



ALTIS

ENGLISH

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INTRODUCTION

The ALTIS unit features an altimeter/barometer/weather station along with a full selection of advanced watch and chronograph functions. Please keep in mind, your watch is a sensitive technical instrument. With proper care and maintenance, it will last for many years. However, improper care and handling can cause the various sensors to be damaged and to stop functioning.

This manual is prepared in easy-to-read sections to familiarize you with setting and operating the watch's functions. Please read all sections of this manual carefully and become fully familiar with the operation of the watch before using it in the field.

Proper setup and operation will greatly enhance the watches usefulness and your enjoyment.

HOW TO USE THIS MANUAL

The manual is divided into sections outlining each of the major functions of the watch. A drawing of the watch screen that represents the starting point or other important screen for each operational process is shown adjacent to the instructions for the process; important keys are shown in color indicating **PRESS & HOLD** and **PRESS**.

The steps for the programming or operation are adjacent to the screen illustration. Key points and important information are shown in highlighted blocks.

WARNINGS AND CAUTIONS

WARNING: Before starting any exercise program or performing any vigorous physical activity, we strongly suggest you visit your doctor for a complete physical and to discuss your plans.

CAUTION: Your watch is designed to be water resistant to a static pressure of 5 ATM and can be worn while showering and light swimming. However, we recommend that extensive use of the unit in the water be avoided whenever possible as water could enter the unit through the altimeter sensor port and damage the unit.

The unit should not be worn while snorkeling or scuba diving as these activities will damage the altimeter sensor.

CAUTION: Care should be taken not to press any keys while the unit is wet or submerged as this can force moisture past the key seals and damage the unit.

CAUTION: Exposure to strong magnetic fields will cause the compass unit to malfunction and may even permanently damage the compass sensor. Keep the unit away from magnetic sources.

WARNING: This product is NOT designed to be used as a PRIMARY altitude instrument for flying, skydiving, hang gliding or other sports where sudden significant changes in altitude may occur or when there is a need for industrial precision.

WATCH FUNCTIONS

TIME

- Time/Day/Date/Month
- Dual Time Zone
- Dual Daily Alarm

COMPASS

- Digital Compass
- Adjustable Declination

ALTIMETER

- Digital Altimeter
- Working Range: -2296 ft to 29520 ft (-700m to 9000m)
- Rate of Ascent and Descent
- Altitude Alarm
- 20 Log Book Files with Log Date, Average ascent and descent, Total ascent and descent, number of laps and total time

BAROMETER

- Digital Barometer
- Sea Level Pressure and Absolute Pressure Display (mbar/hPa or inHg reading)
- 1 mbar (0.05 hPa) Resolution
- Working Range: 300 mbar to 1100 mbar (8.16 inHg to 32.48 inHg)
- Weather Forecast
- 24 Hour Graphic Pressure Trend Display

WATCH FUNCTIONS

THERMOMETER

- Digital Thermometer
- User option for Fahrenheit or Celsius
- Working range from 14 °F to 140°F (-10°C to 50°C)

SKI CHRONO

- Calculates descent time from starting point to base altitude
- Calculates Rate of Descent

CHRONOGRAPH

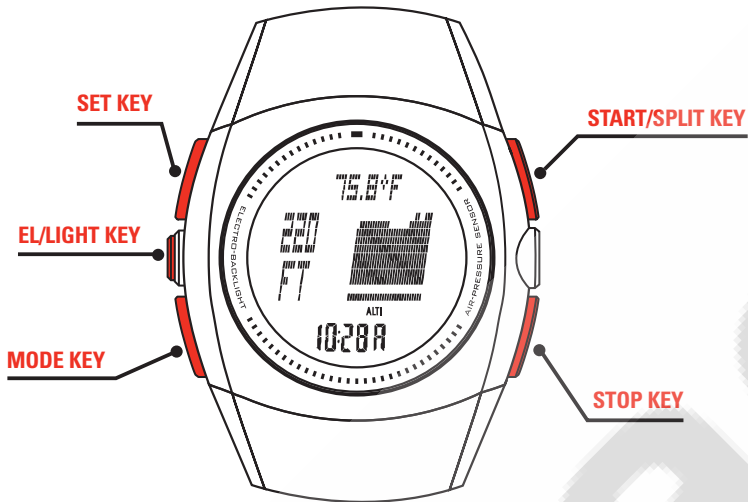
- 1/100 Second Resolution
- 24 hr / 50 Laps
- 20 Run file memory with Lap/Split, with Best and Average Lap Times

OTHER

- EL Backlight System
- Water Resistant 50m (165ft)
- User Replaceable Battery

KEYS AND THEIR FUNCTIONS

The ALTIS has 5 individual keys. Each key has several functions. The drawing identifies the keys and their names as used in this manual.



KEYS AND THEIR FUNCTIONS

MODE KEY

- Scrolls through the various operational modes
- Selects variable in Setting Sequence

EL/BACKLIGHT KEY

- Activates the EL/Backlight System

SET KEY

- Enter/Exit a Setting Sequence
- Delete Data Log File
- Scrolls through Chronograph data

START/SPLIT KEY





- Accesses Time Zone 1 or Time Zone 2
- Reactivate Compass Function
- Switches temperature units (°F or °C)
- Switches Barometric Pressure units (mbar/hpa or inHg)
- Activates Data Log
- Increases a variable in Setting Sequence
- Starts Lap Chronograph
- Activates Lap/Split in Chronograph mode
- Starts Ski Chronograph
- Turns Alarm On/Off
- Activates/Deactivates Chime

STOP KEY




- Scrolls through secondary modes
- Decreases variable in Setting Sequence
- Stops Chronograph
- Resets Chronograph

DISPLAY SYMBOLS AND THEIR MEANINGS

WEATHER ICONS




symbol	description	what it means
	SUNNY	Barometric pressure high, weather fair
	PARTLY CLOUDY	Barometric pressure falling or rising, weather changeable
	CLOUDY	Barometric pressure low, rain possible but not likely
	RAINY	Barometric pressure very low or falling, raining or rain likely

TIME ICONS

symbol	description	what it means
A	AM	A.M. time
P	PM	P.M. time
	DAILY ALARM	Daily Alarm is active
	KEY CHIME	Key Chime is active
	LOW BATTERY INDICATOR	Battery needs to be replaced

DISPLAY SYMBOLS AND THEIR MEANINGS

ALTIMETER ICONS

symbol	description	what it means
	ASCENDING ARROW	User is ascending
	DESCENDING ARROW	User is descending
$\frac{Ft}{Min}$	FEET PER MINUTE	Rate of ascent or descent in feet
$\frac{M}{Min}$	METERS PER MINUTE	Rate of ascent or descent in meters
	LOG BOOK RECORDING ICON	Log Book recording in progress
<i>Diff</i>	ALTITUDE DIFFERENTIAL READING	Altitude Differential Reading active when blinking

BAROMETER ICONS

symbol	description	what it means
<i>SEA level</i>	SEA LEVEL	Sea Level Barometric Pressure reading
<i>inHg</i>	INHG	Inches of Mercury barometric pressure units
$\frac{mbar}{hPa}$	MBAR	Millibar barometric pressure units
$^{\circ}$	DEGREES C	Centigrade temperature units
$^{\circ}$	DEGREES F	Fahrenheit temperature units
<i>Diff</i>	BAROMETER DIFFERENTIAL	Barometric Pressure Differential Reading active when blinking

MAIN DISPLAY MODES

MAIN DISPLAY MODES

The ALTIS has 8 main display modes. **ADVANCE THROUGH MAIN MODES** by **PRESSING** the **MODE** key.
SCROLL THROUGH SECONDARY MODES by **PRESSING** the **STOP** key.



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SETTING THE WATCH FUNCTIONS

SETTING TIME, DATE & DISPLAY UNITS

1. Advance to **TIME MODE** by **PRESSING** the **MODE** key.
2. Select **TIME ZONE 1** or **TIME ZONE 2** by **PRESSING & HOLDING** the **START/SPLIT** key.
3. **PRESS & HOLD** the **SET** key to enter the **SETTING SEQUENCE**.

NOTE: upper display will indicate display unit currently being set/adjusted. The display unit currently being set will flash. Start/Split key will increase variable being set and Stop key will decrease variable being set. Press & Hold keys to fast scroll.

4. **ADJUST HOUR** by **PRESSING** of the **START/SPLIT** or **STOP** keys.
5. Advance to **SET MINUTES** by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
6. Advance to **SET SECONDS** by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
7. Advance to **SET YEAR** by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
8. Advance to **SET MONTH** by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
9. Advance to **SET DAY** by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
10. Advance to **12** or **24-HOUR FORMAT** by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.



SETTING THE WATCH FUNCTIONS

SETTING TIME, DATE & DISPLAY UNITS (continued)

11. Advance to **SET ALTIMETER UNITS** (feet or meters) by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
12. Advance to **SET BAROMETRIC PRESSURE UNITS** (INHG or MBAR) by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
13. Advance to **SET TEMPERATURE UNITS** (°F or °C) by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.

NOTE: You may exit a Setting Sequence at any time by Pressing the Set key.

SETTING TIME ZONE 2

1. In **TIME MODE**, **PRESS & HOLD** the **START/SPLIT** key. Alternate Time Zone (T1 or T2) will blink in lower display line.
2. **PRESS & HOLD** the **SET** key to **ENTER** the **SETTING SEQUENCE**.
3. **ADJUST** Hour, Minutes, Seconds, Month, Day and Year.
4. **PRESS** the **SET** key to **EXIT** the **SETTING SEQUENCE**.

NOTE: display units (12/24 hr., Altimeter, Barometer, Temperature, etc.) are not independent of Time Zone selected.

SETTING THE WATCH FUNCTIONS

CALIBRATING THE COMPASS

The ALTIS is equipped with a highly accurate digital magnetic compass with reading in one-degree increments. The compass can be adjusted to compensate for magnetic declination corresponding to the area of use.

The compass must be calibrated on a regular basis. The compass should be calibrated any time it does not seem to be working properly. We recommend calibrating the compass prior to any activity where optimal accuracy is desired, such as a long back-country trip.

In Compass Mode:

1. **PRESS & HOLD** the **SET** key to enter the **CALIBRATION SEQUENCE**. '**ROTATE CAL**' will appear in the display.
2. **ROTATE THE WATCH CLOCKWISE** for two complete rotations of approximately 15 seconds per rotation.

NOTE: For optimum accuracy, the compass must be held completely level during the calibration process. We recommend placing the unit on top of a drinking glass while performing the calibration, as this will make it easier to keep the compass level.

3. Advance to **SET DECLINATION** by **PRESSING** the **MODE** key (see "Magnetic Declination: next page).

NOTE: If you do not know the Magnetic Declination for your area, leave this setting at zero and exit the Calibration Sequence by Pressing the Set key.

4. **ADJUST** first digit (blinking digit) of declination setting by **PRESSING** the **START/SPLIT** or **STOP** key.
5. Advance to **SET** second digit of declination setting by **PRESSING** the **MODE** key. **ADJUST** by **PRESSING** the **START/SPLIT** or **STOP** keys.
6. **PRESS** the **SET** key to **EXIT THE CALIBRATION SEQUENCE**.



SETTING THE WATCH FUNCTIONS

MAGNETIC DECLINATION

A magnetic compass points to the earth's magnetic north pole. Depending on your location, this may be different from True North. Adjusting the Magnetic Declination allows you to compensate for this variation. Magnetic Declination for an area can be found on topographical maps. Declination can change over time and distance. Make sure the source for your declination settings is up to date. The following web sites are good sources for finding local Magnetic Declination.

FOR U.S. DECLINATIONS:

<http://www.ngdc.noaa.gov/seg/geomag/jsp/Declination.jsp>

FOR CANADIAN DECLINATIONS:

http://gsc.nrcan.gc.ca/geomag/field/mdcalc_e.php

SETTING THE WATCH FUNCTIONS

SETTING BAROMETRIC PRESSURE

The ALTIS is equipped with a highly sensitive barometer/weather station. The barometer measures the Absolute Barometric Pressure and calculates the Barometric Pressure corrected to Mean Sea Level (MSL). Barometric pressure may be displayed in either Inches of Mercury (inHg) or Millibar/HectoPascals (mbar/hpa).

In Barometer Mode:

1. **PRESS & HOLD** the **SET** key.
2. **SET CURRENT WEATHER ICON** by **PRESSING** the **START/SPLIT** or **STOP** key.

NOTE: There are four different icons for weather. **SUNNY, PARTLY CLOUDY, CLOUDY** and **RAIN**. Choose the icon which most closely matches the weather at the present time. The icon will change to indicate an estimate of what the weather will be like for the next 6-hours.

3. Advance to **SET BAROMETRIC PRESSURE** by **PRESSING** the **MODE** key.

NOTE: Do not randomly adjust the barometric pressure setting of the watch. Inaccurate setting of the barometric pressure may result in inaccurate altimeter and weather readings. If you are not certain of the proper use of this function, it is better to leave this variable at its factory setting. The Mean Sea Level barometric pressure may be adjusted if desired to achieve the highest levels of accuracy.

4. **ADJUST SEA LEVEL BAROMETRIC PRESSURE** by **PRESSING** the **START/SPLIT** or **STOP** key.
5. **PRESS** the **SET** key to **EXIT THE SETTING SEQUENCE**.



SETTING THE WATCH FUNCTIONS

SETTING ALTIMETER

Because the altimeter system in the ALTIS relies on Barometric Pressure for its measurements, it is critical that you regularly calibrate the unit to a known altitude. For maximum accuracy, daily calibration is a must. If you are using the unit during times of changeable weather, the unit may need to be calibrated more often. Generally, the small pressure changes experienced during a day of use will have only a minor effect on the accuracy of the unit, however, the arrival or departure of a weather front can change the current weather display by several hundred feet or more.

NOTE: In the Altimeter Setting Sequence, the variable to be adjusted will be indicated by a flashing display. Scroll through variables to be adjusted by Pressing the Start/Split or Stop key. Select variable for adjustment by Pressing the Mode key. Once the variable is set, Press the Mode key to return to the Altimeter main setting sequence. You may exit the Setting Sequence any time by Pressing the Set key.

The ALTIS is equipped with 6 Altimeter sub modes. Scroll through sub modes by pressing the Stop key. You may enter the Altimeter Setting Sequence from any sub mode except the TEMP/Altitude/TIME display. (See page 29 "Operating the Watch" for a detailed explanation of submodes.)

SETTING THE WATCH FUNCTIONS

SETTING ALTIMETER (continued)

The ALTIS is equipped with three altimeter Preset Locations. Preset Locations allow you to pre-program 3 known altitudes into the watch's memory. These presets allow you to easily compensate for altitude drift caused by changes in atmospheric pressure and are useful in the daily calibration process. If you know the exact altitude of a particular place (example: your home, a favorite trail head or the base of your favorite ski hill), you can preset your ALTIS to this location for quick calibration at that location. You can also adjust the current altitude of your watch independent of the Preset Locations.

In Altimeter Mode (any Altimeter screen except TEMP/Altitude/TIME):

1. **PRESS & HOLD** the **SET** key. Upper display line will flash name of selected location (**CURRENT ALTITUDE, LOCAL 1, LOCAL 2 OR LOCAL 3**).
2. **SCROLL** through locations by **PRESSING** the **START/SPLIT** or **STOP** Key.
3. When selected location is flashing in the upper display line, **PRESS** the **MODE** key to advance to set the Altitude of that location. The Altitude display field will flash.
4. **ADJUST** Altitude by **PRESSING** the **START/SPLIT** (to increase) or **STOP** (to decrease) key.

NOTE: Press & Hold the Start/Split or Stop keys to fast scroll altimeter setting.

5. Once Altitude is adjusted, **PRESS** the **MODE** key to return to Altimeter Setting Menu. Upper display line will flash. After all desired Altitude Locations have been adjusted, **PRESS** the **START/SPLIT** key to continue scrolling through Altimeter Settings.



SETTING THE WATCH FUNCTIONS

RESETTING MAXIMUM AND ACCUMULATIVE ALTITUDE

6. To **RESET MAXIMUM ALTITUDE**, **PRESS** the **MODE** key when **MAX** is flashing in display. Maximum Altitude field will flash. **PRESS START/SPLIT** or **STOP** key to reset.

NOTE: display will reset to 0 and assume current altitude reading when you return to operation mode.

To preserve Max Altitude reading, **PRESS** the **START/SPLIT** key to **RETURN TO ALTIMETER SETTING MENU**.

7. When **ACC** field is flashing, **PRESS** the **MODE** key to adjust. When the Accumulative Vertical field is flashing, **PRESS START/SPLIT** or **STOP** to **RESET**.

NOTE: To preserve ACC reading, this step may be bypassed by Pressing the Start/Split or Stop key when the ACC field is flashing and returning to the Altimeter setting menu.

(CONTINUED NEXT PAGE)



SETTING THE WATCH FUNCTIONS

ALTITUDE ALARM

The ALTIS is equipped with an audible Altitude Alarm that will sound when a pre-set altitude is crossed. This function may be turned **ON** and **OFF** from the Altimeter Setting Sequence.

- Advance to Altitude Alarm by **PRESSING** the **START/SPLIT** or **STOP** key. **ALRM** will flash in the center display line.
- PRESS** the **MODE** key set Altitude alarm. **ADJUST** Altitude Alarm **on (ON)** or **off (-)** by **PRESSING** the **START/SPLIT** or **STOP** key.

NOTE: Alarm must be activated (**ON**) to advance to next step.

- Advance to set designated altitude by **PRESSING** the **MODE** key. **ADJUST ALTITUDE** by **PRESSING** the **START/SPLIT** or **STOP** key.

NOTE: Press & Hold the Start/Split or Stop keys to fast scroll altimeter setting.

- Once Altitude is set, **PRESS** the **MODE** key to return to Altitude Alarm ON/OFF window. **ACTIVATE/DEACTIVATE ALARM** by **PRESSING** the **START/SPLIT** or **STOP** key.
- Return to Altimeter main **SETTING SEQUENCE** by **PRESSING** the **MODE** key.
- To **REVIEW ALTIMETER SETTINGS**, **PRESS START/SPLIT** or **STOP** keys. **PRESS SET** key to **EXIT THE SETTING SEQUENCE** and return to Operation Mode.



SETTING THE WATCH FUNCTIONS

CALIBRATING THE WATCH USING ALTIMETER PRESETS

In Altimeter Mode:

- PRESS & HOLD** the **SET** key.
- Scroll through Altimeter Presets (**CURRENT**, **LOCAL 1**, **LOCAL 2** & **LOCAL 3**) by **PRESSING** the **START/SPLIT** or **STOP** key.
- When desired Preset is flashing, **PRESS** the **SET** key. The unit will be automatically calibrated to corresponding Preset's altitude setting.

NOTE: if you are calibrating the unit to a known altitude not in the Preset menu, select Current and repeat steps 3 – 5 from "Setting Current Altitude and Altimeter Presets" on page 19.

- PRESS** the **SET** key to return to Operation Mode.



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SETTING THE WATCH FUNCTIONS

SETTING DAILY ALARM

The ALTIS is equipped with 2 individual daily alarms.

Setting Daily Alarms

1. In Alarm Mode, **SELECT ALARM 1 OR ALARM 2** (AL-1 or AL-2 in the upper display line) by **PRESSING** the **STOP** key.
2. **PRESS & HOLD** the **SET** key.
3. **ADJUST HOURS** by **PRESSING** the **START/SPLIT** or **STOP** key.
4. **PRESS** the **MODE** key to advance to set Minutes. **ADJUST MINUTES** by **PRESSING** the **START/SPLIT** or **STOP** key.
5. **PRESS** the **SET** key to **EXIT THE SETTING SEQUENCE**.



Turning Alarm ON or OFF

1. In Alarm Mode, **SELECT ALARM 1** or **ALARM 2** (AL-1 or AL-2 in the upper display line) by **PRESSING** the **STOP** key.
2. **TURN ALARM ON** or **OFF** (lower display line) by **PRESSING** the **START/SPLIT** key.
3. **PRESS** the **STOP** key to **SCROLL THROUGH OTHER ALARM SETTINGS**.
4. When CHIME is displayed in upper display line, **TURN THE KEY CHIME ON** or **OFF** by **PRESSING** the **START/SPLIT** key.

OPERATING THE WATCH

TIME MODE

The ALTIS is equipped with 5 different time display options. **SCROLL THROUGH DISPLAY OPTIONS** by **PRESSING** the **STOP** key.



Top Line: Weather/Date
Center Line: Weekday/Time
Bottom Line: Year



Top Line: Weather/Date
Center Line: Time
Bottom Line: Weekday



Top Line: Weather/Date
Center Line: Date/Time
Bottom Line: Temperature



Top Line: Weather
Center Line: Date/Time
Bottom Line: Barometric Pressure



Top Line: Weather
Center Line: Date/Time
Bottom Line: Altitude

VIEWING AND SELECTING TIME ZONES

To **VIEW/CHANGE TIME ZONE**, **PRESS & HOLD** the **START/SPLIT** key in any Time display mode.

