

Strato **W**



*Digital Altimeter for
skydiving*

Reference Manual

strato-alt.com

WARNING!

PARACHUTING IS A DANGEROUS ACTIVITY THAT MAY
RESULT IN INJURY OR DEATH.

Like any electronic device, a digital altimeter is subject to malfunction. Hence do not rely solely on an altimeter for your safety. Treat your altimeter as a tool to assist in monitoring your altitude. Always check your altitude visually with respect to the ground along with the altimeter readings.

Prior to your jump, always turn on your altimeter at the drop zone.

DO NOT use this equipment in freefall unless you have completed, or are currently enrolled in, an approved skydiving course.

Use Strato W at your own risk.

STRATO SYSTEMS operates under a policy of continuous improvement. Therefore, we reserve the right to change the design, software, and documentation without prior notice.

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Introduction

Strato W is a free fall computer designed to enhance your skydive experience. Conceived utilizing state-of-art electronic components and designing-for-safety software concepts, Strato W is a user-friendly device that includes the most important features used by today's skydivers.

Strato W is fully compensated over weather variations across the day.

The altimeter is powered by a single **CR-2430** coin cell.

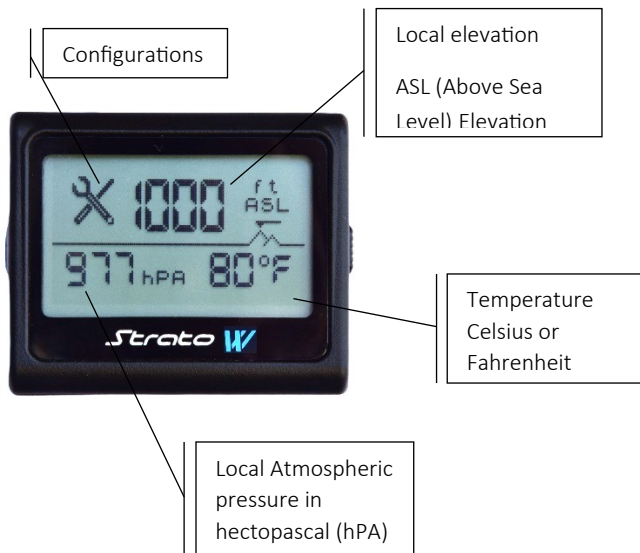
Data from the last 50 jumps (exit altitude, speed, free fall time and parachute deploy) are available with one button click as well as the logbook saves jumps data & time for one year period.

LCD backlight for night jumps is also available.

Operation

Turning-on

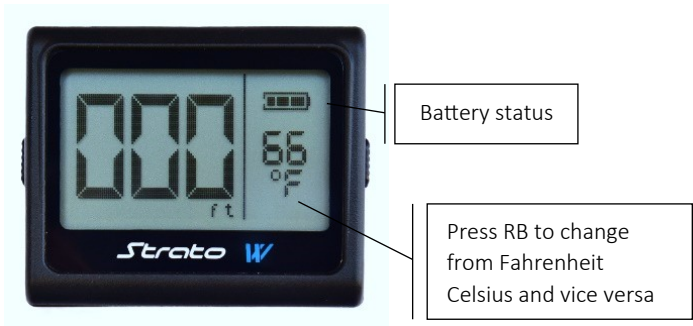
Press the **right button (RB)** to turn on the altimeter. The initial screen will show up.



After 5 seconds, Strato W will display the date of your last jump for 5 seconds. At the bottom of the screen will be the Readiness Condition (REDCON) which is the self-test report. 100 0 000 means the device PASS all the internal self-tests and is ready to use.

Notice the absolute local elevation may vary day-by-day as well as from one device to another. The altimeter relies on the local atmospheric conditions to set its level 0 (relative ground level). The Strato W will automatically correct variations of the level 0 altitude periodically during the day.

When not jumping, the altimeter turns-off the LCD to save power consumption. It will turn on automatically at 250ft during the aircraft take off.



The device is ready to use.

Press any button to wake up the LCD.

Data and time will show up. After 10 seconds it returns to the relative local altitude (000).



Jump Data

With the LCD on, by pressing the **left button (LB)** will show the data of the last jump. Pressing LB again shows the data of the jump before the last, and so on.

After 10 seconds without any button activity the screen returns to the main screen.

Strato W saves data from the last 50 jumps. After 50 jumps the older data is overwritten by the latest jump data.

Changing the battery does not erase the jump statistic data.

The SPEED reported is the average skydiver speed at 6000ft.

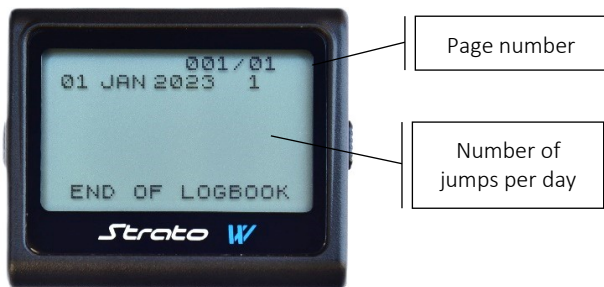
The deploy altitude (DPLY) captures the altitude when skydiver speed slows down to 30m/s (108kmh | 67mph). The same for free fall time (FFT).



Logbook

From the initial screen, the logbook screen is accessed by pressing RB after LB. The first page of the logbook displays the number of jumps in the last 6 months.

By pressing RB again, the logbook displays the number of jumps day-by-day, from the latest to oldest. Each further RB pressing will show the next page of the logbook.



The altimeter can save up to 365(days) x 999(jumps/day) jumps. The log data of each day remains until the next(s) year(s). For instance, supposed the skydiver made five jumps on August 12, 2022. If the skydiver does not jump on August 12 of the subsequent years, the number of jumps save on August 12, 2022 will remain the same. On the other hand, if the skydiver did 2 jumps on August 12, 2023, the 5 five jumps saved on August 12, 2022 will be replaced by the 2 jumps done on August 12, 2023.

Changing the battery does not erase the logbook.

Erasing all data within the logbook (as well as the statistical data) can be done through the CONFIG menu.

During the aircraft climbing, RB is disable. Hence, the logbook as well as device turn-off functionalities are not accessible.

Turn-off

There is no need to turn off Strato. The Strato W will power-off after 14 hours of inactivity. But it is also possible to turn it off automatically.

To turn-off the device:

1. Press LB to enter the Logbook, then
2. Press LB + RB for 10 seconds until you see "GOODBYE"
3. Release LB and RB together

IMPORTANT!

Turn-off the device if you plan to change the DZ in a couple of hours. Turn it on at the new DZ you are going to jump.

Free fall

LB is disable during aircraft climbing.

LB and RB are disable during free fall. They will only enable again after landing.

After exiting the airplane, the temperature display is replaced by the vertical speed.

The speed takes the average speed of the last 5 seconds.



Configurations

The CONFIG menu offers the following device configurations:

1. Unit (imperial or metric) options
2. Data and time adjustment
3. Clear logbook
4. Alternate drop zone (DZ) set
5. Back light on/off
6. Demo mode

To enter the CONFIG menu, press RB to turn on the altimeter. After 3 seconds, press and hold LB and wait.

Press LB to
enter the
CONFIG menu



The CONFIG menu can only be accessible through the initial screen.

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Page 2



Use LB to navigate through the options. The left arrow ► (the selector) marks the current selection. Each LB press moves the selector to the next.

ft or m ➔ hour ➔ minute ➔ day ➔ month ➔ year ➔ ...
LB LB LB LB LB LB

Use the RB to change/check/uncheck the current option.

After adjusting the option continue pressing LB until returning to the initial screen. If you need to adjust again a configuration, just keep pressing LB once more. Otherwise, let it go.

DZ ASL elevation will be treated in the next section. Demo mode will simulate a jump. This is useful for students doing dirty diving.

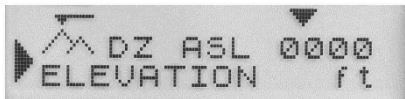
Alternate DZ

The last option on the first page of the SETUP menu is the Alternate DZ. Use this option to land at a different drop zone than you take off.

The elevation number is the **ASL (ABOVE SEA LEVEL) elevation of the new DZ.**

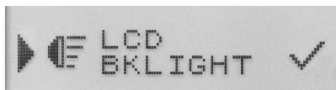
0000 ft (or m) means this feature is disable.

0010 ft, for instance, if you are going to land on the beach.



LCD Backlight

The LCD backlight is used in night jumps. Activate the LCD backlight in the CONFIG menu.



It is also possible to enable the LCD backlight when the airplane is climbing. To enable the backlight, press and hold LB. With LB pressed, press RB 5 times. The LCD will light up and the lamp icon will show up on the screen.



You can turn on/off backlight during climbing by pressing RB. When the feature is active, the LCD will automatically illuminate as soon as you leave the airplane and will be turned off after landing. The back light consumes a lot of power from the battery. So, avoid keeping it on during the aircraft climb.

Altimeter placement

The Strato W is designed to be used on your arm. Do not use it in a condition exposing the device to an air burble. If so, the device can return erroneous reading of the altitude.

Therefore, we do not recommend using Strato as a chest mount altimeter.

Battery status



90% to 100% capacity



50% to 60% capacity



25% to 30% capacity

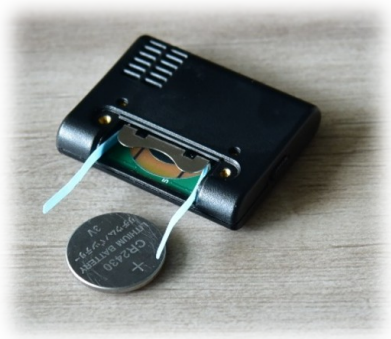


Empty – Replace battery IMMEDIATELY.

Battery Replacement

The battery compartment is accessible at the back side of the altimeter. To replace the battery, remove the screws from the back of the altimeter that attach the altimeter to the wrist support. Carefully slide the altimeter to the right.

Remove the battery compartment screws. The stripe is used to pull the battery out. There is no need to pull the stripe out.



Install the new battery using the correct polarity.



Bend the plastic stripe around the battery and close the battery compartment.

Use only **CR-2430** coin cell batteries.

Data logbook and jump statistics as well as the customer settings are not lost when replacing batteries. However, the built-in clock will need to be adjusted to the correct time and date.

Specification

General

- Altitude range: sea level to 30,000 ft (9144m)
- Altitude resolution (pressure sensor): +/-1m
- Operating temperature: -10°C to +60°C
- Clock accuracy: +/- 10s/day
- Battery: 1 x **CR-2430** coin cell
- Battery life: > 500 Jumps (no LCD back light activated)
- Temperature sensor resolution: +/-1 Celsius degrees

Mechanical

- Dimensions: 54mm x 44mm
- Viewing area: 41mm x 24mm
- Weight: 24g (no battery include)

Unit

- Distance: imperial or metric
- Temperature: Celsius or Fahrenheit

Jump data

- Maximum number of jumps: 50
- Exit altitude typical accuracy: +/- 100ft
- Deployment altitude typical accuracy: +/- 100ft
- Freefall time typical accuracy: +/- 1 sec *
- Speed typical accuracy: +/- 5 mph *

** Skydiver's de-acceleration varies as function of the total weight, breakoff speed, canopy size, body position and so on. Deviations in these parameters can occur as function of those listed above as well as caused by air bobbles during freefall.*

Logbook

- Maximum number of days: at least 1 year (jumping every day)
- Maximum number of jumps per day: 999

Warranty

STRATO provides this limited warranty to the purchaser of the STRATO skydive altimeters and of the related accessories. During the warranty period, STRATO, or a STRATO authorized service center, according to their exclusive judgment, will remove any defect concerning material, design, and workmanship, free of charge, by means of repair or replacement of the product according to this limited warranty.

Warranty period

The warranty period starts from the retail purchase date by the first purchaser. The limited warranty is valid for a period of 2 years.

Within the limits allowed by the applicable National Laws, the warranty period will not be extended or renewed or changed in any way following a later resale, product repair or product replacement authorized by STRATO. However, the parts of the product repaired or replaced during the warranty period, or the replaced product are warranted for the remaining original warranty period or for three months from the repair or replacement date, depending on which period is longer.

How to avail of the warranty services

If you want to submit a claim according to this limited warranty, contact your STRATO authorized dealer for information about claim submission; information will be provided about how to request the application of the warranty to your product.

If you want to return the product by shipping it to your authorized STRATO dealer, make sure that shipping is prepaid.

The request for repair under warranty will be satisfied free of charge by STRATO service center, according to our exclusive judgment, and the product will be repaired or replaced within a reasonable time.

If the product is deemed non-compliant with the terms and conditions of this limited warranty, STRATO reserves the right to charge service and/or repair costs.

Other important notes

In case of product repair or replacement, the data and contents stored in it may get lost.

STRATO or a STRATO authorized service center will not be liable for any damage or loss of contents or data during Product repair or replacement.

The Product or part of it, when replaced, will become property of STRATO. In case of repair or replacement of the Product, STRATO or a STRATO authorized service center, can use new, as new or repaired products or parts.

If your Strato H behaves abnormally, do not jump with the altimeter. Contact your sales representative for guidance.

Exclusions and limitations

This limited warranty does not cover:

1. Product deterioration due to standard wear.
1. Defects caused by improper use (including, but not limited to, defects caused by sharp objects, bending, compression, fall, shocks, etc.).
2. Defects or damages due to improper use of the product, including use non-compliant with the instructions provided by STRATO (e.g. those indicated in the instruction manual of the product)
3. Defects caused by other events not depending on STRATO.
4. Replaceable batteries.

This limited warranty is void in the following cases:

1. if the Product has been opened, changed, or repaired by personnel not belonging to STRATO or a STRATO service center.

2. if the Product has been repaired using non authorized spare parts.
3. if the Product has been exposed to chemical substances such as (including, but not limited to) insect repellents.

STRATO does not guarantee uninterrupted or error-free operation of the Product or that the Product will operate in combination with other hardware or software provided by third parties.

Limitation of STRATO liability

THIS LIMITED WARRANTY IS THE ONLY AND EXCLUSIVE APPEAL INSTRUMENT AVAILABLE FOR THE PURCHASER AND REPLACES ANY OTHER WARRANTY, EITHER EXPLICIT OR IMPLICIT. HOWEVER, THIS LIMITED WARRANTY DOES NOT PREJUDICE THE RIGHTS GRANTED BY THE APPLICABLE NATIONAL REGULATIONS. STRATO SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR FORESEEN BENEFITS, LOSS OF SAVINGS OR INCOME, DATA LOSS, PUNITIVE DAMAGES, UNSUCCESSFUL USE OF THE PRODUCT OR ASSOCIATED EQUIPMENT (IF ANY), COST OF THE CAPITAL, COST OF THE REPLACEMENT EQUIPMENT OR STRUCTURES, DOWNTIME, CLAIMS BY THIRD PARTIES, INCLUDING CUSTOMERS AND DAMAGES TO PROPERTIES CAUSED BY THE PURCHASE OR USE OF THE PRODUCT OR RESULTING FROM BREACH OF WARRANTY

OR CONTRACT, NEGLIGENCE, ABSOLUTE RESPONSIBILITY OR OTHER LEGAL MEANS, EVEN IF STRATO KNEW THE PROBABILITY OF SUCH DAMAGES. STRATO SHALL NOT BE LIABLE FOR DELAYS IN THE PROVISION OF THE SERVICE TO WHICH THIS LIMITED WARRANTY REFERS OR OF THE IMPOSSIBILITY OF USE DURING THE PRODUCT REPAIR PERIOD.