

Pivot DS3 Users Guide

Operation

Operation of your Pivot DS3 is simple, essentially the same as reading an analog instrument except the information is digital instead of analog. However, the Pivot® DS3 offers far greater precision plus more features than a “standard” analog gauge. Learning how to properly use the Pivot DS3 consists of understanding four different digital displays: Surface, Dive, Alternate Dive, and Dive Log. You should also learn how to replace the battery when it becomes necessary.



WARNING: Improper use of the Pivot DS3 may result in serious injury or death. Read and understand these instructions thoroughly before you dive.

Activation/Diagnostic Mode

Before the first dive of the day, you must activate the Pivots DS3 by pressing the button on its face while above water (see figure 1). A “full-segment” display will appear, followed by a countdown from 9 to 0. During diagnostic mode the Pivots DS3 calibrates itself to ambient atmospheric pressure. When diving at high altitude (over 4,000 feet) lakes or rivers the depth display is recalibrated to measure feet freshwater (FFW) instead of feet of saltwater (FSW).



Figure 1

Low Battery

The battery power level is checked during diagnostic mode. If the power is low, a “LOW BATT” indicator will flash on the display (see figure 2). This alerts you to change the battery. Usually there is enough battery power to dive for at least the rest of the day. When there is not enough power to complete a full day of diving, the LOW BATT indicator will flash four times and then the display will deactivate. The Pivot DS3 is designed to avoid battery-related shutdown between dives. If you do not dive within 2 hours after activation, a battery-saver feature deactivates the Pivot DS3. Reactivation is required before diving.



Figure 2

Surface Mode

Surface Mode (figure 3) is displayed after diagnostic mode is completed, or after completing a dive. In surface mode the DS3 displays the following information:

1. Dive number (0-9 dives) which alternates with air temperature in °F or in °C for metric version.
2. Depth (0 feet, or 0 meters for metric version).
3. Surface time in hours:minutes.



Figure 3

Dive Mode

Dive mode (figure 4) begins once you descend past 5 feet. It displays dive number, bottom time, depth (0-249 ft., or 0-76 meters) and your ascent speed. The ascent rate indicator, located on the left side of the screen, has six different ascent rate “speed zones” represented by inverted triangles. Figure 5 shows the different ascent rates represented by the triangles. When ascending, keep your ascent rate slow enough to avoid entering the red zone which will cause all the triangles to flash.

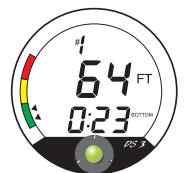


Figure 4

NOTE: If you exceed 249 feet, or 76 meters, three dashes (- - -) replace the depth display indicating you are out of range. Triple dashes will also replace the max depth dive in the log display.

Alternate Dive Mode

Alternate Dive Mode (figure 6) replaces dive mode every 15 seconds. It displays water temperature and maximum depth for two seconds before reverting to normal Dive Mode. Alternate Dive Mode is easy to recognize because the bottom time display disappears.

Dive Log Mode

Dive Log Mode (figure 7) is accessible once you are back on the surface. To display the dive log mode press the activation button. The dive log will display the following:

1. Dive number
2. Total bottom time
3. Maximum depth
4. Maximum ascent rate

This information will be displayed for 5 seconds followed by the alternate dive log screen which will display your dive number and surface interval (prior to the dive). You may freeze the dive log display at any time by holding down the activation button. Once the button is released you can go to the next logged dive. Your Pivot DS3 holds up to 9 dives in memory indefinitely until your next dive after 12 hours, or until the battery is changed.

NOTE: When you enter the Dive Log Mode, the DS3 displays the most recent dive first. If you hold down the button for eight seconds while this dive is being displayed you will see factory calibration codes. The calibration codes will scroll E8, E7, E6, etc., down to E1. After the calibration codes finish scrolling, the Pivot DS3 will return to Surface Mode. These calibration codes are for factory use only.

Flying After Diving

Since the surface interval timer automatically deactivates 12 hours after a dive, you can use this as an indication of when to board a commercial airliner. The Divers Alert Network (DAN) recommends a minimum surface interval of 12 hours. If you plan to make daily, multiple dives for several days, or make dives that require decompression stops, wait for an extended surface interval beyond 12 hours before flight.

Using the Pivot Console Boot

The Pivot® console boot is designed to allow you to constantly monitor crucial dive information while either reading the pressure gauge, or navigating with a compass. With other gauge consoles that have the compass alone on the backside of the boot, you have to keep flipping the gauge back and forth to see the dive information while navigating with the compass.

To have the compass and gauge visible at the same time, simply rotate the bottom section of the boot, in either direction, until it "clicks" into place. The pictures on the front cover of this manual show how the lower section of the boot swivels.

After you have reached your underwater destination, rotate the bottom section so the pressure gauge faces up.

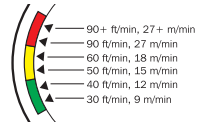


Figure 6



Figure 7

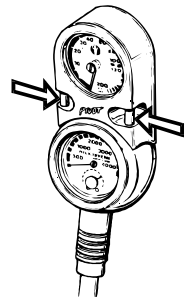


Figure 8

Lanyard Attachment Post

On each side of the Pivot DS3 boot, there is a lanyard attachment post (figure 8). You can attach one end of a lanyard to the post and the other end to your buoyancy compensator. This keeps the console close to your body, preventing damage to both the gauge and the marine environment.

Maintenance

Have your Pivot DS3 inspected once a year at an Authorized U.S. Divers Dealer. They will perform a visual inspection and function test. If you request, they will change the battery and/or perform a depth accuracy chamber test. The cost of these services is not covered the Pivot DS3 two-year limited warranty. The only Pivot DS3 service you can perform yourself is battery replacement.

Battery Replacement

The "LOW BATT" indicates that the battery needs to be changed. You can do this yourself, but your local U.S. Divers dealer is better equipped to handle this procedure. If you are not near a U.S. Divers dealer, follow these steps exactly:



CAUTION: Damage from improper battery replacement is not covered under the DS3 warranty. U.S. Divers strongly suggests having this procedure done by an authorized U.S. Divers dealer.

The Pivot DS3 uses two of the following battery equivalents: Duracell(r) DL 2032, Radio Shack(r)23-162, Maxell(r) CR 2032, or Panasonic(r) CR 2032. You can purchase these batteries at camera stores and electronic stores, such as Radio Shack. If the battery access hatch O-ring needs to be changed, you can purchase the properly sized O-ring (PN 8200-23) from your U.S. Divers dealer. Perform all procedures in a cool, dry room. Excessive humidity, or salt air can inhibit good battery connection.

Battery removal:



CAUTION: DO NOT bend back the boot to remove the gauge module. Doing so may cause the two halves of the Pivot(r) boot to separate. If the gauge boot separates, see the instructions on page 10 to reconnect the top and bottom sections.

1. Before changing the battery, you must remove the gauge module from the top of the Pivot(r) boot. Make sure to work over a cushioned area to prevent damage to the gauge module. To remove the module, peel back the very top of the rubber boot with your fingers while, at the same time, pressing in on the back of the boot with your thumbs.
2. Dry the DS3 module completely with a paper towel. Gently shake any excess water from around the battery compartment. Dry again.
3. Use a nickel, or quarter to unscrew the battery access hatch. DO NOT use a screwdriver. Turn the DS3 module upside-down. Shake once gently to make the batteries fall out.
4. Discard the old batteries in an appropriate trash receptacle.
5. Inspect the battery compartment for any moisture. If any moisture is found, dry thoroughly. Corrosion can be cleaned with a 50/50 solution of white distilled vinegar and water. Rinse with fresh water and dry thoroughly.
7. Replace the old batteries with new ones from the battery kit (or equivalent). Skip to step 11 if you do not intend to replace the O-ring.

Optional O-ring Replacement (mandatory if moisture is found in battery compartment)

8. DO NOT use any tools. Press the sides of the O-ring on the hatch to create a protrusion. Pull the protruding part of the O-ring over the threads and remove.
9. Take the new O-ring (U.S. Divers PN 8200-23) and lightly lubricate it with silicone grease (Dow Corning 111 recommended) and wipe off the excess. DO NOT USE SILICONE SPRAYS.
10. Install the O-ring in groove on hatch being careful not to cut the O-ring on the threads.

New Battery Installation

11. Place the first battery, plus (+) side up, into the compartment. Try not to get skin oils on the battery contacts. Wipe clean before insertion.
12. Put the second battery, also plus (+) side up, on top of the other battery. Make sure that the upper gold battery contact rests against the SIDE of the battery, not on top.
13. Replace the battery hatch (make sure O-ring is installed) and tighten hand tight with a nickel, or quarter. DO NOT use a screwdriver.
14. Activate the Pivot(r) DS3 to test the battery connection.
15. To insert the module back into the rubber boot, you first want to orient the gauge straight up and down. Insert the gauge into the upper section at a 45 degree angle and then press into place.

Installing a Compass into the Pivot Console Boot

1. Using your thumb, pull back one of the lower corners of the rubber boot (see figure 9). While holding the corner back, lift out the slate.
2. If the console has been used, clean the boot in warm, soapy water to remove any sand, salt, or dirt. Rinse in fresh water and dry before installing the compass.
3. How you wish to "sight" your compass will determine the orientation of the side scan window of the compass module in the rubber boot. The side window will face either the rear of the console, or the side of the console. Place the compass into the boot as shown in figure 10.

