

# ALTIMETERONE

SCIENTIFIC PAYLOAD  
FOR MODEL ROCKETS AND PLANES

**Measures Peak Altitude**



The best way to know “How high did it go?”

A fantastic gift for any model flyer.

The start of a great science project.

**jolly logic**

# Visual Tour

## Attachment Point

Here is where you fasten your altimeter to your model.

Be careful not to block the pressure port opening underneath the attachment point.

## Push Button

- Quick press for ON/OFF
- Or hold the button to see more options.  
Release the button when you see the option you want:

0000

Clear and reset for next flight

un it

Switch between displaying feet or meters

curr

Enter special temporary "Current Altitude Mode"

boot

Reboot and reset

## Display

Displays the peak altitude after each flight.  
Be sure to clear it to "0" before each flight.

Altitudes higher than 9,999 feet are shown in *thousands of feet*, and are indicated with a decimal point in the display.

1234<sup>FT</sup>

1234 feet

12.34<sup>FT</sup>

12340 feet

1234<sup>M</sup>

1234 meters

## Recharging Connector

Plugs into standard USB ports to recharge.

1234<sup>FT</sup> □

Low Battery Indicator  
(Less than one hour left)

# Basic Operation

## The Button

Although the button looks quite small, you do not need a sharp object to press it. Just place your finger over the center of it and press until you feel a “click.”

## Power

Press the button and release it quickly to turn the altimeter on or off. It will also turn itself off if there are no new peak altitudes after one hour.

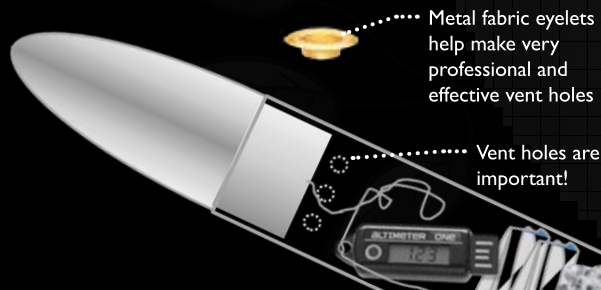
## Preparing for Each Flight

You need to clear the previous altitude before each flight. Press and hold the button until you see “0000,” then release. The display should say “0”.

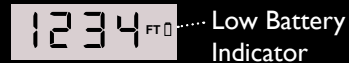
## Installation Tips

Your altimeter can ride in a payload bay, in the fuselage of your rocket or plane, or clipped to your kite. We’ve included a handy clip to make attachment as easy as possible.

The altimeter needs to sense outside atmospheric pressure at all times. For rockets, we advise that you punch at least three 1/16” to 1/8” diameter holes evenly spaced around the payload bay or the fuselage as close to the nosecone as possible, but low enough not to be blocked by the nosecone once it is inserted. For planes, place holes on the sides—not the front or back—to avoid high or low pressure areas.



# Recharging



Your altimeter has an advanced Lithium Polymer battery, the same type of battery used in the latest laptops and cell phones (only much, much smaller).

The AltimeterOne will display a small battery icon (see above) when there is one hour or less of battery charge remaining.

It can be recharged in any standard USB port, including those on computers, printers, and other devices.

## Recharging Directions

If the four silver contacts are dirty, wipe them clean with a damp cloth

Insert the altimeter into a USB port

A light will glow red or green near the display if inserted properly

If unit does not glow when inserted:

- Make sure computer is turned on
- Flip the altimeter over and try again
- Try another computer, or use a “Type A USB Extension” cable

Fully charging the altimeter usually takes about two hours if the battery is completely discharged. It does not hurt the battery to leave it in the charger, and it’s fine to “top it off” whenever you can.

The battery holds enough charge to power the altimeter for about 12 hours of continuous use.

## Troubleshooting

Seeing a **RED GLOW** and a **GREEN GLOW** at the same time would indicate that the battery is disconnected or damaged. Hopefully, that will never happen to you.



# Special Features



## Current Altitude Mode

This mode continuously displays the current altitude, while it captures the peak in the background. It was originally created for use with onboard video cameras. To enter this mode, press the button and release when you see “curr.” The height at which you are holding the AltimeterOne when you enter the mode is “ground level.” As you raise it up and down you will see the height above or below ground level displayed in real-time (“0, 1, 2, 1, 0, -1, -2,”). The altimeter stays in this mode only as long as the power remains on. It still automatically powers down one hour after the last peak altitude is detected. After being turned off and then back on, it displays the peak altitude from the previous session.

This mode demonstrates the sensitivity of the AltimeterOne to miniscule pressure changes of less than one foot, and the variability of the air pressure around us as the wind and weather change.

## The Display

The liquid crystal display was designed by Jolly Logic and engineered for very low power consumption and clear daylight visibility.

## The Battery

The Lithium Polymer battery looks like a piece of aluminum foil the size of a postage stamp folded in half twice. It weighs only 1.5 grams, and was custom-manufactured for Jolly Logic. Lithium batteries provide cutting edge performance, but require very careful management to ensure safety and long life. Two independent circuits ensure that the battery stays cool and always operates within its design limits. The result: no battery to worry about!

## Plastic Case

The second-generation black case of the Altimeter One is a special type of plastic chosen for its toughness as well as its translucence—so that the charging LEDs can shine through it. Having a tough protective case allows the AltimeterOne to go where other altimeters can't.

# Frequently Asked Questions

## “Will a rocket ejection charge damage the AltimeterOne?”

With proper ejection wadding and air venting, the AltimeterOne works great clipped to your parachute. If you want to keep it looking like new, you can wrap it in padding if you keep the air vent on the end clear, but that's optional.

## “Can I download flight data to my PC?”

No. The USB connector is just for recharging.

## “If the battery dies, will my last flight altitude be saved?”

Yes. Readings are saved in flash memory.

## “When I recharge, I see a red and green light together. Why?”

Your battery has become disconnected, or is damaged, and needs repair.

## “The AltimeterOne reported a peak flight of 0. What should I do?”

First try turning it off and then on again. If the display doesn't show your last flight altitude, press and hold the button until you see “boot.” This will cause a full reset of the device.

## “My AltimeterOne displays “FAIL” when I turn it on. Why?”

Try rebooting (hold down the button until you see “boot”). If that doesn't help, you have a damaged circuit board or sensor.

## “What repairs are possible if I crash the AltimeterOne?”

Jolly Logic does not offer a repair service. But spare cases and batteries are available. In general, reattaching the battery and replacing the case are the only repair operations you should attempt. Check our website for instructions if you do.

## For More Support

More info is available at [www.jollylogic.com](http://www.jollylogic.com). Have questions or suggestions? Contact us at [support@jollylogic.com](mailto:support@jollylogic.com). We'd love to hear from you, including your experiences with the AltimeterOne.

# AltimeterOne Specifications

Mission	Uses a highly sensitive atmospheric pressure sensor to detect peak flight altitude. Suitable for all rockets, planes, and kites which fly at least 50 feet (15 meters) high.
Size	0.47 x 0.64 x 1.93 inches (12 x 16.3 x 49 mm)
Weight	0.24 ounces (6.7 grams)
Useful range	Up to 29,500 feet (9000 meters) above sea level
Display precision	Nearest 1 foot below 10,000 feet Nearest 10 feet at or above 10,000 feet (Nearest meter in metric)
Launch threshold	Ignores launches (or wind gust pressures) below 50 feet (15 meters)
Sampling rate	> 20 times per second
Sensor precision	Senses 19 bits of pressure and 16 bits of temperature information that can resolve less than 1 foot (0.25 m) RMS error (including noise from all components) at 25°C
Battery	No battery required. Includes rechargeable Lithium Polymer battery (not user-replaceable)
Charging	Charges in about 2 hours from any USB port

**ATTENZIONE!**

**AVERTISSEMENT!**

**WARNUNG!**

**WARNING!**

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