USER MANUAL

Rotax TRAX Device

VERSION 1.0 | JAN 2025

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1. Intended use

The Rotax TRAX device is designed by ROTAX for the data analysis on a racetrack. The TRAX device collects acceleration and positioning data and analyzes the performance on the racetrack.

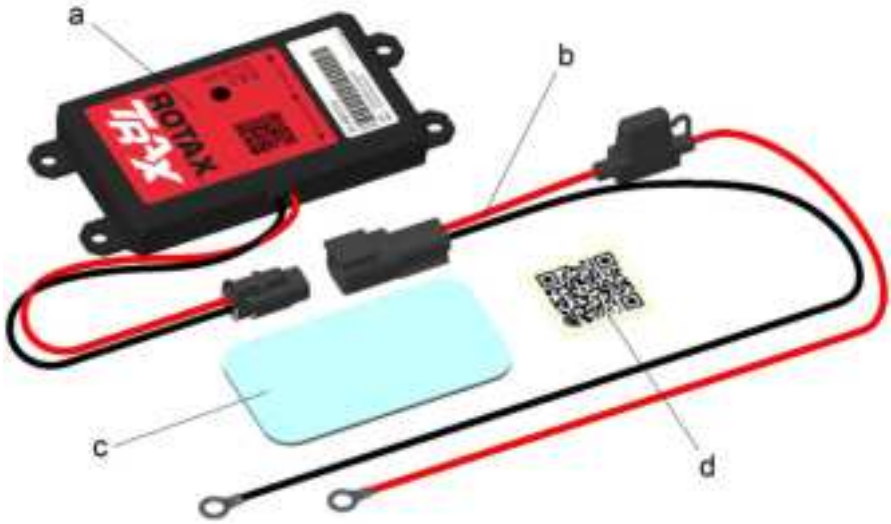
The device helps you to understand where you can pick up speed and improve your driving behavior.

The Rotax TRAX also creates a possibility to compare with your friends and other drivers even if they are not on the same racetrack. Furthermore you can connect to people minded like you. Some of these features may need an app subscription.

A subscription may be necessary to use all the features of the Rotax TRAX App.

2. Scope of delivery

a. Rotax TRAX Device
b. Power Cable
c. Adhesive Patch
d. Additional device ID sticker



3. Product function

The Rotax TRAX Device is able to collect acceleration and positioning data via an integrated accelerometer and GNSS antenna.

Upon activation, the device begins its boot-up sequence.

Once it has established a stable connection with a GNSS satellite, the power LED transitions from flashing to a steady glow.

At speeds exceeding 10 km/h, the device initiates a data collection session and starts gathering relevant information.

After a period of idling below the threshold speed for ten seconds or more, the device terminates the current session, transmits the collected data via cellular network to our server, where it under goes analysis and preparation for display within your Rotax TRAX App.

Therefore it is important that you start a session in your Rotax TRAX App.

If the racetrack or layout is not available yet, you can use the TRAX app to manually create it. Note that newly created layouts may take some time to be validated and made available globally.

When you are driving on a new layout it may take some time that the layout will be available to everyone. If you just created a layout, you will only see reduced data.

a. Status LED

b. Device ID QR Code

c. Device ID

d. Power connector

e. Race direction indicator

4. Technical data

Feature	Value
LTE Cat	M1/NB2 with 2G Fallback
Degree of protection	IP67
GNSS sampling	10 Hz
6-Axis Accelerometer	400 Hz
Operating voltage	8-32 V DC
Internal Backup battery	NiMH 200 mAH
Ambient temperature	-30 °C to +70 °C -22 °F to 158 °C
Mass	0,130 kg
Dimensions	134.6 × 67.5 × 14.8 mm
Certification marks	FCC, CE, ISED

4.1 Device Certification marks

As of the current state, when this manual was released (mentioned in the foot note) the device complies with following certifications:

- ISED (Canada)
- FCC (US)
- CE (EU)

4.2 Technical Limitations

Due to national regulations, you may experience issues with roaming in certain countries. Please note that this may affect your device's ability to connect to the Internet and send the collected data to the processing server.

4.3 Status LED

The status LED signals different states during startup and shuts off after the device stays connected for over 30 minutes to reduce battery drainage.

The LED indicate when the device will get disconnected.
Please find the table below to understand the states of the LED.

LED light	Device status
Continuous illuminated	Device works normally
Flashing	Device GNSS location not setup yet (device connecting)
Off	• **Device power off** or • **LED power saving mode** or • **Sleep mode**

5. Installation

OPTION 1: ROTAX TRAX BATTERY MOUNT (3D-PRINTED PART REQUIRED)

Make sure that the Rotax TRAX App is installed on your mobile device.

Make sure you have all the materials you need to install the device on your kart, depending on the mounting option you choose.

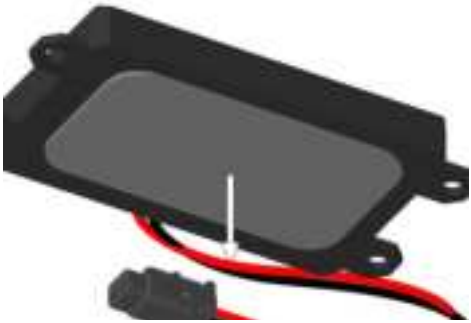
STEP	PROCEDURE
1.	- Download the .3mf file: https://www.rotax-racing.com/trax-get-started - Print out the 3D parts
2.	- Stick the printed Rotax TRAX Mount onto Rotax EVO battery cover. Use black silicone adhesive - Wait until the adhesive is dried completely - Make sure to wipe off additional adhesive 
3.	- Mount the Rotax TRAX device onto the mount by sliding the device into the slots of the Rotax TRAX mount - Make sure that the arrows indicating the race direction are facing forward 

4.	- Fix the Rotax TRAX device using the second 3D printed part, with M6x20 screw and a M6 nut - Don't overtighten the screw, otherwise the 3D printed parts could break. 
5.	- Connect the terminals of the power cable to the kart battery: the red wire to positive (+) and the black cable to negative (-) 
6.	- Install the battery cover if the Rotax TRAX device is already attached to your kart - Connect the Rotax TRAX device to the power cable 

7.	- Mount the connector to the chassis in a location that allows easy access for disconnecting the device before and after racing. - Make sure the cables are mounted properly to the kart chassis using cable ties. - Make sure that the cables are not pinched by any component of the kart.
9.	ROTAX recommends unplugging the connector of the Rotax TRAX after every using, to prevent the battery from draining and avoid recording useless data.

OPTION 2: ROTAX TRAX FLOOR PLATE MOUNT

STEP	PROCEDURE
1.	- Connect the terminals of the power cable to the kart battery: the red wire to positive (+) and the black cable to negative (-) 
2.	- Connect the Rotax TRAX device to the power cable 

3.	- Find a place on the base plate of the kart where the cable can still be laid easily between the mounting position and the battery - Clean the surface of the floor plate thoroughly with alcohol-based wipes - Attach the adhesive pad to the underside of the Rotax TRAX device and stick it to the base plate - Make sure that the arrows indicating the direction of travel point forwards in the direction of travel. 
4.	- Mount the connector to the chassis in a location that allows easy access for disconnecting the device before and after racing. - Make sure the cables are mounted properly to the kart chassis using cable ties. - Make sure that the cables are not pinched by any component of the kart.
5.	Rotax recommends unplugging the connector of the Rotax TRAX after every using, to prevent the battery from draining and avoid recording useless data.

6. Maintenance

The Rotax TRAX device is generally a maintenance-free, sealed unit. However, we recommend periodically inspecting the device for visible damage or debris around the connectors to ensure optimal performance.

If you have any problems with the device, please get in contact with your local Rotax Dealer of our global network.

Please use our dealer locator to find the next Rotax Service Partner near you: https://locator.rotax-racing.com/

The QR Code on the device represents the IMEI of the device itself, which is also shown on the white sticker on top of the device.

In case the QR code can't be read by your mobile device anymore, please enter the code manually or use the additional QR code which was part of the original packaging.

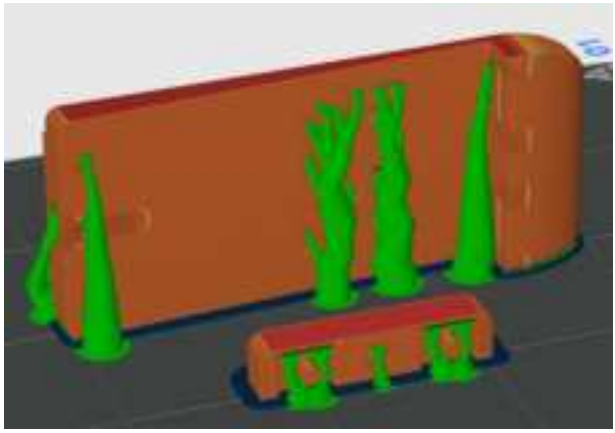
7. Accessories

At Rotax, we are committed to providing our customers with the best possible experience when using their TRAX Device. To make installation and handling even easier, we will be releasing a variety of accessories in the future.

ROTAX TRAX BATTERY MOUNT

To help yourself, Rotax made a CAD file available via our website, which can be printed with a conventional 3D-Printer. It is a mount, which sits on top of your Rotax EVO battery cover and holds the device in place. ?

- .3mf-file can be printed on every conventional 3D Printer
- Recommended settings:
  - 0,2mm Layer height
  - Auto Tree Supports
  - Outside Brim ON
- Recommended material: PLA, PLA CF
- Additional material needed:
  - 1x Cyl. Head Screw M6 x 20 mm
  - 1x M6 nut ISO 7041 (Spanner Size 10 mm)
  - Automotive adhesive (to attach the mount to the Rotax EVO battery cover)
- Recommended orientation on print bed as shown below:



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