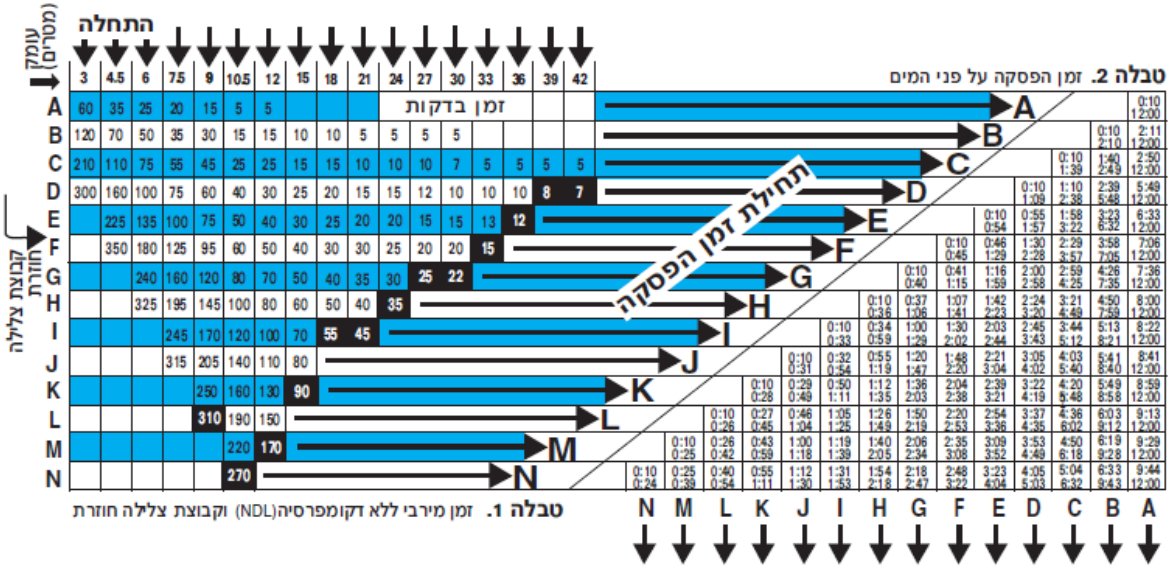


טבלה 1. זמן מירבי ללא דקומפרסיה(NDL) וקבוצת צלילה חוזרת

טבלה 2. זמן הפסקה על פני המים

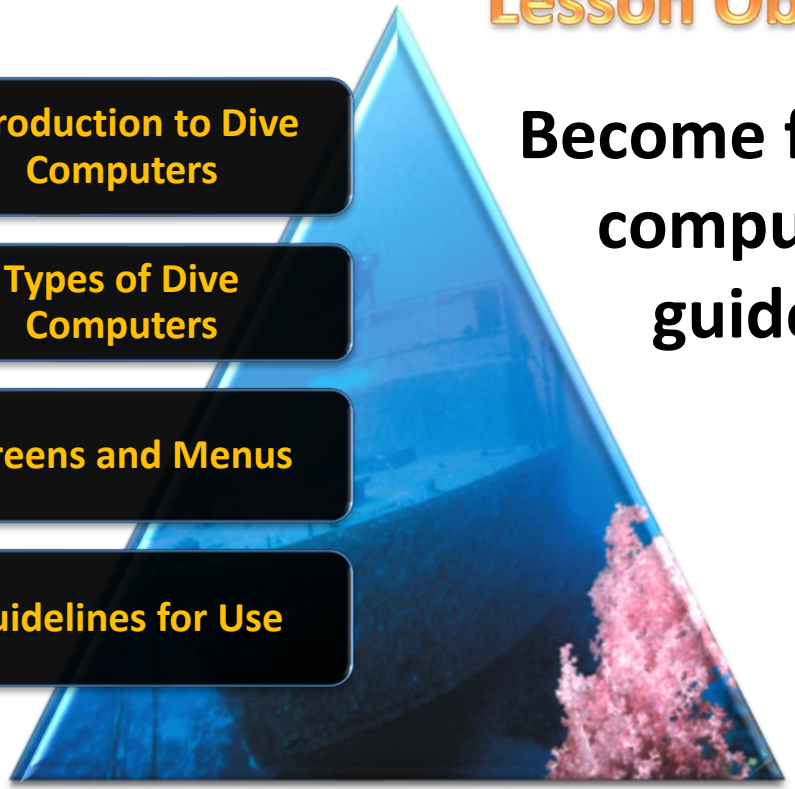
Using A Dive Computer

ההתאחדות הישראלית לצלילה
THE ISRAELI DIVING FEDERATION

Using A Dive Computer

Lesson Objectives:

- Introduction to Dive Computers
- Types of Dive Computers
- Screens and Menus
- Guidelines for Use



Become familiar with different dive computer types and the guidelines for their use.

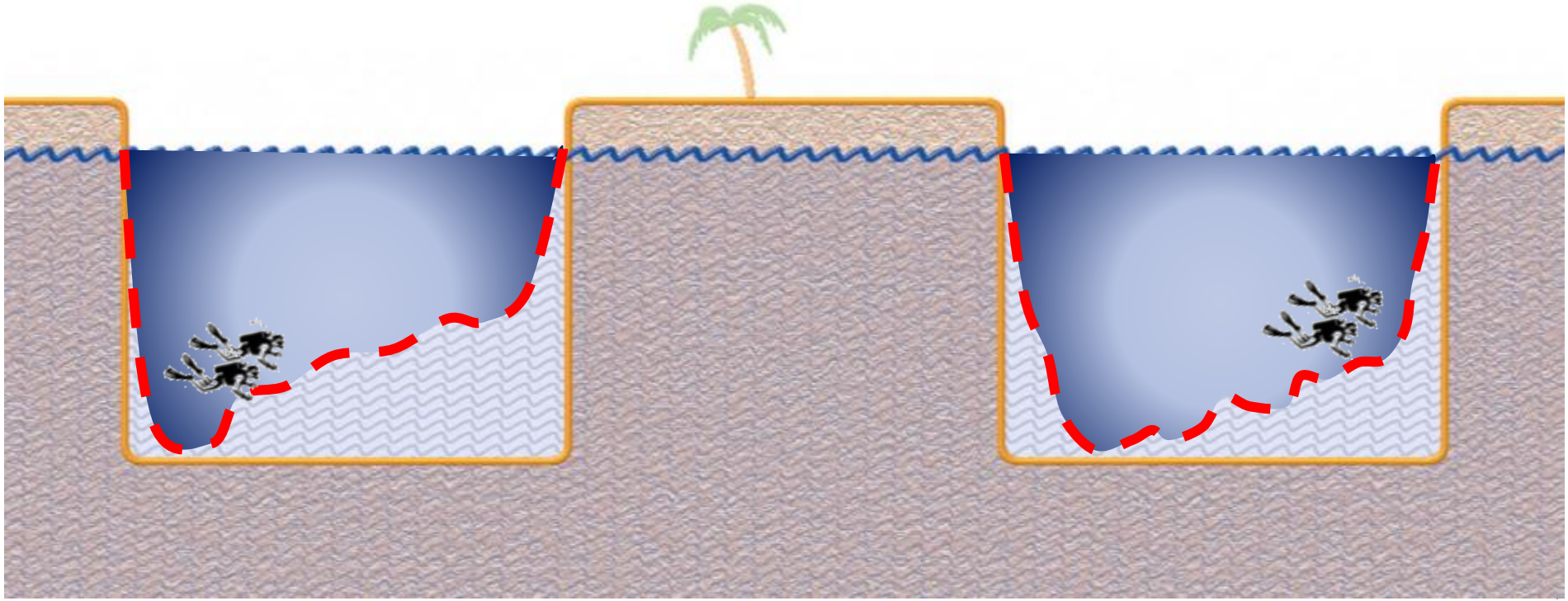
Dive Computers

Introduction To Dive Computers

- The dive computer includes a digital depth gauge, digital timer and sophisticated decompression tables.
- The dive computer tracks and presents decompression data in real time, based on the actual current depth (and not only the max depth). Using a dive computer allows the diver to perform multi-level diving.

Dive Computers

Multi-Level Diving



Dive Computers

Dive Computer Configurations

- Dive Computer
  - Console
    - Air-Integrated
    - Non-Integrated
  - Wrist-Mount
    - Non-Integrated
    - Air-Integrated

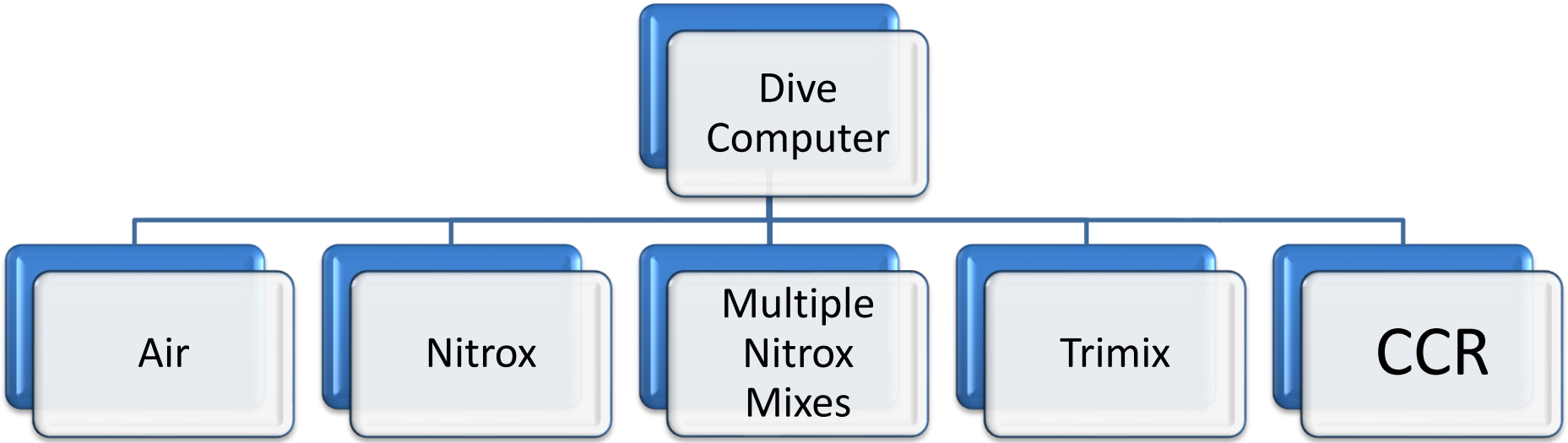
Dive Computers

Air Integrated Dive Computers

- Air Integrated Dive Computer – a dive computer which monitors the diver's air supply. Two types are available:
  1. Wireless pressure transducer based.
  2. High-pressure hose connection.
- The dive computer will display the tank pressure readings throughout the dive.

Dive Computers

Dive Computer Configurations



Understanding The Display

Diving Mode

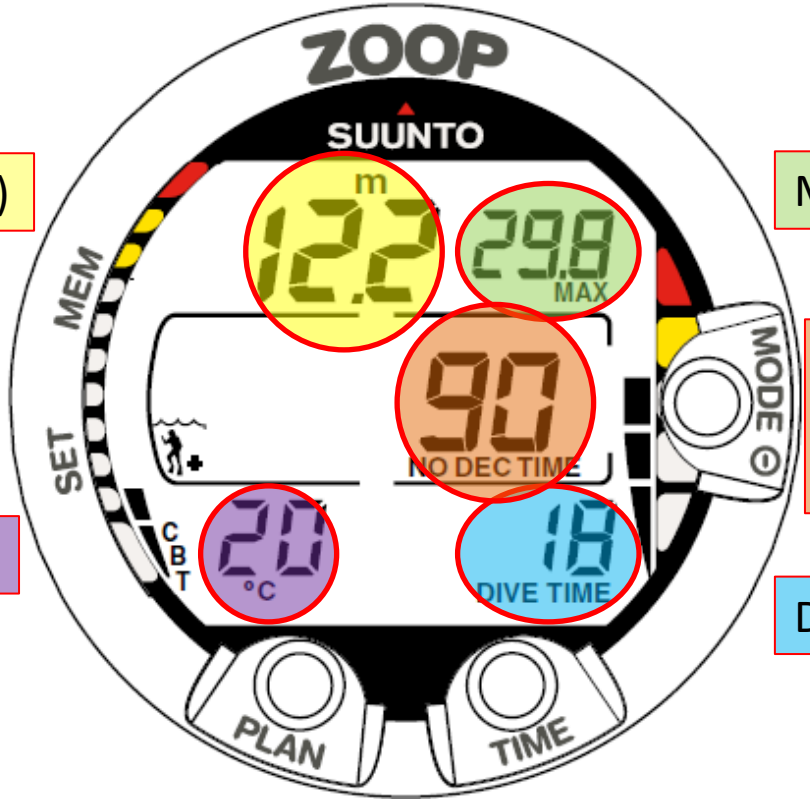
Current Depth (meters)

Max Depth (meters)

Remaining No Decompression Time (minutes)

Water Temp.

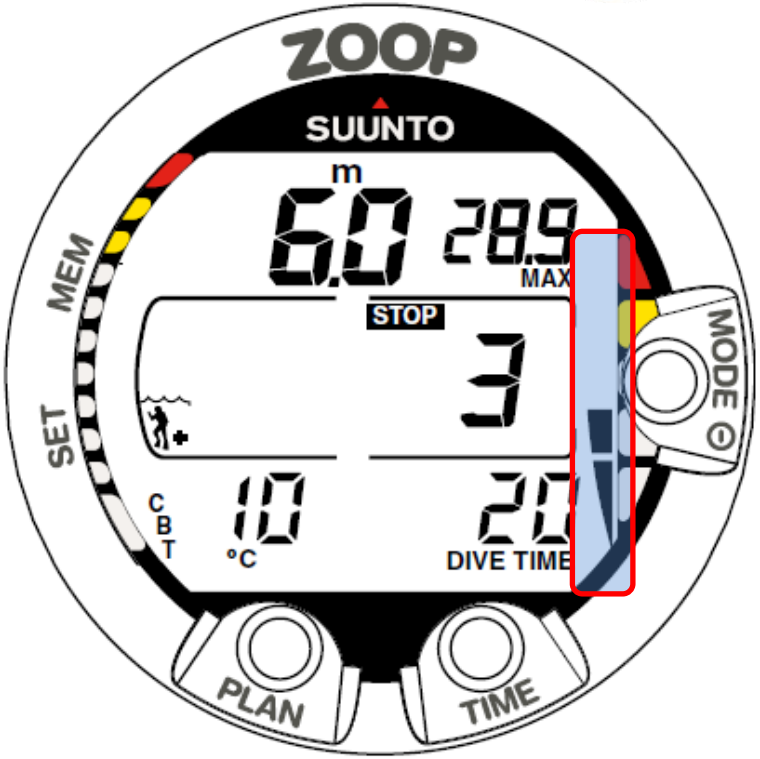
Dive Time (minutes)



Understanding The Display

Ascent Rate Indicator

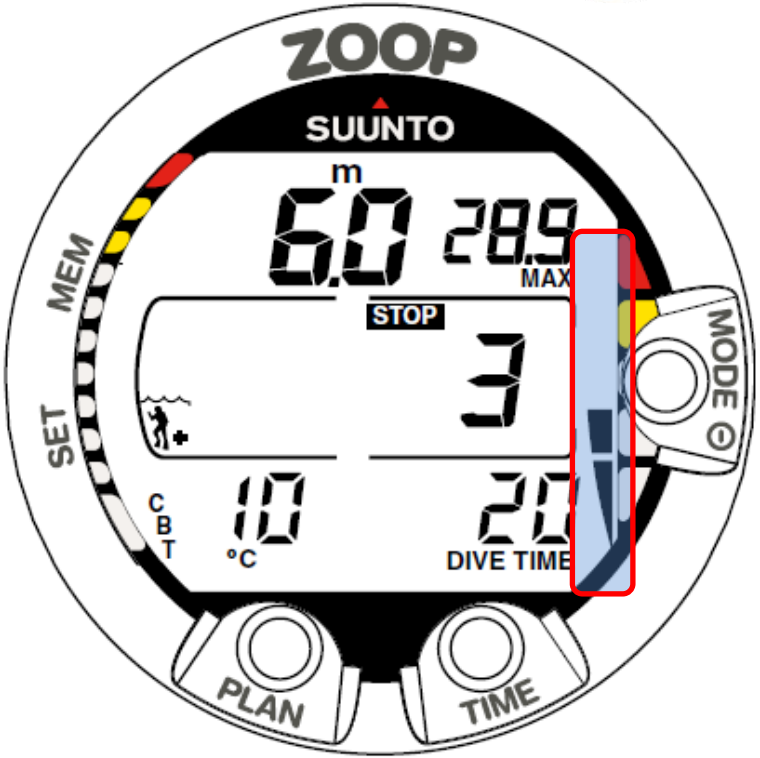
- A vertical bar graph indicating the rate of ascent. Each segment represents an increase in ascent rate.
- On some dive computers the ascent rate will be shown as percentages.



Understanding The Display

Ascent Rate Indicator

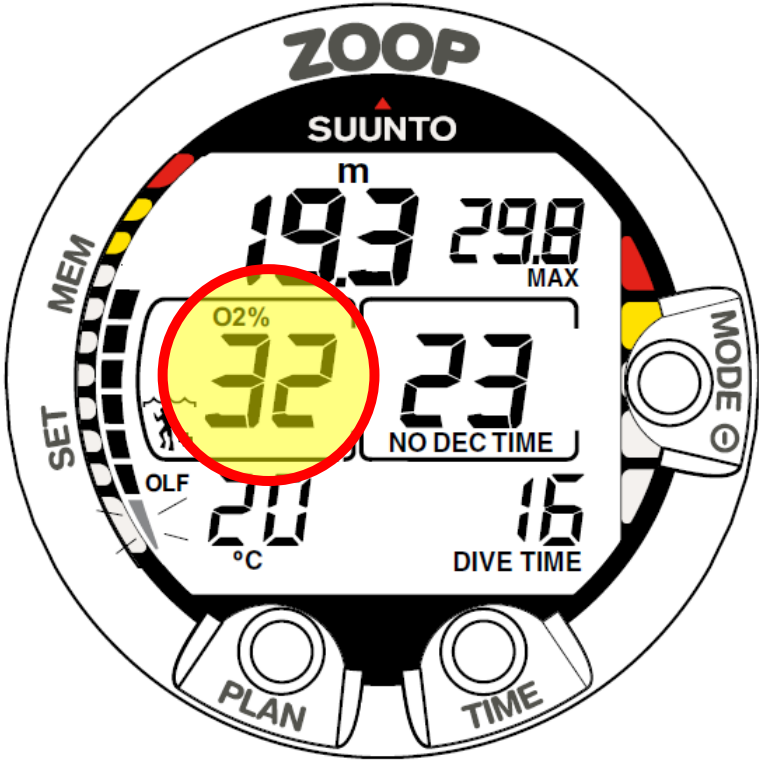
- In most cases each segment will represent an ascent rate of 3 meters per minute, so that 3 segments will represent an ascent rate of 9 meters per minute.
- Do not exceed an ascent rate of 10 meters per minute.



Dive Computers

Nitrox Dive Computers

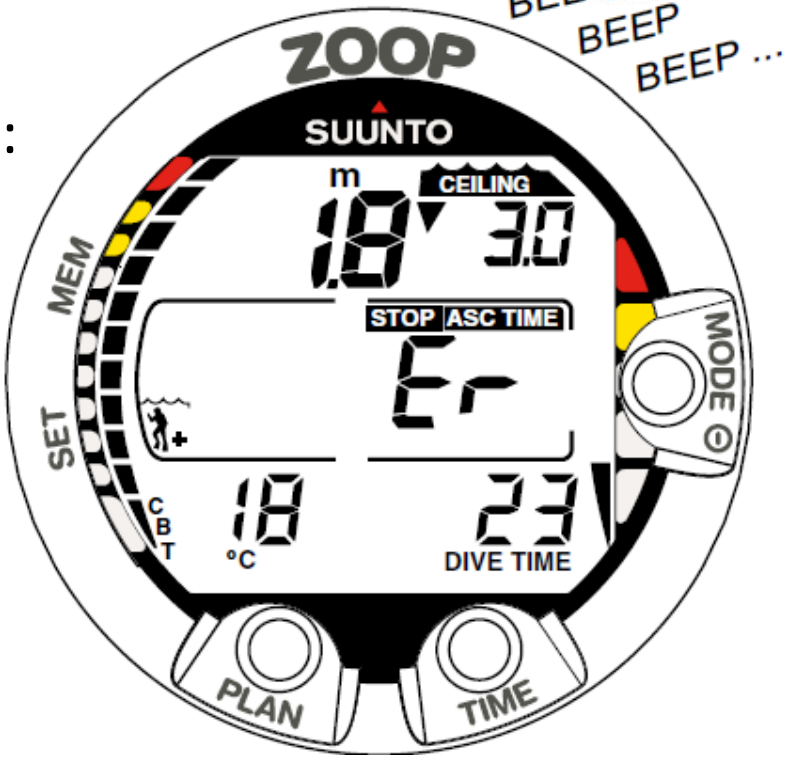
- NOTE! When using a Nitrox dive computer, verify that the computer is set to the same Nitrox mix that you are breathing.
- A Nitrox capable dive computer will track and display Oxygen exposure levels, and provide Oxygen toxicity warnings.



Dive Computers

Alarms

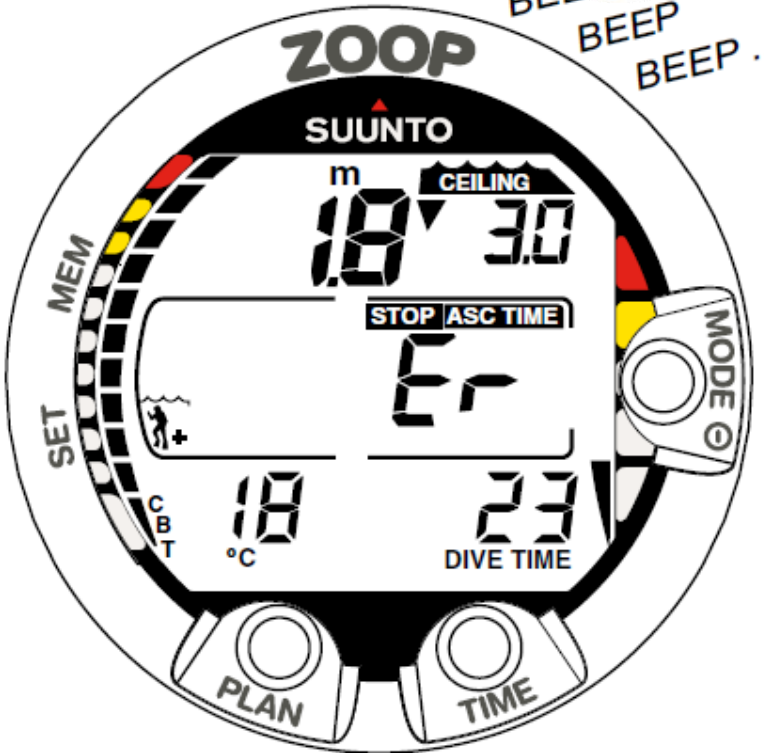
- Approaching or violating a dive limit will be accompanied by alarms such as:
  - Audible alarms (beeping).
  - Blinking of the violated limit.
  - Backlight illuminating.
  - Display color change.
  - Vibrations.



Dive Computers

Alarms

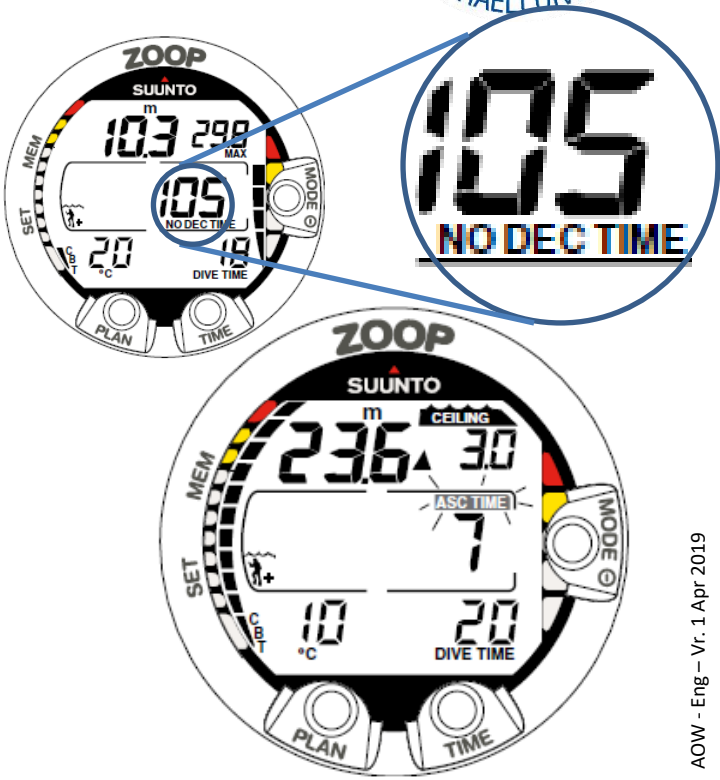
- When an alarm is generated, the diver must check the computer display, **identify the diving violation and react accordingly.**



Dive Computers

Omitted Decompression

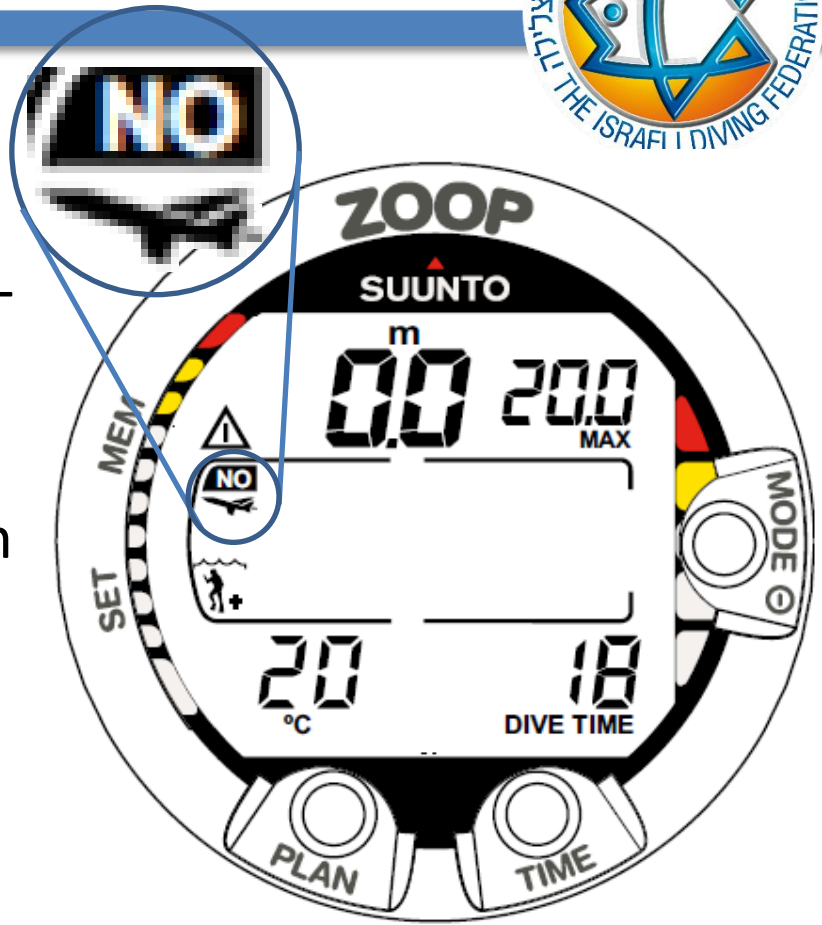
- Will be shown when the diver has violated recreational dive limits.
- The diver is required to perform the dive profile as displayed onscreen.
- This may put the diver at risk:
  - Is the diver's remaining air supply sufficient to complete the dive?
  - Is the diver familiar with the onscreen display?
  - Does the diver posses the required buoyancy control skills to perform a decompression stop?



Dive Computers

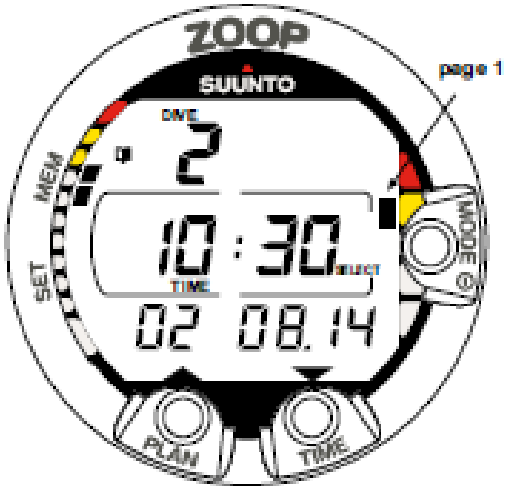
End Of Dive – Surface Mode

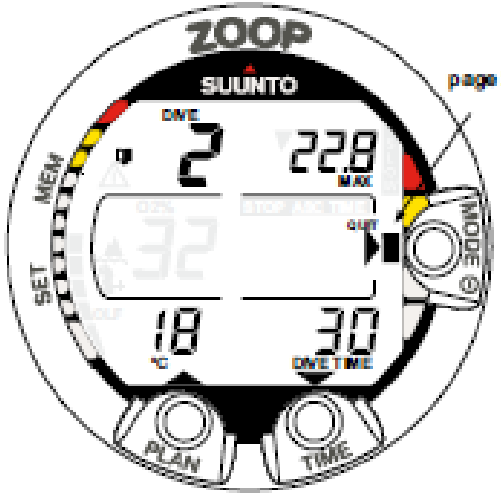
- At the end of the dive the onscreen display will show the current depth – 0.0 m, the dive time and the max depth.
- Additionally, an airplane symbol with the word NO will be shown – indicating no flying after diving.

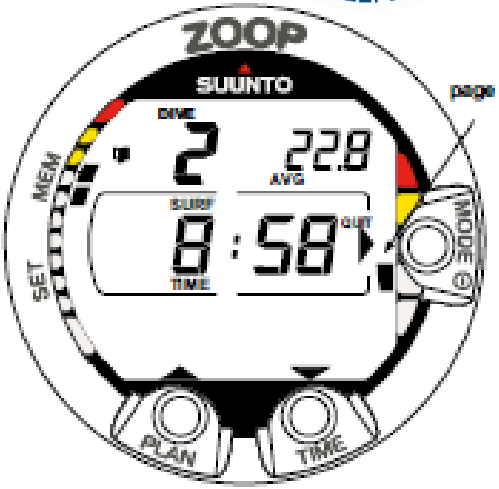


Dive Computers

The Dive Log





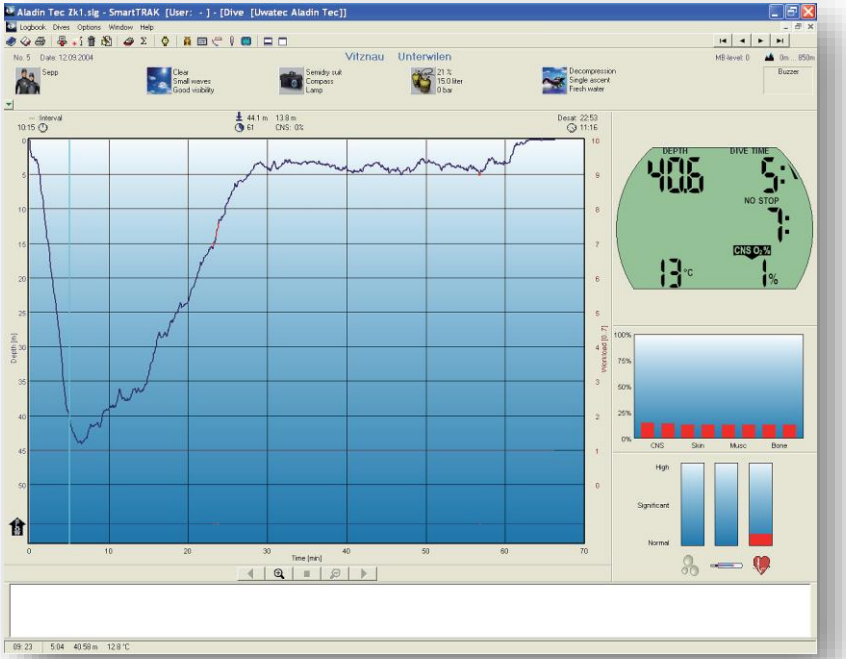


- The dive computer also functions as a “black box” logging all the dive data. The data can be transferred to PC or shown on-screen.
- The diver can scroll between the on-screen logbook pages.

Dive Computers

The Dive Log

- The dive computer can be synced with a PC.
- The dive can be downloaded and analyzed second-by-second.
- Most PC dive software include a computerized dive log which can store additional dive data.



Dive Computers

Guidelines For Dive Computer Use

Even though dive computers include many safety factors, the basic safety rules of diving must still be followed:

- When planning multiple dives, start with your deepest dive.
- Limit dive time and depth to your level of certification and experience.
- Avoid saw-tooth profiles.
- Set the dive computer's safety factors conservatively, with respect to the risk factors associated with the dive.

Dive Computers

Guidelines For Dive Computer Use

- The dive computer tracks only the dive profile of the diver wearing it.
- A dive computer is a piece personal dive gear. Do not use a dive computer still tracking residual Nitrogen from another diver.
- Do not switch between dive tables and diving a computer during repetitive dives.
- Keep all decompression planning guidelines even when diving a computer, such as: Begin each dive at its deepest point, avoid saw-tooth profiles, etc.

Dive Computers

Summary

PROS	CONS
• Easy and efficient tracking of depth, time and other dive variables. • Simplifies dive planning and execution. • Provides alarms for violating dive limits. • Logs previous dives. • Enables multilevel diving.	• Cost. • Can malfunction. • Personal use only. Data is relevant only to the diver wearing the computer. • Lack of familiarity with the dive computer can put the diver at risk.

Remember that neither dive tables nor dive computers know your personal physical state. Plan your dives accordingly and when in doubt, be conservative.