

DIGITAL electronic diving instruments



Swiss Made by Uwatec

Table of Contents

1	Introduction	33
2	Remarks about Safety	35
3	Diving with the Digital	37
3.1	Switching on the Device	37
3.2	Current Depth	38
3.3	Maximum Depth	39
3.4	Dive Time	40
3.5	Temperature	40
3.6	Rate of Ascent	41
3.7	Diving in Mountain Lakes with the Digital	43
4	Surface Functions	44
4.1	Surface Mode	44
4.2	Logbook	46
5	Troubleshooting	48
6	Appendix	51
6.1	Maintenance and Care of the Digital	51
6.2	Technical Specifications	53
6.3	Conditions of Guarantee	54

1 Introduction



Digital is a diver's aid which offers precise information for the calculation of the dive in conjunction with diving tables. Diving tables together with the **Digital** allow reliable and safe dives. The **Digital** is an electronic precision instrument manufactured and tested with the most up-to-date equipment.

With the **Digital** you possess a modern instrument that does not carry out the calculation of the dive for you, but which displays all necessary information for the calculation in a concentrated form and with high precision. In addition, the **Digital** is very well suited as a backup instrument.

The Digital data displays:

- ✗ current dive depth
- ✗ maximum depth
- ✗ dive time (duration of dive)
- ✗ temperature (water/air)
- ✗ monitoring of rate of ascent
- ✗ surface interval
- ✗ logbook for the last 9 dives

Our experience with electronic pressure measuring devices and diving instruments is always used to improve new models. In contrast to the preceding model, the **Digital** saves 9 dives. The ideal rate of ascent is now calculated relative to depth. The **Digital** warns the diver when the allowed rate of ascent is exceeded. The rate of ascent is displayed as a % of the target rate.

Remarks about Safety

The **Digital** is a valuable companion for safe diving if you observe the following:

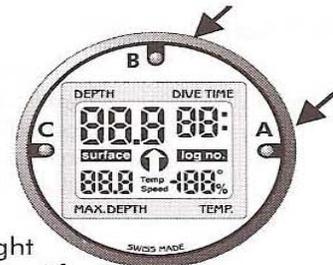
-  The **Digital** does neither replace diver training nor a diving partner.
-  The **Digital** does not calculate *any* decompression data. But it reliably provides the information necessary for the decompression calculations by means of decompression/no-stop tables (e.g. 'Bühlmann tables'). A sound knowledge of such tables is absolutely necessary.
-  During the dive, check the information of the display regularly and compare them with your diving plans. Pay special attention to the correct rate of ascent and react immediately to the warnings of the **Digital** to minimise the danger of accidents due to overpressure in your lungs and of the formation of microbubbles in your circulation.
-  Never dive deeper than 40 m/120 ft to prevent the danger of nitrogen narcosis.
-  Read this operating manual carefully and completely.

3 Diving with the Digital

3.1 Switching on the Device

Automatically: On submerging in water

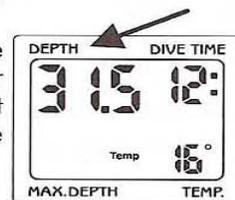
Manually: By touching contacts **A** and **B** with moistened fingers



After switching on, all signs of the display light up for approx. 5 seconds for testing purposes. Afterwards, a count-down of all figures from 9 to 0 starts. After this check, the **Digital** switches into Ready mode. If no dive is started within the following 3 minutes, the device switches into the Standby mode automatically (no display).

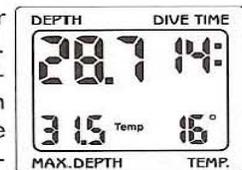
3.2 Current Depth

The current depth is displayed in metres (feet). The depth-measuring is calibrated in *metres fresh water* according to international standards. Therefore in salt water (sea) the display shows a greater depth than the actual salt water depth.



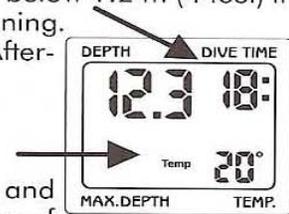
3.3 Maximum Depth

Maximum depth of a dive is only displayed if it is greater than the current depth (maximum indicator function). To prevent the maximum depth from continuously lighting up and going off, the display only appears when the current depth is 1 m (or 3 feet) smaller than the maximum depth and goes off when the original maximum depth is reached again.



3.4 Dive Time

The **Digital** indicates the time the diver has spent below 1.2 m (4 feet) in minutes. The colon flashes when the clock is running. Maximum dive time displayed is 99 minutes. Afterwards, the time measuring restarts at zero.



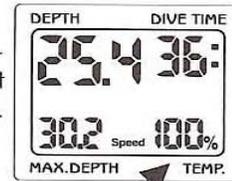
3.5 Temperature

The **Digital** measures water and air temperature and displays the values in °C (or °F). Beside the value of the temperature, the symbol **[Temp]** appears. It may take a few minutes until the exact temperature is displayed, since the sensor for the temperature is located inside the housing.

3.6 Rate of Ascent

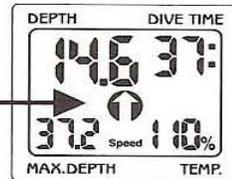
The ideal rate of ascent varies depending on the depth. The **Digital** measures your rate of ascent and compares it to the programmed target values.

When ascending, the display of the temperature extinguishes and a percentage appears. It indicates the current percentage of the target value. Beside, the symbol **[Speed]** is displayed.



Ascent warning

- 100%** corresponds to the recommended ascent rate.
- At 110%** an additional optical warning in the shape of an **arrow** appears,
- above 140%** **the arrow flashes.**



3.7 Diving in Mountain Lakes with the Digital

The **Digital** has an unlimited altitude range. Mechanical depth gauges are dependent on the atmospheric pressure and become less accurate with altitude. The **Digital** measures the diving depth independently of air pressure and is therefore much more precise.

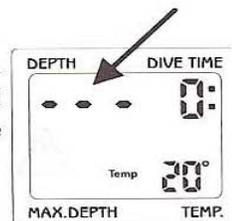


We want to emphasize at this point that you need special diving tables for dives at higher altitudes. The 'Bühlmann tables' are the most frequently used tables for diving in mountain lakes and assure a high level of safety.

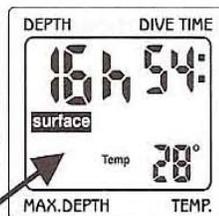
4 Surface Functions

4.1 Surface Mode

After the dive, the display **[---**] appears for 5 minutes. If diving is resumed during this period, it is added to the dive just started. After this 5-minute period, the dive is completed and entered in the logbook.



In Surface mode, the **Digital** displays [surface] and the surface interval. The surface interval runs until another dive is performed or until it has reached 24 hours. The **Digital** then switches into Standby mode. In Surface mode, the **Digital** also indicates air temperature.

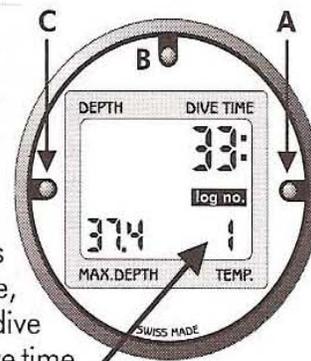


If there is no operation for 3 minutes, the display extinguishes. However, the surface interval keeps on running.

4.2 Logbook

The **Digital** stores the data of the last 9 dives. A dive is only entered if depth was below 1.2 m (4 feet) and the duration longer than 2 minutes.

On touching contacts **A** and **C** with your fingers after switching on or during the Surface mode, the mode display [log no.] appears. The dive number [1] and maximum depth as well as dive time of the last dive are displayed. If the ascent warning [arrow] was displayed during the dive for a longer period, it is also entered in the logbook.



On every subsequent touching of the logbook contacts the previous dive to the one currently displayed is called up. After the 9th dive (the oldest one), the most recent dive with the number 1 appears again.

If you keep your fingers permanently on the logbook contacts **A** and **C** the dives of the logbook are called up in sequence.

If another dive is performed, the dive numbers are moved one step backwards and the oldest dive up to that moment (no. 9 so far) is deleted. The current or latest dive gets the logbook number 1.

The **9 most recent dives** are always stored in the logbook.

Leaving the logbook

By touching contacts **A** and **C** the logbook is closed and the **Digital** goes back to a state of rest. This also occurs automatically if none of the contacts are touched for 3 minutes.

5 Troubleshooting

When unexplainable effects are observed, the following list can be used to carry out an initial analysis. If the situation encountered is one which is not described here, consult your dealer only after carefully studying the operating instructions.

Situation	Reason and elimination
"Wrong" dives in logbook	The Digital is tested in a pressure chamber before delivery. These dives are stored in the logbook.
Rainbow colours on display	Due to stresses of the glass (temperature fluctuations). This has no influence on the measurements.
The Digital "dives" at the surface	This Digital needs servicing and must be taken to the dealer. It is absolutely forbidden to perform a dive with such an instrument.
The Digital displays [Err]	This Digital needs servicing and must be taken to the dealer. It is absolutely forbidden to perform a dive with such an instrument.

6 Appendix

6.1 Maintenance and Care of the Digital

The **Digital** is an extremely robust instrument requiring little maintenance. The battery is designed to be sufficient for the entire life of the instrument. Nevertheless, the advice below should be read carefully and also be followed. This will ensure that your **Digital** gives you satisfactory service for a long time.

After diving in the sea, wash the **Digital** with fresh water and clean the switch-on and logbook contacts particularly well. A little *silicone spray* spread finely over the case from time to time with a soft cloth helps the water to flow off.

Sun, extreme heat or cold will damage the instrument. It should therefore not be left, for example, behind the windscreen of your car.

Keep the **Digital** in a dry, cool place. Do not place the **Digital** in the wet bag after a dive. The water should be able to drip off freely.

6.2 Technical Specifications

Altitude range unlimited
 Depth range no limitation for recreational divers
 Time measurement . . quartz clock, time measurement up to 99 min
 Temperature range . . -10 to +50°C (14 to 122°F)
 Life of battery. calculated assuming an average dive time of

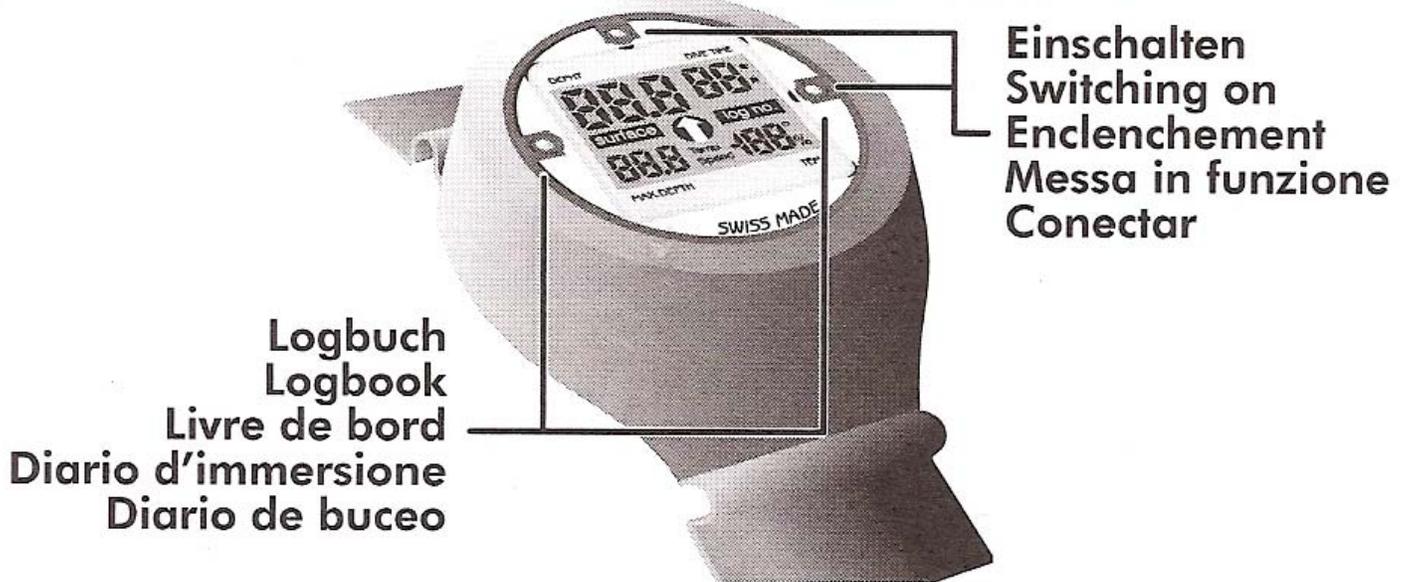
- 45 minutes
- and a surface interval of 24 hours per dive.

With 50 dives/year: about 12 years
 With 100 dives/year: about 11 years
 With 200 dives/year: about 9 years
 With 350 dives/year: about 8 years

6.3 Conditions of Guarantee

We guarantee the **Digital** in accordance with the following conditions:

1. Damage and defects in the instrument which can be shown to be manufacturing defects will be eliminated by us free of charge during the first 12 months after delivery to the end customer.
2. The guarantee period is not extended as a result of any work carried out under the guarantee.
3. If our guarantee is taken up for the **Digital**, the device must be sent to an authorized dealer or directly to a customer service centre, together with the purchase slip and an indication of the date of purchase.
4. The guarantee becomes null and void if the damage is caused by external influences or if there has been intervention by persons not authorized by us or by our regional representative.
5. Pressure chamber tests must be carried out only in water. If the **Digital** is subjected to pressure under "dry" conditions, the guarantee becomes null and void.
6. We assume no liability in respect of further claims for replacement or compensation, in particular those for damage due to diving accidents.
7. The manufacturer is not obliged to honour the additional guarantee conditions offered by the regional representatives.



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