

SKYTRAXX 4.0 Quick Guide



www.skytraxx.eu

SKYTRAXX 4.0

High-End flight instrument
with FANET+ technology

Foreword

We are pleased that you have chosen a flight instrument from SKYTRAXX and thank you for your trust in our products.

The SKYTRAXX 4.0 is a high-end universal flight instrument based on the revolutionary SKYTRAXX concept, which has already proven itself excellently in thousands of devices worldwide. It offers very extensive functions with maximum ease of use, high reliability, long battery life, compact dimensions and low weight.

The SKYTRAXX 4.0 is easy and intuitive to use and offers optimal support in flight for a large circle of pilots.

Function and screen displays can be adapted according to your own flight style, preferences, individual needs and current conditions.

We wish you a lot of fun and happy flights with the SKYTRAXX 4.0.

Michael Blank, Managing Director, Dr.-Ing. Jürgen Eckert, Chief Developer
SKYTRAXX GmbH



SKYTRAXX

For us, the focus of all SKYTRAXX developments is the pilot. Our products are the result of our own enthusiasm for flying in constant contact from beginners to the world's best top athletes.

Our high standard is perfection in function and technology with simple and intuitive operation, always oriented to the needs of everyday aviation. With our products, we offer the best possible support for flying.

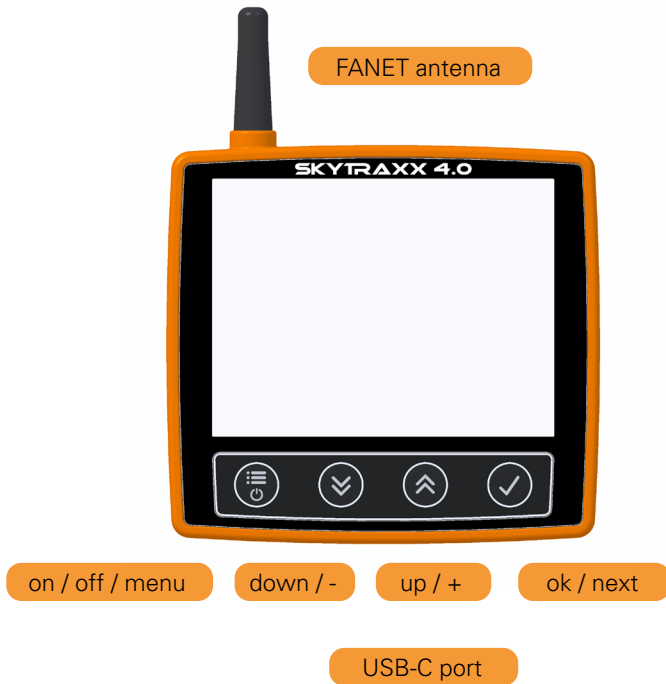
We realize this claim through very mature and flexible basic concepts, the use of high-quality components, an excellent team, creativity and the joy of our own work. A healthy sense of proportion for the balance between what is technically possible and what makes sense for flight practice is just as important to us as short distances to our components with guaranteed fair production conditions in the region and constant contact with our customers.

Features

- > Compact, lightweight device with integrated GNSS and logger
- > Very easy-to-use high-tech Vario with high-speed sensor resolution
- > Up-to-date airspace data, waypoints and take-offs worldwide
- > Automatic update via integrated GSM
- > Altimeter barometrically and GNSS
- > High responsive variometer
- > Large color display with best contrast in sunlight
- > 16 gigabytes of memory
- > Runtime up to 30 hours
- > Thermal assistant
- > FANET and FLARM integrated
- > Live tracking
- > User-definable fields on each side
- > XC point and FAI triangle calculator in real time
- > USB-C interface
- > Light weight (200 grams)

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Function keys

All functions and settings can be controlled with the four function keys. They are also easy to use with gloves.

The **button on the far left** (**>menu**) has the following functions:

- > switching on (briefly and confirming with >OK)
- > switching off (a few seconds, then confirming with >OK)
- > Menue (briefly down to get back to the main menu)
- > back (briefly back to the menu)

Functions of the **two middle buttons** (**>up** / **>down**):

- > switch through individual menue items or change the setting values
- > volume (classic side) or scale (map pages)

The **right button** (**>OK**) has the following functions:

- > selection made
- > switching between flight screens

Unpack and take off

The SKYTRAXX 4.0 is immediately ready for use. If necessary, you should charge the battery before the first flight (see quick access on page 12).

The device is preconfigured in such a way that you can immediately start flying. However, we recommend that you briefly familiarize yourself with the screen displays before the first flight, create the pilot profile and, if necessary, adjust display fields on the flight screens as desired.

The operation of the four function keys is very simple and self-explanatory. Personal adjustments are very easy to make.

A detailed user manual for SKYTRAXX 4.0 can be found on our website at www.skytraxx.eu



Quick start

The SKYTRAXX 4.0 is preconfigured for immediate readiness.

Turn on: On/Off/Menu - Press the button and confirm the switch-on with >OK.

Recording: Data logging starts automatically immediately after take-off and ends automatically a few seconds after landing or when the Skytraxx detects that there is no more movement over the ground.

Between the individual screen pages, you **switch with the >OK button** (switches to the next screen page, depending on the set order).

Variometer: The bar display on the left side of the display and the Variotone correspond to the current rise and fall respectively.

In addition, the SKYTRAXX 4.0 can also display the **averaged value of the rise or fall** over a certain period of time (factory setting: 20 sec.) as a number (integrated variance - configurable display field).

Thermal assist: Applies to centering aid with advance calculation of the trajectory taking into account the wind offset.

If the display shows a **map**, change the **scale** with the **>up / >down buttons**.

Turn off: On/Off/Menü - Press the button for a few seconds and confirm the switch off with >OK.

Charge battery: Connect the device to the charger using the supplied USB-C cable and the **USB-C port** on the lower side of the device. During the charging process, the display shows the charge status of the battery. The automatic charge control of the SKYTRAXX 4.0 ends the charging process as soon as the battery is fully charged.

Short info - Tooltips: For most menuitems, tooltips (short help texts) appear if you leave the cursor at the menuitem for a few seconds.



Screen display

The SKYTRAXX 4.0 captures all information relevant to the flight via several high-precision sensors (pressure, ACC, gyro) of the latest generation and a GNSS system. The system software evaluates these and displays them on the screen as individual values or as graphics.

The **speed of rise and fall** is also output by the device **via acoustic signals** («vario-beeping«).

For a better overview, the **displays are divided into different flightscreens** according to **functiongroups**. There are freely **configurable display fields** on each individual flight screen.

The individual flight screens can be **moved in order, removed completely or newly added**.

Switching the flight screens with **>OK**.

The **selection** of the freely selectable display fields and the **configuration** of the flightscreens takes place in the main menu at **>settings >screens**.

Thermal assistant

The thermal assistant is an effective centering aid. The SKYTRAXX 4.0 thus calculates the possible flight path of the next few seconds in advance and displays it with a blue line or curve. The assistant takes into account both the wind offset and the rate of ascent or descent.

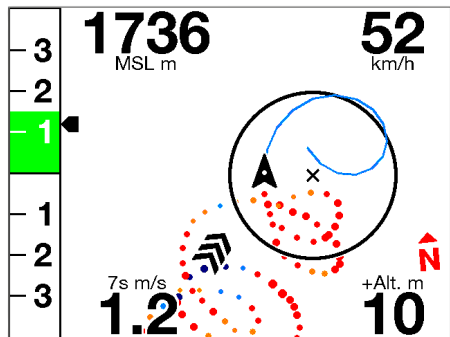
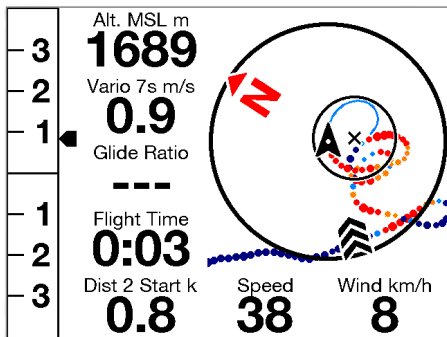
If you start turning in the thermals, the SKYTRAXX4.0 **calculates the possible climbing center**. As soon as sufficient information has been evaluated, the calculated centre of the thermal appears as a **circle on the map**.

You now **fly on in such a way** that the **thin line** always **remains within the circle**.

The three small triangles in the picture show the wind direction, the windspeed can be displayed as a digit in a selectable display field.

The device can automatically switch to the thermal assistant when thermals are detected and switch back to the main page after a few seconds when leaving the climb.

This option can be activated by >Menu >Settings >Flight Screens >Thermals Assistant >autom. Show.



Thermal assist on »classic page« and on the dedicated flightscreen »Thermal Assist«.

The windspeed is marked by the tree little triangles. The gain in altitude indicates worthwhile turning further in the thermal.

Airspaces

The SKYTRAXX 4.0 contains an **airspaces database** for Europe and many flight areas worldwide. The **airspaces** are **visible on the map display** depending on the scale shown.

Filled fields show an airspace below FL 100 or 125/130/145 with **restrictions** on IFR flights (CTR, RMZ, EDR, EDD, TMA, TMZ).

The airspace database is up to date with the current year of delivery of the device. The airspace data is **updated automatically** as soon as there is a connection to the **mobile network**.

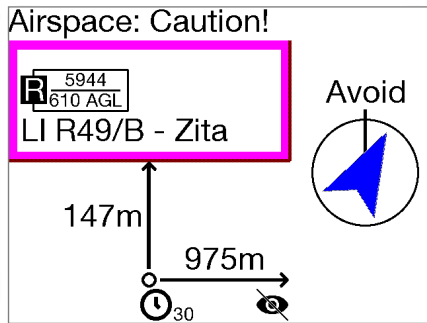
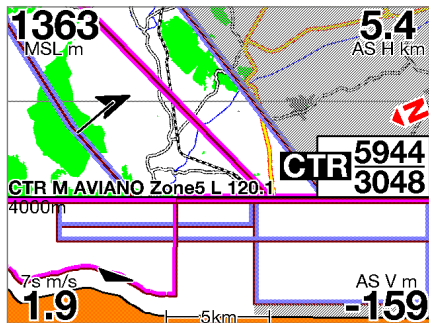
The SKYTRAXX 4.0 automatically selects the airspace data from the internal database (file directory) according to the current geo-position.

We use the XContest database to synchronize our data. These data are freely available, but are not always complete.

We would like to point out that the **only legally binding airspace data** are only published by the **ICAO**. Unfortunately, these are subject to a fee so far.

The SKYTRAXX 4.0 **automatically displays** a screen with airspace information when **entering an airspace** or entering an airspace with restrictions for VFR-flights.

An **arrow** («path») shows the **direction for the shortest exit** from the critical area.



FANET+ / FLARM

FLARM is a **traffic information and collision avoidance system** for general aviation, light aircraft and drones.

The **SKYTRAXX 4.0 transmits FLARM flight information** (ID, position, course, speed) and is »visible« to an »active« FLARM even over longer distances. In the event of an imminent collision, the active FLARM warns the pilot.

FANET+ includes a passive FLARM. **FANET+** participants can also send each other flight data and **other information in real time**, as well as exchange short messages. This allows **live tracking** via the Open Glider Network without additional costs and opens up new **possibilities for team flying and aviation safety**.

FANET+ and FLARM are **integrated** in the SKYTRAXX 4.0. The settings for FANET+, FLARM and Live Tracking can be found in the main menu under **>Settings >FANET+**



Mobile data

The SKYTRAXX 4.0 **includes** a **SIM card** for data connection to the mobile network (international).

In this way, the device **automatically updates** the system software, airspace data and the integrated global database of countries and obstacles.

With the mobile connection, **live tracking** is also possible.

The cost of mobile connections is included in the purchase price of SKYTRAXX4.0 for the first year. After that, you can purchase a discounted subscription for another year or keep your data manually up to date via the update function.

Please find further information on our website www.skytraxx.eu

Configuration

We deliver the SKYTRAXX 4.0 in a **flight-ready basic configuration**. It is designed to cover many requirements.

However, the SKYTRAXX 4.0 can also be **individually adapted** to your own preferences and requirements for flying.

Detailed information on the configuration of the SKYTRAXX 4.0 can be found in the operating instructions on our website **www.skytraxx.eu**



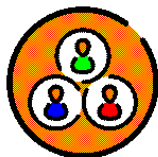
Main menu

With the **>Menu** -key you access main menu (back also with >Menu).

- > **FANET Participants**: Displays currently active FANET users, FANET wind or ground stations
- > **Recording (Rec)**: Switch between automatic post-start recording or manual recording. Long press prevents the recording.
- > **Flight log**: contains the stored data sorted by year and month as well as day and start time.
- > **Navigation**: Management of routes and routes.
- > **Settings**: Individual adjustments, see the following page.
- > **Status and update information**: position data, time, air pressure, battery status, software version.
- > **Burnair**: services
- > Turn **off**

A status bar appears for a few seconds on the top of screen when changing pages displaying time, update status, GNSS reception, cellular connection and charge status of the battery.

12:32



FANET

Main menu - settings

- > **Variometer**: adjust sensitivity, rise and fall tone use, integration time and tone profile.
- > **Volume**: for vario and speech output.
- > **Flight screens**: configuration of the freely selectable display fields per screen, define the order of flightscreens and slides, as well as the sequence of flight screens.
- > **Pilot**: create a pilotprofile (press OK longer) and switch between different pilot profiles (up to four are possible).
- > **FANET+**: TURN FANET+ / FLARM on or off, live tracking, aircraft type, online tracking, message reception.
- > **RF receiver**: configuration for the remote control.
- > **General Administration**: language, units, operation.
- > **Airspace**: warning distance for automatic airspace warning.
- > **Compass Calibration**

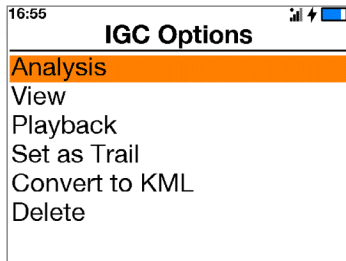
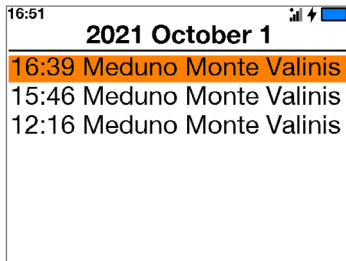
Flightbook

The Skytraxx 4.0 stores the recorded data of the flights and ascents (if applicable) in the internal flight log. They can be analyzed or played back at any time.

You can also use the recorded route as a path.

The flight log contains the stored data records sorted by year, month and day.

Access with **>menü >flight log**





USB-connection / internal memory

The SKYTRAXX 4.0 is equipped with a large internal flash memory. This memory can be easily connected via the USB-C port on the lower side of the device to Windows, Mac (from OSX 10.7) or Linux-based computer systems as an external drive.

Plug in the supplied **USB cable on the lower side of the device** and connect it to a USB port on the computer. The icon for USB connection now appears on the display.

You find the folder »flights« in the file directory of the SKYTRAXX. The flight data stored as IGC files is sorted in subfolders by year and month, the file name is composed of date, time and flight area.

You should disconnect from the computer with »eject drive« if the SKYTRAXX is no longer needed as an external mass storage device. This ensures that no data is lost or damaged.

Update

We constantly adapt the software of the SKYTRAXX 4.0 to the requirements of our pilots, we add practical experience to it and remedy any weaknesses.

SKYTRAXX 4.0 **automatically updates by integrated GSM connection** system software, airspace data, obstacle data and the worldwide data base of flightareas.

You also can download the system-software, airspace, obstacle and country data for **manual updating** from »Downloads /SKYTRAXX 4.0« section on the www.skytraxx.eu website, connect the device to a computer via the USB port and copy the files to the corresponding directories (»update«, »airspaces«, »waypoints«).

System-reset

The SKYTRAXX 4.0 can be resetted by pressing the >menu button for a long time (10seconds).



Environmental protection / disposal

The SKYTRAXX4.0 internal battery requires special disposal. As an end user, you are legally obliged to return all used batteries and rechargeable batteries (Battery Ordinance). Disposal in the household waste bin is prohibited by law!

You can return your used batteries / rechargeable batteries free of charge to the collection points of your municipality or everywhere batteries / rechargeable batteries are sold.

You thus comply with legal obligations and make your contribution to environmental protection.

WEEE-Reg.-Nr. DE 97761594 The company SKYTRAXX GmbH is connected to the dual system.





Guarantee

On our devices, we grant a warranty period of 24 months from the date of purchase for material and manufacturing defects. Mechanical damages, such as housing or display damage, are not subject to the warranty obligation.

Please contact your dealer or the manufacturer directly for warranty claims. By opening the use of the house, any warranty claim expires.

Specifications

power supply:	Lithium ion battery 2700 mAh 3,7 V, runtime up to 30 hrs.
memory:	16 GB
GSN:	integrated SIM-card
Sensors:	pressure, ACC-Sensor, Gyro
Display:	640 x 480 Pixel color
Interface:	USB C
Weight:	180 grams light
Dimensions:	115 mm x 106 mm x 15 mm



Disclaimer

In rare cases the flight instrument may provide no data or incorrect data. SKYTRAXX GmbH rejects all claims for damage caused by misconduct of your device.

The free and freely available data such as airspace¹, take-off and landing points² and elevation data have been compiled with great care. However, SKYTRAXX GmbH does not guarantee the accuracy and updating of the free and freely available data provided. Download of the free and freely available content itself does not establish any contractual relationship between the user and the provider, in this respect there is no legal will of the provider.

The pilot alone is fully responsible for the safe conduct of his or her flights.

¹ Airspace data provided by: <https://airspace.xcontest.org>

² take-off and landing areas provided by: <http://www.paraglidingspots.com/default.aspx>

Safety notes

Use of the SKYTRAXX flight instrument is at your own risk. The manufacturer assumes no liability for damage and loss of data that may result from the use of the supplied PC software.

In addition, the manufacturer expressly assumes no liability, in particular for dangerous flight situations caused by possible failures to indicate the altitude, position and speed.

The instrument display may only be read if the current flight situation allows it.

We wish you many nice flights with your SKYTRAXX 4.0

Support

Most of the answers to operating questions about your device can be found in the detailed operating instructions on the website www.skytraxx.eu.

If your SKYTRAXX 4.0 is damaged by fall, water landing or other influences or malfunctions occur, please contact our support by email:

support@skytraxx.eu

or send your device with a detailed error description to:

SKYTRAXX GmbH, Im Bildstöckle 5, 79822 Titisee-Neustadt, Germany

We strive to process your request as quickly as possible.



SKYTRAXX 4.0

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