ALTITRON

DIGITAL ALTIMETER

Manufactured by:

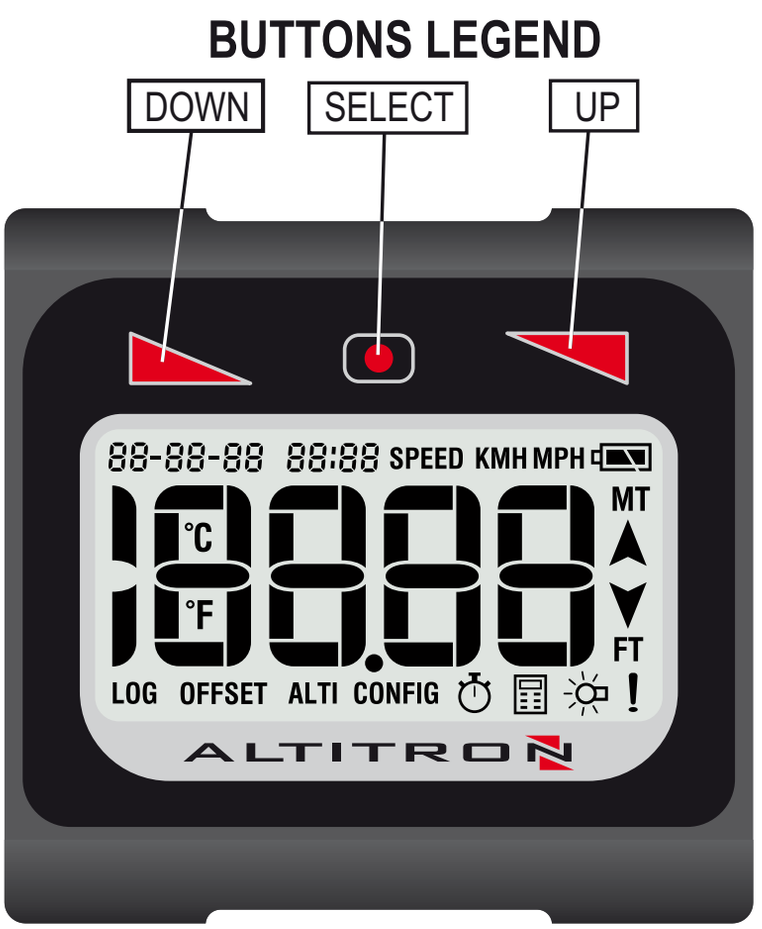
PARASPORT®

SKYDIVING EQUIPMENT

The **Altitron Skydiving Altimeter** is an advanced digital altimeter. It is designed to effectively improve safety and easily keep track of skydiving activity. It can be used as a mechanical altimeter offering advanced functions because of its microprocessor heart. The wide size backlighted display can be configured to show information your way, and automatically changes the information displayed according to the current situation. The **Altitron** offers advanced functions, but it's easy to use even without referencing the manual. We're sure you will enjoy all the features of the **Altitron**, and we invite you to read the information contained in this manual.

BUTTONS

Three buttons control the **Altitron** functions. Throughout the different function the SELECT button normally selects or confirms, while the UP and DOWN buttons change values, program or reset functions. Buttons can have different actions if clicked (normal push and release), held down (hold depressed until the units beep to acknowledge), or double clicked (press twice in a short time).



WARNING ICONS

Icons may appear on the **Altitron** display to provide extra information. These icons won't appear while in freefall to keep the display clear to show only altitude or speed. The battery status indicator, displaying the current battery charge, will be shown in the configuration function only, unless the battery needs to be replaced. In this case, the low battery indicator will constantly blink on the display.

INSTALLING THE BATTERY

A new **Altitron** is shipped with the battery installed, but it is inactive. To activate the unit, just touch a button and normal operation will start. This will happen every time the battery is replaced. Expected battery life is about 2 years, but it depends on the number of jumps and time spent not in stand-by mode. If you're planning not to use the unit for some time (like during Wintertime, for example) we suggest to remove the battery to save battery life. Replace the battery when the low-battery indicator turns on (please note that extreme cold weather may falsely activate this indicator!). If the low-battery signal turns on at temperatures above 50°F (10°C) the battery needs immediate replacement.

To install or replace the battery follow these steps:**1)** Remove the battery compartment cover by untightening the two screws. Be careful not to loose the gaskets in the battery compartment and cover. **2)** Discard the old battery, if present: press a button to be sure the unit is off. Install the new battery following the drawing at the bottom of the battery compartment, checking you're following the correct polarity. **3)** Close the battery compartment cover tightening the two screws, assuring that both the gaskets are correctly in place.

Battery installation should be made with extra care. The operator is responsible for installing the battery properly behind the battery compartment cover. Correct placement of gaskets guarantees water resistance of the unit. All of the information stored in the ***Altitron*** *is kept in memory when replacing the battery.*

CONFIGURING THE ALTITRON

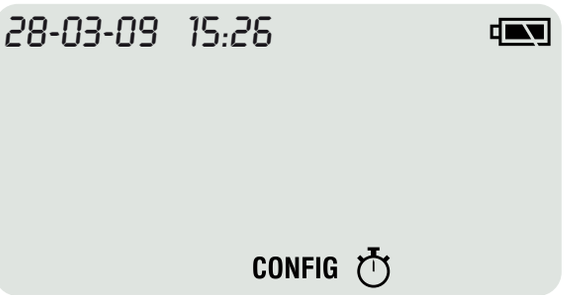
The Altitron is highly adaptable to your own personal habits. Your settings will be stored and recalled also when you replace the battery. When you first get the unit and install the battery, we recommend to go through the following steps:

SET DATE AND TIME

Date set: The unit immediately displays this function when you install the battery. Time and date are always displayed in stand-by mode too. The display will show first how do you preferred date format to be used ("31-12" means dates as day-month-year, while "12-31" means month-day-year).

Configure date format

Selection can be changed by clicking the UP or DOWN button. Clicking the SELECT button will proceed to the date set screen.



Configure date and time

According to your choice of date display, you will be able to set in sequence day (or month), month (or day), year, hours and minutes. Use the UP or DOWN button to change values, click SELECT to proceed to the next value to set. Holding down the UP or DOWN key will change values rapidly.

CHOOSE THE MEASUREMENT UNITS

Configure units: Units used can also be customized easily. Click SELECT and then DOWN to go to the configuration screen, and press SELECT until the desired units configuration screen appears. Choose the units you prefer for time and date format, speed and altitude, meters or feet, kilometers or miles per hour, Celsius or Fahrenheit temperature degrees.

Configure altitude units

Configure speed units

Configure temperature units

CONFIGURE DISPLAY

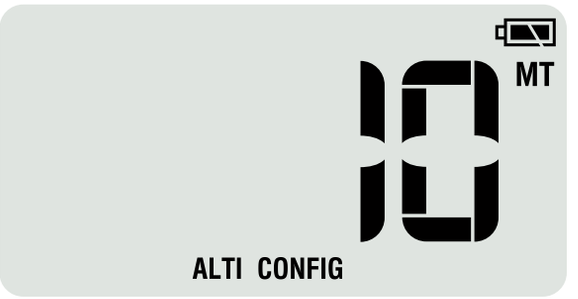
Breakoff altitude: You can set a breakoff altitude where the **Altitron** will flash some of the icons when passing that altitude in freefall. It will also be used to set the altitude where the unit will switch from speedometer to altimeter mode (see below).

Set breakoff altitude

Altitude display below breakoff altitude (ALTI and arrows flash)

Display resolution

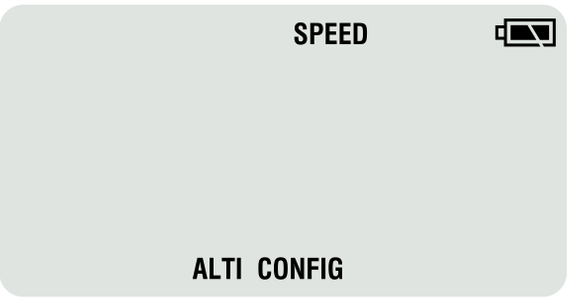
When displaying the altitude in freefall, the **Altitron** will update the display at fixed altitude intervals. At higher freefall speeds it may be convenient to choose a resolution value allowing a more stable reading of the freefall altitude. Choose your preferred setting in the configuration function. The available choices will be shown using the chosen measurement units.



Configure altitude display resolution

CHOOSING THE MAIN FUNCTION

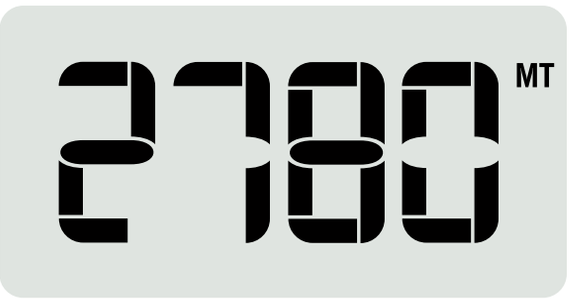
The **Altitron** can be configured to work in freefall as a digital altimeter or speedometer.



Set main function

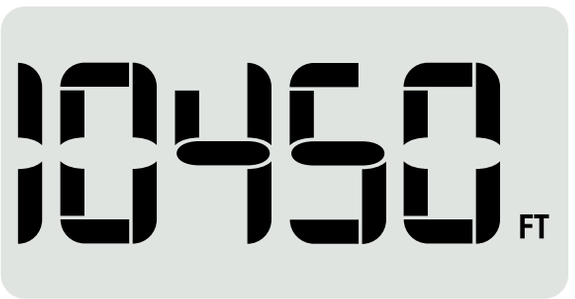
ALTIMETER VIEW

Altimeter view changes according to unit of measure set.
Metric: When unit of measure is metric, the display will show the full altitude with large digits.



Altimeter view, meters

Feet: When unit of measure is feet, altitudes up to 19,999 feet will be fully displayed. Altitudes higher than 19,999 feet will be shown in tens of feet, where a point will separate thousands of feet from hundreds of feet.



Altimeter view, below 20,000 feet

Altimeter view, above 20,000 feet

Speedometer view: Speedometer view can be selected in Kilometres per hour (KMH) or miles per hour (MPH). While in freefall the display will show the speed until breakoff altitude is reached or after opening the canopy, when the display will automatically go back to altimeter view. If a breakoff altitude hasnít been set, the speedometer view will switch to altimeter at the factory set altitude of 1000 meters (3500 feet).

Ground mode, speedometer set

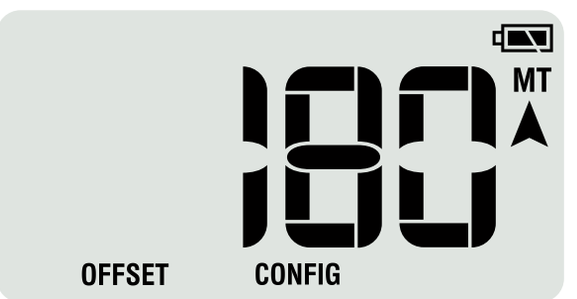
GROUND REFERENCE RESET

The **Altitron** has been programmed to be auto-adaptive, correcting automatically the reference altitude when the air pressure changes on the ground. In some situations it may be necessary to manually reset the ground reference. This can be done in the CONFIG screen while the unit shows inflight mode, but it is really on the ground. Press SELECT and then DOWN to enter the configuration mode, then press SELECT until the ground reset screen shows. At this point press and hold UP and DOWN at the same time until you hear a confirmation beep. At this point the unit shows the ground screen, and the new ground reference has been set. WARNING! DO NOT USE THIS FUNCTION WHILE CLIMBING TO ALTITUDE!

Reset ground reference (ALTI and arrows flash)

OFFSET FUNCTION

When the place where you jump is at a known altitude different from the place where you take off, you can set an altitude offset to correct the ground reference of the drop zone. Press SELECT and then DOWN button to enter in the CONFIG function. Press SELECT until the offset setting screen shows. You can set the altitude difference of the drop zone referred to the take off place. The up arrow indicates that the drop zone is at a higher altitude, while the down arrow indicates that the drop zone is below the take off place. The offset can be set with 25 feet or 10 meters increments.



Configure offset altitude

When an offset is set, the OFFSET indicator will turn on when in ground mode.

Ground mode with an offset set as drop zone at +250 m from take off place

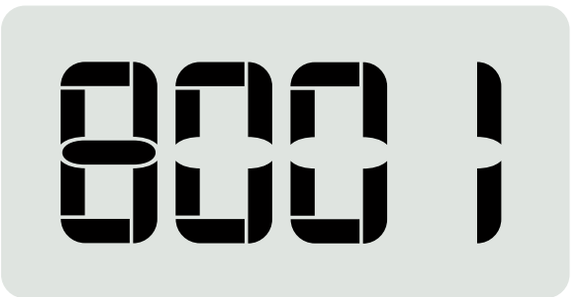
Backlight The backlight function can be activated holding down the SELECT button until the light turns on while in ground mode or climbing to altitude. The light will turn on when touching the buttons, and will turn off after few seconds to save the battery. When jumping the backlight will turn on and stay on until landing. It will then deactivate to avoid wasting the battery. The backlight can be also turned off manually holding down the SELECT button until the light turns off.Backlight can also be activated under the open canopy: in this case it will stay on until manually switched off, or after landing.

Backlight indicator

Temperature It is possible to check the temperature by pressing the SELECT button twice. ***Note:*** *temperature reading is indicative and may be influenced by other factors like body temperature.*

Real Temperature

Unit information Pressing SELECT and the button UP will show the software version and the serial number of the unit.



Unit Information

Logbook The **Altitron** senses the different phases of your skydive by the changes in air pressure and tracks that information in its electronic logbook. The logbook can store up 300 jumps, and can be reset at any time. The jump counter can also be personalized to match your current number of jumps (see totals below). To show the logbook hold the button UP down until the logbook screen shows. The unit shows briefly the number of jumps stored, then the number of the last jump displayed. By pressing the SELECT button you can view the information stored for that jump. Pressing the buttons UP or DOWN you can browse the jumps stored.

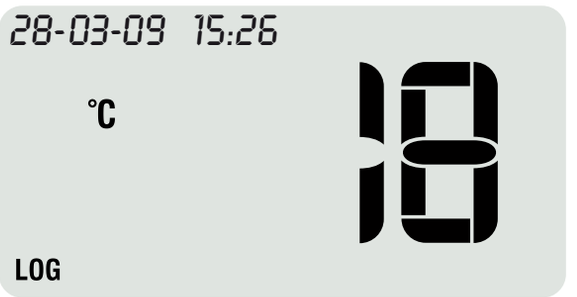
Number of jump
(date and time of jump on top)

Exit altitude

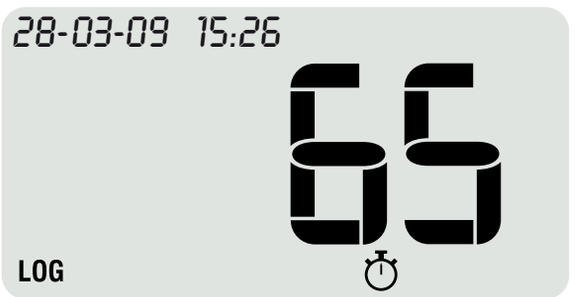
Average freefall speed

Pull altitude

Unit temperature during jump



Freefall time



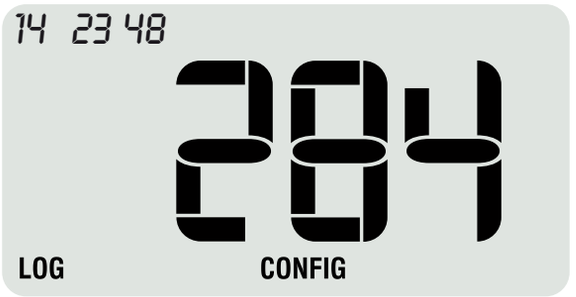
Time under the open canopy

Maximum freefall speed

Maximum speed under the open canopy

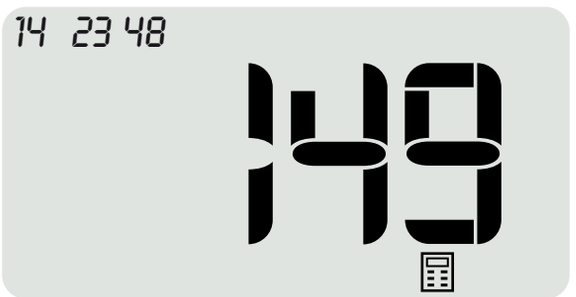
Totals

While logging jump information, your **Altitron** tracks statistics, like your total freefall time, in addition to your total jumps. When you first set up your unit, you may enter your current freefall time and the **Altitron** will continue calculating your freefall time from that point. This function also resets both jumps log and totals accumulated. Just go to the totals screen, and hold the DOWN button until the log configuration screen appears. You can use the buttons to set your total freefall time in hours, minutes, and seconds, and the number of jump the Altitron will use to enumerate your jumps. Use UP and DOWN to change values, SELECT to move to the next number. It will be possible to set in sequence the total freefall time in hours, minutes, and seconds, then the hundreds and the units of the next jump number (the first that will be used in the jump log). Reset logbook by holding the SELECT button, or let the unit go back to normal mode after few seconds if you don't want to reset the logbook.



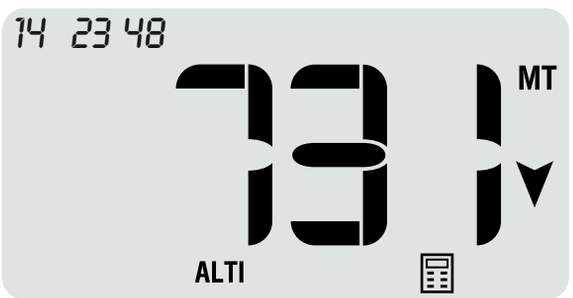
Log configuration

To view your totals hold DOWN button depressed until the TOTALS screen shows, then click SELECT to display in sequence the maximum exit altitude, the lowest deployment altitude and the maximum freefall speed.

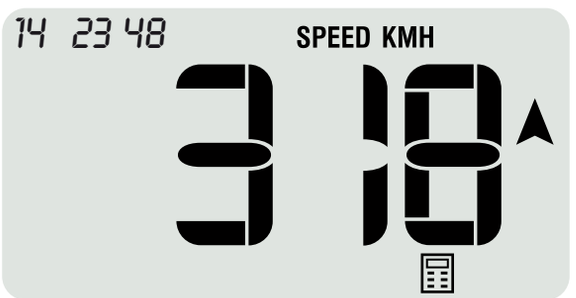


Number of jumps totalized (total freefall time as hours, minutes, seconds on top)

Highest exit altitude



Lowest pull altitude



Highest freefall speed

Inflight view
During the climb to altitude the **Altitron** shows a simple altimeter view. The screen shows the current altitude, the current time and the time elapsed from takeoff.

Inflight mode

Setting a ground reference manually: While being able to follow pressure changes automatically, in some particular situations the Altitron may need to be reset to ground level manually. DO NOT USE THESE FUNCTIONS IF YOU'RE NOT ON THE GROUND!

Manual reset can be done in two ways:
The Altitron shows the inflight screen while on the ground: go to configuration screen, click SELECT until the ground reset screen shows. At this point press and hold UP and DOWN buttons until the unit beeps and shows the ground mode screen.

The Altitron shows the canopy screen while on the ground: click repeatedly the DOWN button until the unit shows the ground mode screen.

WATER RESISTANCE: The **Altitron** provides water protection when swooping into ponds or in case of an unintentional water jump. If the unit gets wet, wipe it with a clean tissue, put it in a dry place away from sunlight, and let all parts dry out before using it again.

UNIT CARE: Operate on the unit only as described in this manual. Do not try to perform any other service to the **Altitron** or attempt to open the case. Protect your unit from shocks, extreme heat and cold, and prolonged exposure to direct sunlight. If not in use, your **Altitron** should be stored in a clean, dry environment at room temperature. The **Altitron** can be cleaned with a clean cloth lightly moistened with warm water, do not use soap or detergents. Do not attempt to take the **Altitron** apart or service it by yourself.

TECHNICAL SPECIFICATIONS

- Microprocessor based Skydiving Altimeter
- Wide size backlighted LCD
- Wide size custom shaped digits for immediate readings
- Intuitive user interface
- Real time altitude or speed indicator
- Altitude range: 0..30,000 ft (0..10.000 meters)
- Water resistant
- Warning altitude set with 30 feet (10 meters) increments
- Self-calibration (manual reset allowed), self test, no power-on, low consumption
- Easily programmable on the ground or while climbing to altitude
- Jumps log (up to 300 jumps): date, time, exit altitude, full altitude, freefall time, maximum freefall speed , average freefall speed, temperature at exit, canopy air time, maximum speed under the open canopy
- Statistics: number of jumps, maximum exit altitude, lowest deployment altitude, maximum freefall speed
- Battery: 1 x AAA
- Size: 62 x 63 x 11,5 mm

WARRANTY AND LIMITS OF LIABILITY

If the products should fail due to defects in manufacturing, Parasport Italia will repair or replace the units or parts of it free of charge for three (3) years from the date of purchase. This warranty applies to the original purchaser and covers only failures due to defects in materials and workmanship that may occur during normal operations while in the period of the warranty. It doesn't cover damage or failures resulting in accident, misuse, neglect, mishandling, alteration, or modifications of the product, or any failure caused by operation of the product outside the scope of its specifications or any cause not covered by this warranty.

WARNING!
This product has been designed for skydiving and is not approved by the manufacturer for any other activity. Skydiving is a dangerous sport where unavoidable risks may result in serious bodily injury or death, personal and of third parties, even when properly using well made products. By using this product the User accepts full responsibility and implies knowledge that he/she is subject to injures, losses or death that may occur through proper or improper use of this product, good or defective. By using this product, user waives any liability of Parasport Italia and its dealers for personal injuries or other damages arising from such use.

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