User Manual XC Tracer Maxx III

Frequently Asked Questions

Do I have to pay for a subscription?

No, there are no fees to pay. It is all included in the sales price.

Is the terrain data for the region where I fly included?

Terrain data for all areas where flights have been uploaded to XContest between 2012 and 2025 is pre-installed on the SD card.

How do I connect the Remote Control to the vario?

Press and hold the button of the remote control, then switch on Maxx III. Wait until the logo on the screen disappears. Make sure that the RC and Maxx III are close to each other. You only need to make the pairing once.

How do I make a firmware update?

Create an account to use our webapp at my.xctracer.online. Then connect your smartphone over BLE to Maxx III. (NB. On iPhone use Bluefy browser). Then use the webapp to make firmware updates, upload flights, etc.

After a firmware update always control the settings in the menu!

The vario does not switch automatically to the thermal screen.

Make sure that *Screen1=Standard* and *Screen2=Thermal*, and then in "Screen Options" / "Thermal" make sure that you set *AutomaticSwitchBack=10s* or more.

I made a firmware update, but it still shows the old version.

The information about the new version is only updated when the vario has GPS reception. After a firmware update, switch Maxx III on outside where you have good GPS reception, and then the information about the firmware installed will be updated.

How do I connect to my flight app?

Make the connection to BLE in the app, not in iOS or Android.

Maxx III crashes after takeoff, or when there is GPS reception.

Always eject the vario (SD card) from the computer as you would with any USB memory stick. Otherwise the file system on the SD card can get corrupted, and then when the vario tries to write to the SD card the code crashes.

This is easy to fix. Connect the vario to a Windows PC (Mac not recommended), switch it on, and then check the SD card for errors using Windows Explorer. In any case, do not format the SD card! Once the errors are corrected, Maxx III will work normally without any issues.

Quick Start Guide

Attach the vario on the cockpit or on your thigh.

To switch on the vario, press and hold the red button until you hear beep-beep, then release it. The start screen appears after a few seconds.

If the Remote Control isn't paired yet, first press and hold the red button on the Remote Control, then switch on the vario. Once a short beep sounds, release the RC button – the connection is established.

The Remote Control attaches to the risers of the harness and allows you to safely control the vario without having to release the brake handles. With a short press on the Remote Control, you can switch between screen views.

During satellite search, "GPS" flashes in the upper right corner. As soon as a GPS fix has been acquired, the battery symbol is displayed and you can take off.

In the menu, you can adjust all important device settings – from display options to alarm thresholds to flight parameters.

You access the menu through a special button combination: press twice quickly, holding down for about one second on the second press – works on both the vario and with the Remote Control, but with the Remote Control it is a bit easier to do. Once in the menu, navigate through available options with short button presses. A long press confirms your selection and saves the setting.

Adjust the volume with a double-click on the vario. To turn off, you must hold the red button on the vario itself for a long time – two beeps signal successful shutdown.

For full use of your XC Tracer Maxx III, you should create a free account at my.xctracer.online. The web app is free of charge and allows you to conveniently download your flight tracks via smartphone and Bluetooth connection (BLE), adjust device settings, and install important firmware updates.

If you want to read the SD card directly on your PC, note the correct sequence: First connect the switched-off vario to your computer using the included USB cable. Only now switch on the vario. The SD card will then be recognized as an external drive and you can directly access all saved files.

⚠ **Important: Always eject the SD card correctly before disconnecting the USB cable!**

⚠ Use only 5V standard USB! Charge via computer USB or a normal 5V charger. Never use fast charging functions like Fast Charge, Quick Charge, Super Charge, or Turbo Power. Cheap chargers can damage your device. Voltages above 5V will irreversibly destroy the electronics! Damage from incorrect charging voltage is excluded from warranty!

Introduction

The XC Tracer Maxx III is a high-precision GPS variometer with a perfectly readable display and integrated ADS-L, FANET and FLARM. It transmits your position and predicted flight path every second. Other FLARM and in future ADS-L devices in the vicinity can calculate collision risks from this data and warn their pilots. However, the XC Tracer Maxx III itself does not warn you of potential collisions.

Many pilots use XC Tracer flight instruments for long XC flights and competitions. But the XC Tracer variometer is also the perfect choice for pilots with little flying experience. The lag-free indication of lift and sink rates makes it much easier to find and core thermals than when using a conventional variometer. All essential flight information is displayed on the LCD.

XC Tracer Maxx III is also an IGC logger, whose files are recognized by the FAI for paragliding competitions. The built-in lithium polymer battery provides up to 60 hours of operation on a full charge and is charged via the included USB-C cable. The integrated Bluetooth module transmits data such as speed, altitude, climb rate and heading to your smartphone, tablet or e-reader. On xctracer.com under FAQ you'll find information about compatible apps and the required BLE configurations.

For data transfer and configuration, create a free account at my.xctracer.online. There you can download tracks, change configurations and perform firmware updates. Alternatively, connect the vario to your computer via USB and then switch it on – the SD card will appear as a drive.

Mounting

The XC Tracer Maxx III uses data from a 9-DOF IMU (9 Degrees Of Freedom Inertial Measurement Unit), from the GPS and from a pressure sensor, to compute the real-time climb rate and altitude, avoiding the undesired time lag that conventional variometers suffer from (due to data filtering). For this reason mount your XC Tracer Maxx III in such a way that it moves as little as possible in relation to the harness during flight.

Therefore, securely attach the variometer to the cockpit or thigh using the included Velcro strap.

It's advisable to leave 4-5 cm of clearance around the variometer, as otherwise the performance of the ADS-L/FANET/FLARM functionality may be impaired.

To switch on the XC Tracer Maxx III, press the red button until you hear two short beeps. Then release the button. After switching on, the battery charge level is indicated acoustically. A few seconds after the logo appears, the preset screen is displayed. While the variometer searches for GPS satellites, "GPS" flashes in the upper right corner. As soon as a GPS fix is acquired, this text disappears and the battery symbol is displayed. Now you can take off.

You can change the screen with a short button press on the vario or with the Remote Control. Adjust the volume with a double-click on the vario. After landing, switch off the variometer by pressing the button until two short beeps sound and the variometer switches off.

Connect Remote Control (one-time pairing)

You only need to perform this pairing once. After that, the Remote Control will automatically connect to your Maxx III when the vario is switched on.

For pairing, press and hold the red button on the Remote Control, then switch on the Maxx III while continuing to hold the RC button. Wait for a short beep and then release the RC button – the connection is established.

The Remote Control attaches to the riser and allows you to safely control the vario without having to release the brake handles. With a short button press on the Remote Control, you can switch between screen views.

The Remote Control only consumes power while the button is pressed. When packing, make sure the RC button isn't accidentally pressed in your backpack. A continuously pressed button will completely drain the battery within a few days.

Battery Indicator

After switching the device on the battery charge status is indicated with a sequence of short beeps:

- 5x Beep means that the battery is charged 95% or more.
- 4x Beep means that the battery is charged 75% or more.
- 3x Beep means that the battery is charged 55% or more.
- 2x Beep means that the battery is charged 35% or more.
- 1x Beep means that the battery is charged 15% or more.

When the battery is less than 15% charged you will hear a constant beep for one second after switching the device on. The battery charge level is also displayed on the LCD.

Adjusting the Volume

The XC Tracer Maxx III offers five different volume levels: silent, very quiet, quiet, medium and loud. To adjust the volume, press the red button twice in quick succession. With each double-click, you switch to the next level. After the highest setting "loud", the device returns to "silent", so you cycle through the levels in a loop.

With the default settings, the vario doesn't emit acoustic signals on the ground. Only after you've taken off and the device registers altitude changes will the tones be emitted at your selected volume. This way you avoid unnecessary noise during launch preparation.

Power Management

A fully charged battery enables operation of the variometer for more than 60 hours, including recording IGC and KML files, transmitting and receiving ADS-L/FANET/FLARM data, and Bluetooth data transmission. After a successful landing, the variometer should be switched off to save power.

However, in case of an emergency landing, the variometer should not be switched off to assist SAR (Search and Rescue) operations.

The battery can be charged via USB. Use the included USB-C charging cable for this. A complete charging cycle takes about 5-6 hours.

⚠ **Warning:** Only charge the battery with the USB cable on a PC or a 5V charger. Do not use fast charging options like Fast Charge, Quick Charge, Super Charge or Turbo Power. Using a voltage higher than 5V when charging will destroy the electronics. Never use a cheap charger as this can damage the variometer. XC Tracer assumes no warranty for damage caused by improper use..

No Automatic Shutdown

The XC Tracer Maxx III does not switch off automatically after landing. The variometer must always be switched off manually. The idea behind this is that in case of an accident, the variometer does not switch off automatically, allowing ADS-L, FANET and FLARM signals to be transmitted for as long as possible, which can be used by rescue services to locate the pilot. The XC Tracer Maxx III has undervoltage protection and will switch off if the battery voltage drops below 3.3V. Therefore, it is advisable to always switch off the variometer manually immediately after landing.

Screens

Maxx III can show several predefined screens:

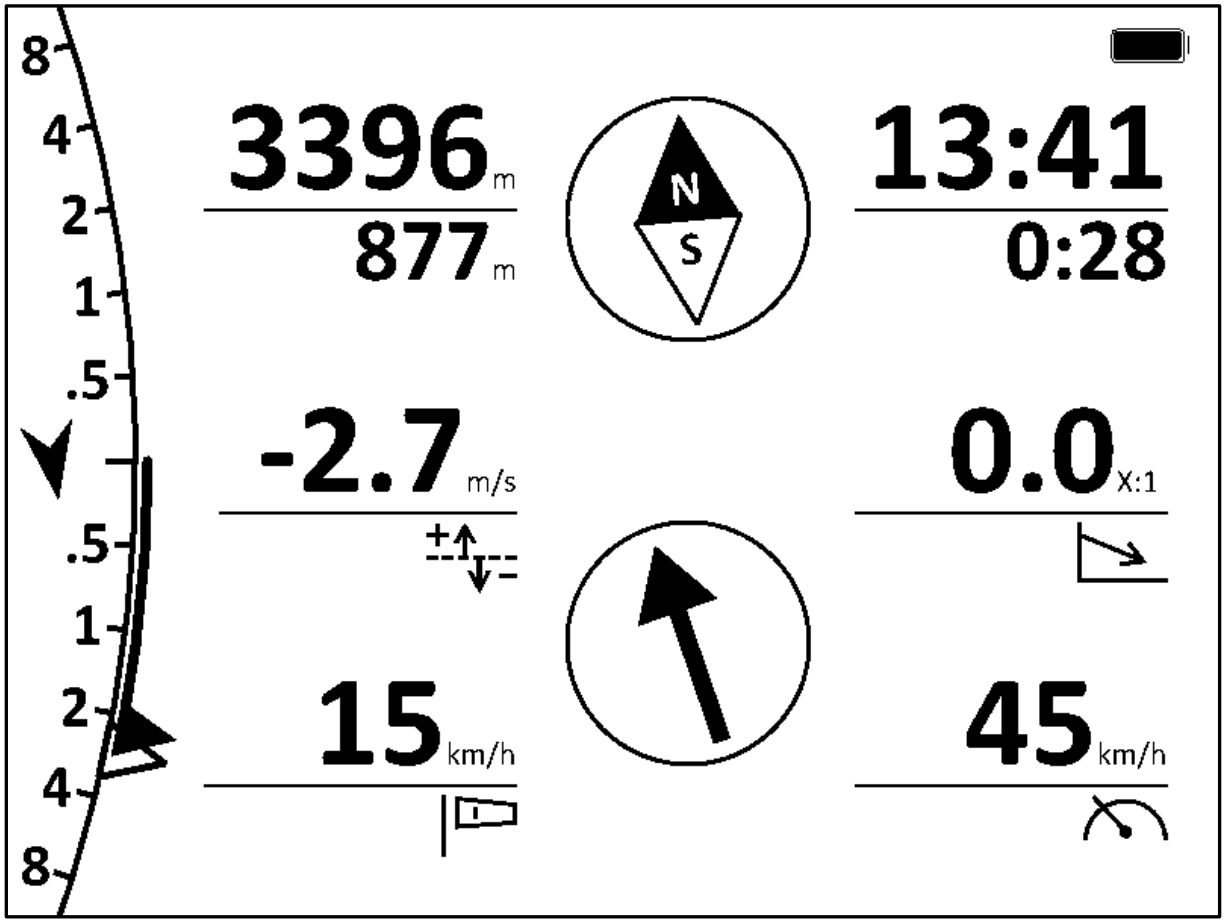
- Standard
- Thermal
- Buddy
- Wind
- Airspace

However, you can select which screens should be available during flight, and in which order they appear when cycling through.

Change screen: Short press on the red button (on the vario or the Remote Control).

Important: When you use the thermal screen then define this one as the screen 2, so that automatic switching from standard to thermal screen and back does work.

Standard Screen



The analog vario display shows climb / sink rate in weak thermals with very good resolution. At the same time, climb rates in strong thermals can still be easily read.

The digital vario display shows the integrated climb / sink rate. The integration time can be adjusted in the menu. The integrated climb rate is also shown in the analog vario display as an unfilled triangle.

Altitude can be displayed either above sea level or above ground – or both values simultaneously.

Speed shows your ground speed.

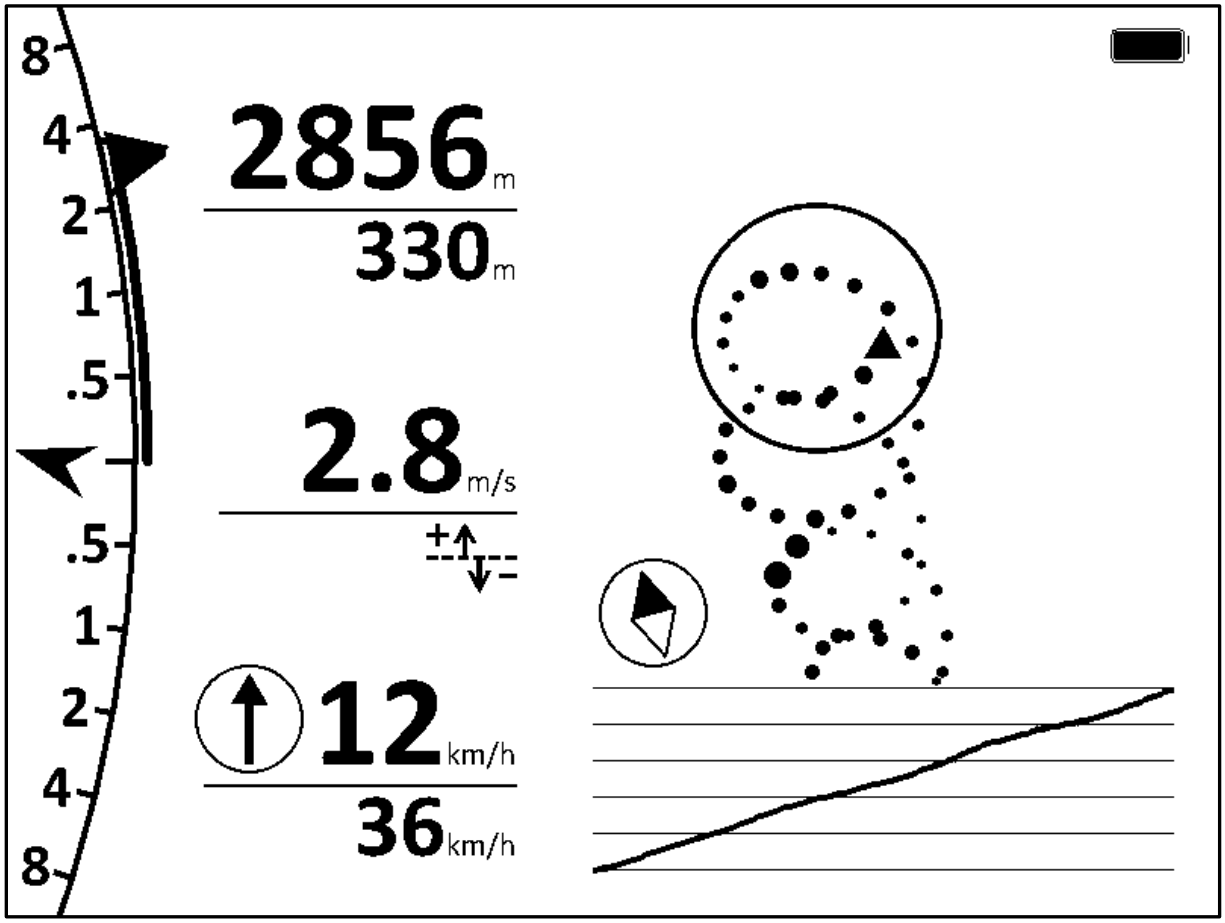
The compass needle reliably indicates all cardinal directions.

Additionally, the glide ratio, current time and flight duration are displayed. The calculated wind speed and wind direction are also visible.

As long as the wind arrow points upward, the wind is still being calculated. After successful calculation, the arrow shows the direction the wind is blowing. The XC Tracer Maxx III can even calculate wind while soaring on a slope. Wind calculation works well to very well in most situations. Only after prolonged straight flight can accuracy decrease.

Important: The small arrow on the left in the variometer display points to the position of your last thermal where you gained altitude. In case you lost the thermal, then just follow the arrow.

Thermal Screen



The analog vario display, altitude above sea level, digital vario, wind and compass are identical to the standard screen. Instead of the windsock, ground speed is displayed.

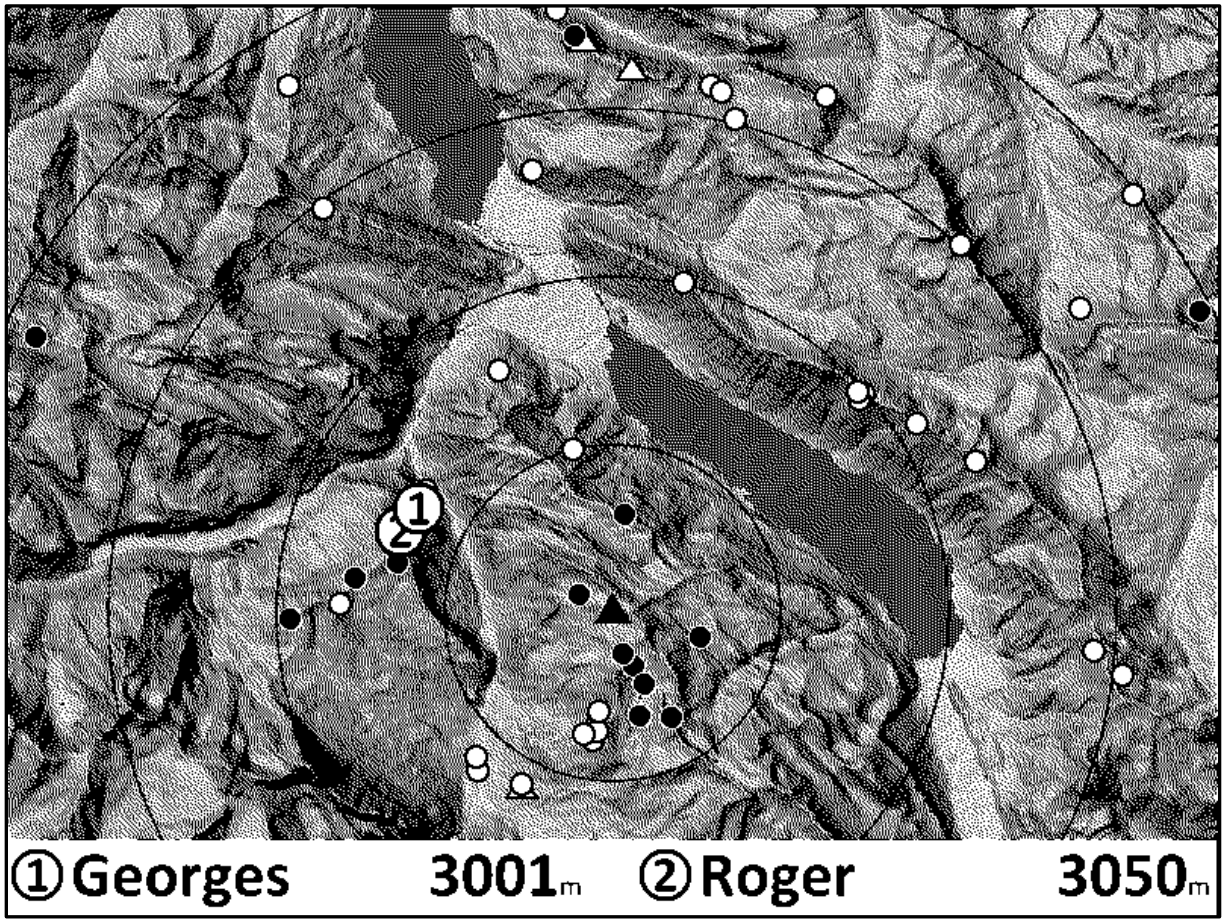
In the settings, you can choose whether to automatically switch from the standard screen to the thermal screen and back. If you select the setting "AutomaticSwitchBack=16s", the display will automatically switch to the thermal screen when entering a thermal. After 16 seconds of straight flight, the display automatically switches back to the standard screen.

The circle indicates the thermal center. You can adjust the diameter of the circle; a good value is 40m.

Bottom right shows the altitude graph of the last 30 seconds. This display helps you see at a glance whether you've gained or lost altitude. Above the altitude graph, the thermal assistant displays the last 60 seconds of flight with dots. Filled dots indicate climb, unfilled dots indicate sink. The size of each dot corresponds to the associated vario value. Large black dots indicate good climb, small empty circles indicate weak sink.

This thermal assistant can be very helpful when you've fallen out of a thermal and want to find it again, or when you want to optimize your climb. It remains important to monitor the airspace around you and not focus exclusively on the vario. It's best to try out the thermal assistant for the first time when you're flying alone in a thermal.

Buddy Screen



The buddy screen displays a topographic map showing the real-time positions of all paraglider and hang glider pilots equipped with ADS-L/FANET devices whose radio signals have been received within the last 5 minutes.

Under the "Buddy" menu, you can add your own buddies to the system. The position, altitude, and flight status of your buddies are continuously recorded and stored. In an emergency, this data can be accessed via "Buddy - Search/Rescue Buddy" to help locate missing pilots.

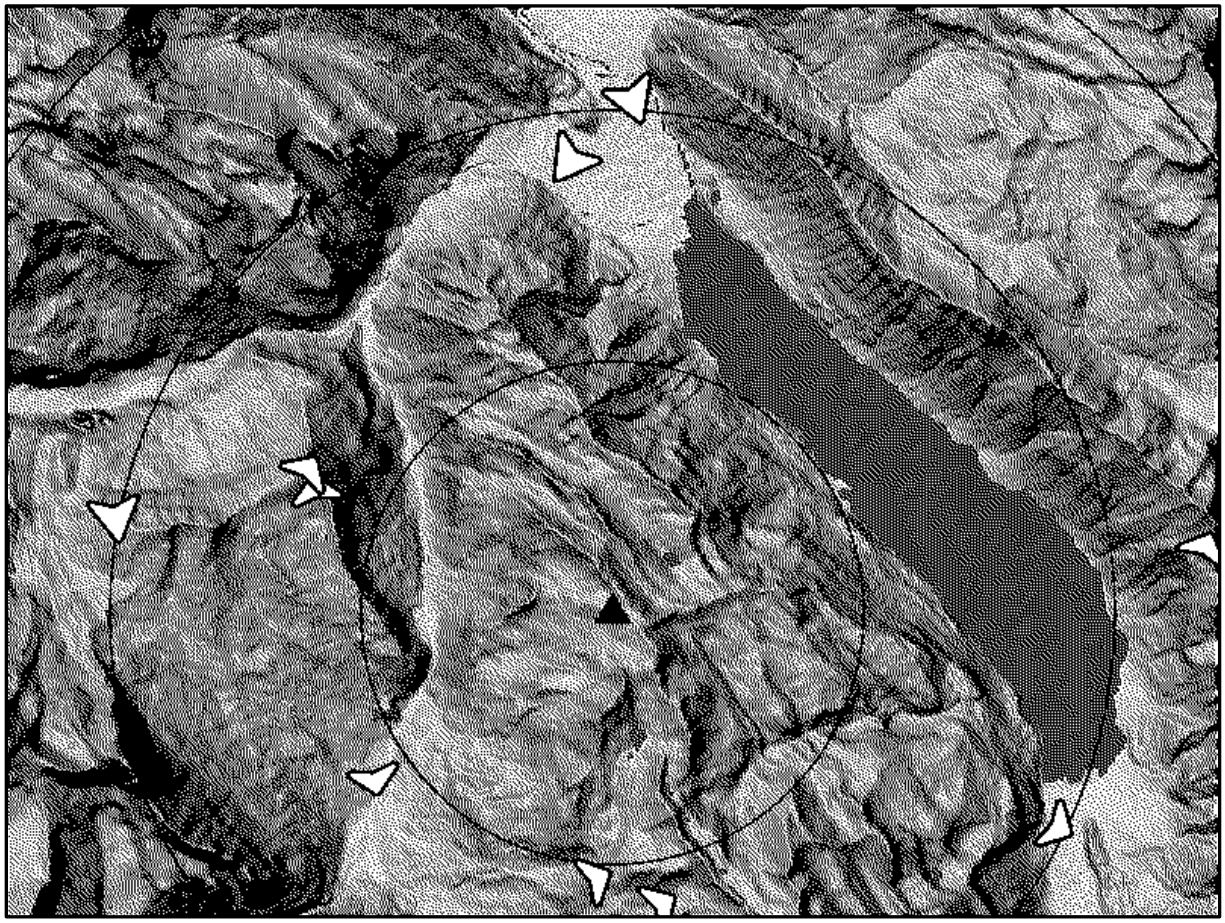
Your defined buddies appear both on the topographic map and in the footer: The footer displays buddy names in pairs, cycling through every 2 seconds (if you have more than 2 buddies).

The screen uses different symbols to show pilot positions and status: Black dots mark pilots flying higher than your current altitude, white dots mark pilots flying lower than your current altitude, and triangles mark pilots on the ground (either not yet airborne or already landed).

Access "Screen Options / Buddy Screen" to customise your view. Set different zoom levels, we use 16x12km, 24x18km and 36x27km. Adjust the hillshading type to better match your region (use the demo to preview different options). Enable 2km or 5km distance rings to help visualize how far other pilots are flying

Important: When flying, you can quickly cycle through the different zoom levels by pressing and holding the button on your remote control.

Wind Screen



The wind screen displays a topographic map showing the position, wind speed, and gust data from FANET wind stations that have transmitted within the last 5 minutes.

Wind and gusts are displayed as icons representing the following speed ranges:

0-5km/h 5-15km/h 15-25km/h 25-35km/h >35km/h

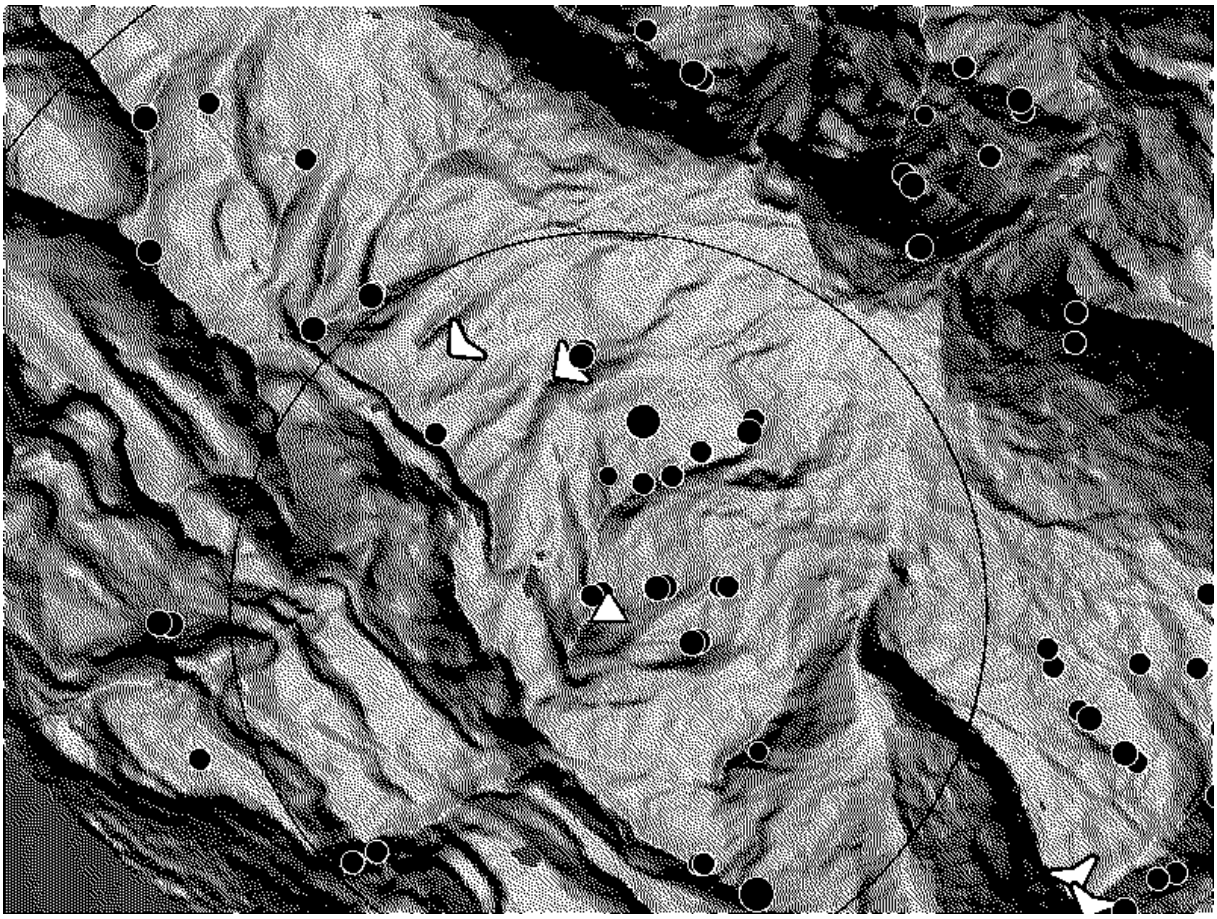
The screen alternates between wind speed and gust data every second: wind is displayed for one second, then gusts for the next second, then back to wind, and so on.

The icons make it easy to assess wind conditions at a glance. The icon size indicates wind strength. When you see the display blinking between a long arrow and a short arrow, this indicates very gusty conditions at that location.

Zoom levels are identical to the ones defined in the buddy screen, as well as hillshade type. Distance rings are independent, here you can choose a different setting than in the buddy screen. You can define the size of the icons for the wind, from small to extra large.

Important: When flying, you can quickly cycle through the different zoom levels by pressing and holding the button on your remote control.

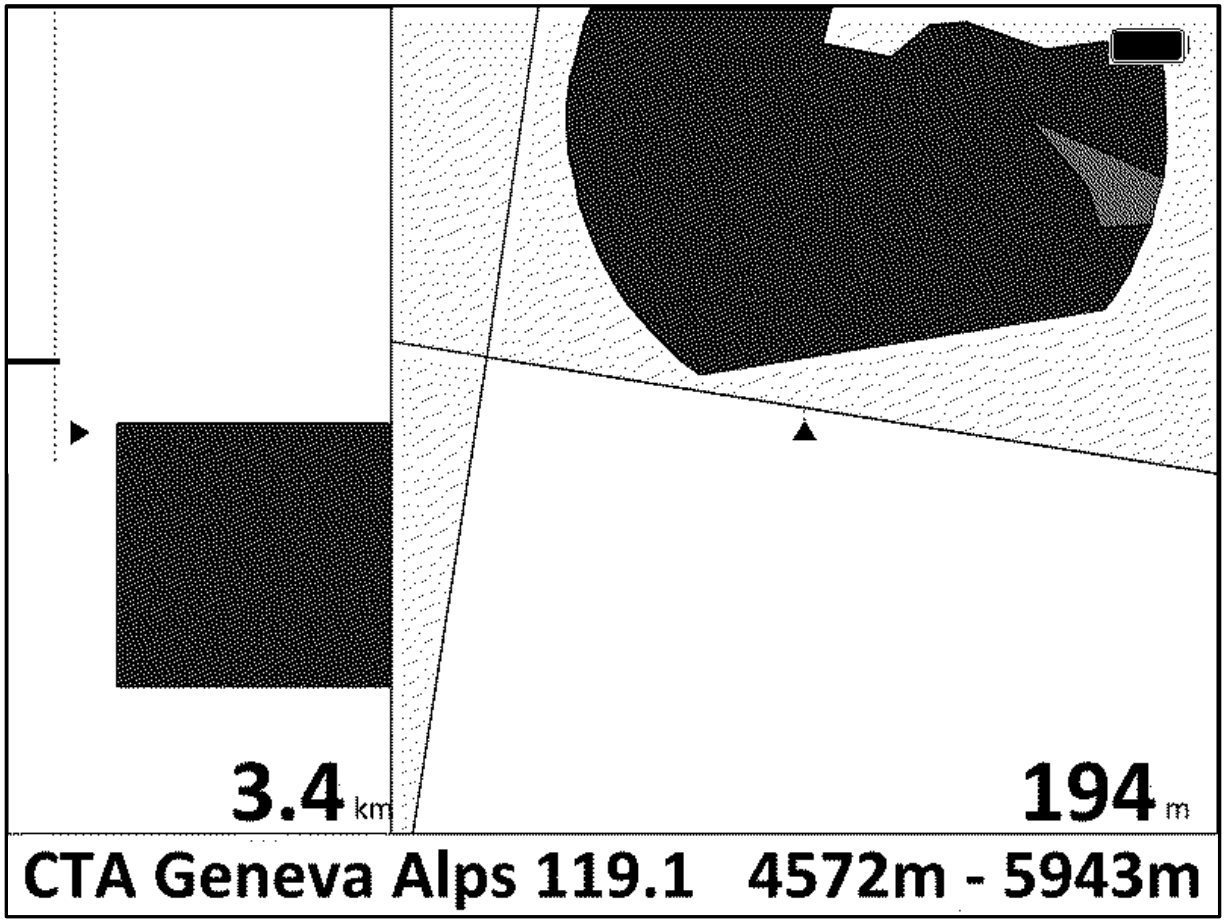
Wind Screen with thermal hotspots



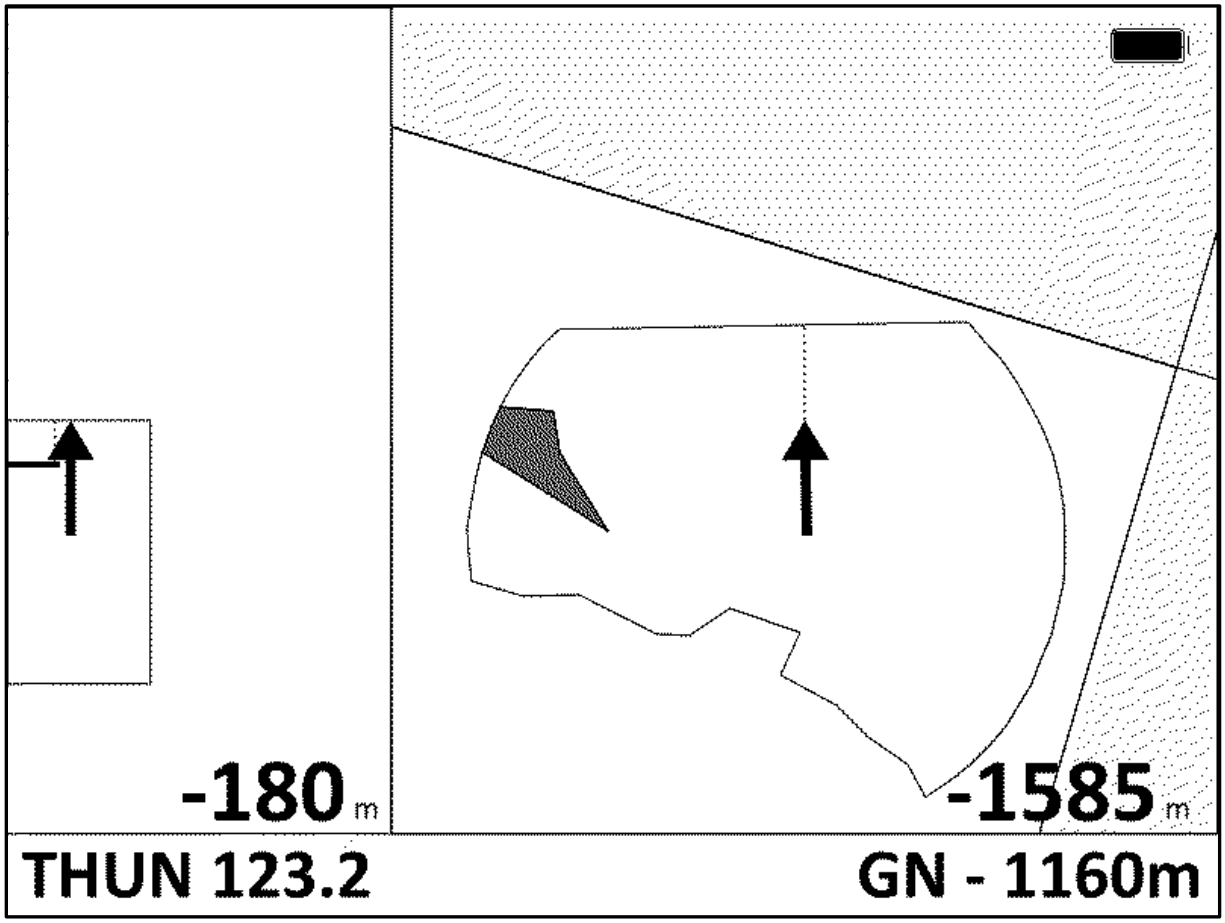
At the lowest zoom level, the WindScreen also displays thermal hotspots based on data from KK7 (https://thermal.kk7.ch/). The hotspots appear as black dots – the larger the dot, the higher the probability of finding good thermals at that location for the given time of day and season.

Important: When flying, you can quickly cycle through the different zoom levels by pressing and holding the button on your remote scontrol.

Airspace



This is what the airspace screen of the Maxx III looks like when you're flying towards an airspace. On the left is the side view, on the right is the top view. The numbers indicate on the left the vertical distance to the nearest airspace, on the right the horizontal distance to the nearest airspace.



If you are inside an airspace, two arrows show you the shortest way to the nearest airspace boundary. The displayed distance corresponds to the vertical or horizontal distance to the boundary.

To install airspaces, please use our web app at my.xctracer.online. After creating an account, you can transfer airspaces directly to the device via Bluetooth (BLE) from your smartphone.

The airspace data can optionally be extended with obstacle data. Simply enable the corresponding option in the web app.

Adjusting settings directly on the variometer without a computer

If you want to change or view settings: press the red button twice in quick succession and hold it down for a second on the second press. This will take you to the menu. To navigate to the desired setting, press the button once briefly; a long press changes or selects the setting.

The menu includes the following settings:

Flight Book

Here you see information about your recent flights. Please note that you cannot delete flights. This serves only as a statistic in the flight log.

Buddy

With "Add Buddy Nearby" you can add an unknown buddy at the takeoff site. To do this, turn on your XC Tracer Maxx III and your friend's variometer, wait until both variometers have GPS reception and now you're ready to start. "Add Buddy Nearby" displays all ADS-L/FANET devices within a 50m radius around you. Navigate with short clicks to the device ID of the buddy and then select it with a long button press. Your buddy's ID is now saved and can no longer be selected. Optionally, you can also change the name of the buddy.

Note: If a buddy is already saved in the address book, you cannot select them this way. Please use "Add Buddy From Address Book" for this.

If you want to give a buddy a different name than, for example, "Buddy3," you can do this later on the computer by changing the name of the buddy in the "BuddyList.txt."

Under "Add Buddy From Address Book" you can select a buddy from the list saved in the "Buddy" folder under "BuddyList.txt." When you add a buddy with "Add Buddy Nearby," they are automatically saved in the "BuddyList.txt." For example, you can save up to 50 buddies from your club in this list. At the takeoff site, you can then quickly select up to 8 buddies who are also at the site with "Add Buddy From Address Book" You can immediately see whether a buddy is already flying or has not yet taken off. However, the condition is that this buddy has their flight instrument with ADS-L/FANET turned on.

Under "Remove Buddy" a buddy can be removed, meaning they will no longer be displayed on the screen. However, the buddy is not removed from the "BuddyList.txt."

Under "Search / Rescue Buddy" you can check where your 8 buddies, which you have selected for display on the screen, were the last time the XC Tracer Maxx III received a FANET/FLARM signal. This can be helpful in search and rescue operations to quickly find a missing pilot.

Screens

Here you can select which screens should be displayed and in what order. Please note: The automatic switching to and from the thermal screen only works if the thermal screen is selected as Screen2.

Screen Options

Here you can make various settings for the screens.

Under ***Standard Screen Options*** you can configure the following:

Altitude=....

You can choose whether to display altitude above sea level (MSL), altitude above ground (AGL), or just one of these options. Either the GPS altitude and the altitude above ground are displayed, just the GPS altitude, or only the altitude above ground.

LocalTime=.....

Here, you can set the local time. Please note that this requires GPS reception. The switch between winter and summer time does not happen automatically. But the correct time is automatically set when you connect to our webapp at my.xctracer.online.

Time=....

Here, you can set the local time. Please note that this requires GPS reception. The switch between winter and summer time does not happen automatically.

VarioAverage=....

Here, you can set the integration time for the digital variometer display, from 0 seconds (no integration) to 20 seconds. The best option is probably 20 seconds, as this provides the average climb over a full circle in a thermal.

Under ***Thermal Screen Options***, you can set the following:

AutomaticSwitch....

With "AutomaticSwitchScreen=no," the screen will not automatically switch from the standard screen to the thermal screen and back.

With "AutomaticSwitchBack," you can set the time within which the screen will switch back to the standard screen once you resume straight flight. A value between 14 and 16 seconds is recommended, as this prevents the screen from switching back immediately if you are searching in the thermal and flying straight for a while.

WindThermalScreen=....

If you select "Wind & Speed," both the wind speed and the ground speed will be displayed. However, you can also choose to display only the wind.

CircleThermalFinder=....

With "CircleThermalFinder=...," you can select the size of the circle to be displayed in the thermal finder. The diameter can be set between 25 and 70 meters. A recommended value is 40 meters. Alternatively, you can turn the circle off.

In the ***Airspace Screen Options***, you can make various settings for the airspace screen.

"*TopViewResolution*" allows you to define the size of the map section.

"*SideViewResolution*" lets you set the scaling of the side view.

"*AlarmDistanceHorizontal*" allows you to define a horizontal alarm distance.

"*AlarmDistanceVertical*" enables you to set a vertical alarm distance.

"*AwareDistanceHorizontal*" lets you define a horizontal pre-warning distance.

"*AwareDistanceVertical*" allows you to set a vertical pre-warning distance.

"*AwareShowTime*" can be set to determine how long the airspace screen should be displayed when a pre-warning occurs.

When you approach an airspace and cross the aware distance, an acoustic signal sounds, and the airspace screen is displayed for the duration defined in "AwareShowTime." This duration should be set long enough to assess the situation. After "AwareShowTime" expires, the display automatically switches back to the previous screen.

In the event of an airspace alarm, the display automatically switches to the airspace screen. To return to the previous screen, you must press the red button of the remote control.

Under ***Buddy Screen Options*** you can define 3 screen sizes. Set different zoom levels, we use 16x12km, 24x18km and 36x27km, this is a good starting point. With the Remote Control you can scroll through the different screen sizes by holding down the Remote Control button while the Buddy screen with hillshading is displayed.

Under *DistanceRings=...* you can set if you want to have a ring every 2km, every 5km, or none at all. This can be helpful to see how far away your buddies are flying, or how much altitude you need to glide from your current position to the next ridge.

Under *HillshadeType=...* you can select the intensity of the hillshading.

Under *Demo=...* you can have demo hillshadings calculated from various locations. When this is done for the first time, it can take up to 2 minutes for the data to be unpacked, loaded and calculated. Please be patient, it will work.

Under ***Wind Screen Options*** you can define 3 screen sizes. But you will need to use the same settings as for the Buddy Screen. When you change the size of a screen here then it will also change the size in buddy screen options

Under *DistanceRings=...* you can set if you want to have a ring every 2km, every 5km, or none at all. This can be helpful to see how far the next wind station is, or how much altitude you need to glide from your current position to the next ridge. Here you can use a different setting than in the buddy screen.

Under *HillshadeType=...* you can select the intensity of the hillshading. Again, here you need to use the same setting as for the buddy screen.

Under *ShowWindStations=...* you can set the size of the wind station icons, so that you can see them easily. Recommended is in general to use the large icons.

Under *ShowThermalHotspots=...* you can set whether the thermal hotspots should be displayed at the lowest zoom level or not.

Under ***Units*** you can set which units should be used for speed, altitude, vario, wind and distance.

Tone & Alarm

Here you can make various settings regarding sound and alarm.

BeepOnButtonClick=...

Here you can set whether the variometer emits a beep when being operated or not.

BeepOnlyWhenFlying=....

With "BeepOnlyWhenFlying=...", you can set the variometer to beep only when you are flying. This is the standard setting. Otherwise, the variometer will beep at every movement on the launch site. With "yes", the variometer will start beeping only when you are flying, with the volume level that you can set further down.

SetVolume=....

With "SetVolume=...", you can set the volume at which the variometer beeps during flight.

At 0, the variometer remains silent.

At 1, it beeps quietly, suitable for sensitive ears.

The volume level 2 or 3 is a good choice for most pilots.

If you want maximum loudness, set it to 5.

DampingFactor=...

With "DampingFactor=...", you can adjust the damping. For no or only a slight time delay: Use 0 or 0.5. For maximum damping: Choose a value of 5.

TEK=.....

TEK stands for "Total Energy Compensation". A TEK variometer compensates for the conversion of speed into altitude to avoid unnecessary beeping. Especially when flying with a high-performance paraglider, if after full acceleration and subsequent release of the speed bar, the glider temporarily converts speed into altitude, the variometer will show a temporary climb. This is where the TEK variometer's compensation function comes into play.

However, the benefit of a TEK variometer is limited in thermal flying. If the glider accelerates without actually climbing, the TEK variometer will show a climb because total energy increases (same altitude but higher speed), which could confuse the pilot who does not physically perceive any climbing.

To account for this, we offer setting options from TEK=1000ms to TEK=3000ms. When active in straight flight, TEK can contribute to optimizing flight performance and help use updrafts more effectively. When turning into a thermal and switching to the thermal screen, there is a seamless transition from the TEK variometer to the normal variometer within the set time. A setting of 1000ms means that the TEK variometer will seamlessly transition to the normal variometer within this time. This transition also occurs when leaving the thermal and returning to straight flight, switching from the normal variometer back to the TEK variometer.

For many pilots, the setting TEK=no might be the preferred choice to receive consistent feedback throughout the flight.

ObstacleWarnings=.....

The "ObstacleWarnings" setting allows the pilot to determine how often they want to be warned about the same obstacle during a flight. This is particularly useful to avoid unnecessary warnings, especially if there are known obstacles near the launch site or in other areas that the pilot regularly flies over.

For example, if "ObstacleWarnings=2x" is set, the pilot will be warned twice about the same obstacle, and no further warnings for that obstacle will be given during the same flight.

Approximately 12 seconds before a calculated collision with an obstacle, an alarm sounds, resembling a police siren tone. The closer you get to the obstacle, the more urgent the alarm tone becomes. Once you move away from the obstacle, the alarm stops. It's important to note that obstacles are not displayed on the screen but the alarm serves as an auditory warning.

It's crucial to recognize that the effectiveness of this feature greatly depends on the quality and currency of the available obstacle data. Therefore, it's essential to keep the device's obstacle database up to date to ensure reliable warnings of potential collisions. However, pilots should always remain vigilant and continuously look out for obstacles, especially cables that might not be included in the database.

While the variometer relies on the available obstacle data to issue warnings, it's possible that not all obstacles are detected, especially in remote or less frequented flying areas. Thus, it's advisable to consider the obstacle database as an additional tool, not the sole basis for detecting obstacles during flight.

We use the obstacle data from XContest. The obstacle data is included in the airspace data.

AirspaceWarnings=.....

The same principle applies to airspace warnings as to obstacle warnings. You can specify how often you want to be warned about the same airspace. This can be particularly useful when soaring near an airspace. After the second warning, the pilot should already be aware of how far they can fly without violating the airspace. In this case, it is no longer necessary for the alarm to sound again.

Logger & Tracking

Am oberen Bildschirmrand werden deine aktuellen GPS-Koordinaten sowie die Höhe angezeigt. Diese Informationen können bei Such- und Rettungseinsätzen (Search and Rescue) lebensrettend sein.

LogOnlyWhenFlying=....

If you are doing hike & fly and want to record the track on the ground as well, you should set LogOnlyWhenFlying=no. Otherwise, LogOnlyWhenFlying=yes is the correct setting. Then, the recording of the flight starts as soon as you have taken off, and after landing, the recording in the log file (IGC and KML) ends.

LiveTracking=.....

With LiveTracking=yes, you are visible on OGN / Glidertracker / Burnair. This is the normal setting, as it can be helpful in the event of an accident if people know where you are.

Important: With LiveTracking=no, you are not visible on OGN / Glidertracker / Burnair.

ADS-L =....

With ADS-L=yes, ADS-L is switched on, your Maxx III transmits and receives ADS-L tracking packets. These are used to display the position of your buddies on the buddy screen. ADS-L will become the new standard and will be mandatory in Switzerland from early 2028.

FANET=....

With Fanet=yes, Fanet is switched on, and your Maxx III sends and receives Fanet tracking packets. These are used to display the position of your buddies on the Buddy screen. And the information about wind stations is also received through Fanet.

FLARM=....

With the setting "Flarm=yes", Flarm is activated so that your Maxx III transmits Flarm packets. The Flarm packets serve to warn aircraft of a potential collision with you.

GliderType=....

Here you can set whether your Maxx III is displayed as a paraglider or a hang glider on OGN / Glidertracker. Important: Burnair does not receive packets from hang gliders!

Device Info

Here you can find various information about the variometer, such as firmware version, RadioID, RadioFirmwareVersion, etc.

Exit

From here, you return to the screen you use for flying.

XC Tracer Maxx III Configuration File

A few settings cannot be made directly on the vario. To change them, you have to connect XC Tracer Maxx III with a USB-C cable to a computer, and only then switch on the vario by briefly pressing the red button. Now XC Tracer Maxx III is active in USB mode. The SD card appears in Windows Explorer or in the Mac Finder. The operating instructions are stored on the SD card as a PDF, along with the configuration file named XC_Tracer_Maxx_III.txt. In this file, the variometer can be adapted to your personal needs. The individual setting options are described below:

XC Tracer Maxx III Configuration File

SerialNumber=DF69448887FF

Serial number of XC Tracer Maxx III, is used for the IGC logger.

RadioName=Koni2

FANET devices transmit not only the position but also an individual pilot identifier (Pilot ID). This consists of a freely selectable name or call sign that makes you identifiable to other FANET users.

RadioID=200033

Unique Radio ID, cannot get changed

RadioFirmwareVersion=7.24-0.10.76

Version of the Radio (ADS-L, FANET, FLARM) Firmware

RadioExpireDate=20991231

Expiry date of the radio firmware

VarioFirmwareVersion=XCT_Maxx_III_R01

Indicates the device's firmware version.

reset=no

Setting reset=yes resets XC Tracer Maxx III to the factory default settings. Reset=no is the default setting. After a reset reset=no will automatically be set in the config file.

 # supported protocols are None, XCTRACER, LK8EX1, LXWPO or LXWPW.

Select the BLE protocol here. Only one protocol can be selected at once. Please check at www.xctracer.com which protocol to choose for your app. LXWPW is like LXWPO, but with the information of the calculated wind.

stringToSend=LXWPO

In this case the LXWPO protocol will be will be used.

name of BLE service

bleName=XCT

A name for the BLE service can be assigned here, up to 7 numbers and letters are possible. Please do not use a hyphen, some Android Apps have problems with it.

logger configuration

PilotName=Koni Schafroth

Enter your name here. Please don't use accidentally use any tabs as they will invalidate the IGC file. Spaces are fine.

PassengerName=Lisa Da Costa

You can enter the name of a tandem passenger here if you like.

GliderType=Gin Fuse 4

Enter your glider make and model here.

GliderId=14049

Enter the immatriculation number (if you have one) of your glider here.

create your own vario tone settings below

ClimbToneOnThreshold=0.2

With this setting the vario will begin to beep when the climb rate is higher than 0.2m/s. When you want to use a thermal sniffer then you can set *ClimbToneOnThreshold=-0.5* for example. In this case the vario will begin to beep when the sink rate is less than -0.5m/s. In this way you can adjust the beeping tone so that you know when you're flying in lifting air, despite the fact that you're actually sinking gently. This can be helpful to find and core thermals in weak conditions.

ClimbToneOffThreshold=0.1

With this setting the vario will stop beeping when the climb rate is below 0.1m/s. You can also use negative values here, for example -0.51m/s when you use a thermal sniffer.

SinkToneOnThreshold=-3.0

The sink tone will be activated when the sink rate is below -3m/s.

SinkToneOffThreshold=-3.0

The sink tone will be deactivated when the sink rate is less than -3m/s.

Tone=-10.00,200,100,100

Tone=-3.00,280,100,100

Tone=-0.51,300,500,100

Tone=-0.50,200,800,5

Tone=0.09,400,600,10

Tone=0.10,400,600,50

Tone=1.16,550,552,52

Tone=2.67,763,483,55

Tone=4.24,985,412,58

Tone=6.00,1234,332,62

Tone=8.00,1517,241,66

Tone=10.00,1800,150,70

You must define exactly 12 tones. Additional tones will be deleted from the configuration file, and missing tones will be complemented with values stored in the EEPROM. The tones must be defined in ascending order from tone 1 at -10m/s to tone 12 at 10m/s.

Important: Please avoid using exactly the same climb rate on adjacent tones as it will create issues.

Tone=1.16,579,527,50 means that at a climb rate of 1.16m/s, the vario will beep with a frequency of 579Hz, that the complete tone interval will last 527ms, and that the tone will be audible for 50% of the tone interval. This is a typical tone that is used when indicating climbing.

Tone=-3.00,280,100,100 means that at a sink rate of -3.0m/s, a tone of 280Hz will be emitted. As soon as the sink rate changes, the tone frequency also changes, depending on the configuration. This creates a nice sink tone (not that a sink tone is ever nice!)

You can create your own tone settings using the tone simulator on xctracer.com and then copy and paste them into the configuration file, or you can simply copy and paste other people's tone settings into the configuration file.

Important: Always save and close the configuration file before ejecting/unmounting XC Tracer Maxx III from your computer. This also applies to firmware updates!

Important: After changing the config file, the XC Tracer Maxx III must be switched on in flight mode so that the settings are applied and saved in the EEPROM.

Firmware Update

Please create an account at my.xctracer.online. After creating an account, you can not only transfer airspaces (including the obstacle database) to the device via Bluetooth (BLE) from your smartphone, but also install firmware updates, adjust device settings, and upload your flights. Additionally, a full-featured flight logbook is integrated directly into the web app.

All firmware updates are free of charge and can be easily installed via the web app. Important: Always wait for the vario to switch off automatically during an update – never hold down the red button during the update process!

Important: Always check the settings in the menu after a firmware update!

Important: The information about the new version is only updated when the vario has GPS reception. After a firmware update, switch Maxx III on outside where you have good GPS reception, and then the information about the installed firmware will be updated.

Collision warning

The XC Tracer Maxx III transmits the current position and the estimated flight path for the next 20 seconds once per second. All FLARM devices in the vicinity can use this information to calculate potential collision risks. If another FLARM device detects a collision risk, it warns the affected pilot.

In a future version, ADS-L will also include this collision warning feature.

Attention: The XC Tracer Maxx III itself does not warn you of potential collisions with other aircraft!

However, the device receives signals from ADS-L and FANET devices from other paragliders and hang gliders and transmits this data to your mobile phone, tablet, or e-reader. Depending on the app used, you can always see where your friends are currently located. In tests under optimal conditions, FANET signals were received from over 100 km away.

Obstacle Warning

The XC Tracer Maxx III uses an obstacle database from XContest integrated into the airspaces.bin file stored on the SD card to continuously calculate the distance to nearby obstacles during flight. If the time to a possible impact is less than 12 seconds, a warning signal sounds that resembles an American police siren. The closer you get to the obstacle, the higher the pitch becomes.

When the alarm sounds, you should immediately initiate a 90-degree turn to the left or right. The alarm stops as soon as there is no longer a collision risk. If you fly more than 100 meters above an obstacle, no alarm will be triggered.

Troubleshooting

If the XC Tracer Maxx III ever stops responding, you can perform a reset: Hold the red button pressed for about one minute to completely interrupt the power supply. Then restart the vario by briefly pressing the red button. The device should function properly again afterward. If that doesn't help, you can set reset=yes in the config file. Then the internal memory will be reset to factory settings the next time you switch on in flight mode.

Handling

A variometer is a sensitive precision instrument. Electronics, sensors, and the display can be irreparably damaged by strong impacts or blows – therefore always treat your flight instrument with the utmost care.

Only expose the vario to direct sunlight during flight. Prolonged sun exposure on the ground can lead to dangerous overheating that permanently damages both the battery and the entire device. The display can also be damaged by excessive heat or intense UV radiation.

Note that the vario is not waterproof and must be protected from moisture.

Warranty

XC Tracer provides a 24-month warranty on material and workmanship defects. Excluded from the warranty are damages caused by improper handling such as strong impacts, water damage, unauthorized repair attempts, software modifications, and excessive mechanical or thermal stress. Damaged USB ports and broken displays are also not covered by the warranty. Normal wear and tear, particularly age-related battery capacity decrease and superficial housing scratches, is likewise excluded from warranty coverage.

Technical Specification

- High resolution MIP LCD, 800x600 pixels, 80x60mm, perfect readability
- Tempered and anti-glare glass for LCD cover
- Size: 101x81x18mm
- Weight 158g / 171g (with silicone protective case)
- 60h battery life
- Easy operation with included remote control attached to your risers
- Display of topography, various zoom levels
- Legendary sensitive vario technology, with no time lag
- ADS-L, FANET, FLARM, integrated antenna
- ADS-L and FANET display of position and altitude of buddies
- Open source obstacle database
- Data transfer via BLE to mobile phone/tablet/e-reader
- IGC and KML logger, approved by FAI for competitions
- Many compatible apps for Android/iOS
- Freely configurable sound settings/sound simulator on xctracer.com
- Accelerometer/Compass/Gyro/Baro/GPS/BLE/ADS-L/FANET/FLARM
- GPS module with simultaneous reception of GPS, Glonass and Galileo
- Firmware updates with webapp directly from smartphone via BLE
- USB-C connection
- CE & FCC certification
- Swiss made

FCC Statement:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC ID: 2AVOQ04 / Contains FCC ID: XPYANNAB1