



Talkable

By Caelum Systems

User Guide

Contents

Overview	2
Specifications	3
User Interface	4
Configuration	5
Logbook	6
Resetting the Logbook	6
Charging the Battery	7
Troubleshooting	8
Warnings and Errors	8
Software Update	8
Disclaimer	9
Contact Details	9

Overview

Talkable is an audible altimeter that talks to you. In addition to beeping at preset altitudes like a regular audible, Talkable will verbally announce your altitude as you cross thousand- and hundred-foot thresholds. This gives you far more information than a regular audible, helping you maintain altitude awareness at all times and lead that sick angle jump or get the perfect landing pattern without taking your eyes off the surrounding airspace.



Skydiving is a dangerous activity. Remain aware of your surroundings at all times while using Talkable and follow all local guidelines on the use of audible and visual altimeters, e.g. the British Skydiving Operations Manual.

Specifications

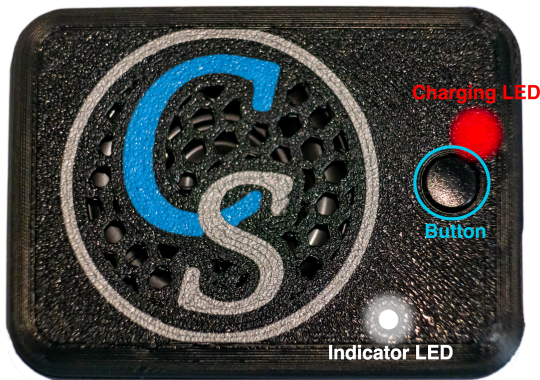
Barometer	Update rate	8 Hz
	Accuracy	1 m
Logbook	Memory size	>1,000 jumps
	Interface	USB mass storage device class
Battery	Chemistry	Lithium-Polymer (LiPo)
	Lifetime	Approx. 2 months or 80 jumps
	Charge time	Approx. 150 minutes
Dimensions	Length	56 mm
	Width	40 mm
	Height	12 mm
	Weight	32 g

User Interface

Talkable is always on; you don't need to turn it on at the start of the day or off at the end.

The white indicator LED on the device will flash to indicate that the device is powered. (Once every 30 seconds while it is on the ground and once every 2.5 seconds while climbing to altitude.) You can also confirm the device is powered by a short press of the button; the indicator LED will flash in response.

The button is also used to read the remaining battery level. Press and hold the button until Talkable states the remaining battery level (~2-second hold). The level is reported in steps of 10%, so, for example, "Eight" indicates 80% battery remaining.



Make sure to mount Talkable in your helmet so that the "CS" logo is facing your ear!

During freefall and under canopy, Talkable will announce your altitude in increments of 1000 or 100 feet/metres. For example, during freefall, "Ten" indicates 10,000 ft/m; or, during canopy ride, "One-Seven" indicates 1700 ft/m.

Low battery is also indicated during the climb to altitude by a triple-beep in place of the first climbing beep set.

Configuration



The maximum volume settings can be damaging to hearing. Use ear plugs or reduce the volume setting if it is too loud.

You can set your preferred talking and beeping heights, as well as other configurable parameters, by plugging Talkable into a PC via a USB C cable.

Talkable will appear as a USB mass storage device, with a folder structure that can be opened and navigated in the same way as a USB drive. Open the “Configurator.html” file to access the configuration interface via your preferred web browser (an internet connection is not required).

Using this interface, you can add and edit:

- Talking altitudes for freefall and canopy ride (note 100 ft/m resolution, minimum 200 ft / 100 m),
- Beeping altitudes for the climb to altitude, freefall, and canopy ride (note 1 ft/m resolution, minimum 200 ft / 60 m),
- Altitudes and threshold speeds for the hard deck alarms,
- Audio volumes for talking and beeping during the climb to altitude, freefall, and canopy ride,
- Altitude units (feet or metres),
- Starting jump number for the logbook.

Once you have set your preferences, be sure to save them back to the device, by choosing the “Save Values” button and overwriting the “Settings.json” file in the TALKABLE USB drive.

If you want to update your settings later, you can recall them from the device by choosing the “Load Values” button and selecting the “Settings.json” file in the TALKABLE USB drive. This will populate the configurator with your saved settings. Once you have made your edits, be sure to save them back to the device again, as described above.

Logbook

Talkable also contains a simple logbook of the jumps it has completed, including date and time.

Similar to configuration, the logbook is also accessed by plugging Talkable into a PC via a USB C cable. Talkable will appear as a USB mass storage device, with a folder structure that can be opened and navigated in the same way as a USB drive. Open the “logbook.csv” file to view the logbook.

Resetting the Logbook

Simply delete the “logbook.csv” file to reset the logbook and clear the internal memory. The logbook will continue from the starting jump number set in the device configuration.

To remove individual entries from the logbook, delete the lines in the “logbook.csv” file.

Charging the Battery



Read and follow all instructions and warnings relating to the LiPo battery. Failure to do so may lead to fire, personal injury, and/or damage to property.

Talkable uses a Lithium-Polymer (LiPo) battery, which is designed to last for approximately 2 months or 80 jumps. To recharge the battery, simply connect to any 5V USB charging brick or to a PC using a USB C cable. While charging, the red charging LED remains lit. When this LED goes out, the device is fully charged. Recharging a dead battery to full capacity takes approximately 150 minutes.



Do not leave the device charging unattended.



If you notice the device start to swell, smoke, or heat up, immediately disconnect it from the charging cable and move it to a safe location, away from combustible materials.



Do not leave the device in direct sunlight or in an environment where the temperature may exceed 60°C. This may cause the battery to overheat, resulting in the possibility of fires or damage to the device.



Do not attempt to charge the device when it is below 0°C or above 45°C. Charging outside this temperature range may damage the battery and could result in fires.



Do not attempt to use or charge a device that is visibly damaged.

Troubleshooting

Warnings and Errors

Warnings and errors are shown by the indicator LED on the front of the device.

Possible warnings include:

**Indicator
LED flashes
every 0.5
seconds**

Battery is low

Recharge the battery by connecting the device to a 5V USB charging brick or to a PC using a USB C cable.

There are no errors indicated by Talkable.

Software Update

To enter the “Software Update” mode, first ensure Talkable is plugged into a PC using a USB C cable. The indicator LED will start rapidly flashing (may take up to 30 seconds). Then follow the steps in [this video](#):

1. Press and hold the button until the indicator LED turns on and then goes off (~ 4 seconds).
2. Release the button.
3. When the indicator LED flashes, press and release the button.
4. When the indicator LED flashes again, press and release the button again.
5. The indicator LED will start pulsing and Talkable will appear on the PC as a USB device called “CAELUMBOOT”.

(If the device appears as “TALKABLE,” the process to enter programming mode hasn’t worked. Please try again. Contact support@caelumsystems.co.uk if still not able to connect as “CAELUMBOOT”)

6. Drag & drop or copy-paste the Talkable.uf2 update file into the “CAELUMBOOT” drive.

Talkable will then disconnect from the PC and reboot. It should then reconnect to the PC as “TALKABLE” indicating that the update is complete.

This can also be confirmed by checking the “SOFTWARE VERSION” in the INFO.txt file, found on the “TALKABLE” drive.

Disclaimer

Caelum Systems Ltd makes no guarantee or express or implied warranties of any kind in association with the Talkable device or its components, including but not limited to warranties of safety, function, performance, or merchantability. Use of the product is at the user’s own risk.

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