

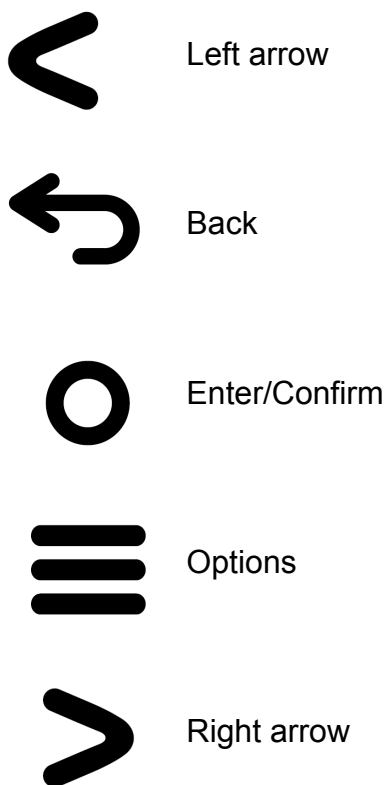
strato

user guide

210909

Description

The main physical user interface of Strato are 5 buttons placed around the speaker. There are two USB-C ports, the power port on the left has a quick charge feature and the data port on the right can communicate with other devices and can charge them. Strato can be charged via both ports (only one at the time), so the data port is power bi-directional.



On the back side, there is a torch lens and eye for safety strap.

Operation

Turn ON

Press the *enter button* for 1 second.

Turn OFF

Press&hold the *enter button* for 1 second until the menu bar is pulled up, then release and click it again.

Settings menu

Press&hold the *enter button* for 1 second until the menu bar is pulled up, then release it and click the *right arrow button*.

Page menu

Press&hold the *enter button* for 1 second until the menu bar is pulled up, then release it and click the *left arrow button*.

Use *arrow buttons* to scroll between widgets. Use the *enter button* to select the highlighted widget. Then you can move and scale it by *arrow buttons*, click the *enter button* to switch between its parameters. Press the *options button* to show widget add/change/remove options.

Menu navigation

Use arrows to scroll, the *enter button* as enter and the *back button* as for return. Press the *enter button* to highlight (blue color) the menu entry and use *arrow buttons* to change its value. Press the *enter button* again to store actual value.

Torch

When OFF, click the *left arrow button* to enable torch function. Click the same button again to turn it OFF.

Power bank

When OFF, click *the options button* to enable the power bank function on the data port. Click the same button again to turn it OFF.

Bluetooth speaker

Strato can play music or another sound stream from a portable Android or iOS device via Bluetooth interface. To enable this function just turn on Bluetooth on your phone and select Strato from available devices. Then play your favorite music and enjoy :)

Vario acoustics editor

There is a PC web server based editor for audio profile/s inside Strato. To use this feature, Strato needs to be connected to the local WiFi network (see Update chapter). Go to the Wi-Fi submenu, then into Network info. If Strato has successfully connected to your local network, it has assigned an IP address. Start a web browser on your PC (we recommend Chrome) and type this IP address into the web address line (e.g. "192.168.0.105"). Then follow instructions on this page. You can edit the current audio profile or save it as another one. You can also save/load profiles to/from files.

System

Update

There are two ways to update Strato, via cable or via WiFi network. We recommend checking new updates weekly, as newer firmware versions bring new features and also bug fixes. You are welcome to report issues to info@skybean.eu or even better to our head of programming Fero to his github interface here - <https://github.com/fhorinek/BB/issues>.

The classic “cable way”

- Go to our repository at page **strato.skybean.eu/fw/**
- Choose folder with the largest number and download firmware file **strato.fw**
- Connect Strato via USB cable into PC, use data port. Strato will appear as mass storage disk
- Copy update file to main (root) folder of Strato
- Press right click on Strato disk and choose eject
- Press the enter button to turn ON vario, update will begin

WiFi update

- Go to Wi-Fi submenu in setting
- Go inside WiFi network and select your network from list
- Fill password, Strato will connect.
- Go back to the main settings menu and enter System submenu.
- Select Device info and then Check for updates.
- If there is new firmware available, vario will ask you to download the update.
- After download, vario will ask for update installation.

Firmware downgrade

You can install lower version of firmware once it has been downloaded

- Go to System, then into Device info.
- Go into the Install update submenu, there are all available firmware files.
- Select your preferred file and enter the update process.

Charging - Quick charge tradeoff

Quick charge technology offers high power flow to the battery, what helps to fill it quickly - 80% in one hour. To reach this value, a charger (wall or car) needs to support this technology. We provide a high power wall charger with Strato. Disadvantage of quick charge is lower accessible capacity, as all Li-Po batteries reach their nominal capacity when charged by 1/10C, what means 500mA in our case. Therefore we recommend using a data port for charging, when you leave Strato charging for the whole night (10 hours) to reach maximum capacity. If your priority is to push as much as possible very fast, plug a quick charge source to the power port.

Reset

Strato is a complex device with 6 CPU cores onboard, so there is real chance it can freeze. If this happens, it is necessary to perform hardware reset. There is no “magic

hole” like mobile phones use to have, but button combination. To perform reset - press&hold the *left* and *the right arrow buttons* in the same time for 10 seconds.

Bootloader update

Strato has two layer software. Under the firmware layer, there is a very basic software called bootloader, which is responsible for charging, USB connection or torch function. Bootloader update is needed if there are problems with internal memory or mass storage connection. We don't recommend updating it without our support suggestion. To update the bootloader, go to strato.skybean.eu/dfu/ and follow the steps on this page. For some users, it might be tricky to put Strato into DFU mode, which is needed to update the bootloader. Strato will enter DFU mode when it detects the *options button* pressed just after its reset. So, perform reset by simultaneous press&hold both *arrow buttons* for 10 seconds. During this procedure (still arrows pressed), press&hold the *options button*. Now release one or both *arrow buttons* (reset condition will exit), so Strato will wake up with the *options button* pressed. This button “Kung-Fu” will put Strato into DFU mode, where the bootloader can be overwritten. Our web repository contains only the newest bootloader, there is no option to download older versions like in the firmware case.

Wipe

If everything goes wrong and neither firmware and bootloader updates didn't help, there is a wipe function, which will completely erase Strato, whole memory (also flight logs!), configuration, AGL data and firmware. Just a plain bootloader will stay. Therefore this drastic procedure is not recommended without our support suggestion.

To wipe Strato press&hold the *right arrow* and *back buttons* while vario is OFF. Then click the *enter button* to turn vario ON. Instead of normal turn ON procedure will appear erase warning countdown. To perform wipe, hold both buttons (back and right arrow) until countdown ends.

Known issues

Strato is still under heavy development, so there are some issues that are known, but not solved yet. Therefore it is not necessary to report them, we will try to fix them ASAP:

- Charging never ends - Despite the charger circuit manages the battery well and disconnects its charging, when it is full, the bootloader doesn't take actual info and it shows charging forever.
- Battery gauge shows low capacity - There is quite a smart battery management system inside Strato, which counts charge and discharge currents very precisely. It needs several cycles to calibrate. Strato has 5000 mAh battery, that is fact, so please don't be confused if current shown capacity is lower. Battery gauge has a default value 1500 mAh, so it is the starting point for measurements.