - to scroll upward through set points 8/sec from 30 to 330 FT (10 to 100 M) in increments of 10 FT (1 M).
- S (< 2 sec) - to step upward through the set points one at a time.
- M (< 2 sec) - to step back (down) through the set points one at a time.
- A (< 2 sec) - to save the setting and access Set EDT Alarm.
- A (2 sec) - to step back to the Set Audible Alarm screen, without changing the setting.
- A & S (2 sec) - to revert to the SET A screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

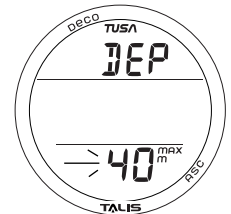


Fig. 32 - SET DEPTH ALARM

SET EDT ALARM, information includes (Fig. 33):

- > Graphic EDT (Elapsed Dive Time).
- > Time digits (hr:min), flashing, with wave/clock icon.
- S (press/hold) - to scroll upward through the set points 8/sec from 0:10 to 3:00 (hr:min) in increments of 5 minutes (:05).
- S (< 2 sec) - to step upward through the set points one at a time.
- M (< 2 sec) - to step back (down) through the set points one at a time.
- A (< 2 sec) - to save the setting and access Set NiBG Alarm.
- A (2 sec) - to step back to the Set Depth Alarm screen, without changing the setting.
- A & S (2 sec) - to revert to the SET A screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

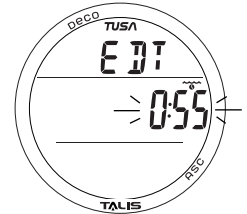


Fig. 33 - SET EDT ALARM

SET NiBG ALARM, information includes (Fig. 34):

- > Graphic NIBG (Nitrogen Bar Graph).
- > NIBG segments, flashing.
- S (< 2 sec) - to step upward through the set points from 1 to 5 segments one at a time.
- M (< 2 sec) - to step back (down) through the set points one at a time.
- A (< 2 sec) - to save the setting and access Set DTR Alarm.
- A (2 sec) - to step back to the Set EDT Alarm screen, without changing the setting.
- A & S (2 sec) - to revert to the SET A screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

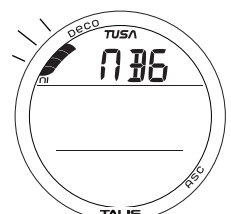


Fig. 34 - SET NiBG ALARM

SET DTR ALARM, information includes (Fig. 35):

- > Time digits (hr:min), flashing, with wave/clock/profile and AIR icons.
- S (press/hold) - to scroll upward through the set points 8/sec from 0:00 to 0:20 (min) in increments of 1 minute (0:01).
- S (< 2 sec) - to step upward through the set points one at a time.
- M (< 2 sec) - to step back (down) through the set points one at a time.
- A (< 2 sec) - to save the setting and access Set Turn Alarm.
- A (2 sec) - to step back to the Set NiBG Alarm screen, without changing the setting.
- A & S (2 sec) - to revert to the SET A screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

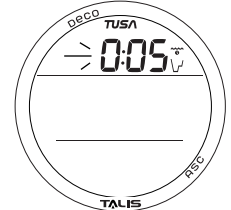


Fig. 35 - SET DTR ALARM

SET U (UTILITIES)

Group selections >> Wet Activation >> Units >> Deep Stop >> Safety Stop >> Conservative Factor >> Backlight Duration >> Sampling Rate.

- > A & S (2 sec), while viewing the SET A screen - to access the SET U lead-in screen (Fig. 36).
- > A (< 2 sec) will then access Set Wet Activation.

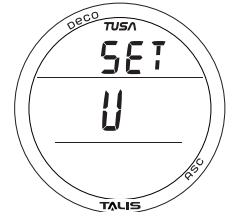


Fig. 36 - SET U (UTILITIES)

SET WET ACTIVATION, information includes (Fig. 37):

- > Graphics WET and ACT.
- > Graphic OFF (or ON) flashing.
- S or M (< 2 sec) - to toggle between ON and OFF.
- A (< 2 sec) - to save the setting and access Set Units
- A (2 sec) - to step back to the SET U screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

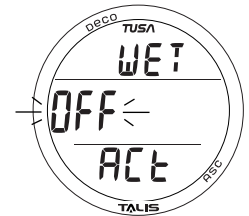


Fig. 37 - SET WET ACTIVATION

SET UNITS, information includes (Fig. 38):

- > Icons/graphics PSI, F, and FT (or BAR, C, and M), flashing.
- S or M (< 2 sec) - to toggle between Imperial and Metric.
- A (< 2 sec) - to save the setting and access Set Deep Stop
- A (2 sec) - to step back to the Set Wet screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

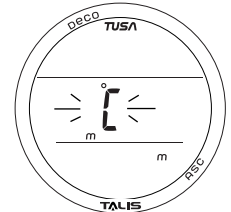


Fig. 38 - SET UNITS

SET NORM DEEP STOP, information includes (Fig. 39):

- > Graphic DS (Deep Stop).
- > Graphic OFF (or ON), flashing, with STOP icon.
- S or M (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and access Set Safety Stop.
- A (2 sec) - to step back to the Set Units screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

The DS is factory set for 1/2 Max Depth for 2 minutes.

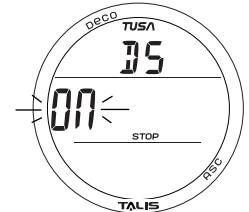


Fig. 39 - SET DEEP STOP

SET NORM SAFETY STOP, information includes (Fig. 40):

- > Graphic SAF (Safety Stop).
- > Graphic OFF (or ON), flashing, with STOP icon.
- S or M (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and access Set Conservative Factor.
- A (2 sec) - to step back to the Set Deep Stop screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

The SS is factory set for 15 FT (5 M) for 3 minutes.

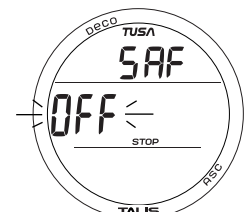


Fig. 40 - SET SAFETY STOP

SET CONSERVATIVE FACTOR, information includes (Fig. 41):

- > Graphic CF (Conservative Factor) with wave/clock/profile icon.
- > Graphic OFF (or ON), flashing.
- S or M (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and access Set Backlight Duration.
- A (2 sec) - to step back to the Set Safety Stop screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

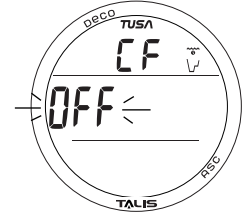


Fig. 41 - SET CONSERVATIVE FACTOR

When the Conservative Factor is set ON, the No Deco Limits are reduced to those that would be available at the next higher 3000 foot (915 meter) Altitude.

SET BACKLIGHT DURATION, information includes (Fig. 42):

- > Graphics BL (Backlight), dur (duration), and SEC (seconds).
- > Time digits (seconds), flashing, with clock icon.
- S (< 2 sec) - to step forward (up) through the set points of 0, 5, and 10 (sec) one at a time.
- M (< 2 sec) - to step back (down) through the set points one at a time.
- A (< 2 sec) - to save the setting and access Set Sampling Rate.
- A (2 sec) - to step back to the Set Conservative Factor screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

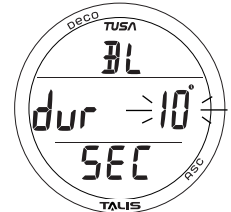


Fig. 42 - SET BACKLIGHT DURATION

This is the time interval that the Backlight will remain On after the L button that activates it is released.

SET SAMPLING RATE, information includes (Fig. 43):

- > Graphics SR (Sampling Rate) and SEC (seconds).
- > Time digits (seconds), flashing, with clock icon.
- S (< 2 sec) - to step forward (up) through the set points of 2, 15, 30, and 60 (sec) one at a time.
- M (< 2 sec) - to step back (down) through the set points one at a time.
- A (< 2 sec) - to save the setting and revert to the SET U screen.
- A (2 sec) - to step back to the Set Backlight Duration screen, without changing the setting.
- A & S (2 sec) - to revert to the SET U screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

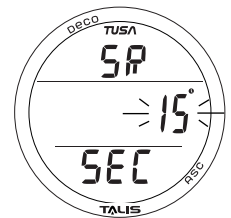


Fig. 43 - SET SAMPLING RATE

This is the frequency at which samples of data are recorded for download to the PC/Mac programs.

SERIAL NUMBER (SN), information includes (Fig. 44):

- A & S (2 sec), while viewing the SET U screen - to access the SN screen.
- > Graphic SN (Serial Number).
- > Factory programmed Serial Number (up to 6 digits).
- > Firmware (operating software) revision (e.g., graphic r1A).
- A & S (2 sec) - to access the Surface Main.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

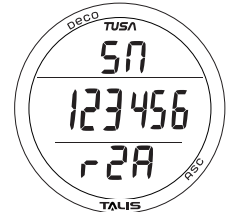


Fig. 44 - SERIAL NUMBER

The Serial Number and Firmware Revision will be requested in the event that you contact TUSA regarding the Talis. Enter them in the records section provided in the back of this manual.

NORM PLAN MODE

TUSA strongly recommends that you review the Plan Mode prior to every NORM dive to help you plan your dive as required to avoid exceeding no decompression or oxygen exposure limits. This is especially important for repetitive dives when the Plan Mode indicates adjusted dive times that are available for the next dive, based on residual nitrogen or oxygen accumulation (whichever is in control) following the last dive and surface interval.

NOTE: No Decompression Dive Times in Plan Mode are based on the FO2 setting for Gas 1. The FO2 setting for Gas 2 is not utilized for Plan calculations.

When the Conservative Factor is set ON, No Decompression Dive times are reduced to the values of the next 3000 foot (915 meter) higher Altitude.

The sequence will only be displayed up to the Max Depth that will allow theoretical No Deco Dive Time of at least 1 minute based upon the previous dive profiles in a series of repetitive dives and taking into account descent and ascent rates of 60 FPM (18 MPM).

- S (< 2 sec), while the NORM Surface Main - to access the Plan Lead-in screen.
- M (2 sec), at any time while in Plan - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

Plan Lead-in, information includes (Fig. 45A/B):

- > Graphic PLN (Plan) with wave/clock/profile icons.
- > PO2 Alarm value set for Gas 1 with graphic PO2, if Nitrox; or blank if FO2 is set for Air.
- > Tank (Gas) 1 icon.
- > FO2 set for Gas 1, Air or 21 to 100[%].

- S (< 2 sec) - to access the first Plan Depth/Time screen 30 FT (9 M).
- A (< 2 sec) - to access Time to Fly.
- A (2 sec) - to step back to the NORM Surface Main screen.

Plan Depth/Time, information includes (Fig. 46A/B):

- > NiBG (4 No Deco segments, Fig. 46a), or O2 icon (Fig. 46b) indicating whether nitrogen or oxygen is in control of calculations based on previous dives.
- > Dive Time (hr:min) allowed for the Depth displayed, with wave/clock/profile icon.
- > Max Depth allowed for the PO2 Alarm value set for Gas 1, with MAX and FT (or M) icons and graphic - PO2.
- > Tank 1 icon indicating Gas (mix) 1.
- > Plan Depth with FT (or M) icon.

- A (2 sec), at any time - to step back to the Plan lead-in screen.
- S (press/hold) - to scroll upward through the Plan Depth/Time screens 8/sec from 30 FT up to 190 FT (9 M to 57 M) in increments of 10 FT (3 M).
- S (< 2 sec) - to step upward through the screens one at a time.
- M (< 2 sec) - to step back (down) through the screens one at a time.

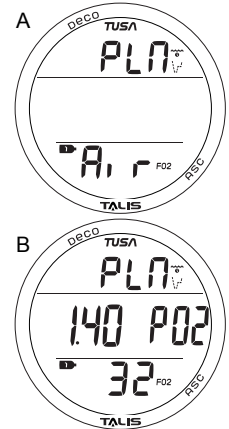


Fig. 45 - PLAN LEAD-IN

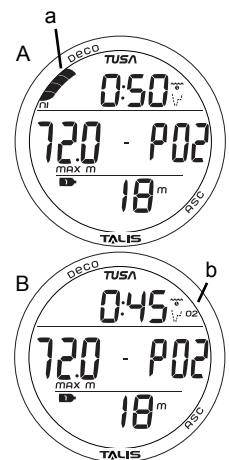


Fig. 46 - PLAN NO DECO DEPTHS, TIMES

FLY MODE

Time to Fly is a counter that begins counting down 10 minutes after surfacing from a dive from 23:50 to 0:00 (hr:min).

Ten minutes after a dive, operation reverts to the Watch Default Time screen at which time the Time to Fly countdown continues in the background. Access to the Fly screen is then gained by first accessing the NORM (or GAUG) Surface Main.

NORM Mode >> A (< 2 sec), while viewing the Plan Lead-in - to access Fly.

GAUG Mode >> S (< 2 sec), while viewing the Surface Main - to access Fly.

Time to Fly, information includes (Fig. 47):

- > Graphic FLY.
- > Countdown Time (hr:min) with clock icon.

- A (< 2 sec) - to access Desat Time if in NORM.
- A (2 sec) - to step back to the Plan Lead-in if in NORM, or revert to Surface Main if in GAUG.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.
- L (press) - to activate the Backlight.

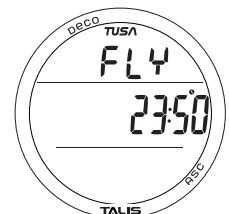


Fig. 47 - TIME TO FLY

DESAT MODE (NORM only)

This counter indicates calculated time for tissue desaturation at sea level taking into consideration the Conservation Factor setting. It begins counting down 10 minutes after surfacing from a dive, counting down from 23:50 (hr:min) max to 0:00.

When the Countdown reaches 0:00, which will generally occur prior to the Fly countdown reaching 0:00, the Desat screen displays 0:00 until the Fly counter shuts Dive Computer operations Off 24 hours after a last dive.

- > The SAT screen is not displayed after a Violation Dive.
- > Desaturation requiring times greater than 24 hours will display 23: --.
- > In the event that Time to Desaturate still remains at the end of 24 hours, the added time will be zeroed.
- > Two hours after a dive, operation reverts to the Watch Default Time and the Desat countdown continues in the background. Access to the Desat screen is then gained by first accessing NORM Surface Main.

Desat Time, information includes (Fig. 48):

- > Graphic SAT.
- > Countdown Time (hr:min) with clock icon.
- A (< 2 sec) - to revert to the Surface Main.
- A (2 sec) - to step back to the Fly Time screen.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.
- L (press) - to activate the Backlight.

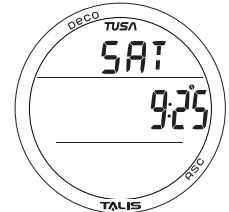


Fig. 48 - DESAT TIME

NORM/GAUG LOG MODE

Log Mode displays information from the latest 24 NORM and/or GAUG dives sequentially in reverse order (the most recent first). Log information is retained until over written by another dive. Battery removal will not affect the Log data stored for viewing.

After exceeding 24 dives, data from the most recent dive completed will be recorded in the Log and the oldest dive's data deleted.

Dives will be numbered 1 to 24 starting at #1 each time a new series of dives begins. After it shuts Off 24 hours after a dive, the first dive of the next new series will be #1.

- A (< 2 sec), while viewing Watch Default Time, NORM Surface Main, or GAUG Surface Main - to access Log Mode displaying the most recent dive's Log Preview screen.

Log Preview, information includes (Fig. 49):

- > Log (book) icon.
- > Graphic NOR (or GAU, or VIO).
- > Dive Mode (wave/clock/profile) icon, if NORM.
- > Date (m.d or d.m) the dive was conducted.
- > Time of Day the dive began (hr:min) with clock icon and AM (or PM) icon if set for 12 Hour Format.
- > # 1 (up to 24) for that series.
- S (< 2 sec) - to access that dive's Log Data 1 screen.
- S (press/hold) - to scroll through the previous dive Preview screens 8/sec, from the most recent to the oldest recorded.
- A (< 2 sec) - to access History.
- A (2 sec) - to step back to the Surface Main or Watch Default Time.
- M (< 2 sec) - to step back to the preceding dive's Log 2 screen if Nitrox, or Log 1 screen if Air or GAUG.
- M (2 sec) - to revert to the Surface Main or Watch Default Time.
- Revert to the Surface Main or Watch Default Time after 2 minutes, if no button is pressed.
- L (press) - to activate the Backlight.

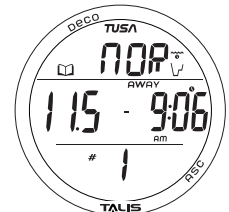


Fig. 49 - LOG PREVIEW

Log Data 1, information includes (Fig. 50):

- > Log (book) icon.
- > Pre dive Surface Interval time (hr:min) with clock/wave icon, (- : -) if no previous dive that period.
- > Temperature with °F (or °C), minimum that dive.
- > Elapsed Dive Time (hr:min) with wave/clock icon.
- > Max Depth with MAX and FT (or M) icons.
- > NiBG with the max segment flashing, others fixed up to end of dive accumulation. Blank if GAUG.
- > ASC, segments representing max Ascent Rate sustained for 4 seconds.
- S (< 2 sec) - to access that dive's Log Data 2 screen if Nitrox, or the next dive's Preview screen if not.
- M (< 2 sec) - to step back to that dive's Log Preview screen.
- M (2 sec) - to revert to the Surface Main or Watch Default Time.
- Revert to the Surface Main or Watch Default Time after 2 minutes, if no button is pressed.
- L (press) - to activate the Backlight.

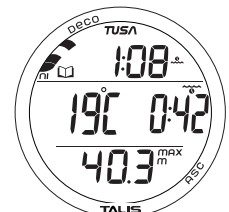


Fig. 50 - LOG DATA 1

Log Data 2 (only if NORM Nitrox), information includes (Fig. 51):

- > Log (book) icon.
 - > %O₂ accumulated at the end of the dive with icons.
 - > Max PO₂ achieved (ATA) with MAX icon and graphic PO₂.
 - > FO₂ set for the Gas in use when the dive ended with FO₂ icon.
 - > Tank 1 (or2, 3) icon representing the Gas in use when the dive ended.
-
- S (< 2 sec) - to access the next dive's Log Preview screen.
 - M (< 2 sec) - to step back to that dive's Log 1 screen.
 - M (2 sec) - to revert to the Surface Main or Watch Default Time.
 - Revert to the Surface Main or Watch Default Time after 2 minutes, if no button is pressed.
 - L (press) - to activate the Backlight.

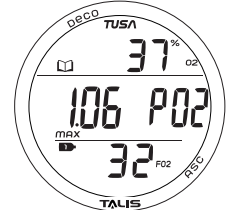


Fig. 51 - LOG DATA 2

HISTORY MODE

History information is retained indefinitely. Battery removal will not affect the History data stored for viewing.

- A (< 2 sec), while viewing the most recent dive's Log Preview screen - to access History 1.

History 1, information includes (Fig. 52):

- > Graphic HIS.
 - > Total Elapsed Dive Time recorded (up to 9999) with graphic -Hour and clock icon.
 - > Total number of all dives recorded (up to 999) with # icon.
-
- S (< 2 sec) - to access the History 2 screen.
 - A (2 sec) - to step back to the Log Preview screen of the most recent dive.
 - A (< 2 sec) or M (2 sec) - to revert to the Surface Main or Watch Default Time.
 - Revert to the Surface Main or Watch Default Time after 2 minutes, if no button is pressed.
 - L (press) - to activate the Backlight.

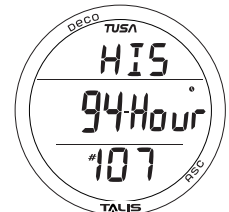


Fig. 52 - HISTORY 1

History 2, information includes (Fig. 53):

- > Graphic SEA (or EL 2 up to EL 7), max Altitude level at which a dive was ever conducted.
 - > Temperature with °F (or °C), lowest ever recorded during a dive.
 - > Max Elapsed Dive Time (hr:min) for a single dive with wave/clock icon.
 - > Max Depth with MAX and FT (or M) icons.
-
- M (< 2 sec) - to step back to the History 1 screen.
 - S (< 2 sec) or M (2 sec) - to revert to the Surface Main or Watch Default Time.
 - Revert to the Surface Main or Watch Default Time after 2 minutes, if no button is pressed.
 - L (press) - to activate the Backlight.

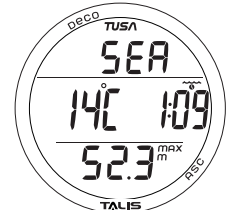


Fig. 53 - HISTORY 2

FREE Dives are not recorded in the viewable Log or History. The data is stored in memory for subsequent download to the TUSA PC/Mac interface programs.



WARNINGS:

Making decompression dives without the proper preparation and training will place you in an unnecessarily dangerous situation.

Existing data for making planned decompression dives is limited, and virtually non-existent for repetitive decompression diving.

Decompression diving greatly increases your risk of decompression sickness.

Special training, equipment, and support are necessary for diving deeper than the maximum recommended sport diving depth limit(s).

NORM DIVE MODE

NO DECO DIVE TIME REMAINING

The Talis constantly monitors No Decompression status (NDC), and O₂ accumulation (OTR), and displays whichever one is the least amount available at the time as Dive Time Remaining (DTR).

NDC is the maximum amount of time that you can stay at your present Depth before entering a Decompression situation. It is calculated based on the amount of Nitrogen absorbed by hypothetical tissue compartments.

The rates each of these compartments absorb and release Nitrogen is mathematically modeled and compared against a maximum allowable Nitrogen level.

Whichever one is closest to this maximum level is the controlling compartment for that Depth. Its resulting value will be displayed as NDC (Fig. 54a) and the NiBG (Fig. 54b).

As you ascend from Depth during a dive, the NiBG segments will recede as control shifts to slower compartments.

This is a feature of the Decompression model that is the basis for multilevel diving, one of the most important advantages that the Talis offers.

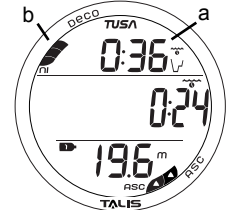


Fig. 54 - NDC

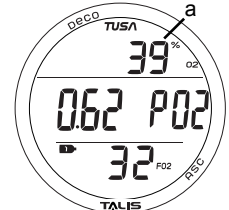


Fig. 55 - %O₂ (accumulated)

Oxygen Accumulation

If FO₂ was set for Nitrox, the %O₂ will be displayed on an Alternate screen (Fig. 55a). The % value will increase to represent oxygen accumulation for that dive, or 24 hour period, whichever amount is greater.

When O₂ Time Remaining (OTR) becomes less than NDC, it is displayed on the Main Dive screen in place of NDC.

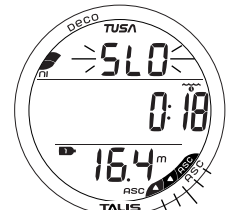


Fig. 56 - ASCENT ALARM

ASCENT RATE INDICATOR (ASC)

The ASC shows how fast you are ascending. When you exceed the maximum recommended Ascent Rate for the depth you are at, the Audible will sound during which time all segments of the ASC and the graphic SLO will flash on the Main Dive screen (Fig. 56). The flashing will stop and normal information restored when the audible is silenced or your Ascent Rate is slowed below the allowed rate.

The Ascent Rate alarm is based upon 2 sets of speeds which change at a reference depth of 60 FT (18 M). Refer to ascent rate information provided in the Specifications section in the back of this manual.

WARNING: At depths greater than 60 FT (18 M), Ascent Rates should not exceed 60 FPM (18 MPM). At depths of 60 FT (18 M) and shallower, Rates should not exceed 30 FPM (9 MPM).

NO DECOMPRESSION DIVE MODE

When Wet Activation is set On, the Talis will enter the No Deco Dive Mode upon descent to 5 FT (1.5 M) for 5 seconds.

When Wet Activation is set Off, the Talis will not enter Dive Mode upon descent unless it is operating in one of the NORM Dive Computer modes (menus) at that time. Modes such as Surface Mode, Plan, Fly, etc.

No Deco Main, information includes (Fig. 57):

- > DTR (hr:min) with wave/clock/profile icon.
- > EDT (hr:min) with wave/clock icon.
- > Tank icon, Gas in use (1 or 2).
- > Current Depth with FT (or M) icon.
- > NiBG, ASC - if applicable.

- A (< 2 sec) - to access the ALT 1 screen.
- A (2 sec) - to view the Deep Stop Preview, if set On and activated.
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence alarms.
- L (press) - to activate the Backlight.

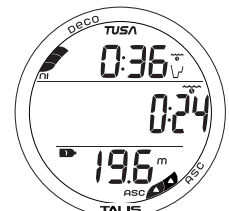


Fig. 57 - NO DECO MAIN

NORM No Deco ALT 1, information includes (Fig. 58):

- > Temperature with °F (or °C).
- > Time of Day (hr:min), this is the Watch Default Time.
- > Max Depth with MAX and FT (or M) icons.

- A (< 2 sec) - to view ALT 2 if Nitrox, or revert to the Main if not.
- Revert to the Main after 5 seconds, if A is not pressed.
- L (press) - to activate the Backlight.

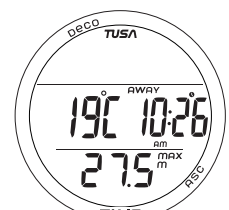


Fig. 58 - NO DECO ALT 1

NORM No Deco ALT 2 (only if Nitrox), information includes (Fig. 59):

- > %O2 accumulated with icons.
 - > PO2 (ATA) with graphic PO2
 - > FO2 set for the Gas in use with FO2 icon.
 - > Tank icon, indicating the Gas in use (1 or 2)
- A (< 2 sec) - to revert to the Main.
 - Revert to the Main after 5 seconds, if A is not pressed.
 - L (press) - to activate the Backlight.

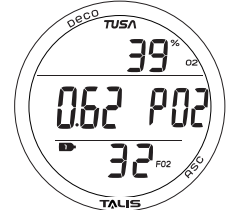


Fig. 59 - NO DECO ALT 2

ALT screens cannot be accessed during the time when an Alarm is sounding.

NO DECO DEEP STOP

On any No Deco dive in which Depth exceeds 80 FT (24 M), a Deep Stop Preview screen (Fig. 60) can be accessed that will display the graphic DS (meaning Deep Stop) and a recommended Stop Depth calculated to be 1/2 the Max Depth and a Stop Time of 2:00 (2 minutes) with a STOP icon. It will revert to the Main after 5 seconds.

- > The intent of this screen is to suggest that a Stop should be made as indicated to help reduce tissue nitrogen loading prior to final ascent.
- > The Preview screen will not be available for viewing once you ascend above the Stop Depth.

NOTE: The Deep Stop is not required and although recommended, it does not have to be taken. There is no penalty if the Stop is ignored and ascent (or other activity) is continued.

Upon ascending to within 10 FT (3 M) below the calculated Stop Depth, the DS Main screen (Fig. 61) will appear displaying the calculated Stop Depth with FT (or M) and STOP icons and the Timer that counts down from 2:00 to 0:00 (min:sec) with clock icon. Also displayed will be Dive Time Remaining (hr:min) with mode icon, Tank icon (Gas 1 or 2), current Depth with FT (or M) icon, and applicable bar graphs.

- A (< 2 sec) - to view ALT 1 that displays Elapsed Dive Time.
- A (< 2 sec) again - to view ALT 2 that displays Temperature, Time of Day, and Max Depth.
- A (< 2 sec) again, if Nitrox - to view ALT 3 that displays %O2, PO2, and FO2 set for the Gas in use.
- M (2 sec) - to access the Gas Switch Routine.
- L (press) - to activate the Backlight.

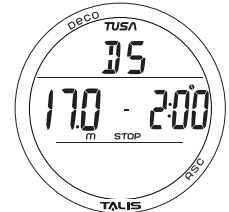


Fig. 60 - DS PREVIEW



Fig. 61 - DS MAIN

When the DS countdown reaches 0:00, the No Deco Main will be displayed and the DS feature will be disabled for the remainder of that dive.

If you descend 10 FT (3 M) below, or ascend 10 FT (3 M) above the Stop Depth, for more than 10 seconds during the countdown, the No Deco Main will be displayed and the DS feature will be disabled for the remainder of that dive.

If you return to within the +/- 10 FT (3 M) range during the 10 seconds, the DS Main will reappear with the countdown still in progress.

The DS feature will be disabled, and its screens not displayed, for the remainder of that dive, if you enter Deco or High O2 (80%), or descend deeper than 190 FT (63 M).

During High PO2 (=> Alarm value set for the Gas in use, the DS screen information will be replaced with High PO2 information.

NO DECO SAFETY STOP

Upon ascending to 20 FT (6 M) on any No Deco dive in which Depth exceeded 30 FT (9 M), a Safety Stop (SS) screen will appear (Fig. 62) displaying a recommended Stop at 15 FT (5 M) with a Timer that counts down from 3:00 to 0:00 (min:sec).

The SS will be displayed until the countdown times reaches 0:00, or you descend below 30 FT (9 M) during the countdown, or you surface during the countdown.

- > Like the DS, there is no Penalty for surfacing prior to completing the SS.
- > There is no Preview screen associated with the Safety Stop.

SS Main display information includes Dive Time Remaining (hr:min) with mode icon, Stop Depth (15 FT or 5 M) with STOP icon, Countdown Timer (min:sec) with clock icon, Tank icon (Gas 1 or 2), Current Depth with FT (or M) icon, and applicable bar graphs.

- A (< 2 sec) - to view ALTs (similar to those for DS).
- M (2 sec) - to access the Gas Switch Routine.
- L (press) - to activate the Backlight.

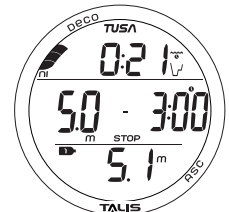


Fig. 62 - SS MAIN

CAUTIONARY MODES

DECOMPRESSION

Decompression mode activates when theoretical No Decompression time and depth limits (NDLs) are exceeded.

Upon Entry into Deco, the Audible will sound until acknowledged or 10 seconds. While it is sounding, the UP Arrow icon, Stop Bar icon, and full NiBG will flash to alert you.

Deco Entry, information includes (Fig. 63):

- > TAT** (hr:min) with Deco mode icon (wave/clock/profile/stop bar), stop bar flashing until the audible is silenced.
- > Stop Depth required with FT (or M) and STOP icons.
- > Stop Time (hr:min) required with clock icon.
- > Tank icon, Gas in use (1 or 2).
- > Current Depth with FT (or M) icon.
- > UP Arrow icon, flashing until you ascend to within 10 FT (3 M) below the Stop Depth indicated, then it will be removed.
- > Full NiBG, flashing during the Audible, then solid.
- > ASC while ascending.

- S (< 2 sec) - to acknowledge/silence the Audible.
- L (press) - to activate the Backlight.

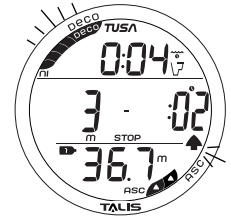


Fig. 63 - DECO ENTRY

***TAT represents Total Ascent Time which includes time required for all deco stops plus vertical ascent time to the surface.*

NOTE: Upon entry into Deco, the Deep and Safety Stop features are disabled for the remainder of that dive, even if No Deco status is regained.

Managing Decompression Stops

To fulfill your decompression obligation, you should make a safe controlled Ascent to a depth slightly deeper than, or equal to, the Stop Depth indicated and decompress for the Stop Time indicated.

The amount of decompression credit time that you receive is dependent on Depth, with slightly less credit given the deeper you are below the Stop Depth indicated.

Deco Stop Main, information includes (Fig. 64):

- > TAT (hr:min) with Deco mode icon (Stop bar solid).
- > Stop Depth with FT (or M) and STOP icons.
- > Stop Time (hr:min) with clock icon.
- > Tank icon, Gas in use (1 or 2).
- > Current Depth with FT (or M) icon.
- > Full NiBG, solid.

- A (< 2 sec) - to view ALT screens (similar to those for DS).
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence alarms.
- L (press) - to activate the Backlight.

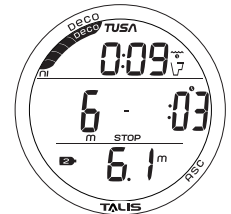


Fig. 64 - DECO STOP MAIN

CONDITIONAL VIOLATION (CV)

If you ascend shallower than the calculated Deco Stop Depth, the Audible will sound until acknowledged or 10 seconds.

- > While above the Stop Depth no off gassing credit will be given.
- > If you descend below the Stop Depth before 5 minutes have elapsed, operation will continue to function in Deco and off gassing credit will resume.
- > If you remain above the Stop Depth for 5 minutes, operation will enter Delayed Violation.

CV Main, information includes (Fig. 65):

- > TAT (hr:min) with Deco mode icon (stop bar flashing).
- > Stop Depth with FT (or M) icon and STOP icon (flashing).
- > Stop Time (hr:min) with clock icon.
- > Down Arrow icon (flashing).
- > Tank icon, Gas in use (1 or 2).
- > Current Depth with FT (or M) icon.
- > Full NiBG, solid.

- A (< 2 sec) - to view ALT screens (similar to those for Deco).
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence alarms.
- L (press) - to activate the Backlight.

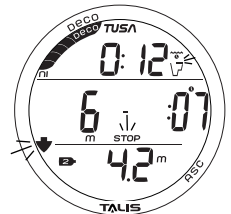


Fig. 65 - CV MAIN

**Upon entry into the following Violation modes, the Alarm will sound, even if set Off.
When these events occur, the Alarm cannot be acknowledged (silenced) by pressing S.**

DELAYED VIOLATION 1 (DV1)

If you remain above the required Deco Stop Depth for more than 5 minutes, the full NiBG will flash until you descend below the required Stop Depth. This is a continuation of CV.

DV1 Main, information includes (Fig. 66):

- > TAT (hr:min) with Deco mode icon (stop bar flashing).
- > Stop Depth with FT (or M) icon and STOP icon (flashing).
- > Stop Time (hr:min) with clock icon.
- > Down Arrow icon (flashing).
- > Tank icon, Gas in use (1 or 2).
- > Current Depth with FT (or M) icon.
- > Full NiBG, flashing.

- A (< 2 sec) - to view ALT screens (similar to those for Deco).
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence other alarms.
- L (press) - to activate the Backlight.

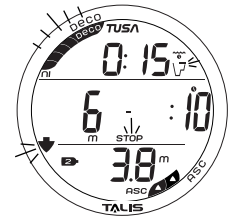


Fig. 66 - DV1 MAIN

DELAYED VIOLATION 2 (DV2)

If Decompression requires a Stop Depth between 60 and 70 FT (18 and 21 M), the full NiBG and TAT digits will flash.

When this occurs, you must make a controlled ascent to just deeper than, and stay as close as possible to, 60 FT (18 M) without causing the NiBG and TAT to flash.

When the Deco Stop Depth indicates 50 FT (15 M), etc., you can ascend to those Stop Depths and continue decompressing.

DV2 Main, information includes (Fig. 67):

- > TAT (hr:min) flashing* with Deco mode icon (stop bar flashing*).
- > Stop Depth with FT (or M) icon and STOP icon (flashing*).
- > Stop Time (hr:min) with clock icon.
- > Tank icon (Gas 1 or 2).
- > Current Depth with FT (or M) icon.
- > Full NiBG, flashing*.

**Flashing stops when within 10 FT (3 M) below the required Stop Depth.*

- A (< 2 sec) - to view ALT screens (similar to those for Deco).
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence other alarms.
- L (press) - to activate the Backlight.

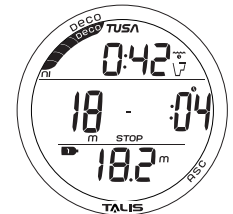


Fig. 67 - DV2 MAIN

DELAYED VIOLATION 3 (DV3)

If you descend deeper than the MOD (Max Operating Depth) of 330 FT (99.9 M), the Up Arrow icon will flash, and the Current Depth will only display 3 dashes (---) flashing signifying that you are Out of Range. Max Depth on the ALT screen will only indicate 3 dashes (---).

Upon ascending above 330 FT (99.9 M), the Current Depth display will be restored, however, Max Depth will only display 3 dashes for the remainder of that dive. Also, the Log for that dive will display 3 dashes as the Max Depth achieved.

DV3 Main, information includes (Fig. 68):

- > DTR as 0:00 (hr:min) with wave/clock/profile icon.
- > EDT (hr:min) with wave/clock icon.
- > Tank icon, Gas in use (1 or 2).
- > Up Arrow icon (flashing).
- > Current Depth as 3 dashes (---) (flashing) with FT (or M) icon.
- > NiBG.
- > ASC while ascending.

- A (< 2 sec) - to view ALT screens (similar to those for No Deco).
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence other alarms.
- L (press) - to activate the Backlight.

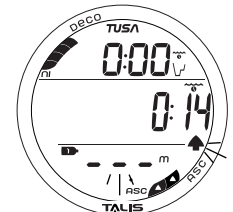


Fig. 68 - DV3 MAIN

VIOLATION GAUGE MODE (VGM)

If calculations require a Deco Stop Depth greater than 70 FT (21 M), or if Deco is entered while operating in FREE Mode (described later), operation will enter Violation Gauge Mode (VGM) for the remainder of that dive and for 24 hours after surfacing.

VGM turns the Talis into a digital instrument without any nitrogen or oxygen calculations or monitoring functions or displayed information until 24 contiguous hours elapse on the surface with no dives.

VGM Main, information includes (Fig. 69):

- > Graphic VIO, flashing until the audible is silenced then solid.
- > EDT (hr:min) with wave/clock icon.
- > Tank icon, Gas in use (1 or 2).
- > Current Depth with FT (or M) icon.
- > Up Arrow icon, flashing until on surface.
- A (< 2 sec) - to view ALT screens (similar to those for No Deco).
- M (2 sec) - to access the Gas Switch Routine.
- S (< 2 sec) - to acknowledge/silence alarms.
- L (press) to activate Backlight.

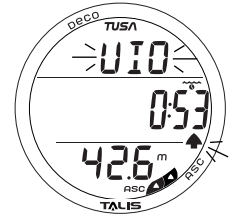


Fig. 69 - VGM DIVE MAIN

Operation will also enter VGM 5 minutes surfacing from a dive in which a Delayed Violation (1, 2, or 3) occurred.

Once on the surface, VGM does not allow access to the Set Gas, Plan, Fly, and Dsat features/screens.

This condition is a Permanent Violation, and in the event that a dive is made during the 24 hour period, a full 24 hour surface interval must then be served before all functions are restored.

VGM Main (on surface), information includes (Fig. 70):

- > Surface Interval Time (hr:min) with clock/wave icon.
- > Graphics Vio and Nor, alternating for 24 hours.
- > Tank (Gas 1) icon.
- > Dive number with # icon.
- > Battery icon if low battery condition.
- A (2 sec) - to access SURF ALT.
- A (< 2 sec) - to access Log Mode, then History.
- A & S (2 sec) - to access Set modes.
- M (< 2 sec) - to revert to the Watch Default Time screen.
- S (< 2 sec) - to access Time to Fly*, Plan mode is bypassed.
- L (press) - to activate the Backlight.

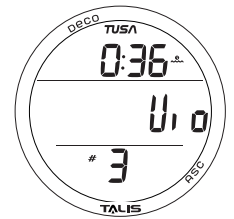


Fig. 70 - VGM SURF MAIN

**The countdown timer that appears when you access Fly is only provided to inform you of the time remaining before normal Dive Computer operation can resume with full features and functions.*

HIGH PO2

When partial pressure of oxygen (PO2) increases to 0.20 (ATA) less than the PO2 Alarm value set for the Gas in use*, the Audible will sound.

**While in Deco, High PO2 will only alarm at 1.60.*

- > The graphic PO2 and Up Arrow icon will be displayed flashing on the Main (Fig. 71) until the Audible is silenced, then the graphic PO2 will alternate with NDC time if in No Deco (Fig. 72), or TAT if in Deco, until PO2 decreases to 0.20 (ATA) below the alarm value set.
- > The current value of PO2 can be viewed on the No Deco ALT 2, or Deco ALT 3, screen.

- S (< 2 sec) - to acknowledge/silence the Audible.
- A (< 2 sec) - to view ALT screens.
- M (2 sec) - to access the Gas Switch Routine.
- L (press) - to activate the Backlight.

- > When PO2 reaches the Alarm value set for the Gas in use, the Audible will sound again.
- > The Up Arrow icon will flash on the Main screen until PO2 decreases 0.20 (ATA) below the alarm setting.

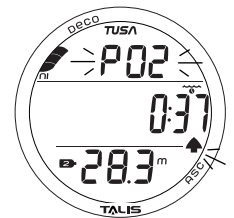


Fig. 71 - HIGH PO2 MAIN
(during Audible)

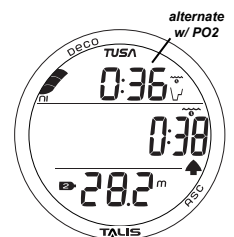


Fig. 72 - HIGH PO2 MAIN
(after Audible)

HIGH O₂

The %O₂ represents oxygen accumulated as a result of the repetitive Nitrox dives you have conducted during that operating period. The %O₂ displayed on the ALT screen lets you monitor how close you are coming to the limits of oxygen exposure.

If the theoretical amount of oxygen accumulated reaches 80% of the limit for a single exposure, or 24 hour period (240 OTU = 80%), the Audible will sound during which the O₂ % value flashes in place of NDC time if in No Deco, or TAT if in Deco (Fig. 73).

If O₂ reaches 100% of the exposure limit (300 OTU), the Audible will sound again, 100 % O₂ will replace NDC or TAT (Fig. 74), and the Up Arrow icon will flash until on the surface.

- S (< 2 sec) - to acknowledge/silence the Audible.
- A (< 2 sec) - to view ALT screens.
- M (2 sec) - to access the Gas Switch Routine.
- L (press) - to activate the Backlight.

Upon surfacing, operation will lock into NORM mode until the O₂ decreases below 100%. Access to Watch Mode is allowed but access to GAUG and FREE is blocked.

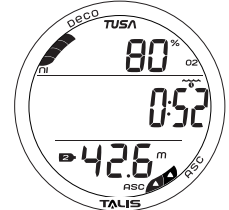


Fig. 73 - O₂ WARNING
(No Deco, during Audible)

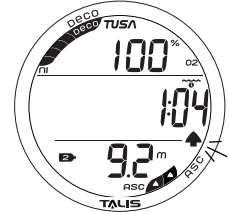


Fig. 74 - O₂ ALARM
(Deco, until on surface)

RESPONSIBLE COMPUTER DIVING

- Plan each dive, and dive your plan. The Talis was not designed to make decisions for you, only to provide you with the information you need to make responsible decisions for yourself. This begins with a dive Plan that will help you avoid a low air or decompression situation.
- Do not plan any dive that exceeds your training or experience level.
- Inspect your Talis before every dive. If it shows any signs of damage or abnormal function, DO NOT dive with it until it has received factory prescribed service.
- Make a Safety Stop at 15 to 20 FT (4.5 to 6 M) at the end of every dive. It's important, don't forget it.
- You should make every effort to complete all of your ascents with the Nitrogen Bar Graph inside the normal No Decompression zone.
- If you inadvertently entered Decompression, you should not complete your ascent until the Nitrogen Bar Graph is at least inside the No Decompression Caution Zone.
- While you cannot provide a guarantee against the occurrence of decompression sickness, you may choose your own personal zone of caution based upon your individual age, physique, excessive weight, training, experience, etc. to reduce the statistical risk. By not pushing the limits, you can establish and adjust your personal level of conservatism and margin of safety.

SWITCHING GAS MIXES

SWITCHING (NORM)

During NORM Dives, the Talis can be manually switched from Gas 1 to Gas 2, changing FO2 displays and calculations.

Switching from one Gas to another cannot be performed while on the surface.

Every dive begins with Gas 1, and 10 minutes after surfacing from a dive, operation defaults to the Gas 1.

Access to Switching screens can only be accomplished during the time that a Dive Main screen is being displayed and cannot be performed during the time that an Alarm is sounding.

If a Switch to a new Gas would expose the diver to a prohibitive PO2 level of 1.60 ATA or greater, the Audible will sound during which a message will be displayed (Fig. 75).

Due to the possibility that sufficient air may not be available in the Switch From tank to complete the dive, the switch to the prohibitive mix can still be made. If the switch is made to the prohibitive mix, the High PO2 Alarm will activate.

Switching of Gas mixes can only be performed during the time that a Gas Switch Preview screen is being displayed. These are accessed from a Dive Main screen.

- M (2 sec), while viewing a Dive Main will access the Gas 1 Switch Preview screen.
- Operation will revert to the Dive Main after 10 seconds of no further M button action.

Gas 1 Switch Preview, information includes (Fig. 76) -

- > Graphics GAS - 1.
- > FO2 set for Gas 1 with icon.
- > Tank 1 (Gas) icon.

- M (< 2 sec) - to access the Gas 2 Switch Preview.
- M (2 sec) - to switch to Gas 1 after 3 sec, then revert to the Main with calculations/displays based on Gas 1.

Gas 2 Switch Preview, information includes (Fig. 77) -

- > Graphics GAS - 2.
- > FO2 set for Gas 2 with icon.
- > Tank 2 (Gas) icon.

- M (< 2 sec) - to access the Gas 1 Switch Preview.
- M (2 sec) - to switch to Gas 2 after 3 sec, then revert to the Main with calculations/displays based on Gas 2.



Fig. 75 - DON'T SWITCH GAS ALARM

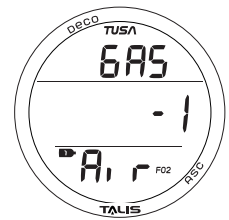


Fig. 76 - GAS 1 PREVIEW

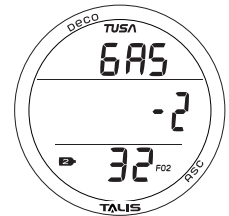


Fig. 77 - GAS 2 PREVIEW

NORM

POST DIVE MODE

POST DIVE, FIRST 10 MINUTES ON SURFACE

When you ascend to 2 FT (0.6 M) for 1 second, the Surface Main screen will be displayed. If you descend during the first 10 minutes after surfacing (referred to as the Transition Period), time underwater will be considered a continuation of that dive. The time at the surface (if less than 10 minutes) will not be added as Dive Time.

NORM Surface Main, information includes (Fig. 78):

- > Surface Interval Time (hr:min), colon flashing, with clock/wave icon.
- > Graphic Nor.
- > Tank (Gas 1) icon, default on surface.
- > Number of that dive with # icon.
- > Battery icon if a Low Battery condition, flashing if Too Low.
- > NiBG.

- A (< 2 sec) - to access the Log Preview for that dive.
- A (2 sec) - to access Surface ALT screens*.
- M (< 2 sec) - to access Watch Default Time.
- L (press) - to activate Backlight.

**Other modes (e.g., Plan, Fly, Sat, Set) are only accessible after 10 minutes elapse on the surface.*

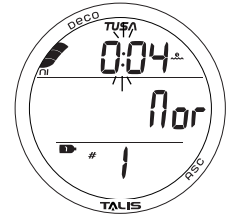


Fig. 78 - NORM SURF MAIN
(< 10 min after surfacing)

POST DIVE, AFTER 10 MINUTES ON SURFACE

Once 10 minutes have elapsed, the Surface Interval time colon will stop flashing indicating that the Dive and Transition Period are completed, and a subsequent descent will be considered a new dive. Operation will revert to Watch Default Time.

The NORM Surface Main screen can be then be accessed by depressing M (2 sec). You will then have full access to other DC surface modes (e.g., Plan, Fly, Sat, Set, etc.).

- S (< 2 sec) - to access Plan Mode. *Adjusted NDIs will be displayed based on residual nitrogen and accumulated oxygen calculated to be remaining from the previous dives.*
- A (< 2 sec), while viewing the first Plan screen - to access Time to Fly (Fig. 79), then again to access Time to Desaturate (Fig. 80).
 - > The Dsat counter provides calculated time for tissue desaturation at sea level.
 - > If a Violation occurred during the dive, the Dsat screen will not be displayed.

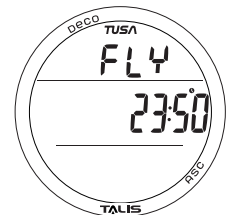


Fig. 79 - TIME TO FLY

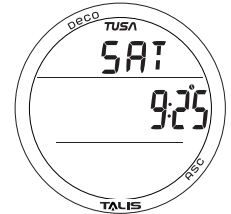


Fig. 80 - DSAT TIME

UPLOADING SETTINGS AND DOWNLOADING DATA

The Talis is configured with a Data Port that enables it to be connected to a PC or Mac USB port using a special Interface Cable available as a separate option.

A USB Driver is provided as part of the interface system, a separate option.

The Settings Upload portion of the program can be used to set/change Main Time, Date, Set A group (Alarms), and Set U group (Utilities). The Set Gas group (FO2, PO2 Alarms) and FREE Mode Alarms must be entered using the Talis's button controls.

Information available for retrieval (Download) from the Talis to the Download portion of the program includes dive number, surface interval time, maximum depth, elapsed dive time, start date, start time, lowest temperature underwater, sampling rate, dive profile, Set Points, NiBG, %O2, and Gas Switching events.

The Talis checks for the presence of an interface device connection to the Data Port once every second while in Watch Default Time mode. Checks are not made if the Wet Activation contacts are wet. Upon sensing an interface connection, the requesting device (PC or Mac) connects to the Talis and is prepared for Upload of settings or Download of data which are then initiated using the PC or Mac program.

Prior to attempting to Download data from your Talis or Upload Settings to it, review the Help section of the interface program. Recommended is to print those sections of Help that you consider appropriate for your Interface activities.

DIGITAL GAUGE MODE

Once a dive is made in Digital Gauge Mode, you must wait 24 contiguous hours after surfacing before the Talis resets and will operate as an Air or Nitrox dive computer in NORM Mode or FREE Dive Mode.

DIGITAL GAUGE MODE (GAUG)

When GAUG is selected as the operating mode, the Talis will operate as a Digital Depth Gauge/Timer without performing nitrogen and oxygen calculations.

- M (2 sec), while viewing the NORM Surface Main - to access Gauge Surface Main.
- M (< 2 sec), while the graphic GAU is flashing - to select GAUG as the operating dive mode. The graphic GAU becomes solid and Gauge Mode is selected.
- If no Gauge dive has been conducted, M (2 sec) will access Free Surface Main.

GAUG Surface Main, information includes (Fig. 81):

- > Surface Interval Time (hr:min) with clock/wave icon.
- > Graphic GAU.
- > Number of the recent dive conducted, 0 if no dive yet that period, with # icon.
- > Battery icon if a Low Battery, flashing if Too Low.
- A (< 2 sec) - to access Log, then History.
- A (2 sec) - to access SURF ALT.
- A + S (2 sec) - to access the Set Modes.
- S (< 2 sec) - to access Time to Fly, if a dive was conducted.
- L (press) - to activate the Backlight.

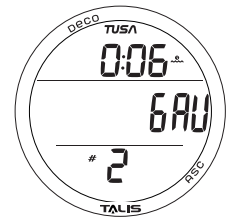


Fig. 81 - GAUG SURF MAIN

GAUG Surface ALT, information includes (Fig. 82):

- > Temperature with °F (or °C).
- > Time of Day (hr:min) with Time (clock) icon, and AWAY icon if Alternate is selected as the Watch Default Time.
- > Altitude graphic (EL2 to EL7), if above 3000 feet (915 meters), blank if below.
- A (< 2 sec) - to revert to the Surface Main, or after 5 seconds if A is not pressed.
- L (press) - to activate the Backlight.

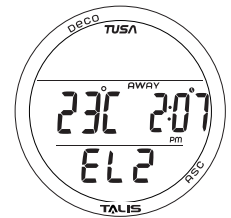


Fig. 82 - GAUG SURF ALT

GAUG Dive Main information includes (Fig.83):

- > Graphic GAU.
- > Elapsed Dive Time (hr:min) with wave/clock icon.
- > Current Depth with FT (or M) icon.
- > ASC, when ascending.
- A (< 2 sec) - to access Dive ALT.
- S (< 2 sec) - to acknowledge/silence Alarms.
- L (press) - to activate the Backlight.

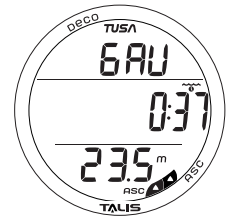


Fig. 83 - GAUG DIVE MAIN

GAUG Dive ALT information includes (Fig. 84):

- > Temperature with °F (or °C).
- > Time of Day (hr:min) with Time (clock) icon, and AWAY icon if Alternate is selected.
- > Max Depth with MAX and FT (or M) icons.
- A (< 2 sec) to revert to the Main, or after 5 seconds if A is not pressed.
- L (press) to activate Backlight.

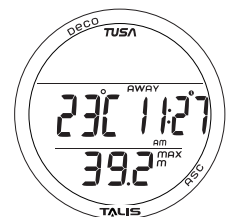


Fig. 84 - GAUG DIVE ALT

If you descend deeper than the MOD (Max Operating Depth) of 330 FT (99.9 M), Delayed Violation 3 (DV3) will be activated.

DV3 Main, information includes (Fig. 85):

- > Graphic GAU.
- > EDT (hr:min) with wave/clock icon.
- > Up Arrow icon (flashing).
- > Depth as 3 dashes (---) flashing with FT (or M) icon.
- > ASC, if ascending.
- A (< 2 sec) - to access Dive ALT.
- S (< 2 sec) - to acknowledge/silence Alarms.
- L (press) - to activate the Backlight.

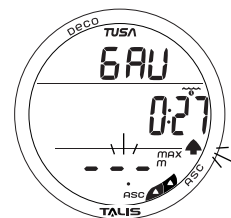


Fig. 85 - GAUG DV3 MAIN

FREE DIVE MODE

FREE DIVE MODE

When Free Dive Mode is selected, Nitrogen loading is calculated based on a default FO2 of AIR and the amount remaining during 24 hours is carried over between FREE and NORM operating modes.

- M (2 sec), while viewing the GAUG Surface Main screen - to access FREE Mode.
- M (< 2 sec), while the graphic FRE is flashing, will select FREE as the operating dive mode. The graphic FRE becomes solid and FREE Mode is selected.

FREE Surface Main, information includes (Fig. 86):

- > Graphic FRE.
- > Graphic tot with Total number of repetitive Free dives conducted (0 if none yet) in that series with # icon.
- > Surface Interval after the most recent dive (min:sec to 59:59, then hr:min) with clock/wave icon (above, next to FRE).
- > Battery icon if a Low Battery condition exists.
- A (< 2 sec) - to access ALT 1.
- A (2 sec) - to access FREE CDT Status.
- A + S (2 sec) to access the Set Alarms.
- M (< 2 sec) - to access Watch Default Time.
- L (press) - to activate the Backlight.

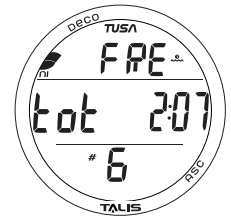


Fig. 86 - FREE SURF MAIN

FREE Surface ALT 1, information includes (Fig. 87):

- > Surface Interval prior to last dive (min:sec) with clock/wave icon.
- > Graphic LAST.
- > EDT (min:sec) of last dive with wave/clock icon.
- > Max Depth of last dive with MAX and FT (or M) icons.
- A (< 2 sec) - to access ALT 2.
- Revert to Main after 5 seconds if A is not pressed.
- L (press) - to activate the Backlight.

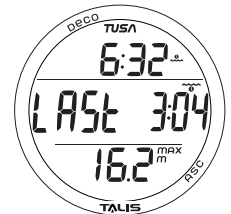


Fig. 87 - FREE SURF ALT 1

FREE Surface ALT 2, information includes (Fig. 88):

- > Temperature with °F (or °C).
- > Time of Day (hr:min) with Time (clock) icon, and AWAY icon if Alternate is selected as the Watch Default Time.
- A (< 2 sec) - to revert to the Main, or after 5 seconds if A is not pressed.
- L (press) - to activate the Backlight.

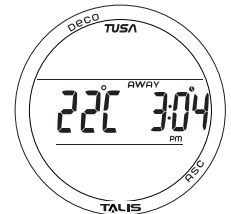


Fig. 88 - FREE SURF ALT 2

FREE COUNTDOWN TIMER (CDT)

While viewing the CDT Status screen, the Timer can be started, stopped, and set.

The Status screen displays the graphics CDT and OFF (solid) with 0:00 if no time was previously set, ON if running with Countdown Time (min:sec) remaining, or OFF flashing and the previously Countdown Time set.

Once set ON, a Countdown will run in the background until it counts down to 0:00, or it is set OFF.

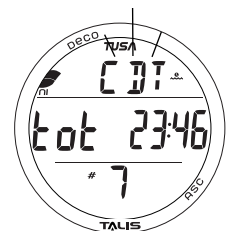
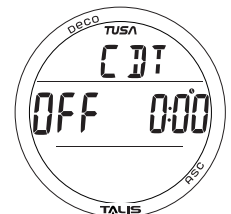
When a set Countdown Time reaches 0:00, the Audible will sound during which the graphic CDT will flash on the FREE Surface Main (Fig. 89).

Once the CDT has been Set and Started (by selecting ON), it will continue to run in the background while on the surface until turned OFF (stopped) or the Time reaches 0:00 at which time the Alarm will strike, the graphic CDT will be displayed, and the Timer will revert to OFF.

- > Upon descending to 5 FT/1.5 M (i.e., entry into Free Dive mode), CDT operation will continue, if in progress.
- > During a dive, the CDT can be turned OFF (stopped) and ON (started), but not Set.

CDT Status, information includes (Fig. 90):

- > Graphic CDT.
- > Graphic OFF (or ON) flashing. If OFF, 0:00 or the min:sec previously set. If ON, the min:sec countdown remaining.
- S (< 2 sec) - to toggle between OFF and ON. A toggle to ON will start the countdown if set and OFF.
- A + S (2 sec) - to access Set CDT.
- A (2 sec) - to step back to the FREE Surface Main screen.
- M (2 sec) - to revert to the FREE Surface Main screen
- Revert to FREE Surface Main after 2 minutes if no button is pressed.
- L (press) - to activate the Backlight.

Fig. 89 - FREE SURF MAIN
(during CDT Alarm)Fig. 90 - CDT STATUS
(Off, not set)

Set CDT, information includes (Fig. 91):

- > Graphics CDT and SEt.
- > Timer setting (min:sec), with the Minutes digits flashing.
- S (hold) - to scroll upward through Minute values (8/sec) from 0: to 59: in increments of 1: (min).
- A (< 2 sec) - to step upward through Minute values one at a time.
- M (< 2 sec) - to step back (down) through Minute values one at a time.
- A (< 2 sec) - to save the Minute setting and flash the Second digits.
- S (hold) - to scroll upward through Second values (8/sec) from :00 to :59 in increments of :01 (sec).
- S (< 2 sec) - to step upward through Second values one at a time.
- M (< 2 sec) - to step back (down) through Second values one at a time.
- A (< 2 sec) - to save the min:sec setting and revert to the CDT Status screen with the graphic OFF flashing.
- M (2 sec) - to revert to the FREE Surface Main screen
- Revert to the FREE Surface Main screen after 2 minutes if no button is pressed.
- L (press) - to activate the Backlight.

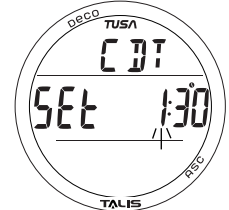


Fig. 91 - SET FREE CDT

FREE DIVE EDT (ELAPSED DIVE TIME) ALARM

The EDT Alarm is factory set for 30 seconds. When set ON, the Alarm will sound 3 short beeps and the graphic EDT and Time digits will flash every time 30 seconds elapse during dives.

- A + S (2 sec), while viewing the FREE Surface Main - to access Set Free EDT Alarm.
- > The EDT Alarm can only be Set while on the Surface and cannot be changed during a Dive.

Set EDT Alarm, information includes (Fig. 92):

- > Graphics EDT, 30 with clock icon, and SEC.
- > Graphic OFF (or ON) flashing.
- S or M (< 2 sec) - to toggle between ON and OFF.
- A (< 2 sec) - to save the setting and access Set DA 1.
- A (2 sec) - to step back to the FREE Surface Main, without changing the setting.
- A & S (2 sec) - to revert to the Surface Main.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

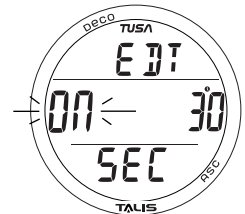


Fig. 92 - SET EDT ALARM

FREE DIVE DEPTH ALARMS (DA)

Free Dive mode features 3 Depth Alarms (DAs) that can be set at progressively deeper Depths and turned OFF/ON.

- > If Alarm 1 is set OFF, then Alarms 2 and 3 will be disabled.
- > If Alarm 2 is set OFF, Alarm 3 will be disabled.

When each alarm Depth set is reached during a dive, 3 short beeps will sound 3 times and the graphic DA1 (DA2, DA3) and the Depth digits will flash.

- A (< 2 sec), while viewing the Set EDT Alarm screen - to access Set DA1.

Set DA1, information includes (Fig. 93):

- > Graphic DA1.
- > Graphic OFF (or ON) flashing.
- > Depth digits, flashing when ON is selected, with MAX and FT (or M) icons.
- S or M (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the ON/OFF setting.
- > If OFF is selected, operation reverts to the Surface Main.
- > If ON is selected, the Depth digits will flash allowing them to be set.
- S (press/hold), if ON - to scroll upward through the Depth values 8/sec from 30 to 330 FT (10 to 100 M) in increments of 10 FT (1 M).
- S (< 2 sec) - to step upward through the Depth values one at a time.
- M (< 2 sec) - to step back (down) through the Depth values one at a time.
- A (< 2 sec) - to save the setting and access Set DA2 (or DA3); or after setting DA3 revert to Free Surface Main.
- A (2 sec) - to step back to the Set EDT Alarm screen, without changing the setting.
- A & S (2 sec) - to revert to the Surface Main.
- M (2 sec) - to revert to the Surface Main.
- Revert to the Surface Main after 2 minutes, if no button is pressed.

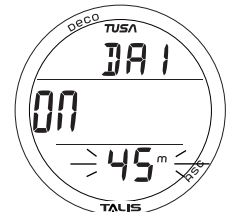


Fig. 93 - SET DEPTH ALARM

Set DA2 and DA3 are similar.

FREE Dive Main, information includes (Fig. 94) -

- > NDC Time (hr:min) with wave/clock/profile icon.
- > Temperature with °F (or °C).
- > EDT (min:sec) with wave/clock icon.
- > Current Depth with FT (or M) icon.
- > NiBG, if any after NORM or FREE dives.

- A (< 2 sec) - to access Dive ALT 1.
- L (press) - to activate the Backlight.

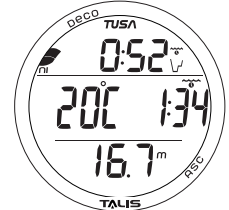


Fig. 94 - FREE DIVE MAIN

FREE Dive ALT 1 (CDT), information includes (Fig. 95) -

- > Graphics CDT, and ON (or OFF) flashing.
- > CD Time (min:sec), colon flashing and clock icon if ON and a CD in progress; OFF and 0:00, colon flashing if no time remains. If OFF, the CD Time previously set will be displayed indicating that it is set and ready to Start.

- S (< 2 sec) to toggle ON/OFF (Start/Stop the countdown).
- A (< 2 sec) - to access Dive ALT 1.
- Revert to the Main after 10 seconds if A is not pressed.
- L (press) - to activate the Backlight.

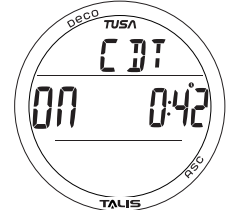


Fig. 95 - FREE DIVE ALT 1

FREE Dive ALT 2, information includes (Fig. 196) -

- > Time of Day (hr:min) with Time (clock) icon, and AWAY icon if Alternate is selected.
- > Max Depth with MAX and FT (or M) icons.

- A (< 2 sec) to revert to the Main, or after 5 seconds if A is not pressed.
- L (press) - to activate the Backlight.



Fig. 96 - FREE ALT 2

FREE DIVE ALARMS

The Dive alarms sound 3 short beeps (1 or 3 times) as an indication that an event is occurring and as a reminder to view the display to identify an event.

As the Audible sounds, a graphic identifying the event will flash in place of NDC Time.

FREE Dive alarms are separate and unaffected by NORM/GAUG mode alarm settings, and the Alarms that occur in those modes are separate and unaffected by FREE Dive alarms.

CDT Alarm

When the FREE CDT decreases to 0:00 (min:sec), 3 short beeps will sound 3 times during which the graphic CDT will flash (Fig. 97), then NDC will be restored.

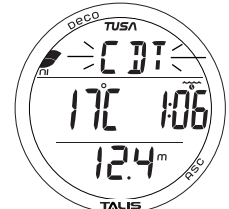


Fig. 97 - CDT ALARM

Depth Alarms

When Depth reaches the Alarm 1 set point, 3 short beeps will sound 3 times during which the graphic DA1 will flash (Fig. 98), then NDC will be restored.

The audible and flashing graphic will be repeated when Depth reaches the DA 2 and DA 3 set points, if set ON.

If Ascent is made above a Depth Alarm value and then a descent is made below it, the respective Alarm (DA) will reset and sound again.

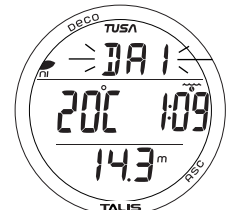


Fig. 98 - DEPTH ALARM

EDT Alarm

The EDT Alarm is factory set to repeat every 30 seconds when it is set ON prior to the dive.

When the EDT Alarm is set ON, 3 short beeps will sound during which the graphic EDT will flash (Fig. 99), then NDC will be restored.

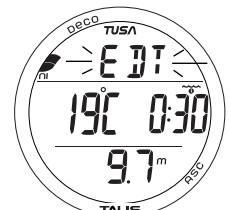


Fig. 99 - EDT ALARM

NiBG Alarm

While operating in FREE Dive mode, residual Nitrogen remaining from the FREE Dives and any previous NORM Scuba Dives conducted within 24 hours is displayed as the NiBG.

When Nitrogen loading increases to the Caution level, 3 short beeps will sound 3 times; and 4 NiBG No Deco segments, the Up Arrow icon, and the graphic NBG (in place of NDC) will be displayed (flashing) (Fig. 100).

After the beeps, the flashing will continue until the NiBG recedes to 3 segments at which time the NDC will be restored and the Up Arrow icon will be removed. In the event that Nitrogen loading increases to the Deco level, operation will enter Violation Gauge Mode for 24 hours.

Entry into Deco (Violation)

Upon entry into Deco, 3 short beeps will sound 3 times, during which the full NiBG, graphic VIO, and Up Arrow icon will flash (Fig. 101).

Upon surfacing, the Up Arrow icon will be removed, then after 10 minutes the NiBG will be removed. The graphic VIO will then alternate with FRE for 24 hours during which dive computer operation will lock into Violation Gauge Mode with access to Watch Mode allowed. Access to NORM or GAUG will be blocked.

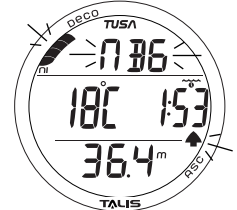


Fig. 100 - NIBG ALARM

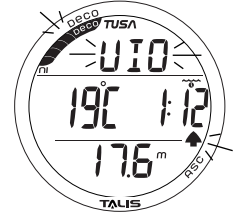


Fig. 101 - VIOLATION (DECO)

ADDITIONAL INFORMATION PERTAINING TO FREE DIVE MODE

Although breathing apparatus is not utilized for FREE Dive activities, nitrogen tissue loading remains a factor. Nitrogen loading is calculated based upon a fixed FO₂ of AIR. Since a user has the option of alternating between NORM (SCUBA) and FREE Dive activities within a 24 hour period, nitrogen calculations and the displayed value of NDC Time are carried over from one operating mode to the other, which permits the user to maintain awareness of nitrogen absorption and off gasing status.

The mathematical model currently used in the Talis is based on no decompression/decompression multilevel repetitive dive schedules. This algorithm does not take into account the physiological changes associated with the high pressures that competitive type Free diving can expose a diver to.

⚠ WARNINGS:

- **Ensure that you know which Operating Mode is selected (NORM, GAUG, or FREE) prior to commencing any dive.**
- **Conducting Free dives within a 24 hour period after conducting SCUBA dives, combined with the effects of multiple rapid Free Dive ascents, increases your risk of decompression sickness. Such activities may result in accelerated entry into decompression which could cause serious injury or death.**
- **Combining competitive type Free dive activities that involve multiple descents/ascent with activities utilizing SCUBA during the same 24 hour period is not recommended. Presently, there is no data relating to such activities.**
- **It is highly recommended that anyone planning to become involved in competitive type Free dive activities obtain proper instruction and training from a recognized Free Diving trainer. It is imperative that the physiological affects be understood and the diver is physically prepared.**

REFERENCE

CARE AND CLEANING

Protect your Talis from shock, excessive temperatures, exposure to chemicals, and tampering. Protect the lens against scratches with a Instrument Lens Protector. Small scratches will naturally disappear underwater.

- Soak and rinse the Talis in fresh water at the end of each day of diving, and check to ensure that the areas around the Low Pressure (Depth) Sensor (Fig. 102a), PC Interface Data Port (Fig. 102b), and Buttons are free of debris or obstructions.
- To dissolve salt crystals, use lukewarm water or a slightly acidic bath (50% white vinegar/50% fresh water). After removal from the bath, place the Talis under gently running water and towel dry before storing.
- Transport your Talis cool, dry, and protected.

INSPECTIONS AND SERVICE

Your Talis should be inspected annually by an Authorized TUSA Dealer who will perform a factory prescribed function check and inspection for damage or wear. To keep the 2 year limited warranty in effect, this inspection must be completed one year after purchase (+/- 30 days).

TUSA recommends that you continue to have an inspection performed every year to ensure it is working properly. The costs of annual inspections are not covered under the terms of the 2 year limited warranty.

To Obtain Service:

Take your Talis to an Authorized TUSA Dealer.

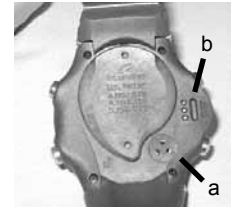


Fig. 102 - CASE BACK

TALIS BATTERY REPLACEMENT

NOTE: The procedures that follow must be closely adhered to. Damage due to improper Battery replacement is not covered by the product's warranty.

The Battery Compartment should only be opened in a dry and clean environment with extreme care taken to prevent the entrance of moisture or dust.

As an additional precautionary measure, to prevent formation of moisture in the Battery Compartment, it is recommended that the Battery be changed in an environment equivalent to the local outdoor temperature and humidity (e.g., do not change the Battery in an air conditioned environment then take it outside during a hot sunny day).

Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged. If there is any sign of moisture in the Talis, DO NOT attempt to use it for diving (NORM, GAUG, or FREE) until it receives proper factory service by TUSA.

NOTE: When the old battery is removed, settings and calculations for repetitive dives will be retained in non volatile memory for subsequent operations.

CAUTION: Damage due to improper Battery replacement is not covered by the product's warranty.

Battery Removal

- Locate the Battery Compartment on the back of the unit.
- Rotate the Battery Hatch clockwise 10 degrees using the special Battery Hatch Tool provided (Fig. 103), or - by pushing the lower portion to the left while pushing the upper portion to the right using your fingers (Fig. 104).
- Lift the Hatch with O-ring up and away from the Housing.
- Using care not to damage the Battery Contact (Fig. 105a), slide the Battery up and out of the left side of the Battery Compartment.
- Discard the Battery according to local regulations governing disposal of Lithium batteries.

CAUTION: DO NOT allow a metal object to short circuit the top of the Battery which is positive (+) to the negative (-) contact of the Battery Compartment.

Inspection

- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged.
- Remove the Battery Hatch O-ring and inspect it for any signs of deterioration or deformity. DO NOT use tools to remove the O-ring.
- To ensure proper sealing, O-ring replacement is highly recommended each time a Battery is replaced.
- Closely examine the Battery Hatch and Housing for any signs of damage that might prevent proper sealing.
- Closely examine the inside of the Battery Compartment for any signs of corrosion indicating entrance of moisture into the unit.

WARNING: If damage or corrosion is found, return your Talis to an Authorized TUSA Dealer, and DO NOT attempt to use it until it has received factory prescribed service.



Fig. 103 - BATTERY HATCH REMOVAL (tool)



Fig. 104 - ALTERNATE HATCH REMOVAL

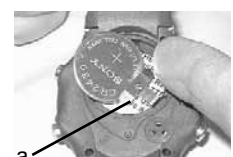


Fig. 105 - BATTERY REMOVAL

Battery Installation

- Slide a new 3 volt type CR2430 Lithium Battery, negative side down into the cavity of the compartment. Slide it in from the left side (Fig. 106) and ensure that it slides under the contact clip on the lower/right rim of the cavity.
- Lightly lubricate the new Hatch O-ring with silicone grease and place it on the inner rim of the Battery Hatch. Ensure that it is evenly seated (Fig. 107).

NOTE: The Hatch O-ring must be a genuine TUSA part that can be purchased from an Authorized TUSA Dealer. Use of any other O-ring will void the warranty.

- Carefully place the Battery Hatch (with O-ring) into position on the rim of the Battery Compartment, then press it evenly and completely down into place.
- Maintain the Hatch securely in place and turn it counter clockwise 10 degrees using the Hatch tool (Fig. 108), or by pushing the lower portion to the right while pushing the upper portion to the left using your fingers (Fig. 109).

Testing

- Activate the unit and observe the LCD is consistently clear and sharp in contrast throughout the screen.
- Set the Watch functions.
- Verify all Set Points prior to diving.
- If any portions of the display are missing or appear dim, or if a Low Battery condition is indicated, return your Talis to an Authorized TUSA Dealer for a complete evaluation before attempting to use it.



Fig. 106 - BATTERY INSTALLATION

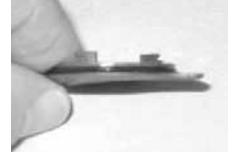


Fig. 107 - HATCH O-RING



Fig. 108 - BATTERY HATCH INSTALLATION



Fig. 109 - ALT BATTERY HATCH INSTALLATION

ALTITUDE SENSING AND ADJUSTMENT

Prior to the first dive of a series of repetitive dives, Altitude (i.e., Ambient Pressure) is measured upon activation of Dive Surface Mode and every 15 minutes until a dive is made or operation reverts to Watch Default Time.

- > While it is operating in Watch mode after a dive, measurements are taken every 15 minutes during the 24 hour period after surfacing.
- > Measurements are only taken when the unit is dry.
- > Two readings are taken, the second reading 5 seconds after the first. The readings must be within 1 foot (30 cm) of each other to record that Ambient Pressure as the current Altitude.

The Mathematical Model in the Talis accounts for the reduced No Deco Dive Times (NDLs) available based on National Oceanic and Atmospheric Administration (NOAA) guidelines.

When diving in high altitude waters from 3,001 to 14,000 feet (916 to 4,270 meters), the Talis automatically adjusts to these conditions providing corrected Depth, reduced No Deco Dive Times, and reduced Oxygen Accumulation Times at Altitude intervals of 1,000 feet (305 meters).

No adjustments are made during any time that the Wet Contacts are wet.

At an elevation of 3,001 feet (916 meters), Depth Calibration automatically changes from feet of seawater to feet of fresh water. This is the first adjustment to the Algorithm.

When the Conservative Factor feature is set On, allowable dive times are calculated based upon the next higher 3,000 foot (915 meter) Altitude. All adjustments for Altitudes greater than 11,000 feet (3,355 meters) are then made to allowable dive times for 14,000 feet (4,270 meters). If the Conservative Factor is set On while at Sea Level, calculations are based upon an Altitude of 6,000 feet.

The Talis will not function as a Dive Computer above 14,000 feet (4,270 meters).

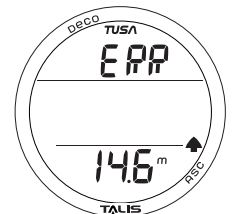


Fig. 110 - ERROR WHILE DIVING

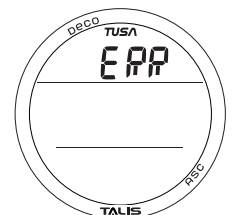


Fig. 111 - ERROR AFTER SURFACING

ERROR (RESET DURING A DIVE)

If for any reason, the Talis shuts Off then turns On again for any reason during any Dive, the message ERR (Error) will be displayed with the Up Arrow and current Depth (Fig. 110).

If this occurs, it is highly recommended that you terminate the dive and begin a safe ascent to the surface.

Upon surfacing, and any time thereafter, when access to Dive Computer Operating Mode is attempted from Watch Mode, only the message ERR will be displayed (Fig. 111).

No Dive Computer modes/screens will be accessible.

If this occurs, the Talis must be returned to the factory for evaluation/service prior to any further use for diving activities.

NO DECO & O2 LIMITS

PZ+ ALGORITHM >> NDLS (HR:MIN) AT ALTITUDE (IMPERIAL)

Altitude (feet)	0 to 3000	3001 to 4000	4001 to 5000	5001 to 6000	6001 to 7000	7001 to 8000	8001 to 9000	9001 to 10000	10001 to 11000	11001 to 12000	12001 to 13000	13001 to 14000
Depth (FT)												
30	3:17	2:30	2:21	2:14	2:08	2:02	1:57	1:52	1:47	1:39	1:34	1:29
40	1:49	1:21	1:15	1:11	1:08	1:05	1:02	1:00	0:57	0:55	0:53	0:51
50	1:05	0:53	0:51	0:49	0:47	0:44	0:42	0:39	0:37	0:35	0:34	0:33
60	0:48	0:37	0:35	0:33	0:32	0:30	0:28	0:26	0:24	0:23	0:22	0:21
70	0:35	0:26	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16	0:14
80	0:26	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:11	0:10
90	0:19	0:15	0:14	0:13	0:12	0:11	0:10	0:10	0:09	0:09	0:08	0:08
100	0:16	0:11	0:10	0:10	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:07
110	0:12	0:09	0:08	0:08	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05
120	0:10	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05
130	0:08	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04
140	0:07	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04
150	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03
160	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
170	0:05	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03
180	0:05	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03
190	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:00

PZ+ ALGORITHM >> NDLS (HR:MIN) AT ALTITUDE (METRIC)

Altitude (meters)	0 to 915	916 to 1220	1221 to 1525	1526 to 1830	1831 to 2135	2136 to 2440	2441 to 2745	2746 to 3050	3051 to 3355	3356 to 3660	3661 to 3965	3966 to 4270
Depth (M)												
9	3:37	2:41	2:31	2:23	2:16	2:10	2:04	1:59	1:54	1:50	1:43	1:37
12	1:55	1:27	1:21	1:15	1:12	1:08	1:05	1:03	1:00	0:58	0:55	0:54
15	1:08	0:55	0:53	0:51	0:49	0:47	0:44	0:42	0:39	0:37	0:36	0:34
18	0:50	0:39	0:37	0:35	0:33	0:32	0:30	0:28	0:26	0:24	0:23	0:22
21	0:36	0:28	0:26	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16
24	0:27	0:20	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:11
27	0:20	0:16	0:15	0:13	0:12	0:11	0:11	0:10	0:09	0:09	0:09	0:08
30	0:16	0:12	0:11	0:10	0:09	0:09	0:09	0:08	0:08	0:07	0:07	0:07
33	0:13	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:07	0:06	0:06	0:06
36	0:10	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05
39	0:09	0:07	0:06	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04
42	0:08	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04
45	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:04
48	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
51	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03
54	0:05	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03
57	0:05	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03

OXYGEN EXPOSURE LIMITS
(from NOAA Diving Manual)

PO2 [ATA]	Max Duration Single Exposure		Max Total Duration 24 Hour Day	
	[min]	[hr]	[min]	[hr]
0.60	720	12.0	720	12.0
0.70	570	9.5	570	9.5
0.80	450	7.5	450	7.5
0.90	360	6.0	360	6.0
1.00	300	5.0	300	5.0
1.10	240	4.0	270	4.5
1.20	210	3.5	240	4.0
1.30	180	3.0	210	3.5
1.40	150	2.5	180	3.0
1.50	120	2.0	180	3.0
1.60	45	.75	150	2.0

SPECIFICATIONS

CAN BE USED AS

- Watch
- Air Computer
- Nitrox Computer
- Digital Depth Gauge/Timer
- Free Dive Depth Gauge/Timer

DIVE COMPUTER PERFORMANCE

- Buhlmann ZHL-16c based Pelagic Z+ algorithm
- No Deco limits closely follow PADI RDP
- Decompression in agreement with Buhlmann ZHL-16c and French MN90
- No Deco Deep Stops - Morroni, Bennett
- Deco Stops (not recommended) - Blatteau, Gerth, Gutvik
- Altitude - Buhlmann, IANTD, RDP (Cross)
- Altitude corrections and O2 limits based on NOAA tables

WATCH MODES

- Default Time (selected for current location, Main or Alternate)
 - >> ALT screen (Altitude, Temp, Date)
 - >> Set - Time, Date, Format, Alt Time, Default, Show Dual
- Alternate Time (Away, remote location)
 - >> Set by hour differential
- Countdown Timer
 - >> Start, Stop, Set
- Chronograph (Stop Watch/Lap Timer)
 - >> Start, Stop, Lap Recall, Reset
- Daily Alarm
 - >> On, Off, Set

DIVE COMPUTER SURFACE SEQUENCE/MODES

- NORM >> GAUG >> FREE - Surface Mains
- SURF ALT (Altitude, Temp, Time)
- Plan (30 to 190 FT, 9 to 57 M) - NORM only
- Time to Fly - NORM, GAUG
- Time to Desaturate - NORM only
- Dive Log >> History - NORM, GAUG
- Set >> Gas, Alarms, Utilities - NORM, GAUG

NORM/GAUG SET MODES

- Set Gas Group:
 - Gas 1 - FO2 (Air, 21 to 100%) & PO2 Alarm (1.00 to 1.60)
 - Gas 2 - FO2 (Air, 21 to 100%) & PO2 Alarm (1.00 to 1.60)
 - FO2 50% Default (On/Off)
- Set A Group (Alarms):
 - Audible (On/Off)
 - Depth (30 to 330 FT, 10 to 100 M)
 - Elapsed Dive Time (:10 to 3:00 hr:min)
 - NiBG (1 to 5 segments)
 - Dive Time Remaining (5 to 20 min)
- Set U Group (Utilities):
 - Wet Activation (On/Off)
 - Units of Measure (Imperial/Metric)
 - No Deco Deep Stop (On/Off)
 - No Deco Safety Stop (On/Off)
 - Conservative Factor (On/Off)
 - Backlight Duration (0, 5, 10 sec)
 - Sampling Rate (2, 15, 30, 60 sec)

SPECIFICATIONS (CONTINUED)

<u>NUMERIC DISPLAYS:</u>	<u>Range:</u>	<u>Resolution:</u>
• Time of Day	0:00:00 to 23:59:59 hr:min.sec	1 sec
• Temperature	0 to 140°F (-9 to 60°C) 1°	
• Watch CDT	23:59 to 0:00 hr:min	1 min
• Chronograph	0:00:00.00 to 99:59:59.99 hr:min:sec_.01 sec	.01 sec
• Dive Number	0 to 24	1
• Depth (Current, Max)	0 to 330 FT (100 M)	1 FT (0.1 M)
• FO2 Set Point	Air, 21 to 100 %	1 %
• PO2 Alarm Set Point	1.00 to 1.60 ATA	0.05 ATA
• PO2 Value	0.00 to 5.00 ATA	0.01 ATA
• Dive Time Remaining	0:00 to 9:59 hr:min	1 min
• Deep Stop Time	0:00 to 2:00 min:sec	1 sec
• Safety Stop Time	0:00 to 3:00 min:sec	1 sec
• Deco Stop Time	0:00 to 9:59 hr:min	1 min
• Deco Total Ascent Time	0:00 to 9:59 hr:min	1 min
• Elapsed Dive Time	0:00 to 9:59 hr:min	1 min
• Surface Interval	0:00 to 23:59 hr:min	1 min
• Time to Fly	0:00 to 23:50 hr:min	1 min
• Time to Desaturate	0:00 to 23:50 (max) hr:min	1 min
• Violation Countdown	0:00 to 23:50 hr:min	1 min
• Free Surface Interval	0:00 to 59:59 min:sec	1 sec
• Free Surface Interval	1:00 to 23:59 hr:min	1 min
• Free Countdown Timer	0:00 to 59:59 min:sec	1 sec
• Free Elapsed Dive Time	0:00 to 59:59 min:sec	1 sec

BAR GRAPHS

Nitrogen Bar Graph:

	<u>segments</u>
• No Deco Normal zone	3
• No Deco Caution zone	1
• Deco Warning zone	1

Ascent Rate Indicator:

	<u>60 FT (18 M) & Shallower</u>			<u>Deeper than 60 FT (18 M)</u>		
	<u>segments</u>	<u>FPM</u>	<u>MPM</u>	<u>segments</u>	<u>FPM</u>	<u>MPM</u>
	0	0 - 10	0 - 3	0	0 - 20	0 - 6
• Normal Zone	1	11 - 25	3.5 - 7.5	1	21 - 50	6.5 - 15
• Caution Zone	2	26 - 30	8 - 9	2	51 - 60	15.5 - 18
• Too Fast Zone (flashing)	3 (all)	> 30	> 9	3 (all)	> 60	> 18

OPERATIONAL PERFORMANCE

<u>Function:</u>	<u>Accuracy:</u>
• Depth	±1% of full scale
• Timers	1 second per day

Dive Counter:

- NORM/GAUG displays Dives #1 to 24, FREE displays #1 to 99 (0 if no dive made yet)
- Resets to Dive #1, upon diving (after 24 hours with no dives)

NORM/GAUG Dive Log Mode:

- Stores 24 most recent NORM/GAUG dives in memory for viewing
- After 24 dives, adds 25th dive in memory and deletes the older dive

Altitude:

- Operational from sea level to 14,000 feet (4,270 meters) elevation
- Measures ambient pressure every 30 minutes in Watch Mode and when Dive Computer Mode is accessed, every 15 minutes while in NORM, GAUG, and FREE Surface Modes.
- Does not measure ambient pressure when Wet.
- Compensates for Altitudes above sea level beginning at 3,001 feet (916 meters) elevation and every 1,000 feet (305 meters) higher.

Conservative Factor:

- Reduces NORM/FREE NDLs to those for the Altitude 3,000 feet (915 meters) higher.

SPECIFICATIONS (CONTINUED)

Power:

- Battery (1) 3 vdc, CR2430, Lithium battery
- Shelf life Up to 7 years (when shipped from factory in Deep Sleep mode)
- Replacement User replaceable (annual recommended)
- Use Life 1 year or 300 dive hours if (2) 1 hour dives per dive day

Battery Indicator:

- Warning - icon on solid at 2.75 volts, Battery change recommended
- Alarm - icon on flashing at 2.50 volts, change the Battery

Dive Computer Mode Activation:

- Manual - push button (recommended), required if Wet Activation is set OFF.
- Automatic - by immersion in water (if Wet Activation is set ON)
- Cannot be manually activated deeper than 4 FT (1.2 M), if Wet Activation is set OFF.
- Cannot operate as a Dive Computer at elevations higher than 14,000 feet (4,270 meters)
- Reverts to Watch Default Time if no dive is made within 2 hours after entry into a Surface Mode.
- Reverts to Watch Default Time 10 minutes after a dive.

Operating Temperature:

- Out of the water >> between 20 °F and 140 °F (-6 and 60 °C).
- In the water >> between 28 °F and 95 °F (-2 and 35 °C).
- At extremely low temperatures, the LCD may become sluggish, but this will not affect it's accuracy. If stored or transported in extremely low temperature areas (below freezing), you should warm the unit and its battery with body heat before diving.

Storage Temperature:

- Out of the water (in storage case provided) >> between 14 °F and 158 °F (-8 and 70 °C).

PC requirements:

- IBM[®] or compatible, PC with USB Port
- Intel[®] Pentium 4 or better microprocessor
- Microsoft[®] Windows[®] XP, Vista, 7, or 8
- Super VGA card or compatible video graphics adaptor (256 color or greater) with a minimum 800 X 600 pixel screen area of display settings
- 128MB of available RAM
- 64MB of available hard drive storage
- Mouse
- CD Rom drive
- Printer

Mac requirements:

- Mac with USB Port
- OSX 10.5 or later
- Super VGA card or compatible video graphics adaptor (256 color or greater) with a minimum 800 X 600 pixel screen area of display settings
- 128MB of available RAM
- 64MB of available hard drive storage
- Mouse
- Printer
- Internet connection to download App from the Apple App Store



WARNING: If your Talis stops working for any reason while operating as a Dive Computer, it is important that you have anticipated this possibility and are prepared for it. This is an important reason for not pushing the no decompression and oxygen exposure limits, and a critical reason to avoid entering decompression. If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your Talis, a backup instrument system is highly recommended.

INSPECTION / SERVICE RECORD

Serial Number: _____

Firmware Revision: _____

Date of Purchase: _____

Purchased from: _____

Below to be filled in by an Authorized TUSA Dealer:

Date	Service Performed	Dealer/Technician

NOTES

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