

COMPUTEK™

Owner's Manual

ATTENTION! This manual contains important safety and operating instructions. Read it thoroughly before diving with Computek.

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Introduction

Here's Computek!

Congratulations! You're now the lucky owner of Computek, your complete multi-level sport diving instrument. Computek monitors your decompression status while continually computing and displaying your no decompression limits or decompression requirements.

In one compact diving aid, Computek gives you depth and pressure readings both digitally and graphically through Tekna's unique, patented Pictographs. Computek also shows your **Remaining Air Time**, another patented Tekna feature. Other Computek displays include no decompression time, dive count, surrounding temperature, surface interval, battery life, and safe flight indicator.

With its unique features and functions, Computek will:

- maximize your bottom time by following your multi-level dive profile.
- count, record, and display total bottom time, maximum depth, and surface interval for up to nine previous dives.
- notify you when it is safe for you to fly after diving.

How Computek Gives You More Time Underwater

During your dive, Computek monitors and displays your depths, total bottom time, and no decompression time at your current depth.

As you change depths, Computek continuously monitors your dive profile and units, displaying no decompression or decompression requirements as necessary.

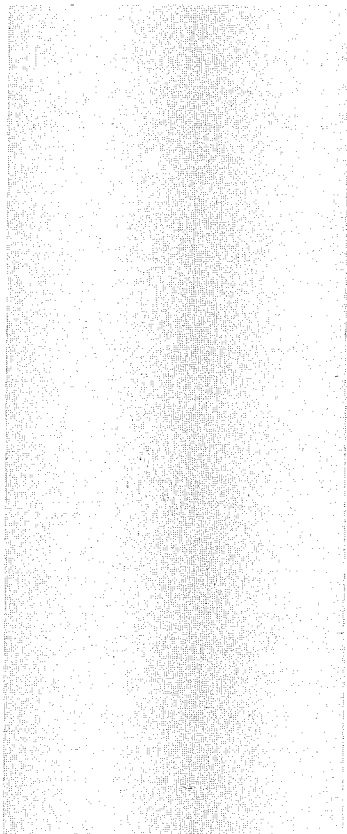
Computek bases these requirements on calculated nitrogen absorption from your current dive and residual nitrogen from your previous dives.

What Is Computek?

Computek is a fully automatic electronic computer that helps you safely complete multi-level decompression and no decompression sport dives. It is a combination depth gauge, pressure gauge, and bottom timer. While you enjoy your dive, Computek continuously updates and displays your current depth, tank pressure, and time information.

In addition, it monitors the water temperature and estimates your remaining air time. Computek confirms when you enter decompression, and aids your ascent by computing and displaying the required depth and time of your decompression stops.

On an excursion of many dives, you can count on Computek to keep a continuous record of up to nine dives for you to review later. Computek also monitors your residual nitrogen level after your last dive, until all your systems return to normal and it's safe for you to fly at high altitudes.



For Your Safety

To provide trustworthy dive information, Computek's dive profile must always match that of its user.

- Don't trade or share your Computek while it's in operation recording your dive profile. Its information won't apply to another diver, who hasn't been wearing it during your dive or throughout your dive sequence.
- Always take Computek with you on every dive. If left on the surface, Computek can't give you accurate information on your subsequent dives.

As your dive progresses, Computek continuously recalculates your nitrogen absorption based on your changing current depth. It credits you with less nitrogen absorption at shallower depths, rather than basing your nitrogen absorption completely on your deepest depth.

Enjoy the Freedom of Multi-Level Sport Diving

Sport divers enjoy the fun of repeated descents or discovery dives at depths of up to 130 feet. With Computek, you can make the most of your time underwater. You're no longer limited by time at your deepest depth and its decompression consequences, as calculated by standard dive tables. Instead, Computek keeps track of your time at all depths to determine your no decompression status.

That's the advantage of multi-level diving! By spending time at shallower depths, you can return again and again to the deeper depths and stay underwater for a longer time.

Information at a Glance

Computek attaches to the high-pressure port of your first stage regulator. It then activates automatically when you apply tank pressure.

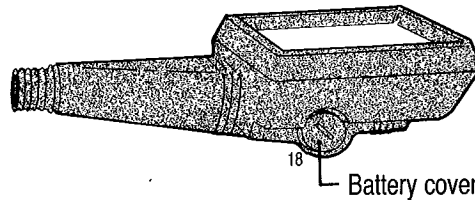
Its liquid crystal display (LCD) clearly shows all information, with the most important information in the largest numerals. All information appears in quickly readable high-contrast, easily identifiable characters, and color-coded windows. An automatically activated backlight lets you see all information quickly even in low-light conditions.

1

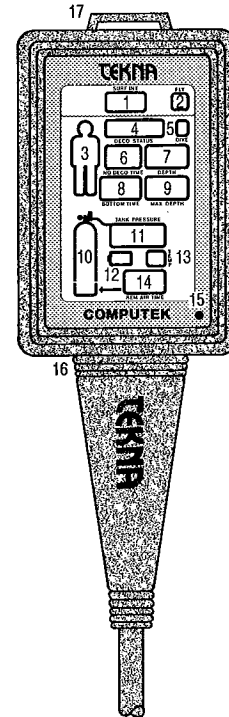
Comutek Features

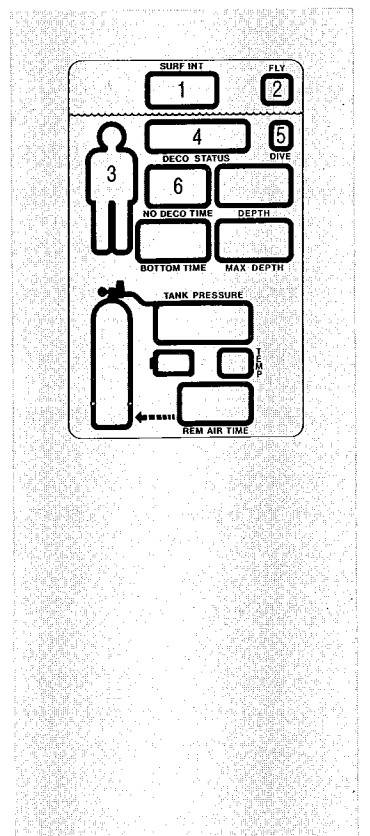
Comutek is designed to give you the most important information when you need it, quickly and clearly. Information is aided in three ways:

- highly readable digital characters.
- fill-up Pictographs of your two most important systems: remaining air in your tank and your body's nitrogen level.
- color-coded display windows indicating relevance of information.



Battery cover





1 Surface Interval (Surf Int)

Activates upon your ascent to 4 feet or less.

2 Safe Flight (Fly)

Displays an aircraft when it's safe for you to fly at high altitudes after your last dive.

3 Diver Pictograph

Empty at the beginning of your dive. During the dive, it fills to reflect your body's increasing nitrogen absorption. The fuller the Pictograph gets, the less time you have left before entering decompression. The Pictograph flashes when you have 1 minute left before entering decompression.

4 Decompression (Deco) Status

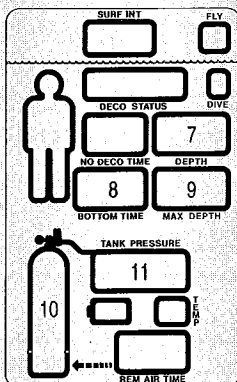
Activates when you exceed your no decompression time. It immediately indicates your required decompression stop depth and total ascent time to the surface. After you spend the mandated time at stop depth, **Deco Status** flashes and indicates your next stop depth. The display clears if no more stops are needed.

5 Dive

Shows the number of your current dive. The dive log remembers up to nine dives.

6 No Decompression (Deco) Time

Shows the minutes remaining before you enter decompression. This display begins to flash when you have 1 minute left to decompression.



7 Depth

Shows your current depth to a resolution of 1 foot. The display zeroes when you first apply tank pressure. The display also monitors your ascent at depths of 100 feet or shallower, and flashes when your ascent rate exceeds 30 feet per minute.

8 Bottom Time

Activates automatically at 7 feet below the surface, and keeps track of your time underwater. Its display freezes upon your ascent to 4 feet or less, so you can check it during your surface interval.

9 Maximum (Max) Depth

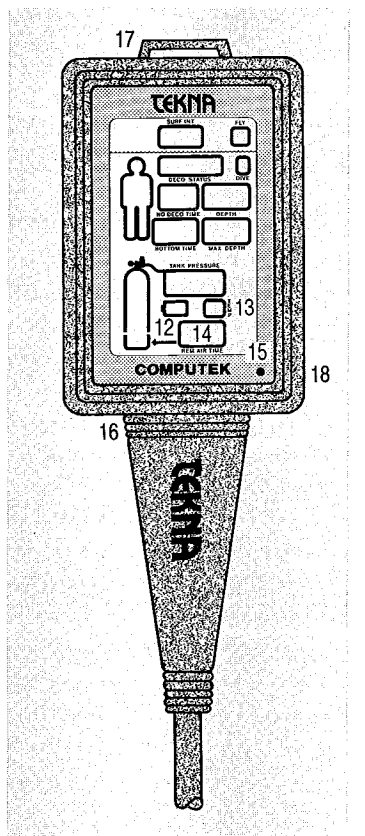
Records the deepest descent of your dive to a resolution of 1 foot. It begins to flash when your dive exceeds 220 feet. The display freezes upon ascent so you can check it during your surface interval.

10 Tank Pictograph

Filled at the beginning of your dive, representing the initial pressure in your tank. During the dive, the Pictograph empties as you consume air. The emptier the Pictograph gets, the less air you have left in your tank. The Pictograph flashes when tank pressure decreases to 500 psi or less. Each segment in the Pictograph represents 200 psi.

11 Tank Pressure

Displays the amount of air left in your tank in a psi number, corresponding to the air remaining shown in the **Tank Pictograph**. This gauge flashes when tank pressure decreases to 500 psi or less.



12 Battery Pictograph

Monitors your battery so you don't have to. The Pictograph is full when the battery is new. As your battery loses energy, the Pictograph empties. When the Pictograph is one-quarter full, it's time to replace the battery. (For complete information on your replacing your battery, see *Changing the Battery*, beginning on page 27.)

13 Temperature (Temp)

Shows the temperature of the surrounding water or air.

14 Remaining (Rem) Air Time

Projects how long your air supply will last at your current rate of consumption. The deeper you dive, the more rapidly you consume air. Remaining air time can be increased by ascending to a shallower depth.

15 Light Sensor

Controls the automatically activated backlight.

16 Hand Grip/Hose Protector

Lets you hold Computek while protecting its connector hose. It also protects Computek from damage from impact.

17 Lanyard Connector

Lets you connect Computek to your buoyancy compensator and prevent it from trailing behind you while diving.

18 Battery Cover

Protects your battery. Unscrew this to replace the battery.

Color-Coded for Quick Reading

The windows on your CompuTek are framed in fluorescent colors. This not only looks good, it also provides maximum visibility underwater for your convenience and safety.

Red frames warn you of approaching decompression. These windows include the **Diver** Pictograph, **Deco Status**, and **No Deco Time**.

Green frames monitor your air supply. These windows are the **Tank** Pictograph and **Tank Pressure**.

Orange frames display vital signals, including the bottom of your **Tank** Pictograph (getting low on air!) and **Rem Air Time**.

Blue frames display general-interest information, including your current **Depth**, **Max Depth**, and the temperature (**Temp**) of the surrounding water or air.

Yellow frames signal items of interest on the surface, including your **Surf Int**, **Fly** status, last **Dive** number in a series of sequential dives, and **Bottom Time** for your last dive.

A **white** frame surrounds your **Battery** life Pictograph.

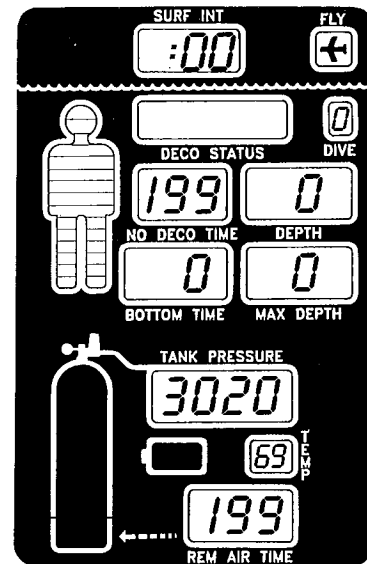
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A Sample Dive with Computek

Before Your First Dive

Attach Computek to your regulator, and then connect the regulator to your air tank. When you open the tank valve and apply air pressure, Computek activates automatically.

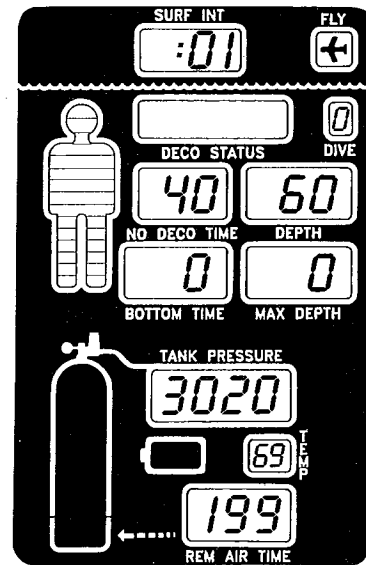
Upon activation, the Computek zeroes the depth display to insure accuracy. The depth transducer used in Computek is an absolute pressure transducer, so it is capable of sensing altitude. The initial pressure measurement it provides is used to adjust the decompression algorithm so it can provide correct instructions for altitude diving, up to 10,000 feet above sea level. This compensation is automatic, and requires only that you wait until arrival at your dive site before activating your Computek.

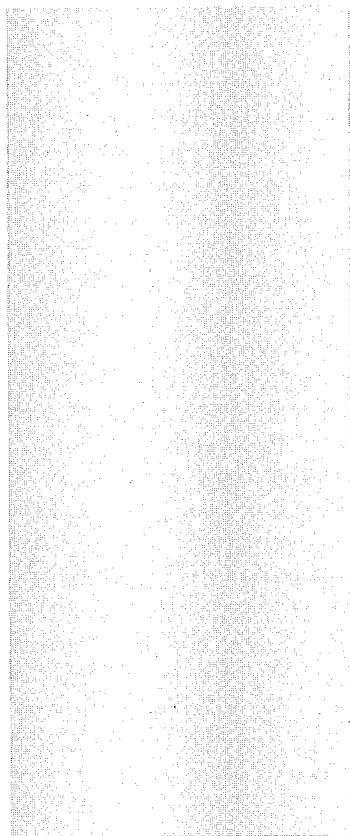


Altitude Diving

Computek automatically compensates for diving at high altitudes. NDT, decompression stop times, and time to safe flight are adjusted for the reduced ambient pressure.

After 1 minute, the **No Deco Time** and **Depth** gauges begin scrolling to show your available no decompression times (NDT) at depths from 30 through 130 feet. If your gauge displays are similar to those shown below, Computek is ready to dive!





Dive Planning Before Your First Dive

When you first activate Computek, the **No Deco Time** and **Depth** gauges scroll, showing your available **NDT** at various depths. This scrolling is continuous: available **NDT** for depths from 30 to 130 feet show sequentially for 4 seconds each; then the cycle repeats. **Surf Int** begins recording time on the surface.

Depth	NDT
0 ft.	199 min.
30 ft.	199 min.
40 ft.	135 min.
50 ft.	63 min.
60 ft.	40 min.
70 ft.	25 min.
80 ft.	17 min.
90 ft.	13 min.
100 ft.	9 min.
110 ft.	7 min.
120 ft.	6 min.
130 ft.	5 min.

RAT Underwater

Until Computek, it's been nearly impossible for any diving aid to predict how long your air supply will last. Your remaining air time depends on your rate of consumption, which varies constantly with depth, workload, physical condition, and other factors.

Computek's **Rem Air Time** feature constantly monitors your tank pressure and changing air consumption rate. It continuously calculates and displays the actual number of minutes remaining — your **RAT** — before your tank is emptied.

This is a technological breakthrough in diving. By constantly updating and displaying your **RAT**, Computek lets you manage your dive with greater efficiency and safety.

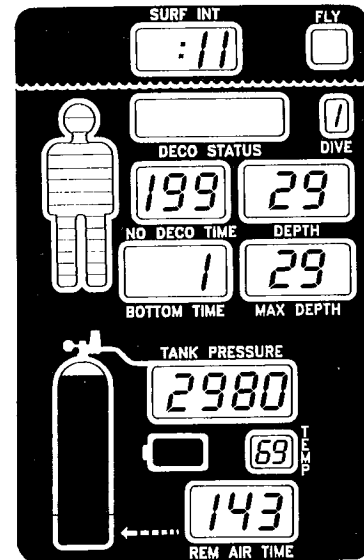
Beginning Your Descent

When your dive reaches 7 feet, Computek begins monitoring your dive profile and decompression situation:

- **Surf Int** freezes.
- The **Dive** counter rolls over to 1, showing that this is your first dive.
- The **Bottom Time** clock begins counting your time underwater.

At about 1 minute into your dive, Computek's display may look like the illustration on this page.

Surf Int is frozen and **Bottom Time** is counting. **Tank Pressure** drops and initializes **Rem Air Time (RAT)** calculations. Computek takes about 2 minutes to stabilize your **RAT**, so the first readings will be high.



Important Information:

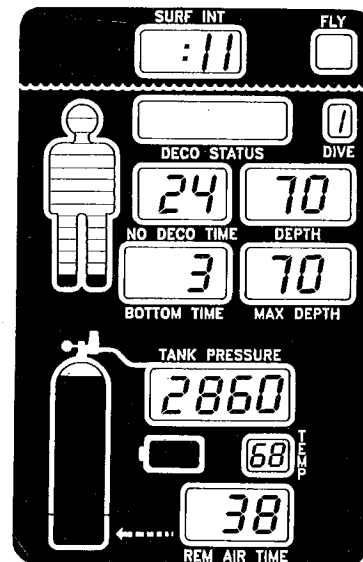
Watch the Pictures!

The **Diver** and **Tank** Pictographs are your two most important displays during a dive. At a glance they let you know how close you are to decompression and how much air you have left. By keeping your eye on these two gauges, you'll always know your dive situation.

As you dive deeper and longer, your **Diver** Pictograph begins to fill from the feet up. This Pictograph represents your nitrogen absorption, and segments are added as you approach saturation.

At the same time, segments in your **Tank** Pictograph begin blanking out as you consume air. Your **Tank Pressure** reading drops in sync with the **Tank** Pictograph and your **RAT** decreases.

At 70 feet, your Computek displays may look like this illustration:



Light in the Darkness

Computek's backlight comes on automatically whenever the ambient light drops below a factory-preset level. For instance, during a night dive or when you enter a cave or wreck during a daylight dive, the backlight comes on to ensure that Computek's displays are always quickly and easily readable.

The backlight will not operate while you're on the surface or when the battery is down to its last 25% of capacity, indicated by the **Battery** Pictograph.

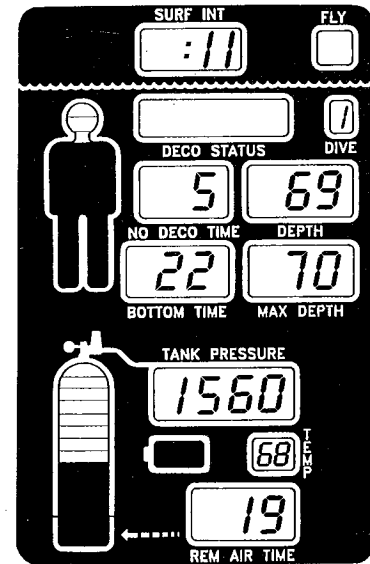
As Your Dive Progresses

Suppose your **Bottom Time** is now 22 minutes, with a 2-minute descent and 20 minutes at about 70 feet. Computek would display the information illustrated on this page. Note that the **Diver** Pictograph is nearly full and your **NDT** has decreased to 5 minutes.

The No Deco Time and Depth Gauges

You can double-check your approaching decompression by glancing at the **No Deco Time** reading. It lets you know (in minutes) how much time you have left before entering decompression.

Then check your **Depth**. At deeper depths, your no decompression time will be lower. To take advantage of Computek's multi-level calculations, ascend to a shallower depth, where your **NDT** will be extended. The segments in the **Diver** Pictograph also blank out, responding to your increased **No Deco Time** reading.



CompuTek: The Diver's Friend

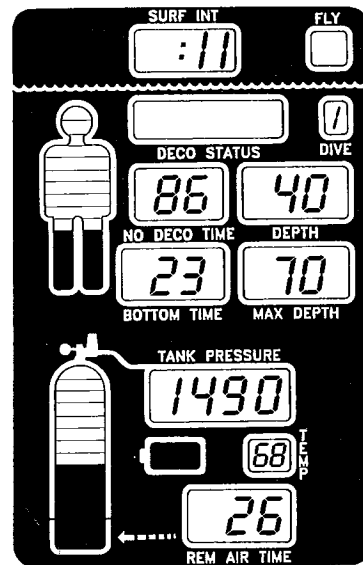
Computek keeps track of your depth and no decompression time so you don't have to. When you're within 1 minute of decompression, the **Diver Pictograph** and **No Deco Time** gauge begin flashing. If you're down to 500 psi air pressure, the **Tank Pictograph** and **Tank Pressure** gauge flash. Begin your ascent before your **Diver Pictograph** fills up or your **Tank Pictograph** empties for a safe, no decompression dive.

Enjoying Your Dive

You now ascend to 40 feet, at the safe rate of 30 feet per minute. Check Computek to see its updated display.

The **Diver** has blanked some segments and your **NDT** has increased. You've also gained **RAT** because your air consumption at 40 feet is lower. You can now safely spend considerable time at this depth, even though you nearly reached decompression at 70 feet.

Note: It is possible (and advisable) to avoid decompression stops by ascending a good distance whenever you approach the need for decompression. You can spend considerable time in the water by working your way toward shallower depths.



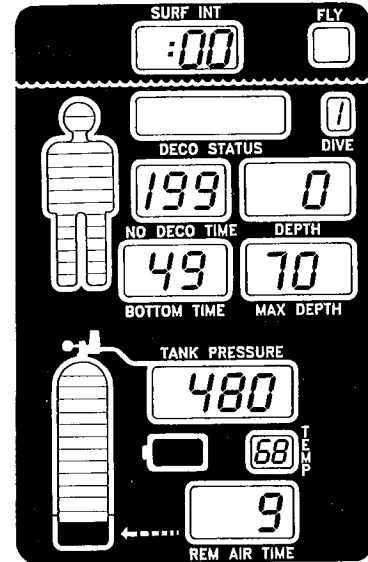
Safe Ascent Rate

Computek knows, as you do, that 30 feet per minute is your fastest safe ascent rate at depths of 100 feet or less. If you ascend faster, Computek's **Depth** gauge begins flashing to warn you to slow down. At depths greater than 100 feet, your ascent rate is not limited. In fact, faster ascent rates at greater depths are safe and reduce decompression requirements.

Your First Surface Interval

You spend about another half hour at 40 feet, then return to the surface with no decompression required. Computek shows you the information illustrated on this page.

The **Tank** Pictograph and **Tank Pressure** display are flashing because your pressure dropped below 500 psi. The **Bottom Time** display freezes and **Surf Int** resets and begins counting. The colon in the **Surf Int** display flashes while this clock is active.



Dive Log and Dive Planning

After 5 minutes on the surface, Computek begins scrolling new no decompression limits to assist your dive planning. It can now show you a dive log of previous dives.

Dive Planning

During your surface interval, the **No Deco Time** and **Depth** gauges and the **Diver** Pictograph scroll, showing what **NDT** is available at various depths for your next dive. The values they show take into account the residual nitrogen from your first dive.

After 30 minutes on the surface, your dive planning scroll might show the values in the table on this page.

NDT	Depth	Diver Pictograph	Display Time
199 min.	0 ft.	0 segments	4 sec.
199 min.	30 ft.	0 segments	4 sec.
89 min.	40 ft.	5 segments	4 sec.
43 min.	50 ft.	5 segments	4 sec.
28 min.	60 ft.	5 segments	4 sec.
20 min.	70 ft.	3 segments	4 sec.
15 min.	80 ft.	2 segments	4 sec.
12 min.	90 ft.	1 segments	4 sec.
9 min.	100 ft.	0 segments	4 sec.
7 min.	110 ft.	0 segments	4 sec.
6 min.	120 ft.	0 segments	4 sec.
5 min.	130 ft.	0 segments	4 sec.

As your surface interval increases, Computek continuously updates your dive planning information. By doing this it can account for the dissipation of residual nitrogen from your system.

You can detach Computek from your air tank without interrupting its operation. This lets you change air tanks while Computek continues to give you reliable information.

Dive Log

While you're on the surface, a dive log scroll becomes available after 5 minutes. To activate this scroll, momentarily black out the light sensor at the lower right corner of the display with your hand. The dive log scrolls once thru all logged dives whenever the sensor is covered. The dive planning scroll reappears upon completion of the dive log if the sensor is exposed to light.

In the dive log scroll, the **Surf Int**, **Dive**, **Bottom Time**, and **Max Depth** gauges display information from your previous dives.

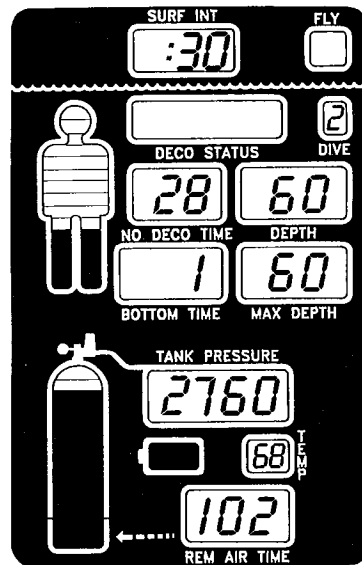
- **Surf Int** displays surface time following the dive. The colon in the display doesn't blink, indicating that this is a logged time and not your current surface interval.
- **Dive** displays dive sequence number.
- **Bottom Time** displays your underwater time for that dive.
- **Max Depth** shows the depth of your deepest descent during that dive.

Information for the dive you just completed displays for 5 seconds. Then your previous dive information displays for 5 seconds. If you have more than one previous dive, the information for each dive displays in sequence for 5 seconds each.

Computek can display information for your last dive and up to nine previous dives (ten dives in all). This display scrolls continuously, from last to first dive, as long as you block the light sensor while you're on the surface.

Your Second Dive

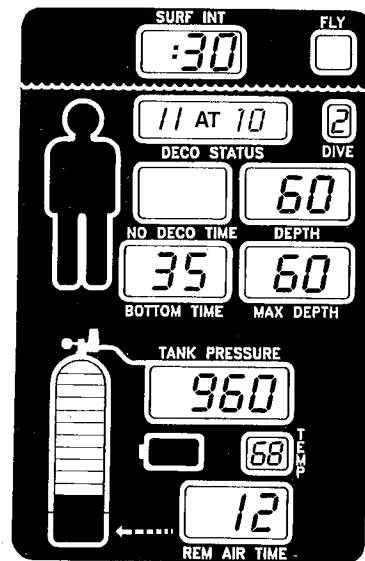
After half an hour on the surface, you begin your second dive. When you arrive at 60 feet, Computek shows you this information:



Decompression and Safe Ascent

After 27 minutes at 60 feet, the **Diver** Pictograph is full. Both the **Diver** Pictograph and **No Deco Time** gauge start flashing, warning you that ascent is advised. At 28 minutes you're in decompression. The **Deco Status** gauge begins flashing, showing you a requirement of 4 minutes at 10 feet. After 34 minutes at 60 feet, the **Deco Status** gauge shows that your decompression requirement has increased to 11 minutes at 10 feet, as shown in the illustration.

Remember that the 11 minutes is your total ascent time (**TAT**), including both your ascent and your wait at the 10-foot stop depth. When you ascend to within 5 feet of your stop depth (in this case between 15 and 10 feet), the **Diver** and **Deco Status** displays stop flashing and your decompression time continues counting down. When you arrive at the 10-foot stop depth, the display will have counted down to 9 AT 10, so that your actual wait time is 9 minutes at stop depth.



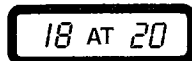
Decompression Stops

During your ascent from a decompression dive, you should be ascending whenever the **Diver** Pictograph and **Deco Status** gauge are flashing. When they stop flashing, hold your depth and allow the **TAT** (total ascent time) in the **Deco Status** gauge to count down. When the **Diver** and **Deco Status** resume flashing, begin your ascent to the next stop depth or to the surface.

After about 5 minutes, the **Deco Status** gauge clears, letting you know it's safe to ascend to the surface.

When You Need More Than One Decompression Stop

If you delay your ascent from depth, you may need more than one decompression stop to reach the surface safely. When this happens, **Deco Status** changes to indicate your **TAT** and the deepest stop depth. For example, suppose you overstay a dive at 100 feet. **Deco Status** might display this information:



18 AT 20

This means your **TAT** is now 18 minutes, and your first stop depth is 20 feet. The entire calculation includes 2 minutes at 20 feet, 13 minutes at 10 feet, plus a 3-minute ascent from 100 feet. After you ascend to the first stop depth, the display stops flashing and begins counting down. When your first stop is complete, **Deco Status** shows your remaining **TAT** and the next stop depth. The **Diver** and **Deco Status** begin flashing again to let you know it's safe to ascend to the next depth. Flashing will again cease when you arrive at the next stop, until the required wait time has counted down. Then the **Deco Status** display clears, indicating that ascent to the surface is safe.

Safe Diving Limit

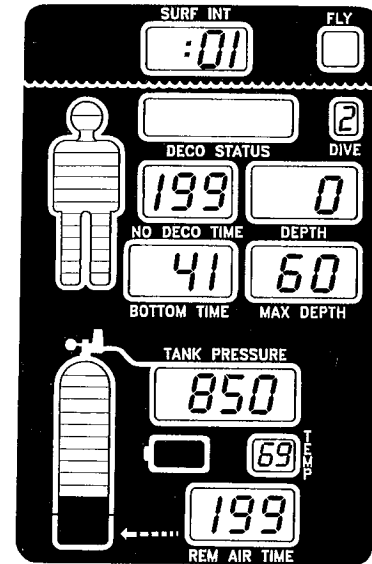
The accepted maximum safe sport diving limit is 130 feet. Avoid deeper dives.

Actual stop times required depend on your actual ascent rate. From deeper depths, ascents slower than 30 feet per minute increase your decompression time. From shallower depths, ascents slower than 30 feet per minute reduce the number of stops but increase your total ascent time.

Your Second Surface Interval

On the surface, Computek displays the information illustrated on this page. **No Deco Time** and **Rem Air Time**, both at 199, correspond to your **Depth** at 0. After 5 minutes the dive planning scroll described earlier will appear.

A surface interval continues until your next descent to 7 feet or more. You can rely on Computek to record and retain information for up to nine dives. At your tenth dive, the **Dive** counter rolls over to 1, and begins recording information for that dive. During a dive sequence of 10 or more dives, Computek retains information for your nine most recent dives.



You're In Charge!

Always keep in mind that Computek is only an informational tool. Nothing, not even Computek, can replace your own good judgment, common sense, and observance of safe diving practices.

When diving, **ALWAYS** be prepared with suitable back-up equipment, in the event that Computek defaults (see pages 32 and 33) or its information becomes suspect.

Safe Flight Indicator

After each dive, including your final dive, Computek continues to calculate your body's nitrogen level. The dive log and dive planning functions scroll for as long as Computek is active, even after you've detached the air tank.

When Computek calculates that all your body pressures are in equilibrium, it displays an airplane in the **Fly** window:

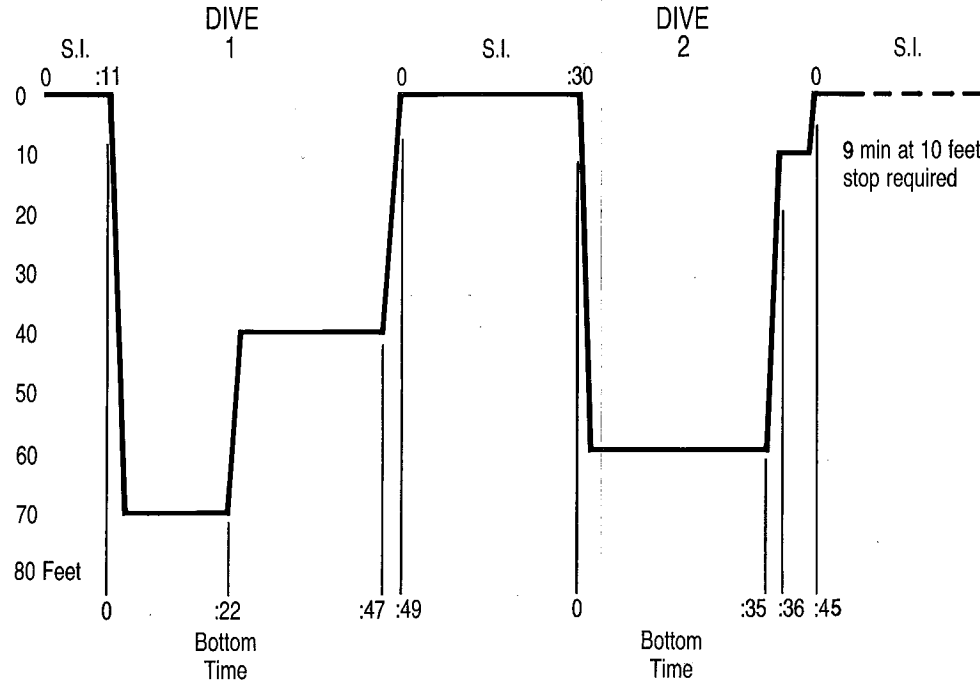


The scrolling functions shut off. All displays clear except the **Fly** indicator, and Computek goes into standby mode. This is your signal that it's now safe to fly at high altitudes. The **Fly** indicator will remain on for 4 hours, and then clear.

Note: You must detach Computek from the air tank in order for it to shut down to standby mode.

Important: The dive log is lost when the displays clear. You must record your log information before the **Fly** indicator appears.

Dive Profile for Dives Described in This Chapter



3

Owner's Information

Taking Care of Computek

Computek is cased in durable thermoplastic material that is corrosion, chemical, and impact resistant. It is designed to be quickly and easily readable at all times, even in dim-light and shadow conditions.

Computek's enemies are shock, heat, extreme cold, chemical attack, and tampering. Protect Computek and keep it at maximum operating capacity by following these guidelines:

- Always rinse your Computek thoroughly in fresh water after exposure to salt water or chlorine. Then dry it off and store it in a protected place between and after dives.
- Don't expose Computek to prolonged heat, direct sunlight, or extreme cold, which can turn its LCD display black. If this happens, immediately immerse Computek in water. The display should be readable again after a few minutes.
- Don't leave Computek in hot environments such as the trunk of your car for prolonged periods.
- Clean Computek with warm water and mild detergent only. Lubricate it only with pure silicone greases or oils.

Battery Safety

The Battery display starts flashing when it reaches the one-segment (25% of capacity) level. At this point Computek will still operate reliably for several dives. However, you should plan to change your battery as soon as possible. Never initiate a sequence of repetitive dives when the display shows only one segment.

- Never spray aerosols of any kind on Computek, since their propellants can attack the casing. Avoid exposing it to gasoline, oils, petroleum greases (including Vaseline®), alcohols, toluene, methyl-ethyl-ketone, acetone, and strong detergents.
- Never push sharp instruments into Computek's casing. For servicing, see your Tekna dealer.

Changing the Battery

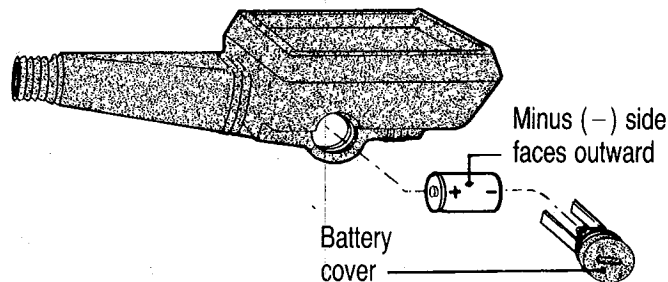
You can change Computek's battery quickly and easily. It's time to change the battery when the **Battery** display is down to its last segment, or 25% of its operating capacity:



Before changing the battery, record all your previous dive information. Computek won't retain this information once the battery is removed.

Warning: If you remove the battery before the time to high-altitude flight reaches 0 hours (and the displays blank), you will cause Computek to lose track of your current residual nitrogen level. In this situation, you must wait 24 hours before initiating any dives, to insure that Computek can treat you as a "fresh" diver with no residual nitrogen.

Detach the high-pressure air supply, rinse Computek in fresh water, and dry it off. Use a coin or screwdriver to unscrew the red battery cover on Computek's side.



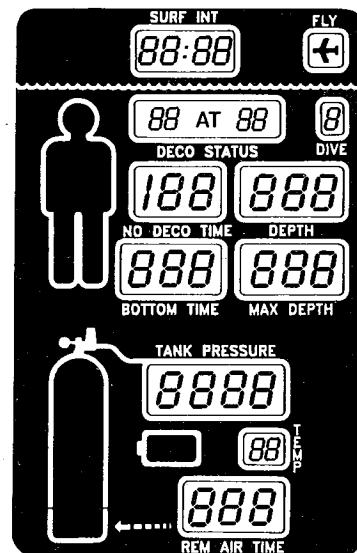
Remove the used battery and replace it with a new 2/3A lithium power cell (Duracell® DL 123A™ or equivalent, available wherever batteries are sold). Install the new cell, positive (+) end first. Clean the o-ring on the battery cover, inspect it for cracks or breaks, and lubricate it before replacing. If the o-ring is damaged, replace it with a new one.

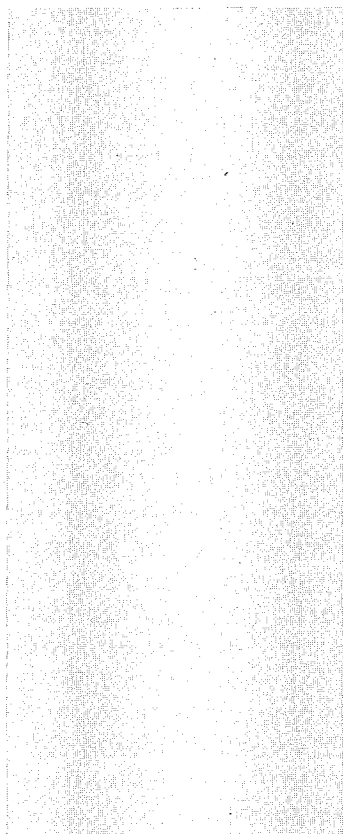
Replace the battery cover and tighten it securely against leaks. (Don't over-tighten the cover. It's not necessary and could damage the case.) When battery contact is made, the Computek display appears as illustrated on this page for several seconds.

To check Computek's functions, attach it to a high-pressure air supply and watch for similar readings to those shown on page 10 of this manual. If the readings do not appear to be correct, turn off the air supply and reinstall the battery.

Note: Be sure Computek is removed from the high pressure air supply during battery exchange, or erroneous pressure readings can result.

If Computek continues to display incorrect readings, contact your Tekna dealer or call Tekna Customer Service at 1-800-225-2075.





Specifications

Weight (in air): 1.8 lbs (820 g)

Height: 5.2 in. (13.2 cm)

Width: 3.6 in. (9.14 cm)

Depth: 2.5 in. (6.35 cm)

Max. length including hose: 40 in. (101.6 cm)

Power source: One 2/3A lithium power cell, Duracell® DL 123A™ or equivalent

Max. operating depth: 220 ft. (67 m)

Switch: Air pressure activated, fully automatic

Liquid Crystal Display (LCD)

Surf Int: :00 to 19:59 hrs. Colon separating hr. and min. flashes while surface time is being counted.

Fly: Aircraft display when high-altitude flight is safe.

Diver Pictograph: 15 segments, activating from the bottom up. Flashes when 1 min. or less of no decompression time remains.

Deco Status: Total ascent time up to 45 min. at stop depth, recalculated every 6 sec., updated as necessary. Begins flashing when you enter decompression time, stops flashing at 5 ft. (1.5 m) or less below stop depth.

Dive: 1 to 9; displays 0 before your initial dive.

No Deco Time: 0 to 199 min., updated every 1 sec. Flashes when 1 min. or less of no decompression time remains.

Depth: 0 to 220 ft. (67 m), updated every 1 sec. Flashes when ascent rate exceeds 30 ft./min. (9 m/min.)

Bottom Time: 0 to 199 min.

Max Depth: 7 to 220 ft. (2 to 67 m). Flashes at or below 220 ft. (67 m).

Tank Pictograph: 15 segments, each equivalent to 200 psi (13.3 bar), blanking from the top down. Flashes at or below 500 psi (34.5 bar).

Tank Pressure: 0 to 3250 psi (224.0 bar), updated every 1 sec. Flashes at or below 500 psi (34.5 bar).

Battery: 4 segments, blanking from left to right. Flashes when 1 segment (25% of capacity) remains.

Temp: 15 to 99°F (-9 to 37°C), updated every 5 sec.

Rem Air Time: 0 to 199 min., updated every 5 sec.

Default Warning

If your Computek defaults for any reason, decompression information (all red-framed windows) will flash, warning you that Computek has entered default mode.

Default Conditions

If you exceed Computek's capability to provide you with reliable information regarding decompression, it will enter a default mode. Once a default condition occurs or is imminent, number 8's will appear and begin flashing in the **Deco Status** and **No Deco Time** windows.

Once a default is permanent, all decompression calculations will be disabled. Computek will not display any dive planning information during the following surface interval, nor any decompression information in a following dive. Instead, Computek will require a continuous 20 hour surface interval before returning to normal operation.

Default Condition 1:

Diving deeper than 220 feet (67 m)

If you continue at this depth for less than 1 minute, the red framed windows will flash as described above as a warning of impending default. The default will clear when you ascend.

If you continue at this depth for greater than 1 minute, the default will become permanent. You must then rely on standard tables to determine your decompression status. Computek will continue to provide bottom time, depth, and tank pressure information.

Default Condition 2:

Ascending above an indicated stop depth before waiting the required time

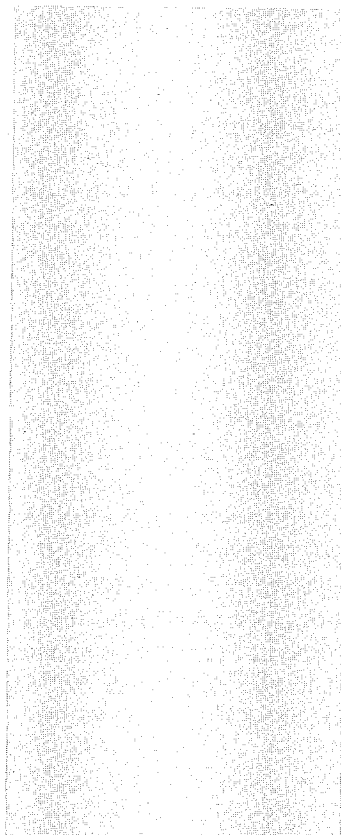
Computek monitors your exact ascent ceiling limit, although it presents stop depths in 10 foot increments. If you ascend above the indicated stop, but do not exceed the actual ceiling, the red framed windows will flash, indicating that you are at the incorrect depth, and should return to the indicated stop depth promptly.

If you ascend above the actual ceiling, the red framed windows will flash the default indication, as described on page 32, as a warning of impending default. Excessive time spent above the actual ceiling will result in a permanent default and all decompression information will be disabled. Computek will allow a cumulative total of 2 minutes above your actual ceilings during any repetitive dive sequence.

Default Condition 3:

Delaying at depth so that you accumulate a projected TAT requirement of 45 minutes or more

In this event, Computek will permanently enter the default mode described on page 32 with no delay period.



Tekna Decompression Algorithm

The Computek Decompression Computer incorporates a mathematical algorithm to simulate the behavior of human tissues as they absorb and release nitrogen throughout a sequence of dives. This algorithm is based upon the work of Dr. Max H. Hahn and derives from the universally accepted theories of Haldane. The algorithm monitors eight compartments, each simulating a different rate of gas transfer, thereby providing a reasonable model of human tissue behavior.

At any given time during a dive, one of these compartments will be closest to saturation, and can be used to determine whether or not the diver will require decompression. As the diver descends and ascends through the course of the dive, each of the compartments will uptake and release gas accordingly, so that the calculation will continually respond to the diver's current depth. In this way the algorithm accounts for "multi-level" diving and thereby maximizes the diver's possible bottom time by crediting him or her with time spent at shallower depths.

Because of the inherent complexity of the depth-time profile of multi-level diving, it is only possible to monitor such a situation with a powerful computer capable of continuously making the rapid calculations necessary. This is the function of Computek, which combines state-of-the-art, low-power CMOS microchip technology in a compact, highly reliable surface mount configuration with sophisticated software. The result is an instrument capable of constantly monitoring the status of a diver and presenting all pertinent data to him or her in an easily readable format.

Decompression Cautions

The Computek algorithm is based on the most up-to-date information available and has been specifically tailored to the sport diver. The algorithm always retains a small nitrogen residual in repetitive dive situations which effectively prevents repeated bounce dives to the same maximum depth without a decompression requirement.

Tekna strongly recommends that sport divers do not exceed the generally accepted maximum depth limit of 130 feet, and that dives requiring decompression be avoided. While Computek is capable of measuring greater depths and calculating decompression stops, these dives are potentially dangerous, and are likely to require an air supply in excess of that normally carried by a sport diver. Decompression time requirements build rapidly, and can easily catch an inexperienced and unprepared diver without a means of completing the stop requirement.

It should also be noted that Computek has limitations which can potentially result in the blanking of decompression related information. (See *Default Conditions* beginning on page 32 of this manual.) It is necessary that the diver always have available a backup decompression table, and be prepared to revert to a manual calculation of decompression status based upon bottom time and maximum depth information only.

Because of the cumulative nature of nitrogen absorption, it is particularly important that repetitive dives be made to progressively shallower depths. It is also advisable to plan each dive to reach its deepest point early on, and

then to proceed progressively to shallower depths, allowing outgassing to occur without the need for decompression stops. In this way you will take maximum advantage of the multi-level diving algorithm, and be able to enjoy longer dives in complete safety.

Altitude diving requires special precautions, and appropriate training is recommended. Computek assumes the diver has saturated at altitude prior to beginning diving.

Limited Warranty

Tekna warrants its Computek Dive Computer to be free of defects in workmanship and materials under normal use for a period of two (2) years from date of purchase under the terms and conditions below:

1. To validate the Limited Warranty, complete the registration card and return it to Tekna, 101 Twin Dolphin Drive, Redwood City, CA 94065 within 14 days of purchase.
2. This warranty does not cover damage or defect due to misuse, alteration, negligence, or accident; nor does it cover damage or defect due to repair by someone other than Tekna.
3. This warranty does not cover batteries.
4. This warranty does not cover and Tekna shall not be liable for incidental or consequential damages. This warranty is in lieu of all other express or limited warranties of Tekna, including any implied warranty of merchantability or fitness for any particular purpose. Tekna does not assume on its behalf any other obligation or liability.
5. This warranty is not transferable to any owner other than the one identified on the registration card.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Liability Disclaimer

Even with all the research that has gone into making Computek as statistically safe as possible, Tekna Inc., its distributors, and its retailers make no warranties, either expressed or implied, with respect to Computek, the programs contained therein, or this Owner's Manual except for those covered under the Limited Warranty.

It is expressly understood that by buying or using Computek, the owner or any other person who may use it accepts it "AS IS" with the entire risk as to its quality, performance, merchantability, or fitness for any particular purpose being with the buyer or user. This excludes replacement of defective parts to the original owner in the first two (2) years after purchase under the conditions set forth in the Limited Warranty.

As a condition of the purchase of Computek, you understand and agree that in no event will Tekna Inc., its distributors, or its retailers be held liable for any personal injuries resulting from its operation, or for any other damages whether direct, indirect, incidental, or consequential even if Tekna Inc. has been advised of such damages. Some states do not allow the exclusion or limitation of implied warranties or liabilities for incidental or consequential damages, so the above limitation may not apply to you.

Using Computek, just as using the U.S. Navy Tables or any other dive computer, is not a guarantee of preventing decompression sickness. Computek's decompression model is conservatively consistent with the surface tissue tensions allowed by the U.S. Navy and the Rodgers/Powell research, commissioned by PADI® and now used in the PADI® Recreational Dive Planner™.

Computek is intended for use by divers who have successfully completed a nationally recognized course in SCUBA diving. Computek should not be used by a person who is untrained and who may not have knowledge of the potential risks and hazards of SCUBA diving. Receipt of your Limited Warranty registration card will provide acknowledgement that, prior to using Computek, you have read and understood the contents of this Owner's Manual.

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