



Mido

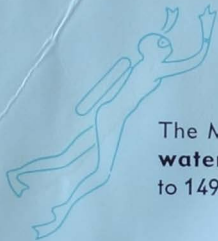
skin

diver watch

and

decompression

timer



The Mido deep dive timer tells the skin diver, while **underwater**, when decompression is required at any depth down to 149 feet, and how long the decompression periods must be.

HERE'S HOW TO USE IT

The Mido deep dive timer is a precision instrument specifically designed for skin divers equipped with self-contained underwater breathing apparatus. As such, its utility extends far beyond any conventional skin diver's watch — for it places right on the diver's wrist all the information he formerly calculated through charts, above water, and com-

mitted to memory. And only Mido, with its many years of leadership in the manufacture of fine waterproof watches, could have provided such underwater freedom.

This unusual timepiece is the result of extensive research and development work in cooperation with Mr. D. L. Jayet, world-famed skin diving authority and inventor of widely used underwater diving equipment, including cameras and "lungs". The Mido timer has been put through rigid tests by diving experts and frogmen in different countries to confirm its safety and reliability for professional and amateur skin diving down to depths of 149 feet.

Mido's exclusive one-piece case eliminates one of the critical leakage points common in conventional watch case construction, i. e., at the back of the case. Every timer is pressure-

tested under water to a depth equivalent to 1000 feet and is guaranteed 100% waterproof at that depth... your assurance that it will remain 100% waterproof at any depth which can be reached by a diver.

As with all Mido watches, the timer is self-winding. It is shock-resistant, anti-magnetic, has the exclusive Permadure unbreakable mainspring and is condensation-proof as well. The deep dive timer has been graduated for dives from 70 to 89 feet; 90 to 109 feet; 110 to 129 feet; 130 to 149 feet. Depths beyond 149 feet have not been provided for because, at greater depths, the danger of "divers' narcosis" exists. Dives that would require decompression should only be attempted by experienced divers. Sufficient air supply must be assured for the duration of the dive, plus ascent and

decompression time — in accordance with accepted deep diving practice.

A diver can remain at a depth of 69 feet for 50 minutes without requiring decompression. That is why the lengths of decompression indicated on the Mido deep dive timer begin at 70 feet and are for dives totalling less than one hour.

In no way is the deep dive timer meant to replace the usual safe and sensible rules of good skin diving. It will, however, give you the assurance of having the accurate information you need with you at all times, no matter where you are... without guesswork and without reliance upon memory.



LET'S LEARN HOW TO USE THE TIMER

These are the components you will be working with on your deep dive timer:

This instrument has been carefully designed for maximum underwater legibility. The colours for the depth circles were specifically chosen and arranged in the order you see to avoid any possibility of confusion during a dive. Lay your timer down next to the illustrations on the following pages and see where each of these pictured components appear on the watch itself.

Open the first page.





This is the bezel that may be rotated clockwise or counter-clockwise around the rim of your timer. Set the "●" on your bezel to coincide with 12 o'clock on the dial and see how the bezel is calibrated in minutes from "●" to "60", reading counter-clockwise.



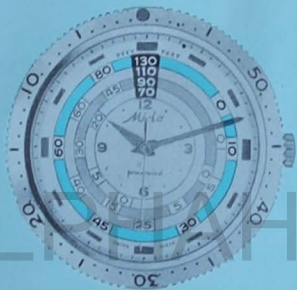
This is the yellow circle on the dial. The white numeral "70" means you refer to this circle for all dives between 70 and 89 feet.



This is the green circle on the dial. The white numeral "90" means you refer to this circle for all dives between 90 and 109 feet.



This is the pink circle on the dial. The white numeral "110" means you refer to this circle for all dives between 110 and 129 feet.



This is the blue circle on the dial. The white numeral "130" means you refer to this circle for all dives between 130 and 149 feet.



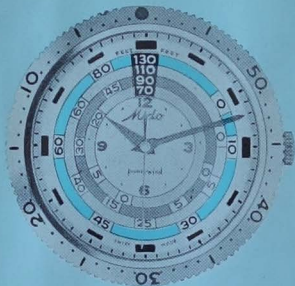
This is the dial of your timer with conventional hour and minute markings. Besides using this portion of your timer simply to tell time, you will use it in relation to all the other components during all diving operations.

Here is how the deep dive timer tells you WHEN DECOMPRESSION BECOMES NECESSARY and how long that decompression period will be at any depth down to 149 feet. On each of the four different coloured depth circles you see numerals, beginning with "O" and increasing as you read clockwise around the circle. The amount of time from 12 o'clock on the dial to the "O" on each coloured circle is referred to as "clean time" — or time not requiring decompression. The numerals following "O" on the coloured circles indicate decompression periods which the diver must observe in relation to the time he has spent under water and

the depth he has reached. This length of decompression is automatically given by the black minute hand which cuts across the circle to be considered.

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FROM 130 TO 149 FEET DEPTHS

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Taking the blue "130" feet circle, note that the first numeral on the circle, "0", appears opposite the 10 minute marker on the dial. This means that you can remain at 130 to 149 feet for 10 minutes without requiring decompression. If you remain at this depth longer than 10 minutes, you must pause for decompression before emerging. The amount of time required for decompression depends upon how long you

overstay these first 10 minutes. So, reading clockwise along this blue circle, we see the numeral "10" opposite the 15 minute marker on the dial. This means that if you remain for 15 minutes, and have reached a depth of 130 to 149 feet, you must pause for 10 minutes at the proper decompression level before coming to the surface. The numeral "30" on the blue circle appears opposite the 25 minute marker on the dial, indicating you require 30 minutes decompression if you stay down for 25 minutes. The numeral "45" on the blue depth circle appears opposite the 35 minute marker telling you that 35 minutes at 130 to 149 feet require 45 minutes decompression. And so it follows: 45 minutes require 60 minutes decompression; 55 minutes require 80 minutes decompression.



EXAMINING
THE OTHER COLOURED
CIRCLES WE SEE:



FROM 110 TO 129 FEET DEPTHS



14 minutes	require	0 minute	decompression
20 minutes	require	5 minutes	decompression
30 minutes	require	25 minutes	decompression
40 minutes	require	40 minutes	decompression
50 minutes	require	60 minutes	decompression

FROM 90 TO 109 FEET DEPTHS



20 minutes require 0 minute decompression
 25 minutes require 5 minutes decompression
 35 minutes require 15 minutes decompression
 45 minutes require 30 minutes decompression
 55 minutes require 45 minutes decompression

FROM 70 TO 89 FEET DEPTHS



34 minutes require 0 minute decompression
 40 minutes require 5 minutes decompression
 50 minutes require 20 minutes decompression

NOTE: To satisfy yourself, check the above readings on your timer against recognized and approved decompression charts you have been using.

NOW, LET'S SEE HOW THE MIDO TIMER WORKS IN PRACTICAL APPLICATIONS

Whether diving to a predetermined depth or to depths unknown before your dive, you will find it easier to read your timer by always setting the black minute hand at 12 o'clock before you enter the water.



Now, let us say you intend to dive to depths from 130 to 149 feet and you want to emerge without need for decompression.

First set the black minute hand at 12 o'clock. Enter the water and dive to 130 feet.



When the black minute hand reaches the numeral "0" on the blue 130 feet circle, you know that you must surface without any further delay. No decompression pause is necessary at this point.

If you stay between 130 and 149 feet beyond these 10 minutes, it is easy for you to determine how long a decompression period you require below the surface.

Assuming that you remain at depths between 130 and 149 feet for 25 minutes, the black minute hand indicating the total stay of 25 minutes will be at the numeral "30" on the blue 130 feet depth circle.

This numeral "30" indicates that you must observe a decompression pause of 30 minutes before emerging.

In order to remember this decompression period of 30 minutes, you can fix the length of time by turning the graduated bezel until the 30 minute figure on the bezel meets the black minute hand. When the black minute hand reaches the numeral “●” on the rotating bezel, the 30 minutes decompression are up and you may emerge.



You can also read your length of decompression on the Mido deep dive timer without setting the black minute hand at 12 o'clock when you know in advance the depth and length of your dive.

Let us suppose that you intend to dive to a known depth of 105 feet. If you look at the green 90 feet circle on the dial, you will see that the numeral "0" is opposite 20 minutes on the dial. Consequently, you may stay at a depth between 90 and 109 feet for 20 minutes without observing any decompression pause before emerging. At the time you enter the water, rotate the bezel until the figure "20" on the bezel is opposite the black minute hand, whatever the position of this hand.

When the black minute hand reaches "●" on the rotating bezel, you will know that the length of time during which you may dive without observing any decompression pause has elapsed. You must then surface without any delay. In the example illustrated, the black minute hand was at 50 minutes on the dial when the dive began. Twenty minutes after, the black minute hand shows 10 minutes on the dial and is opposite "●" on the bezel.



DIVING
TO DEPTHS UNKNOWN
BEFORE DIVE



In this case you have no idea before entering the water how deep your dive will take you or how long you will be under water.

Hence, you have no way of determining if and for how long a decompression pause will be required. Your Mido deep dive timer together with your depth gauge, will give you the following information:

First, just before entering the water, set your timer's black minute hand at 12 o'clock. Then dive to any depth you wish but not beyond 149 feet and keep checking your depth gauge so you can note your deepest depth reached.

Let us suppose that you reach a maximum depth of 110 feet and that 30 minutes have elapsed since you entered the water. By that time the black minute hand will point to the 30 minutes figure on the dial as well as to the numeral "25" on the 110 feet pink circle. This means that you must pause for 25 minutes decompression before emerging.



Here are some GENERAL RULES THAT MUST BE OBSERVED when using your Mido deep dive timer during the diving operation:

1. Never dive deeper than 149 feet.
2. Your timer is calculated for decompression pauses including ascent time in accordance with accepted deep diving practice.
3. The lengths of decompression pauses are determined in 20 foot stages for depths beyond 70 feet; that is, the length of pauses are given for dives from 70 to 89 feet, from 90 to 109 feet, from 110 to 129 feet, and from 130 to 149 feet.
4. When the black minute hand indicates a decompression time between two figures, it is easy for you to estimate the intermediary figure. **But, you better base your decompression pause on the greater figure.**

The Mido deep dive timer gives you figures for longer periods of diving than the capacity of compressed air lungs in use today permit. The fact that divers often make several dives in the same day must be taken into consideration. If the lapse of time between two dives is less than 6 hours, these diving periods must be added together because a decompression pause will certainly be necessary. Therefore, it is the total time spent under water which will determine the length of the decompression pause.

Example: You dived to 70 feet for 15 minutes at 11 A. M. and emerged without observing a decompression pause, according to the indications on your dial. Should you decide to dive again at any time before 5 P. M., you must re-set the black minute hand on the dial at 15 minutes (the length of time of



your first dive). If during the second dive you stay 20 minutes at 90 feet, you will have spent a total of 35 minutes (15 plus 20 minutes) under water. This time, which will automatically be added by the black minute hand, indicates you will have to observe a decompression pause of 15 minutes. The length of the decompression pause must be based on the deepest depth reached during your two successive dives.

Note: After diving in salt water, rinse your Mido deep dive timer in fresh water while turning its rotating bezel in order to wash away the salt.

Now that you have read and studied these instructions and have become familiar with your Mido deep dive timer, let us examine several typical problems and their solutions.



Question: You intend to dive to 105 feet and emerge to the surface without being forced to observe a decompression pause:

- a) What will be the length of your dive ?
- b) If you stay for more than 10 minutes, how much decompression time must you observe ?

Answer: The depth of 105 feet being between the 90 and 110 numerals on the green depth

circle makes it necessary to base all your readings on the numeral 90. The numeral 110 refers only to dives between 110 and 129 feet.

- a) You may only stay at 105 feet depth for 20 minutes if you intend to emerge without a decompression pause. Note that the numeral "0" on the green 90 feet circle is opposite the 20 minutes figure on the dial.

b) If you remain 10 minutes beyond the 20 minutes time, the total duration of your dive will be 20 plus 10, equalling 30 minutes. You must then observe a decompression pause of 10 minutes. Verify this yourself. The black minute hand will cross halfway between the numerals 5 and 15 on the green 90 feet circle; in other words at 10.

Question: During a dive of un-predetermined depth, you stay at 65 feet for 10 minutes; then dive to 125 feet and remain for 12 minutes; then rise to 85 feet

for 8 minutes. Now you want to emerge from the water.

- a) Must you observe a decompression pause ?
- b) If so, for how long ?

Answer: When descending to varying depths during a single dive, the total time under water must be calculated at the maximum depth reached (regardless of how long you remain at the maximum depth).

For example, 10 minutes plus 12 minutes plus 8 minutes at the different depths equals a total of 30 minutes at the maximum

depth of 125 feet. Since this 125 feet depth will be indicated on your depth gauge, it is your guide to refer to the pink depth circle on your timer to read the length of decompression time for dives from 110 to 129 feet.

a) Yes, you must observe a decompression pause.

b) This decompression time will be 25 minutes because the black minute hand, which is at the numeral "30", crosses the numeral "25" on the pink depth circle.

Question: During a dive of un-

predetermined depth, you spend 10 minutes at 90 feet and 8 minutes at 85 feet. Must you pause for decompression before you emerge?

Answer: Your total time under water is 10 minutes plus 8 minutes — a total of 18 minutes. Totalling these 18 minutes at your deepest depth, 90 feet, you find that no decompression pause is required. Because the black minute hand on the dial which is at 18 minutes has not yet reached the numeral "0" on the green 90 feet depth circle.

Before diving to undetermined depths, it is imperative that you set the black minute hand on your Mido deep dive timer at 12 o'clock, except when you dive for a second time within an interval of 6 hours. (See Page 23).

The skin diving watch you also will wear out of the water.

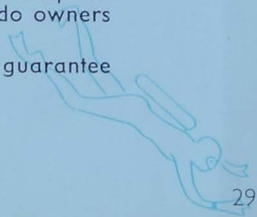
You need only to compare your timer with other skin diver watches to see that it was designed with an eye on your "out-of-water" life, too. The one-piece case gives it a trim, smart, slimmer look. It is the same case used on the new Mido Ocean Star, the elegant style-leader of the entire Mido watch line.

Wear it anywhere ! It will stimulate conversation... and give you the mark of the true skin diver.

It will also suggest many practical applications which conventional watches cannot offer. For example, your timer's movable bezel is perfect for timing car parking and at meters. You can accurately time meetings, speeches, experiments and a host of other things, including your morning coffee, if you're so inclined.

But however you use it or wherever you wear it, you have the assurance that this fine timepiece will serve you faithfully and dependably in the tradition of all Mido watches. In fact, we have no doubt that you will in time develop the same affection for this Mido watch that other Mido owners have known for years !

The Mido deep dive timer is covered by the same guarantee as the Mido Ocean Star models.





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Mido

The watch you never have to wind

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