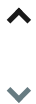


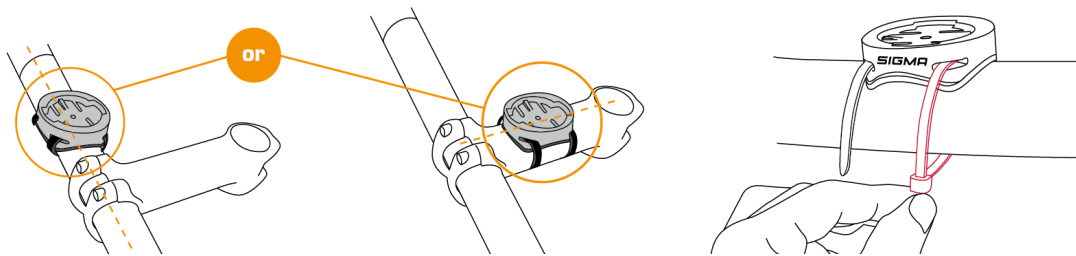
# SERVICE

## MANUAL

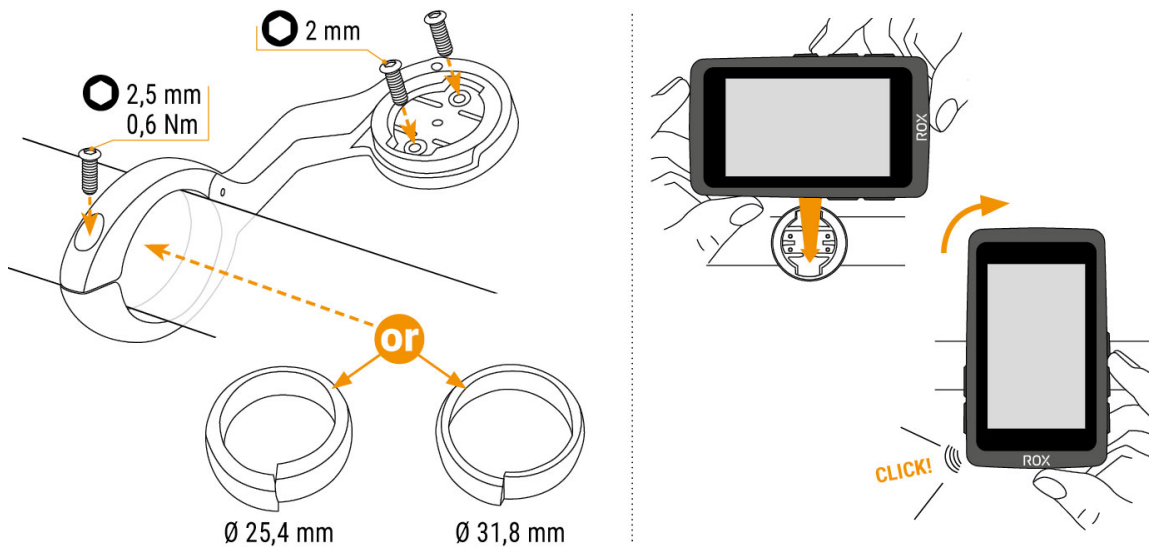
## ASSEMBLY ROX 12.1 EVO



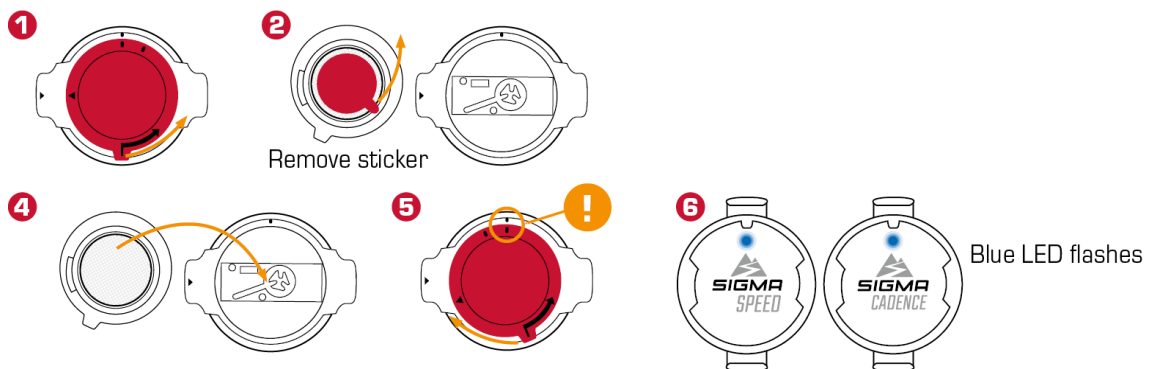
### GPS MOUNT



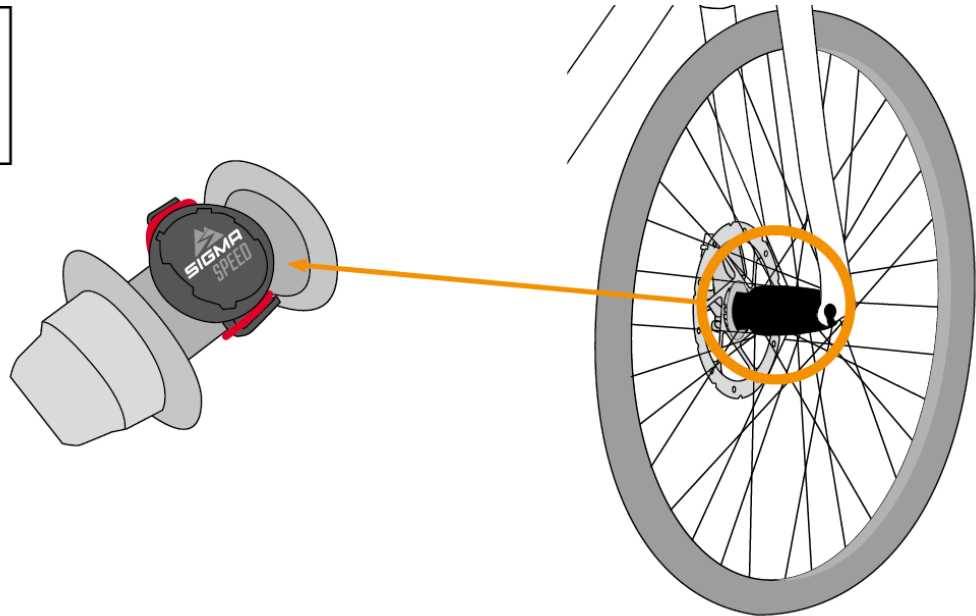
### LONG BUTLER



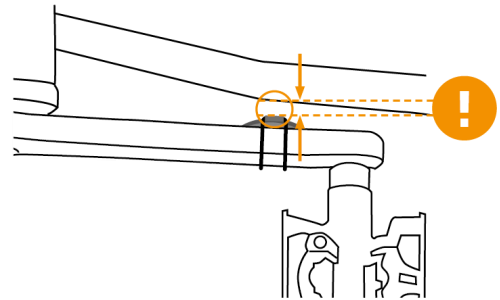
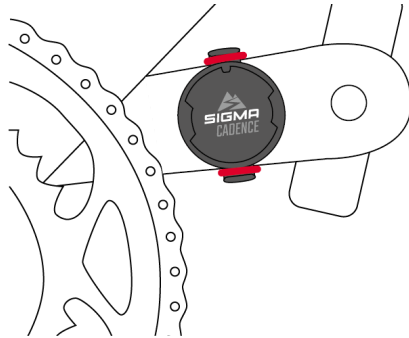
### FIRST START SPEED / CADENCE TRANSMITTER



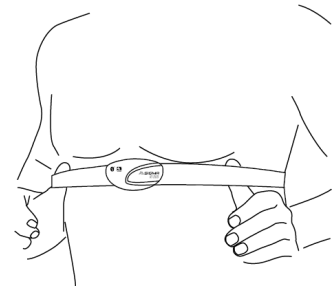
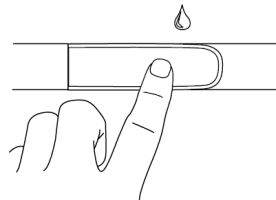
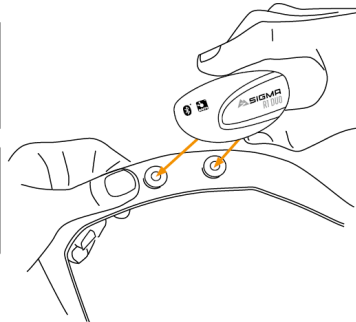
### SPEED



**CADENCE TRANSMITTER**



**HEART RATE TRANSMITTER**

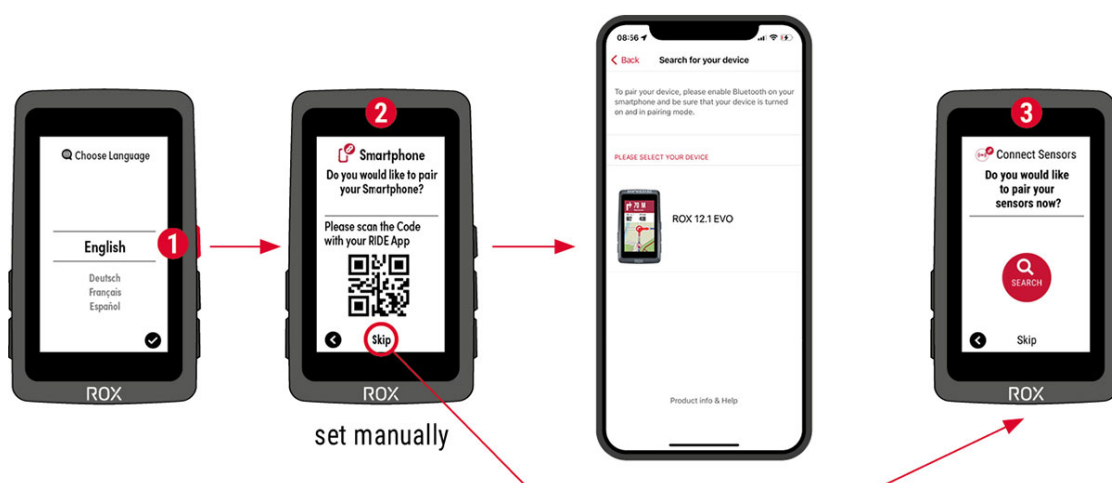


**BUTTONS ROX 12.1 EVO**





## FIRST START ROX 12.1 EVO



- 1** Press and hold the RIDE button for 5 seconds to activate.
- 2** Connect the RIDE app or configure the general settings of your device manually.
- 3** Select whether you want to add sensors.
- 4** Finish the initial setup.

TIP: The APP offers you many functions for setting up and customizing the ROX 12.1. For more information on the app's functions, see **CHAPTER SETTING CONNECTIONS > RIDE APP**.

## TRAINING WITH THE ROX 12.1 EVO

Every time you turn on the device, the ROX 12.1 EVO starts in the home screen. The last sport profile used is always loaded. If you want to change the sport profile, you must do this **before** starting the training.

If you have switched on GPS in the active sport profile (this is already the case with most profiles in the delivery state), the ROX 12.1 EVO starts searching for GPS satellites directly after switching on.

### BEFORE TRAINING HOMESCREEN

On the home screen you have access to all functions of the ROX 12.1 EVO.

From the start of the training, the navigation functions, the settings, Strava segments, the sport profile selection, up to your best performances, you can see all important functions here.



### **SPORT PROFILES**

To quickly switch between the different sport profiles, you only need to click on the sport profile on the home screen and the desired profile can be selected for the ride.

Under Settings->Sport Profiles, the various settings for the available sport profiles, such as bike circumference, food and drink alarms, and many more can be made. Furthermore, new sport profiles can be added via the “gear icon”.



These settings can also be made via the RIDE app. There is also the possibility of deleting the sport profiles

### **GPS FIX**

To enable the fastest possible connection of the ROX 12.1 EVO with GPS/GLONASS, please follow these instructions:

- › Locate a field that is as open as possible (no trees, houses or similar that interfere with reception).
- › Don't move around as much as possible for a fast connection.
- You can also use the dropdown menu to determine if a GPS fix has occurred. If yes, all bars of the GPS symbol are there
- › Synchronize the ROX 12.1 EVO as regularly as possible with the SIGMA RIDE app to always have the latest GPS data on the device.

### **TRAINING**

#### **TRAINING SEQUENCE**

Every time you turn on the ROX 12.1 EVO, you start on the Home Screen. Before the workout, you can select the sport profile. To do this, click on the currently active profile and then select the desired profile for the workout.

Press the “play” button on the screen to enter the training screen of the selected sport profile. Pressing the “play” button on the ROX will start a workout. If you want to pause your workout, press the “stop” button of the ROX 12.1 EVO.

In the stopped state, you can choose to continue, save or delete the workout.

After successfully saving the training, personal successes and the evaluation of the training are displayed. Pressing the Home/Power button will take you back to the Home screen.

At any time during the training you can start a navigation, change training views or add new sensors. To do this, press the Home/Power button to get to the Home screen during the training. By clicking on the Play button with the training time on the homescreen, you return to the active training.



### Change values

To change the training values to be displayed, you have two options.

ROX 12.1 EVO: By long pressing on a value, you can change the color and function of this value to any. If you want to change the layout, or add more training pages, you must select the desired sport profile under Settings->Sport Profiles. Under Training Views you can now add more pages (up to 6 pages are possible), change the layout of the pages (up to 10 values can be displayed on one page at the same time) and also customize special pages, like Auto Lap.

All mentioned settings can also be made comfortably with the RIDE app

### **START NAVIGATION / START TRACK**

#### **Start Track**

In the track menu of the ROX 12.1 EVO you can see all tracks that have been transferred to the ROX 12.1. By clicking on the track you can see the details of the track, via Select you can start the track. Here you have the option to navigate to the starting point of the track or to the track point that is closest to your current position.



### Start navigation

After successfully creating a route see “Navigating with the ROX” you have the option to customize it after pressing “Show Route”. You can choose between three routing options: Recommended, Simple and Short. By pressing “Start” the navigation is started.



As soon as a navigation or track navigation is active, the training page “Navigation” is automatically added to the active training views.

### START WORKOUT

***MORE INFORMATION CAN BE FOUND IN THE CHAPTER WORKOUT***

### SHORTCUT

During the training you have access to the most important functions via the Shortcut menu

#### ShortCut Top

Swipe from top to bottom to open the Short Cut menu. Besides setting the display brightness, you can see here which sensors are connected. Furthermore, the following functions are available, depending on whether e.g. a navigation is currently active.

- Back to start
- Same track back
- Re-Routing
- Power meter Calibrate\*

- Sync. Sensors
- Cancel Workout\*
- Cancel Navigation\*
- Navigation instructions on/off\*
- List turns\*
- Mark position
- Altitude Calibration
- Auto Pause On/Off
- Auto Lap On/Off
- Strava Live Segments On/Off
- Smart Notification On/Off

### ShortCut bottom

By swiping from bottom to top you get to a navigation shortcut menu. Here you can select your favorite destinations, last destinations or even your home address as a navigation point and the ROX calculates the route.



### SAVING AND EVALUATING

After pressing “Stop” to end the training, you can decide whether to save, continue or delete the training. After clicking on Save, the personal achievements and then the evaluation of the training will appear. **READ MORE UNDER EVALUATION OF THE TRAINING ON THE DEVICE**

### OTHER TRAINING FUNCTIONS

#### CRASH ALERT

Crash Alert uses the acceleration data in the device to detect falls. You can store emergency contacts in the SIGMA RIDE app, who will then be automatically notified in the event of a fall. If you have not stored any emergency contacts, your emergency information will be displayed on the device after the fall – you can also set this via the app.

The process for the crash alert is as follows:

1. fall is detected
2. device signals fall and offers user 30s time to react
3. if there is no reaction, the SIGMA RIDE app is informed (if connected and set up) and the emergency information is shown on the display
4. emergency contacts (if set up) are informed via SMS and sent the current GPS position.

If you do not want to use the crash alert, you can switch it off in the device settings.

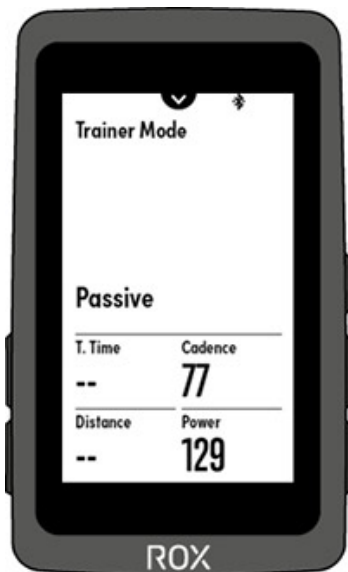
#### SMART TRAINER



The ROX 12.1 EVO can be connected to a Smart Indoor Trainer via ANT+ FE-C. Here you have different modes in which you can use the ROX 12.1 EVO together with the Smart Indoor Trainer.

### Passive

Select this option if you want to use e.g. the ROX 12.1 EVO as a data logger, because you use e.g. Zwift, Ruby or Bkool in parallel.



### Target power

You can also control a workout with the ROX 12.1 EVO by entering a target power.

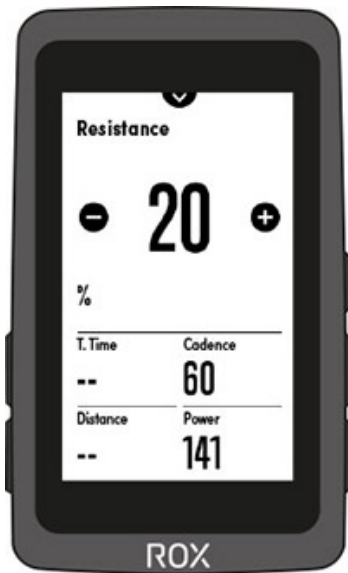
Here, the Smart Trainer automatically regulates the resistance depending on the cadence. You can change the desired target power via + and -.



### Resistance

Should you select the resistance mode, you can control the 'braking effect' of the Smart Trainer. This is adjusted in 10% steps and can be conveniently set via the display.





To change the mode, wait until the ROX 12.1 EVO has connected to the Smart Trainer and open the short menu. Here, select the item FE-C mode to choose the desired mode. The mode can be changed at any time.



### ***ZOOM FUNCTION***

By clicking on graphics like the map or the elevation profile, the zoom level of these can be adjusted. This allows you to zoom in closer to the map or to select a larger section. The Auto Zoom function, which automatically zooms the map to the next turn when navigation is active, can be set in the Map management area.

### ***INTERRUPT TRAINING / "PAUSE" FUNCTION***

If you want to take a longer break, or record the round trip of a commute without creating two activities, press the Stop button at the beginning of the break. Then press and hold the Home/Power button until the Power menu appears. Here you have the option to set the ROX to "power save mode". Here, all power-intensive functions are reduced. To wake up the ROX 12.1 after the break, simply press the Home/Power button.

### ***NAVPAGE***

If you start a navigation or a track, the navigation training page is added automatically. On this page you will see the map, arrival time and the distance to the destination. You can customize the layout and values as you like. **MORE ABOUT THIS UNDER SET SPORT PROFILES.**

### **RADAR**

The ROX 12.1 Evo is compatible with the ANT+ profile Rade. All devices that support this can be paired.

Under Settings->Connection->Connect Sensors->Connected Sensors, various settings for the radar can be made after successful pairing.



During a training, approaching objects are represented by a dot. If the objects are approaching fast, the bar changes from orange to red. If no vehicle is currently approaching, only the radar symbol is visible.

### **ALTITUDE PROFILE**

If you have selected the altitude profile as a training value, the past profile is displayed here, or the future profile in the case of active navigation/track.



By means of colored differentiation you can see how steep or flat the next section is. By clicking on the field, the zoom level can be adjusted.

### **LAP PAGE /AUTO LAP**

After each automatic lap or manual lap, this popup training page shows you the training values of the completed lap. You can easily set the values to be displayed via the RideApp or the ROX 12.1 EVO. More about this under Setting sport profiles

### **SHIMANO DI2 SHIFTING**

The ROX 12.1 EVO can be connected and also controlled\* with Shimano Di2 electronic shifting. When their Di2 is connected to the ROX 12.1 EVO, different values can be displayed, which you can display in any training view. The following values can be displayed:

- Di2 Mode
- Di2 battery status
- Gear position for chainring and sprocket
- Gear ratio
- Gears as a graphic with the information of the number of teeth and the gear ratio



NOTE: The ROX 12.1 EVO also supports the Shimano D-Fly Channel. These can be used to conveniently operate your ROX 12.1 EVO via the built-in remote control buttons. How to set them you can read in chapter 7.2.1 Shimano Di2 / Sensor connect.

\*for this purpose, a radio unit may be necessary. Please ask your dealer for more information

### **SMARTNOTIFICATIONS**

By means of Smart Notifications you always stay on the current sand during a workout. The ROX 12.1 EVO can inform you about incoming calls/messages.

To receive Smart Notifications, allow the RideApp to access this data and set the Ok at Smart Notification under Settings/Connections/RIDE App Connect.

Your ROX will then receive this data. You can also turn Smart Notifications on and off at any time during your ride via the Short Menu.

### **DISPLAY PERFORMANCE DATA WITH THE ROX 12.1 EVO**

The power meter has become indispensable in the field of training control. Therefore, the ROX 12.1 EVO offers a wealth of data that help to perform a targeted and optimal training. The individual that are available, you can see the function table.

Here you can see an example of how a training page with power and other training values configured. In addition to the settings of the values, the individual fields can also be color-coded. So you can design your training page according to your needs.



## OPERATION OF THE DEVICE ROX 12.1 EVO

### MENU STRUCTURE / MAIN MENU

The ROX 12.1 EVO has a touch display. Here they can perform almost all actions and make all settings.

Some functions are only accessible via buttons, these are the on / off, start and stop a workout, manual lap and reaching the start screen (home screen) via the "Home" button.

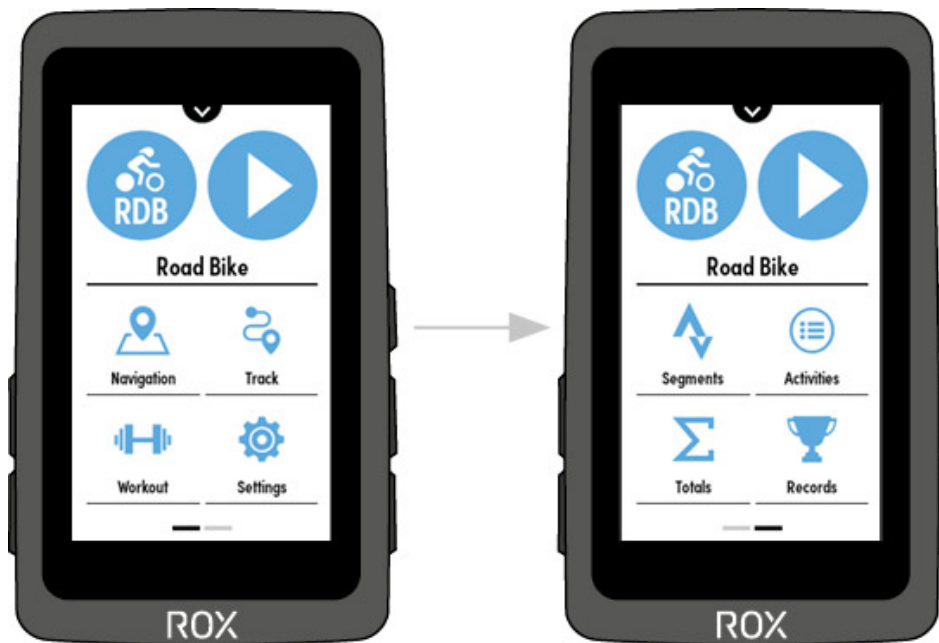
An overview of all keys can be found in the following diagram:



### MAIN MENU

The active sport profile is displayed in the upper left corner. If you tap on the sport profile icon, the selection of created sport profiles opens. Here you can easily and quickly switch to another sport profile.

By tapping on the upper right circle with the 'Play' icon, you can switch to the training menu. Once you are in the training menu, the paired sensors will be searched and connected. Note that the desired sensors may need to be activated before they can be found.



### **NAVIGATION**

Here you can create a single-point or multi-point route. You can also draw a route with your finger using the 'Draw my Route' function. Which possibilities are available in detail, you can read in the **CHAPTER 'NAVIGATION'**.

### **TRACK**

In the Track section, you will find all tracks that you have synchronized to the ROX 12.1 EVO via the SIGMA RIDE app.

### **WORKOUT**

The ROX 12.1 EVO already has 8 predefined workouts installed for you. If you want to load more workouts on the ROX 12.1 EVO, import the corresponding .fit file into the SIGMA RIDE app and mark the favorite star. This will automatically sync the workout when actively connected to the ROX 12.1 EVO. For more information about the workout, **SEE CHAPTER WORKOUT**.

### **SETTINGS**

Here you will find all device settings as well as the possibility to connect sensors or the smartphone with the ROX 12.1 EVO. Furthermore, you will also find the map management to download additional maps or delete unused maps. More information about the maps can be found in **CHAPTER SETTINGS**.

### **SEGMENTS**

If you have synced Strava Live segments via the SIGMA RIDE app, you can find and view your favorite segments here. You can also see the leaderboard for each segment here.

NOTE: There are NO Strava Live segments transmitted that go downhill.

### **ACTIVITIES**

You can view the most important data of the saved activities on the ROX 12.1 EVO. The activities are sorted by date with the last saved activity displayed first.

### **TOTAL**

Here you can see with which sport profile you have collected which total values (e.g. kilometers).

### **BEST PERFORMANCES**

The ROX 12.1 EVO collects and stores the best performances for you. This includes, for example, the fastest ride, the ride with the longest distance or the one with the longest training time. You can view all these values here.

### **SHORT CUT**

During the training you have access to the most important functions via the Shortcut menu



#### **ShortCut Top**

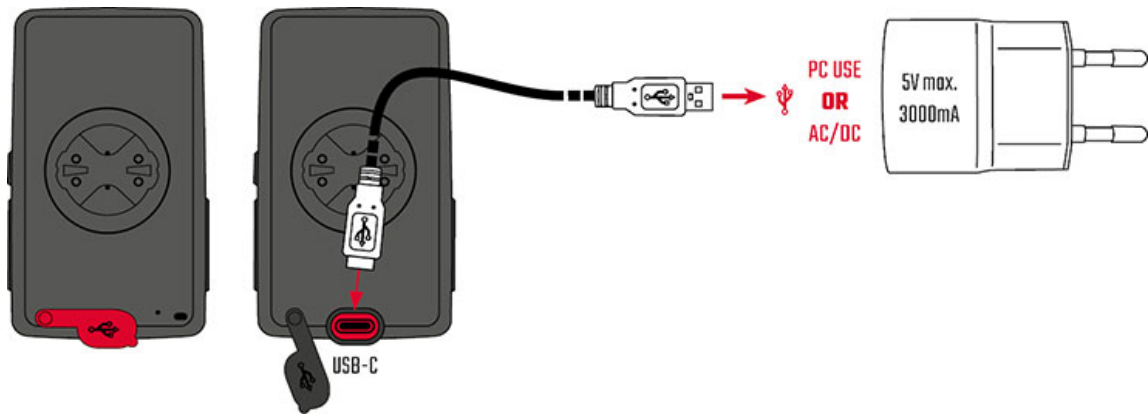
Swipe from top to bottom to open the Short Cut menu. Besides setting the display brightness, you can see here which sensors are connected. Furthermore, the following functions are available, depending on whether e.g. a navigation is currently active.

- Back to start
- Same track back
- Re-Routing
- Power meter Calibrate\*
- Sync. Sensors
- Cancel Workout\*
- Cancel Navigation\*
- Navigation instructions on/off\*
- List turns\*
- Mark position
- Altitude Calibration
- Auto Pause On/Off
- Auto Lap On/Off
- Strava Live Segments On/Off
- Smart Notification On/Off

#### **ShortCut bottom**

By swiping from bottom to top you get to a navigation shortcut menu. Here you can select your favorite destinations, last destinations or even your home address as a navigation point and the ROX calculates the route.

### **CHARGING AND BATTERY LIFE**



To get to optimum charging time, a charger with min. 1500mA should be used. Please make sure, that you don't use a charger that exceed the max. of 3000mA, as it could damage the device.

**IMPORTANT:** Please ensure that the USB cover is always closed before starting a training session.

### Battery life time

Modis	Battery Save	OFF	Mid	High
Paired ANT Sensors	0	0	2	4
Phone Connected	No	No	Yes	Yes
Backlight Brightness	Off	Off	Auto	Full
Notification per Hour	0	0	2	8
Training View	Timer	Timer	Timer	Map
Ongoing Navigation / Track	No	No	No	Yes
Turning Sounds	No	No	No	Yes
Operating Temperature	10°C-40°C	10°C-40°C	10°C-40°C	10°C-40°C
Estimated Battery Life (h)	22	17	14	10

Depending on use, the ROX 12.1 Evo reaches a battery life of up to 22h

### **SPORT PROFILES**

The ROX 12.1 EVO has so-called **sport profiles**. These serve to link different settings already with the selected sport. If you change the sport profile, for example, the training views and the settings for the automatic break are automatically set. Once set, there is no need to check the settings. The display views and other basic settings can be changed using the SIGMA RIDE app, or on the ROX 12.1 EVO. Even during active training, the training views can be edited with the SIGMA RIDE app, or on the device by long pressure on the data field. Changes, e.g. to the training views are then immediately visible during the ride.





### **COMMUNICATION WITH EXTERNAL SENSORS**

The ROX 12.1 EVO can connect to external sensors via two different wireless protocols: Bluetooth Low Energy (BLE) and ANT+. Please note that many sensors offer both protocols. In that case, you only need to connect ONE of the two channels to receive the sensor's data. We recommend here to choose the connection via ANT+.

The following sensors can be connected:

#### **BLE/ANT+:**

- › Speed sensor
- › Cadence sensor
- › Combo sensors for speed and cadence
- › Powermeter
- › Heart rate sensors (e.g. chest strap)
- › Radar
- › Gearshift
- › Shimano (Di2)
- › Rotor power
- › Remote controls

**ANT+:** › Smart trainers that support the FE-C protocol

To find out if your sensors support the above protocols, please refer to the sensor manufacturer's user manual. How to establish the connection can be found in the **CHAPTER SETTING THE CONNECTION TO SENSORS**.

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## **SETTINGS ROX 12.1 EVO**

### **MAKE SETTINGS ON THE SMARTPHONE**

You can also make all settings conveniently with your smartphone and the SIGMA RIDE app. Connect your smartphone on which the SIGMA RIDE app is installed with the ROX 12.1 EVO.

From the device settings, add/delete sport profiles or even set the training views of the individual sport profiles, you can comfortably configure your ROX 12.1 EVO according to your wishes via the RIDE app.

### **MAKE SETTINGS ON THE DEVICE**

This chapter describes the settings you can adjust in the main menu.

To make the settings, press "Settings" on the home screen of the ROX 12.1 EVO.

**Device:** Here you will find all device settings

**Map:** Here you will find all map settings

**Sport profiles:** This is where you set the sport profiles that are on the device

**Connection:** Here you can set up connections to external sensors, a smartphone, eBIKE or Wifi.

**User:** Here you set all personal data

### ***DEVICE SETTINGS***

**Language:** Here you can select the language

**Unit of measurement:** Here you can set in which measurement system the data will be recorded Metric/Imperial/Manual. Manual allows you to set the unit for speed, distance, altitude, temperature, weight and GPS format.

**Display settings:** Here you can set the illumination time and color mode.

**Automatic Off:** Here you can set whether the ROX 12.1 EVO turns itself off after a certain period of inactivity.

**Tones/Alarm:** Here you can turn the tones for different functions on and off.

**Assistmode Popup:** Here you can set whether popups light up by changing the Assistmode (eBIKE).

**Altitude calibration:** Here you can set whether the altitude calibration is automatic (recommended) or manual. With manual you set the current altitude.

**Time Format:** Set the time format 12h/24H.

**Date format:** Here you can set the date format dd.mm.yy or mm/dd/yy.

### ***MAP MANAGEMENT***

Under Settings->Map you can make various settings regarding the maps.

Under Map Management it is possible to download new maps, update existing maps or delete regions that are no longer used.

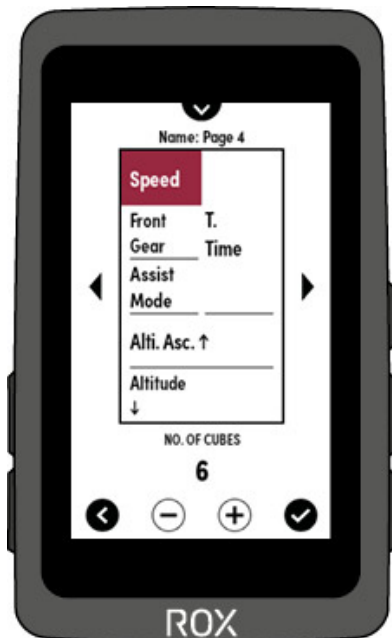
You can also set the map orientation. You have the choice between "in driving direction" and "to the north". Furthermore, you can set whether segments, POI and bike paths appear on the map. The function of Auto Zoom, which automatically zooms the map to the next turn when navigation is active, can also be activated or deactivated.

### ***SPORT PROFILES***

Six predefined sport profiles are preinstalled on your ROX 12.1 EVO. If you want to change them or add new ones, go to Settings->Sport Profiles. By clicking on the profile, you can adjust its settings. Additional profiles can be added to the ROX 12.1 EVO via the "gear icon".

### ***TRAINING VIEWS***

For each sport profile you have the possibility to activate up to 6 training pages with up to 10 training values each. In the view, besides the number of data fields, you can also customize the layout of the page by clicking on the arrows



By clicking on a data field you can customize the function and color of the data field.

### **AUTO PAUSE**

If the Auto Pause is activated, the ROX 12.1 EVO automatically goes into pause during a workout as soon as a speed below 2.2km / h is detected. When a higher speed is detected again, the training is automatically continued. Tip: Press Stop for longer pauses!

### **WHEEL CIRCUMFERENCE**

The setting of the wheel circumference is mainly relevant for the use of an external speed sensor. How to connect this is described in the chapter **CONNECTING EXTERNAL SENSORS**. To determine the correct wheel circumference, you can either use the following table as a guide, or measure the wheel circumference. To do this, mark the starting point on the wheel and on the ground. Roll the wheel exactly one revolution and mark the end point on the floor. Then measure the distance between the start and end points. This distance gives the correct wheel circumference (in mm). To set the wheel circumference in the ROX 12.1 EVO, you can choose from one of the following values, alternatively you can also set a manual value.

	mm	inch
16" <small>16 x 1.75 x 2</small>	1253	49,3
18"	1411	55,6
20"	1590	62,6
22"	1770	69,7
24"	1907	75,1
26"	2085	82,1
27"	2195	86,4
27.5"	2180	85,8
28"	2200	86,6
29"	2300	90,5
700C	2095	82,5

Min.: 500 mm / Max. 3999 mm

km/h: WS = mm  
mph: WS = mm  
Note: 1 inch = 25.4 mm

To do this, select the "Manual wheel circumference" item and enter your circumference via the numeric keypad. Press the "check mark" to save the value.

### **ROUTING OPTIONS**

Here you can set according to which preferences a route should be created under this sport profile. You can set the sliders for main roads, dirt roads and bike paths between Low, Medium and High. You can also set whether one-way streets and ferries should be taken into account.

### **ALERT**

Food, drink and individual alert can be set. Depending on your preferences, these reminders can be set time or distance based and also repeat.

### **TARGET ZONE**

You can set a target zone for your workout to better control the workout. If you want to follow a specific sequence of target zones, e.g. according to a structured training plan, we recommend using the workout function.

You can define the following values as target zones:

- › heart rate
- › speed
- › cadence
- › Power

Define the upper and lower limits for the target zone as well. If you have set a target zone, remember to also display the target zone as one of the training values in the display. For more information, see the **SETTING TRAINING VIEWS CHAPTER HERE**.

### **INTENSITY ZONES**

Different training zones are defined by specifying the Maximum Heart Rate. You can adjust the limits of these zones. To view the zones during a workout, remember to show intensity zones as one of the workout values in the display.

### **POWER ZONES**

Different training zones are defined by specifying the FTP power. You can adjust the limits of these zones. To view the zones during a workout, remember to show power zones as one of the workout values in the display.

### **AUTO LAP**

The ROX 12.1 EVO can record automatic laps. You can select either distance or time for recording automatic laps. For example, if you have selected Distance ' 5 km, the ROX 12.1 EVO will take an automatic lap every 5 km.

If you set the setting to OFF, no automatic laps are recorded.

### **GNSS (GPS+GALILEO+GLONASS)**

The ROX 12.1 EVO has a modern GNSS module that supports all major satellite systems. These include GPS (USA), Galileo (Europe) and GLONASS (Russia). The ROX 12.1 EVO itself controls which systems are currently addressed. In addition to the accuracy of the position, of course, the energy consumption also plays an important role. Both are automatically adapted to the conditions, so you do not have to do anything.

NOTE: In the sport profile 'Indoor' GNSS is switched off, because it would have no use in the indoor area.

**USER**

The following table describes which user data you can set on the ROX 12.1 EVO and what influence these settings have on the use of the device and its data. To set the user information, select **Settings > User**.

User settings	Description
Gender	Choose between male and female. This setting has, among other things, an influence on the calorie calculation.
Year	Enter your year of birth here. This also has an influence on e.g. the calorie calculation as well as the automatic calculation of the maximum heart rate.
Weight	Enter your current weight here. Weight is also important for calculating calories.
HR max	You have two options for setting the maximum heart rate: 1. <b>Auto:</b> The maximum heart rate is calculated based on your age. 2. <b>Manual:</b> You can enter your own value for the maximum heart rate.

**FACTORY SETTINGS**

If you want to completely reset your ROX 12.1 EVO, you can do so here.

ATTENTION: All data will be irrevocably deleted! The installed maps, remain thereby!

NOTE: If your ROX 12.1 EVO is connected to the RIDE app, you must pair your ROX 12.1 EVO again. Once your ROX 12.1 EVO is reconnected to the RIDE app, all sport profiles, settings, favorite tracks and workouts will automatically be played back on your ROX.

Activities will NOT be transferred back to the ROX 12.1 EVO.

**SET CONNECTIONS****SIGMA RIDE APP**

To establish the connection to the smartphone, make sure that Bluetooth is switched on on your smartphone. You must download the SIGMA RIDE app from the respective app store (iOS or Android). If these two requirements are met, select the menu item **Connect RIDE App** in the ROX 12.1 EVO under Settings<Connections. The ROX 12.1 EVO will automatically search for the SIGMA RIDE app. For the further process, please follow the instructions in the SIGMA RIDE App.

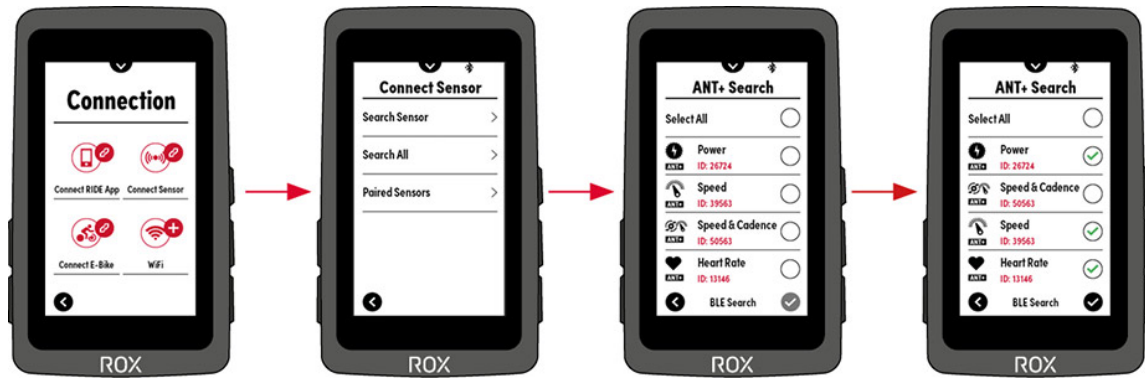


The SIGMA RIDE app will ask you for various permissions, including location sharing. Agree to these authorization requests to ensure optimal functioning of the SIGMA RIDE app. If you have successfully connected the smartphone, you can see which smartphone has been connected to the device in the Connect RIDE app menu item, as well as unpair the smartphone. Please note that the ROX 12.1 EVO can only communicate with ONE smartphone.

**CONNECTION TO SENSORS**

The easiest way to search for sensors is to use the "Search all" function. Here you only have to make sure that the sensor is active. As soon as this is the case, it will be listed in the sensor search list. You have the

possibility to pair all sensors at once or to pair single sensors. You can see which sensors have already been connected in the “Connected sensors” area.



Some sensors provide additional information that can also be retrieved. For example, the electronic circuit provides important information about the battery condition.

The following ANT+ / ANT sensors are supported:

- Speed sensor
- Cadence sensor
- Speed & cadence combo transmitter
- heart rate
- Power meters (PWR and CTF) – without “Cycling Dynamics”.
- Gear changes – Di2, eTap, Campa EPS
- radar
- FE-C / Smart Trainer
- remote control
- Rotor power meter – incl. display of OCA/OCP values

### **BLE SENSORS**

If you own a sensor that transmits data exclusively via Bluetooth Low Energy, you can also connect it to the ROX 12.1 EVO. The following BLE sensors are supported:

- Speed/Cadence
- heart rate
- Power meter

To start the search for BLE sensors, select ‘**Settings/Sensor Connect/Search All -> BLE Search**’.

Now only BLE sensors will be searched for. If you want to switch back to ANT+ sensor search, press **ANT+ Search**.

**NOTE: If your sensor supports ANT+ and BLE we recommend to use the connection via ANT+!**

### **POWERMETER (ANT+)**

Should you use a power meter, you have the possibility to perform a zero calibration here. Since each power meter has differences in handling, read the manual of the power meter or contact the appropriate service, if the calibration does not run as desired.

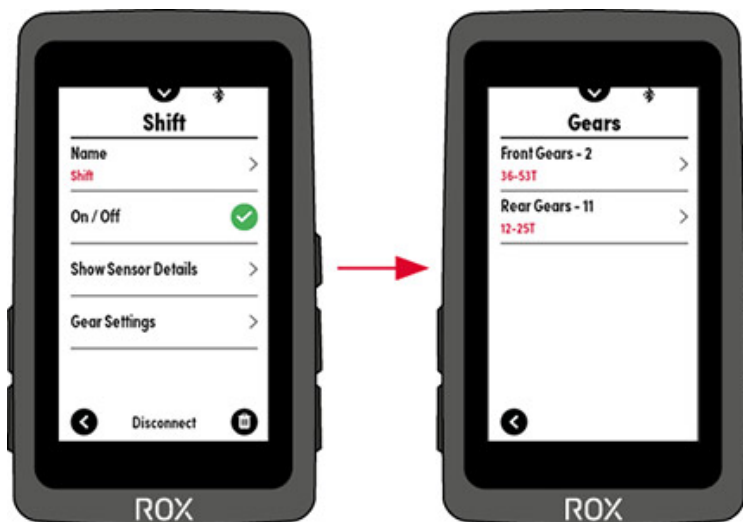


### **ROTOR POWERMETER**

If Rotor is used, it must be connected as a rotor powermeter, otherwise it will not be possible to display the OCA/OCP values.

### **SHIFTING**

You have the possibility to couple your electronic shifting. To get the correct gear ratio displayed during training, you must enter the number of teeth of the chainring as well as sprocket.



### **SHIMANO DIZ – D – FLY CHANNELS:**

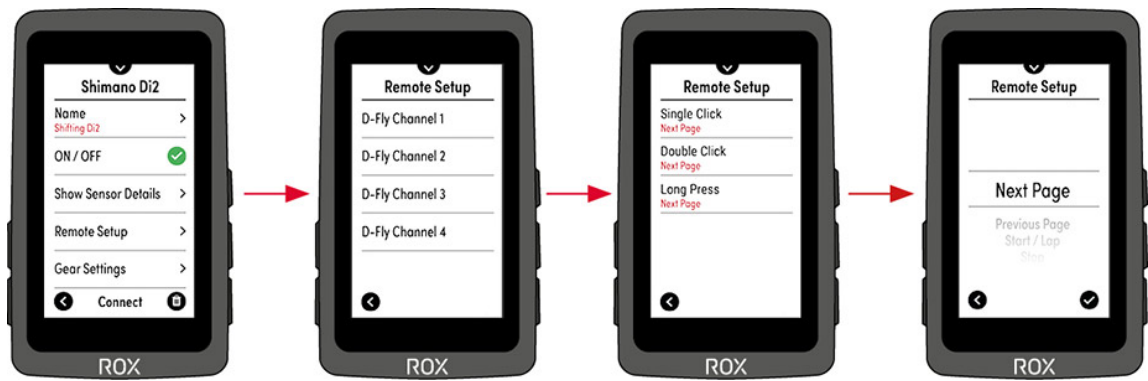
The ROX 12.1 EVO supports Shimano D-Fly Channels, by means of which you can control the ROX 12.1. In doing so, you have the following options that you can set in the ROX 12.1:

- Next page (scroll)
- Previous page (scroll)
- Start/Lap
- Stop

You also have the option to put the functions on the same button with different operation:

- Single press
- Double press
- Press and hold



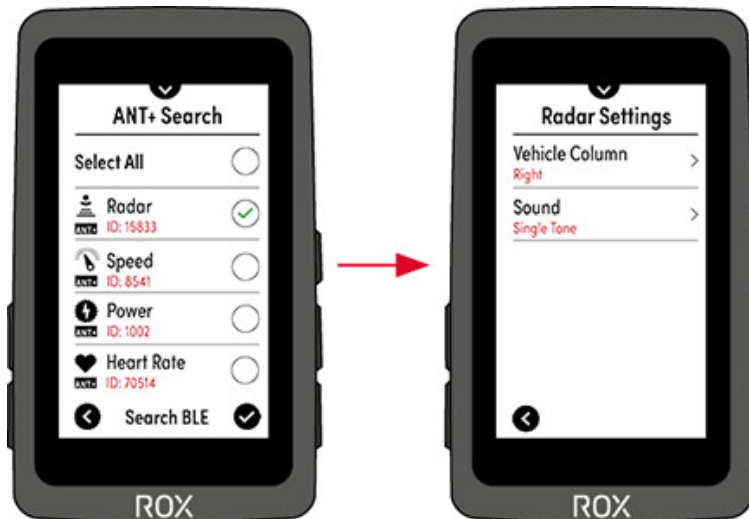


### **RADAR**

The ROX 12.1 EVO can be connected to a radar sensor. To do this, turn on the radar to be able to pair it with the ROX 12.1 EVO. If a radar is paired, you have the following setting options:

- Display of the radar bar
- Setting the tones

As soon as the radar sensor is paired, the radar icon is displayed on the selected page. This element and the corresponding bar is always visible and in every menu and disappears only when the radar sensor is no longer active or the connection is actively disconnected.



### **FE-C / SMART INDOOR TRAINER**

If you have a Smart Indoor Trainer that supports the ANT+ FE-C profile, you can connect it to the ROX 12.1. Once the Smart Trainer is connected, you can control it using the ROX 12.1 EVO.

It is recommended to calibrate the Smart Trainer from time to time (please refer to the user manual / instructions of the Smart Trainer manufacturer). You can easily perform the calibration using ROX 12.1 EVO. Simply connect the Smart Trainer to your ROX 12.1 EVO in the menu 'Settings/Connections/Connect Sensor/Connected Sensors/Indoor Trainer -> Calibration and follow the instructions on the ROX 12.1 EVO.



### ANT+ REMOTE CONTROL

The ROX 12.1 EVO can also be connected and controlled with an ANT+ remote. Depending on the remote, you have the option to assign your own functions to buttons. To do this, connect your ROX 12.1 EVO to the corresponding ANT+ remote.

**NOTE:** To pair the remote, it may be necessary to set the remote to pairing mode (refer to the remote manufacturer's user manual).



### E-BIKE

To connect an e-bike to the ROX 12.1 EVO, select the menu item E-bike>Search e-bike in the connection settings. To find out if your e-bike is compatible with the ROX 12.1, please refer to the following list:

### COMPATIBILITY LIST

The e-bike must be in the vicinity (maximum distance approx. 50 m) and switched on for pairing. If further steps are necessary on the e-bike side to connect the e-bike with a display, please refer to the user manual of your e-bike.



If compatible e-bikes are found, a list of the e-bikes found is displayed after the search. Select the desired e-bike (set check mark) and start the pairing with the (ok check mark). If the pairing is successful, the overview of all paired e-bikes is displayed. To see more information about your e-bike, click on the e-bike and pair it. Afterwards you can see the further information under E-Bike Details. You can also disconnect the ROX 12.1 EVO from the e-bike by clicking on the (trash can icon).

### **WIFI**

Connect the ROX 12.1 EVO to your WiFi to check if a new firmware update is available for your ROX 12.1 EVO or to download maps for your next bike trip.

To connect to your home WiFi, go to the Settings>Connections>WiFi menu. Activate WiFi by tapping on WiFi (red area). Now all available WiFi networks will be displayed. Select theirs and enter the password.

Now a connection to your WiFi will be established.

### **HOW DO I DO A FIRMWARE UPDATE.**

## **NAVIGATING WITH THE ROX 12.1 EVO**



The navigation is the heart of the ROX 12.1 EVO and offers many options of a route creation. You have the option to simply specify a destination or also add intermediate destinations.

Note: If intermediate destinations have been added, they must be passed. If you want to skip a waypoint, this is possible during the journey via the short menu.

### **SIMPLE NAVIGATION OR ONE-POINT NAVIGATION**

If you want to drive to a known or specific destination, you have the following options to choose from:

- **Address** Simple entry of a specific address.
- **POI (Point of Interest)** Selection of a destination via a category, e.g. gas station or cafe. In case of one-point navigation, select “Current position” as an option.
- **Point on map** This opens the map, on which you can set one or more points
- **Last destinations** Here you will find a list of the points that were used last.
- **Favorites** If you have already set favorites (can be done via the short menu), you can find them here
- **Coordinates** Sometimes the destination input requires the input of coordinates (e.g. mountain huts). This is possible here.

After selecting one of the above points, the list view will automatically appear showing the selected point. For one-point navigation, you can now simply go to "Show route". It will always route from the current position, just like usual navigation systems.

You will get the following three options:

- **Recommended** Optimal route calculated according to the sport profile.
- **Easy** The route with the least elevation gain
- **Short** The shortest route. Please note: The shortest route may have significantly more altitude meters than the other two suggestions.

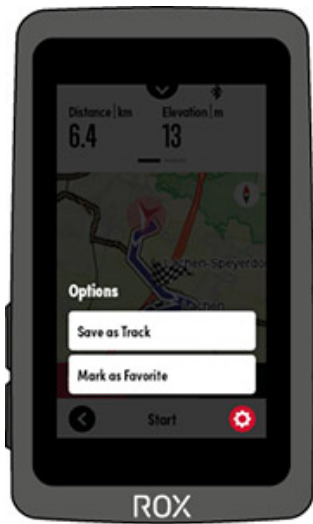
In the route options overview, you also have the following options or information:



If you tap on the map, it will be enlarged and you will have the possibility to view the route in detail



Using the options, they can save the created route directly as a track or as a favorite.



### **MULTIPOINT NAVIGATION**

With the ROX 12.1 EVO you have the option to create a route with several points. To do this, you first proceed in the same way as for single-point navigation. Once you are in the list of points, simply press "Add point." to add a waypoint or via point. The following type of destinations can be added:

- **Address**
- **POI (Point of Interest)**
  - o POI search around the current position
  - o POI around an individual position (e.g. an address or point on the map)
  - o POI around an already set waypoint
- **Point on map**
- **Point based on coordinates**
- **A favorite point**
- **One of the Last Destinations**



A route can consist of up to 50 points. The order can be easily changed by holding down an entry and then moving it in the desired direction. While the point is held down, it is highlighted in gray.



The following options are available in the context menu:

- **Delete all** Deletes all entries
- **Delete selection** Select items you want to remove again
- **Reverse sequence** You can reverse the entire sequence. This means that they do not travel from A ► B but B ► A.
- **Routing options** If you want other routing options for this selection of points than those that are stored in the sport profile, you have the option to do so here

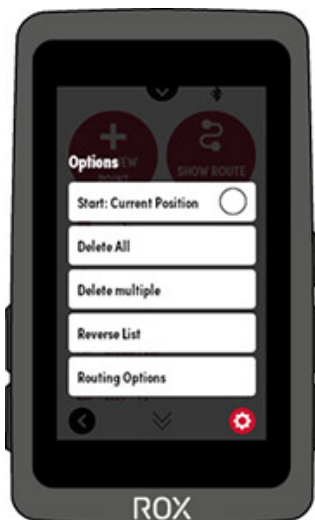
Once you have finished compiling the points, select “Show route” to calculate the route. Here you also get an overview of the created route with the information about distance and altitude meters as well as the altitude profile, which can be reached by swiping. again, the current position is seen as the starting point and from there a route is created.

### ***ROUTENPLANUNG AM ROX 12.1 EVO***

The ROX 12.1 EVO also offers the possibility to plan a route independently of the current position. This can also be in another country, for example, to plan his first tour for the next bike trip.

To do this, proceed in the same way as described under point 1.2 Multi-point navigation. You need at least 2 points, because the current position should not be taken into account.

When you have created a route, select the cogwheel to open the options.



Remove the checkmark from 'Start: Current position' to set the starting point to the first point in the list.

NOTE: Since the route may be very far from the actual position, this tour cannot be started, but must be saved as a track. If you are then on site, you can select this under Tracks and drive off.



### **DRAW MY ROUTE**

With “Draw my Route” the ROX 12.1 EVO offers a unique route planning tool.

This is less about planning the route exactly. Rather, you can use it to discover new routes. The special feature here is that you draw the route yourself on the display. Select the pen, draw on it and let yourself be surprised which route the ROX 12.1 EVO has in store for you.



### **START A ROUTE**

If you want to start a route, press the START field in the lower area.

If the starting point is not directly at the current position, the ROX 12.0 SPORT will automatically navigate you to the starting point. This may result in a longer route than the one originally displayed.

NOTE: To start recording, you MUST also press the ‘Start’ button once initially.

When the START field is selected, the training view is automatically opened. The navigation screen is selected. The lower two values can be configured freely. The map cannot be changed in this screen.

### **FAVORITES**

During the journey, a position can be saved at any time via the short menu, which is then saved as a favorite. POIs can also be stored as favorites. This way you always have them quickly available when you want to drive to them again.

## **TRACK NAVIGATION**





**TRACK IMPORT**

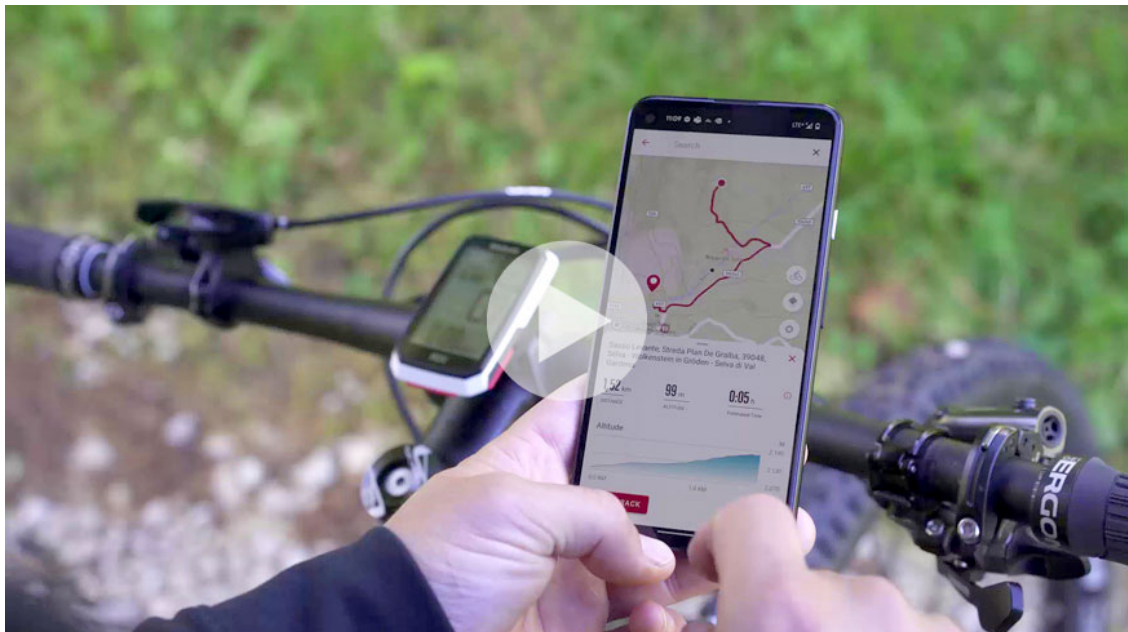
You have different options to transfer a planned track to your ROX 12.1 EVO. In the RIDE app, you can directly import a track in .gpx, .fit or .kml format. You can also view your planned tracks from the SIGMA Data Center, Strava and Komoot in the RIDE app. To view these tracks, log in with your account at More->Cloud & Apps.

To transfer a track from the RideApp to your ROX 12.1 EVO, press the star in the track view. If the track is a favorite, it is automatically transferred to the ROX 12.1 EVO and can then be selected and started in the track menu of the ROX 12.1.

**SEARCH AND GO – RIDE APP**

The Search & Go function is a one-point navigation. With the help of this you have the possibility to be navigated quickly and easily to any destination. When the route is planned, the corresponding turn-by-turn directions are displayed on your ROX. The procedure is as follows:

- SIGMA Ride App and ROX connect
- Navigation -> Select Search & Go
- Enter destination address or select point on map
- Get route
  - Via the bicycle icon the routing options can be set
- Start route, or save as track

**WORKOUTS WITH ROX 12.1 EVO**

The ROX 12.1 EVO already has 8 predefined workouts preinstalled. These offer an introduction to the possibilities of training control with the ROX 12.1 EVO. Among these predefined workouts is, for example, an 8-minute FTP (functional threshold). With the help of the workout, you can determine the functional threshold, which you can use for the upcoming training sessions.

**START WORKOUT**

To **start a workout**, do the following:

- On the Home screen, select the **Workout** item
- For example, choose the workout **FTP – Test – 8min**
- Confirm the selection
- Press the Start button as soon as you want to start the workout.



Once you have completed the workout, the workout page disappears. If you want to end the workout prematurely, proceed as follows:

- › Open the Short Cut menu by swiping from top to bottom.
- › Select Cancel Workout

**NOTE: A workout can also be started during an ongoing training.**

#### **MANAGE WORKOUT**

If you have created a workout via a compatible service, you can easily transfer it to the ROX 12.1 EVO via the SIGMA RIDE app. Simply import the .fit workout file into the RIDE app and star the desired workout. All favorited workouts are synchronized with the ROX 12.1 EVO and can be started on the ROX 12.1 EVO at any time.

## **EVALUATION OF THE TRAINING DATA ON THE DEVICE ROX 12.1 EVO**

You have several options to evaluate your training data on the ROX 12.1 EVO

#### **SUMMARY AFTER THE TRAINING**

After each training session, you will receive a summary of the most important training values. This summary is dynamic and offers you different evaluation options depending on the sensors used and the available data

**Total values:** Here you can see the total values of your training, e.g.: Training Time, Max. Speed, Altitude Uphill, Calories, SPI, ... .

**Map:** Here you can see the course of your training, if GPS is activated.

**Rounds:** Here you can see the data of the manually created rounds.

**Graphic:** Here you can see the data, such as altitude, speed, cadence, ..., graphically processed.

## **STRAVA LIVE SEGMENTS ROX 12.1 EVO**

How can I use Strava Live Segment on my ROX 12.1 EVO?

#### **TRANSFERRING MY 'FAVORITE' SEGMENTS TO THE ROX 12.1 EVO**

To transfer the Strava segments to the ROX 12.1 EVO, you need to install the SIGMA RIDE app on your smartphone.



Pair the ROX 12.1 EVO with the RIDE app (if not already done). Proceed as follows:

- ROX 12.1 EVO: Settings>Connections>SIGMA RIDE
- Scan the QR code displayed on the ROX 12.1 EVO with the SIGMA RIDE app.
- ROX 12.1 EVO and the SIGMA RIDE app is now connected
- Now go to 'More>Cloud&Apps' to log in to Strava.

In the main menu, select 'RIDE' in the lower section. With an active connection to the ROX 12.1 EVO, the 'Strava Segments' button is now displayed. To transfer the Strava segments, press the Strava Segments button (if it is not visible, you have to swipe a bit to display the lower area).

**Note: You must be a Premium user to transfer Strava segments.**

You can now also view Strava segments on the ROX 12.1 EVO.



### **STRAVA LIVE SEGMENTS DURING TRAINING**

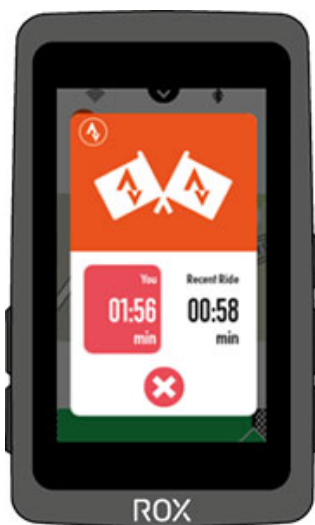
Once the workout has been started (press the Start button -> middle button on the right side), the Strava Live Segment page will automatically appear as you approach a segment.



To change the comparison partner, swipe the bottom of the Strava Live Segment page.



When you complete the Strava segment, the result is automatically displayed.



## ***EVALUATION OF TRAINING DATA USING SOFTWARE***



**SIGMA RIDE APP**

With the SIGMA RIDE app you can carry out an extensive evaluation of your training data. Different training parameters, graphics, etc. are displayed for each training unit. You can also export your training data to third-party portals directly from the SIGMA RIDE app. Please refer to the sharing menu of the app to find out which portals are available for this. To view previous training units, switch to the activity list and select the relevant unit.



### **SIGMA DATA CENTER**

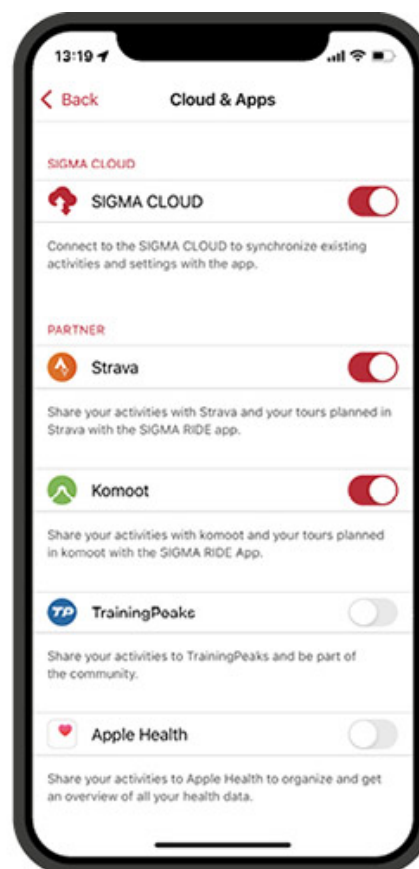
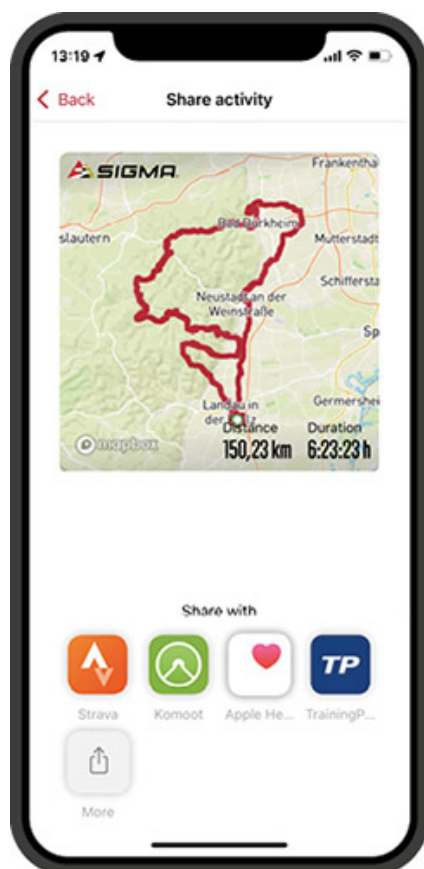
In the SIGMA DATA CENTER you have even more in-depth analysis options for your training data. In addition to the functions in the SIGMA RIDE app, you can delve even deeper into the data here as well as export the data in other formats (e.g. .csv). In DATA CENTER you also have more detailed options for planning a track.

**Note:** A direct connection via USB to the data center is not possible. Data can be imported using the RIDE APP and the SIGMA CLOUD.

### **SIGMA-DOWNLOAD.COM**

#### **THIRD PARTY PROVIDERS**

The training data of the ROX 12.1 EVO is available as a .FIT file. Therefore, all portals that use this standard can read the data of the ROX 11.1 EVO. You can perform the export to corresponding third-party providers via the SIGMA RIDE app.



Furthermore, the ROX 12.1 EVO can also process e.g. workout data from third-party providers such as Trainingpeaks.

## SIGMA PERFORMANCE INDEX (SPI) ▼

The SIGMA Performance Index, or SPI for short, offers you an objective assessment of your training performance.

The value is made up of 3 different variables:

- › The meters in altitude uphill
- › The total distance of the training
- › The average speed

If these values increase, the SPI also increases. If you look at your SPI values over time, you can see a clear increase, stagnation or deterioration in performance. The SPI does not consider any individual data such as heart rate or performance. The value is given without a unit and can have values between 1 and 9999, with most values in the range from 1-600.

These examples will give you a feel for the SPI:

Summary of the training		
	Training 1	Training 2
Distance	42,81 km	26,84 km
Average speed	28,46 km/h	14,62 km/h
Elevation gain uphill	466 m	499 m
SPI	378	107

The following examples illustrate the meaning and interpretation of the SPI:

- › In a cycle race, all athletes drive the same route. The one with the highest SPI wins. The altitude and distance are the same for all athletes, only the highest average speed makes the difference here.
- › If you drive the same route with the same average speed but less elevation gain, the SPI will decrease because the elevation gain is taken into account in the calculation.
- › If two athletes drive the same distance at the same speed, they have the same SPI value, even if heart rate and performance may be different.

## UPDATE THE FIRMWARE ROX 12.1 EVO ▼

To check if a new FW is available for your ROX 12.1 EVO, you need to connect the ROX to the Wifi. Under the item Settings->Update Firmware the ROX searches for the latest FW. If a new FW is available, you can download it directly and then install it. **Note: Do not turn off your ROX during the download of the update.**



## TECHNICAL INFORMATION ROX 12.1 EVO ▲



**SPECIFICATIONS**

Battery type ROX 12.1 EVO	Max. voltag: 5V DC / Max. current: 1.4A   Rechargeable 2400 mAh /9.12 Wh Battery
Maximum operating altitude	5000 m
Operation temperature	-10 °C to +45 °C
Operation frequency	WiFi 2.4 GHz @ 15.1 dBm nominal ANT+ 2.4 GHz @ 4 dBm nominal Bluetooth 2.4 GHz @ 4 dBm nominal GPS 1575.42 MHz (receiver only) GLONASS 1602 MHz (receiver only) Galileo 1575.42 MHz (receiver only)
Transmission power	<20 dBm
Water and Dust rating	ROX 12.1 EVO: IP67

**CLEANING THE DEVICE**

We recommend cleaning the ROX 12.1 EVO at regular intervals and in case of heavier soiling. Please use only mild cleaning agents for this purpose. To ensure optimal function of e.g. the altitude sensor, regular cleaning of the device is necessary. To clean the altitude sensor, it is best to place the ROX 12.1 in clear water for a few minutes and then rinse the device again under running water. If the device is very dirty, dirt may block the buttons. In this case, please follow the same instructions as for cleaning the altitude sensor.

**EU DECLARATION OF CONFORMITY**

We, SIGMA-ELEKTRO GmbH, Dr.-Julius-Leber-Str. 15, D-67433 Neustadt / Weinstraße declare that the ROX 12.1 EVO bike computer and the SPEED, CADENCE and R2 Duo transmitters, when used as intended, meet the basic requirements of RED Directive 2014/53 / EU and RoHS Directive 2011/65 / EU.

The CE declaration can be found at: **[CE.SIGMASPORT.COM/ROX121](https://www.sigmasport.com/rox121)**

**GUARANTEE CONDITIONS**

We are liable to our respective contractual partner for defects according to the statutory regulations. Batteries are excluded from the warranty. In the event of a warranty, please contact the dealer from whom you bought your bike computer. You can also send the bike computer with your proof of purchase and all accessories to the address below. Please ensure that there is sufficient franking.

**SIGMA-ELEKTRO GmbH**

Dr.-Julius-Leber-Straße 15  
67433 Neustadt/Weinstraße  
Germany  
Service-Tel. +49-(0)6321-9120-140  
E-Mail: kundenservice@sigmasport.com

If you have justified warranty claims, you will receive a replacement device. There is only an entitlement to the current model at the time. The manufacturer reserves the right to make technical changes.

**DISPOSAL**

Batteries must not be disposed of with household waste (Battery law)!  
Please bring the batteries to a designated handover point or to a retailer for disposal.  
Electronic devices must not be disposed of with household waste. Please hand the device over to a designated disposal point or to a retailer.

**Before disposal, all personal data must be deleted from the device.**





Li =  
Lithium Ionen

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## ***DOWNLOAD MANUAL***



***DOWNLOAD MANUAL***