

A new dimension
in UNDERWATER SAFETY

**AUTOMATIC
DECOMPRESSION[®]
METER**

D.C.P.



"la tecnica al servizio dei subacquei"

Il DECOMPRESSIMETRO[®] è brevettato nei principali
paesi del mondo.

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N. 373979 / N. 1278472 / N. 264420
N. 911739

The Recognized Leader in Quality Equip-
ment for the Underwater Sportsman
TORINO • LONDON • LOS ANGELES



T.P. 31119 - TORINO

A new instrument

Many years at scientific research have finally produced the diving safety device everyone has been searching for: THE AUTOMATIC DECOMPRESSION METER, D.C.P., which automatically indicates the precise time and depth needed for decompression! A precision instrument that functions; automatically just like an « electronic brain », continuously registering and retaining the memory of repetitive and multiple depth dives for six hours, calculating and indicating depth and time for decompression necessary for each dive. THE AUTOMATIC D.C.P. duplicates your body function and takes guesswork out of planning your dives and establishes your decompression procedures. It eliminates the greatest **worry factor** and gives you the greatest **safety factor** in diving. THE AUTOMATIC D.C.P. is unquestionably the greatest advance in diving safety since the Bert and Haldane Decompression Curves.

For compressed air diving only.



THE AUTOMATIC D.C.P.

IS YOUR
INFALLIBLE COMPANION,
WHO GUIDES AND PROTECTS
YOU CONSTANTLY
BY INFORMING
YOU WHEN TO STOP
TO DECOMPRESS,
AND WHEN
TO START ASCENDING

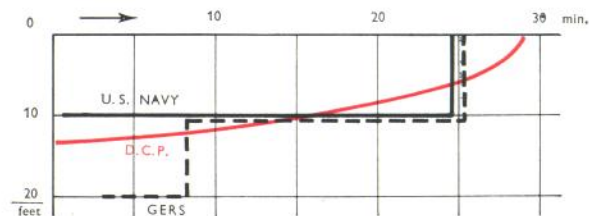


HOW DOES THE AUTOMATIC DECOMPRESSION METER WORK

THE AUTOMATIC D.C.P. records the two essential elements for each dive — time and depth (pressure) — automatically calculates these two factors, before and during each dive, and immediately indicates to you time to decompress and depth to decompress.

The conventional decompression table gives you the values based upon a classic dive, where the diver remains at absolutely the same depth level. With the conventional table, the diver must always calculate his decompression time on this absolute consistent depth level. With THE AUTOMATIC D.C.P. however, the margin of error is taken out of the calculation of decompression time, because THE AUTOMATIC D.C.P., reproduces the physiology of your body by duplicating the rate at which the nitrogen goes into and out of solution in the blood stream.

PRACTICAL EXAMPLE OF DECOMPRESSION CURVE



THE AUTOMATIC D.C.P. keeps an exact record of the dive just completed and of the time you spend on the surface between dives, using the diving time as well as the surface time to automatically calculate and prescribe for you the decompression time necessary on your next dive. This process of memorizing continues for six hours after the last dive you make.

TECHNICAL DATA

Dimensions 2" x 5¹/₅"

Weight 5¹/₂ oz.

Can be used on your wrist, next to your depth gauge, or with a suction cup that can be applied to your harness. The case, made of high-impact black polystyrene is anti-magnetic and anti-corrosive. The respiratory device inside the case is made out of a special material, impervious to salt water. The three static pressure entry ports are for the conveyance of water pressure to the respiratory device (see illustration). The graduations of the dial are in 5 foot increments.

THE AUTOMATIC D.C.P. never needs winding, re-charging or adjustments. It is always exact and always completely reliable. It is constructed in such a manner that all vital parts are protected and it is virtually indestructible if handled with reasonable care.

THE D.C.P. IN DIVING

THE AUTOMATIC D.C.P. can be worn either on the wrist or on your harness in the following manner: Attach the suction cup to the harness as illustrated. Tie a nylon line to THE AUTOMATIC D.C.P. and attach this to your belt or harness. When using THE AUTOMATIC D.C.P. on the harness, slide it off the suction cup — do not pull it away.

HOW TO USE YOUR D.C.P.

For a single dive or multiple dives, where the first decompressing level is no greater than 50 feet, THE AUTOMATIC D.C.P. is infallible. Realistically, with a decompression stop at 50 feet, the range of THE AUTOMATIC D.C.P. will extend far beyond the usual SCUBA diver's depth time possibilities.

Should you, by a very remote possibility, go to a depth where the 50 foot decompression level is insufficient, the indicator will go into the white zone beyond the 50 foot mark, and THE AUTOMATIC D.C.P. loses its effectiveness and accuracy. Decompression then becomes a matter of your own calculations. Therefore, when descending after multiple dives, after having spent much time at great depths, you must closely monitor THE AUTOMATIC D.C.P. indicator needle; if it begins to pass the 50 foot mark, immediately stop your dive and ascend to the 50 foot level, after which you can follow THE AUTOMATIC D.C.P. and complete your ascension, as described under « Operating Instruction ».

THE AUTOMATIC DECOMPRESSION METER incorporates the most recent scientific research on decompression factors.

Important

THE AUTOMATIC D.C.P. cannot be used by another diver until six hours after the last dive has been completed. This is because THE AUTOMATIC D.C.P. registers and calculates the individual diving time of the wearer and can not be transferred to another person while in the calculating process, which will last six hours after each dive.

OPERATING INSTRUCTION

THE AUTOMATIC D.C.P. starts operating automatically as soon as you enter the water and the important decompression calculation begins. The indicator needle starts in the Memory zone (see figure page 7) and moves clockwise. Until the indicator needle reaches the red diamond on the dial you can ascend without any hesitation or decompression. As you gain depth, the indicator needle will move into the red zone, and this means that THE AUTOMATIC D.C.P. has calculated the depth (pressure) of your dive and the time of your dive, giving you the exact depth at which you must start decompressing.

For example: The indicator needle has now gone into the red zone, showing 40 feet. This means that you can ascend to 40 feet. This you must accomplish by watching your depth gauge. As your depth gauge shows 40 feet, you stop and wait until the indicator needle of THE AUTOMATIC D.C.P. begins to move counter clockwise toward the 30 foot mark. As the indicator needle moves you can start ascending slowly watching carefully that you never attain a depth more shallow than that indicated on THE AUTOMATIC D.C.P. (You can be at the same indicated depth, but NEVER more shallow). This is your most important safety rule.

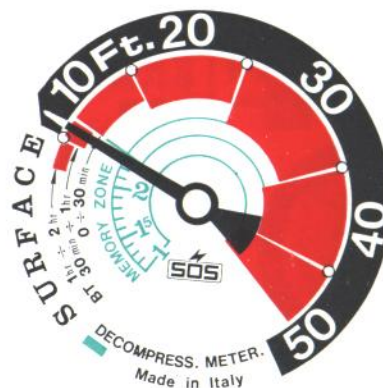
The indicator needle is your exact guide to your ascension and you must follow this rule, otherwise THE AUTOMATIC D.C.P. loses the purpose for which it was intended and does not give you the correct decompression time. Remember, when ascending, watch the indicator needle's progress counterclockwise, never allowing yourself to be at a depth less than that indicated on THE AUTOMATIC D.C.P.

YOUR ASCENSION PROGRESS WILL CONTINUE UNTIL YOUR INDICATOR NEEDLE HAS REACHED 10 FEET ZONE

The end of the decompression (stop end at 10 Feet with consequent exit from the water) must be made when the instrument needle arrives at the end of one of the three red zones (shown by the point of three arrows) according as immersion has lasted from 0 to 30 minutes — from 30 minutes to one hour — from one to two hours, irrespective of the depth reached. In case of successive immersion, it is sufficient to add the partial times of the different immersion and to take into account the total time to establish the end of the decompression.

End decompression zone

Decompression stop scale



Memory zone

The blue numbers in the memory zone indicate the remaining pressure of nitrogen in the body in atmospheres.

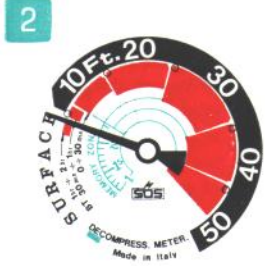
A PRACTICAL EXAMPLE OF THE USE

Surface Time: 0



Before use the D.C.P. needle will not necessarily register absolute 0 due to variations of barometric pressure as explained on page 11.

At 120 feet After 19 min



After 19 minutes exposure including descent time, the needle has reached the red zone. At this point the diver could safely ascend to the surface.

D.C.P. SIMULATED DIVE 120 FEET FOR 1h 05 MIN.

At 120 feet After 39 min



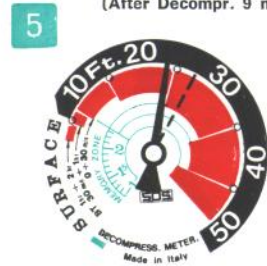
After 39 minutes exposure the needle has reached 20 feet zone. The diver could at this time ascend to 20 feet and decompress according to the D.C.P.

At 120 feet After 1h 05



The 1h 05 minutes bottom time has elapsed. Now the diver can ascend until his depth gauge reading matches that of the D.C.P. which in this case is 27 feet. Here he begins his decompression, following the indications of the D.C.P.

At 25 feet After 1h 14
(After Decompr. 9 min)



The diver has ascended to a depth of 25 feet.

At 15 feet After 1h 45 min
(Decompr. 40 min)



The diver has ascended to a depth of 15 feet.

At 10 feet After 2h 03
(Decompr. 58 min)



The diver has ascended to a depth of 10 feet. At 10 feet, the diver remains until the needle points to the point of red zone indicated on page 7. The reason for remaining at 10 feet is to eliminate adverse conditions such as surface swells.

Surface After 2h 20
(Decompr. 1h 15)



The needle has reached the end of red zone indicated on page 7 which indicates that the nitrogen in solution has been reduced sufficiently to allow the diver to surface safely. After surfacing the needle will move slowly across the memory zone. This will automatically be added to the total decompression time of successive dives.

HOW TO CARE FOR YOUR D.C.P.

THE AUTOMATIC D.C.P. is a precision instrument, which must be cared for like any fine watch. It must be treated with care if you want to derive the greatest benefit from it. Therefore, be sure to cleanse it after a day's diving with clear water, avoid excessive shock, never try to clear the three static pressure entry ports under any circumstances, and do not attempt to disassemble the instrument. If you encounter any problems with THE AUTOMATIC D.C.P., return it to your dealer.

NOTE: On certain days, the effects of barometric pressure will influence the setting of the indicator needle and you will note that the indicator needle will not return completely to « 0 ». This has absolutely no influence on the functions of THE AUTOMATIC D.C.P. The new D.C.P. Mod. T is absolutely independent from the temperature's variations.

Important

Should you ever have occasion to ship this instrument by air, be certain that it is shipped within the pressurized portion of the aircraft; otherwise, THE AUTOMATIC D.C.P. will be irreparably damaged.

Guarantee

Each AUTOMATIC D.C.P. has been fully tested under special circumstances and the guarantee applies only to a manufacturing defect. We will not replace or repair this unit free of charge if evidence of abuse, manipulation, mistreatment, carelessness or neglect is apparent.

CHECKING THE EFFICIENCY OF THE INSTRUMENT

When the Decompression Meter is at rest (entirely unwound) the needle must be within the limits of the blue line which is on the left of the letter « S » of the word « Surface ». If needle is shifted from above position (but 1 millimeter deflections in plus or minus are admitted) the instrument must be considered as damaged and be reconditioned.

The Decompression Meter is an instrument which does not need maintenance. It is advisable however, to check its efficiency when it has not been used for a long period of time, or when it has been used a lot at great depths. This check can be made as follows:

1. Fasten the instrument to a line, ballast it in such a way that it does not float, and then immerse it to a depth of exactly 30 meters (98.425 feet).
2. Keep the instrument under water at this depth for exactly 30 minutes.
3. Then bring the instrument quickly back to the surface and check to see if the pointer is in the zone of the second red rectangle.
4. If the instrument indicates something different from what is shown above (however, displacements of plus or minus 1 millimeter are tolerated), it must be considered damaged and, therefore, must be sent to our factory for inspection and repair.

If the customer should not want to make the check himself, he can send the instrument to our factory where it will be rigidly tested. The only cost will be for real expenses.

Manufactured by SOS TORINO (ITALY)