Cycling App Professional User Manual

A Comprehensive Guide

Robert Hofer (RH-SPORTS)

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1. User documentation

Welcome to the **Cycling App Professional** user documentation

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2.1 Cycling App Professional

The **Cycling App Professional**, running on most Connect IQ™-compatible Garmin devices, supports you in improving your cycling performance by tracking the most important parameters like distance, speed, altitude and time with high sensitivity GPS. Additionally ANT+™ compatible sensors like a heart rate monitor, speed, cadence, power and temperature sensor monitoring are supported for a finely-tuned analysis of your ride. It is designed as a watch app (and not a data field) for following reasons:

- Simple to install and use
- Arbitrary feature enhancement possible
- Circumvent that some watches (e.g. vivoactive™) can only display two Connect IQ™ data fields

Link to **Cycling App Professional** on Garmin App Store

This website provides further information regarding requirements, installation, getting started, supported data fields and features as well as frequently asked questions.

2.2 Disclaimer

2.2.1 Software disclaimer

Our offered applications, widgets and data fields (further on simply called software), which can be downloaded from the Garmin App Store, are provided ‘as is’ without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of fitness for a purpose, or the warranty of non-infringement. Without limiting the foregoing, Robert Hofer (RH-SPORTS) makes no warranty that:

- the software will meet your requirements.
- the software will be uninterrupted, timely, secure or error-free.
- the results that may be obtained from the use of the software will be effective, accurate or reliable.
- the quality of the software will meet your expectations.

Software and documentation on our web site:

- could include technical or other mistakes, inaccuracies or errors.
- may be out of date where we make no commitment to update the it right away.
- we assume no responsibility for errors or omissions in the software or documentation available from our web sites.
- Robert Hofer (RH-SPORTS) has the right to change the software or documentation anytime.

In no event shall we be liable to you or any third parties for any special, punitive, incidental, indirect or consequential damages of any kind, or any damages whatsoever, including, without limitation, those resulting from loss of use, data or profits, whether or not we have been advised of the possibility of such damages, and on any theory of liability, arising out of or in connection with the use of this software.

The use of the software downloaded is done at your own discretion and risk and with agreement that you will be solely responsible for any damage to your computer system, watch of navigation device or loss of data that results from such activities. No advice or information, whether oral or written, obtained by you from us by mail or from our web sites shall create any warranty for the software.

2.2.2 User data protection according to DSGVO

RH-SPORTS clearly wants to state that we do not collect or save user information of any kind. If you are using our applications or data fields and save the recorded session afterwards then the data will be fully processed by Garmin Ltd. or its subsidiaries. This might include that the recorded data is sent to servers hosted or paid for by Garmin. Please read the user data protection rules from Garmin for further details.

Following applications offer map support:

- Cycling App Professional
- Hiking App Professional
- MTB App Professional
- SkiTour App Professional

These applications do not directly track personal information but makes use of a 3rd party API provided by dynamicWatch which does store personal information on every data request. You can read the detailed privacy policy of dynamicWatch here.

2.2.3 Activity tracking and fitness metric accuracy

Our applications and data fields use the Garmin API´s to retrieve most of the information and cannot be more precise than the data delivered from there. Garmin states following about activity tracking and accuracy:

- "Garmin devices are intended to be tools to provide you with information to encourage an active and healthy lifestyle. Garmin wearables rely on sensors that track your movement and other metrics. The data and information provided by these devices is intended to be a close estimation of your activity and metrics tracked, but may not be precisely accurate. Garmin wearables are not medical devices, and the data provided by them is not intended to be utilized for medical purposes and is not intended to diagnose, treat, cure, or prevent any disease. Garmin recommends you consult your doctor before engaging in any exercise routine."

2.2.4 Accuracy of wrist-based heart rate (Elevate)

Our applications and data fields use the Garmin API´s to retrieve heart rate related data cannot be more precise than the data delivered from there. Regarding wrist-based accuracy, Garmin states following:

- "The optical wrist heart rate (HR) monitor for Garmin wearables is a valuable tool that can provide an accurate estimation of the user's heart rate at any given point in time. The optical HR monitor is designed to attempt to monitor a user's heart rate 24 hours a day, 7 days a week. The frequency at which heart rate is measured varies, and may depend on the level of activity of the user. When you start an activity with your Garmin optical HR device, the optical HR monitor measures more frequently. The intent is to provide the user with a more frequent and accurate heart rate reading during a given activity."
- "While our wrist HR monitor technology is state of the art, there are inherent limitations with the technology that may cause some of the heart rate readings to be inaccurate under certain circumstances. These circumstances include the user's physical characteristics, the fit of the device and the type and intensity of the activity as outlined above. The HR monitor data is not intended to be used for medical purposes, nor is it intended to diagnose, treat, cure or prevent any disease or condition."
- "Wrist heart rate accuracy during swimming is very limited. Garmin does not recommend using wrist heart rate during swimming activities and on some products, wrist heart rate monitoring is disabled while swimming. Garmin recommends using HRM-Swim™ or HRM-Tri™ heart rate monitors with compatible devices to track heart rate while swimming."

2.2.5 White background on AMOLED displays

For devices with AMOLED display (e.g. Venu™ based devices) we strongly recommend to always select the black background to avoid damages due to burn-in effects and to save battery life time!

> **Note:**
> We take over NO responsibility in case of damages due to burn-in effects.

2.3 Requirements

Supported Garmin devices

The **Cycling App Professional** runs on following Garmin devices:

- Approach® S50, S60 and S62
- Approach® S70 42mm
- Captain Marvel
- D2™ Air and Air X10
- D2™ Bravo
- D2™ Bravo Titanium
- D2™ Charlie
- D2™ Delta, Delta PX and Delta S
- D2™ Mach 1 and Mach 2
- Darth Vader™
- Descent™ G2
- Descent™ MK1, MK2 and MK2s
- Descent™ Mk3 51mm
- Enduro™ and 3
- Epix™ 2, Pro (Gen 2) 42mm and 47mm
- Fēnix® 3, HR and Chronos
- Fēnix® 5, 5S and 5X
- Fēnix® 5 Plus, 5S Plus and 5X Plus
- Fēnix® 6 and 6 Pro
- Fēnix® 6s and 6s Pro
- Fēnix® 6x Pro, 6x Sapphire, 6x Pro Solar and tactix® Delta Sapphire
- Fenix® 7, 7s and 7x
- Fenix® 7 Pro, 7s Pro and 7x Pro
- Fēnix® 7 Pro (no Wi-Fi) and 7x Pro (no Wi-Fi)
- Fenix® 8 43mm, 47mm and 51mm
- Fenix® 8 Solar 47mm and 51mm
- Fenix® 8 Pro 47mm
- Fenix® E
- First Avenger
- ForeAthlete® 230J, 235J, 630J, 735XTJ and 920XTJ
- Forerunner® 55, 165, 165 Music, 230, 235, 245, 245 Music, 255, 255 Music, 255s, 255s Music, 265 and 265s
- Forerunner® 570 42mm and 47mm, 630, 645, 645 Music, 735XT, 935, 945, 945 LTE, 955 and 955 Solar, 965 and 970
- Instinct® 3 AMOLED 45mm and 50mm
- Instinct® Crossover AMOLED
- MARQ™ Adventurer, Athlete, Aviator, Captain, Commander, Driver, Expedition and Golfer
- MARQ® (Gen 2) Athlete, Adventurer, Captain, Golfer and Aviator
- Rey™
- Venu™ and Mercedes-Benz® Collection
- Venu™ SQ and SQ Music
- Venu™ SQ 2 and SQ 2 Music
- Venu™ 2, 2 Plus and 2s
- Venu® 3 and 3s
- Venu® 4 41mm and 45mm

- Vivoactive™
- Vivoactive™ HR
- Vivoactive® 3, 3 Music, 3 Music LTE and 3 Mercedes-Benz® Collection
- Vivoactive® 4 and 4s
- Vivoactive® 5 and 6

Garmin device Firmware requirements

Please install the latest firmware on your Garmin device. Here the information about the minimum required Connect IQ™ version depending on your device type:

- V1.3.0
    - ForeAthlete® 230J, 235J, 630J and 920XTJ
    - Forerunner® 230, 235, 630 and 920XT
- V1.4.0
    - Vivoactive™
- V1.4.1
    - D2™ Bravo and Bravo Titanium
    - Fēnix® 3 and 3 HR
- V2.4.1
    - Approach® S60
    - ForeAthlete® 735J
    - Forerunner® 735XT
    - Vivoactive® HR
- V3.0.0
    - Approach® S62
    - D2® Charlie
    - D2® Delta, Delta PX and Delta S
    - Descent™ MK1
    - Vivoactive® 3 Mercedes-Benz® Collection
- V3.1.0
    - Descent™ MK2
    - Fēnix® Chronos
    - Fēnix® 5, 5S, 5X and 5 Quatix
    - Fēnix® 5 Quatix
    - Fēnix® 5 Plus, 5S Plus and 5X Plus
    - Forerunner® 935
    - Forerunner® 645 and 645 Music
    - Vivoactive® 3

- V3.2.0
    - Captain Marvel
    - Darth Vader™
    - D2™ Air
    - Descent™ MK2s
    - Enduro™
    - Fēnix® 6/6 Pro
    - Fēnix® 6s/6s Pro
    - Fēnix® 6x Pro, 6x Sapphire, 6x Pro Solar and tactix® Delta Sapphire
    - First Avenger
    - Forerunner® 55, 245, 245 Music, 745 and 945
    - MARQ™ Adventurer, Athlete, Aviator, Captain, Commander, Driver, Expedition and Golfer
    - Rey™
    - Venu™ SQ and SQ Music
    - Venu™ and Mercedes-Benz® Collection
    - Vivoactive® 3 Music and 3 Music LTE
    - Vivoactive® 4s and 4
- V3.3.0
    - Forerunner® 945 LTE
- V4.0.0
    - D2™ Air X10
    - D2™ Mach 1
    - Venu™ 2, 2 Plus and 2s
- V4.1.0
    - Fenix® 7, 7s and 7x
    - Forerunner® 255, 255 Music, 255s and 255s Music
    - Forerunner® 955 and Solar
    - Venu™ SQ 2 and SQ 2 Music
- V4.2.0
    - Approach® S70 42mm and 47mm
    - Descent™ Mk3 51mm
    - Epix™ 2
    - Epix™ Pro (Gen 2) 42mm, 47mm and 51mm
    - Fenix® 7 Pro, 7s Pro and 7x Pro
    - Fēnix® 7 Pro (no Wi-Fi) and 7x Pro (no Wi-Fi)
    - Forerunner® 165 and 165m
    - Forerunner® 265 and 265s
    - Forerunner® 965
    - Venu® 3 and 3s
    - Vivoactive® 5

- V5.0.0
    - Approach® S50
    - Descent™ G2
    - Enduro™ 3
    - Fenix® 8 43mm
    - Fenix® 8 47mm and 51mm
    - Fenix® 8 Solar 47mm and 51mm
    - Fenix® E
    - Instinct® 3 AMOLED 45 and 50mm
    - Vivoactive® 6
- V5.1.0
    - Fenix® 8 Pro 47mm
    - Fenix® 8 Pro 47mm, 51mm and MicroLED
    - Forerunner® 570 42mm and 47mm
    - Forerunner® 970
    - Instinct® Crossover AMOLED
- V5.2.0
    - D2™ Mach 2
    - Venu® 4 41mm and 45mm

> **Note:**
> Please also take a look to the Garmin feature set description for your device.

Garmin software requirements

- Please install the latest Garmin Connect App if you use the mobile phone for installation and configuration.
- Please install the latest Garmin Express Version if you use the PC/MAC for installation and configuration.

2.3.1 Sensor requirements

- Please enable GPS for speed, distance, location and altitude information.
- Please enable ANT+ sensors for heart rate, cadence, speed, power and temperature information.

2.4 Getting started

This section describes everything you need to know to get **Cycling App Professional** up and running on your Garmin device.

Topics:

2.4.1 Install application

Please install the **Cycling App Professional** application by downloading it from the Garmin App Store via the Garmin Express Software on PC/MAC or via the Garmin ConnectIQ mobile app on your mobile phone.

Link to **Cycling App Professional** on Garmin App Store

Here a YouTube video describing the installation process in more detail:

Click here to watch the video

2.4.2 Change the user settings

The **Cycling App Professional** in the PREMIUM version offers a huge amount of configuration options which can be changed on your PC/MAC your or on your mobile phone:

- Change User Settings on PC/MAC
- Change User Settings on Mobile Phone

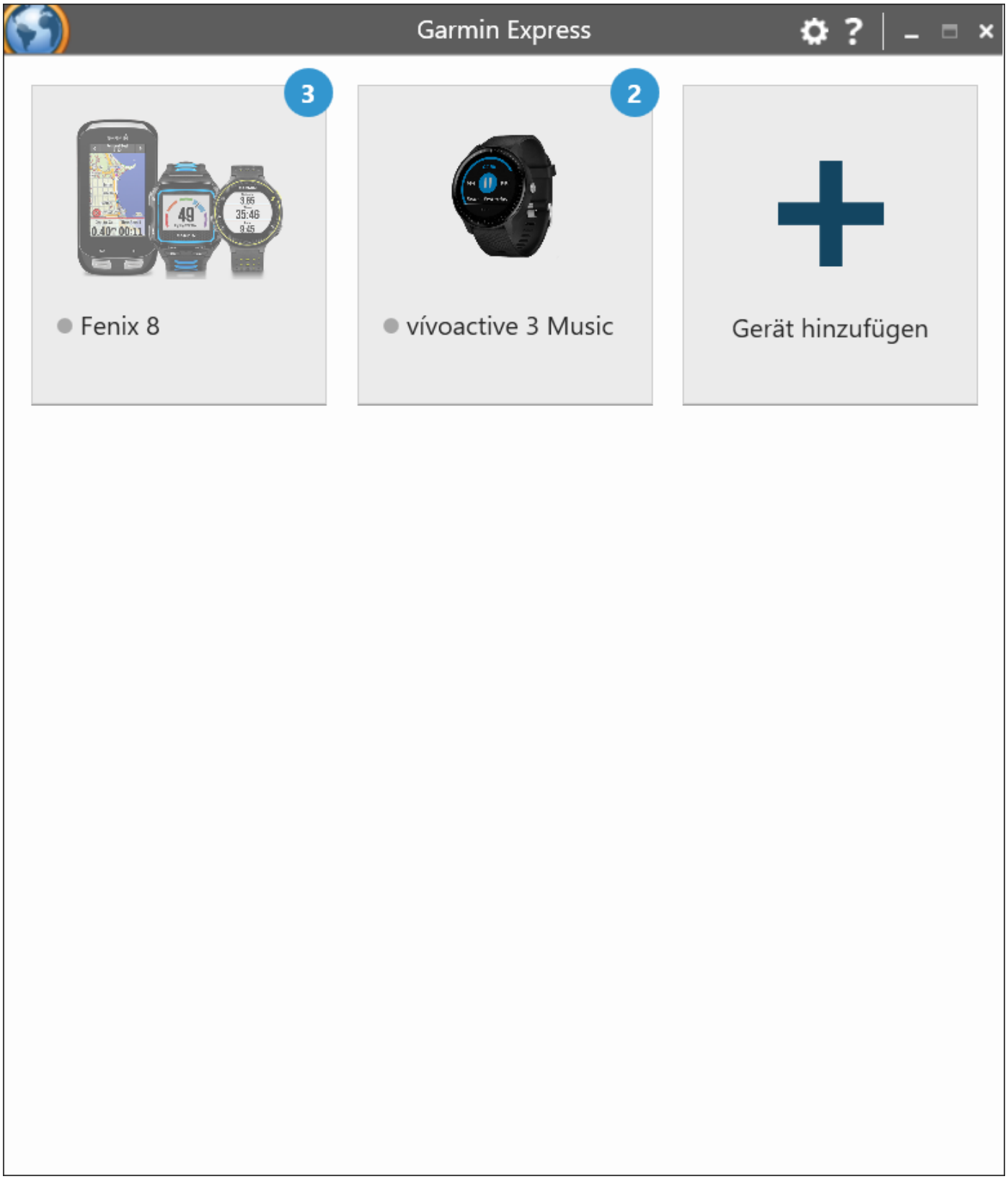
Change user settings on PC or MAC

All configurations can be changed on your PC or MAC by using the Garmin Express Software. Before changing configurations, please make sure that you have installed the latest software version. The software can be downloaded from the official Garmin web site.

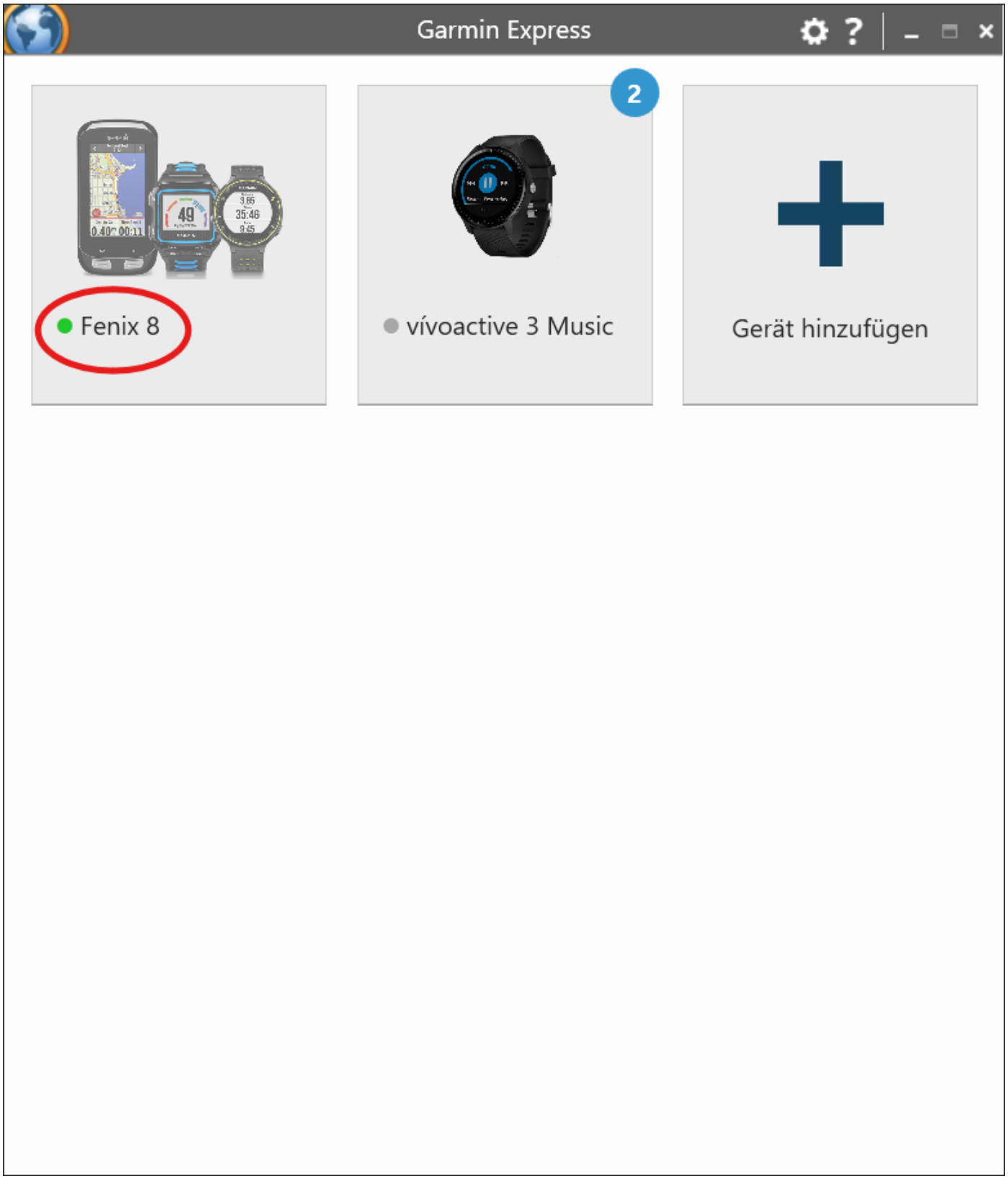
> **Note** The pictures in the following sections are taken from the Garmin Express Software V7.28.0 running on Windows 11 and may be subject of change in future Garmin versions.

Step 1: Start Garmin Express Software Look for the symbol as shown below and double-click it to start the Garmin Express software.

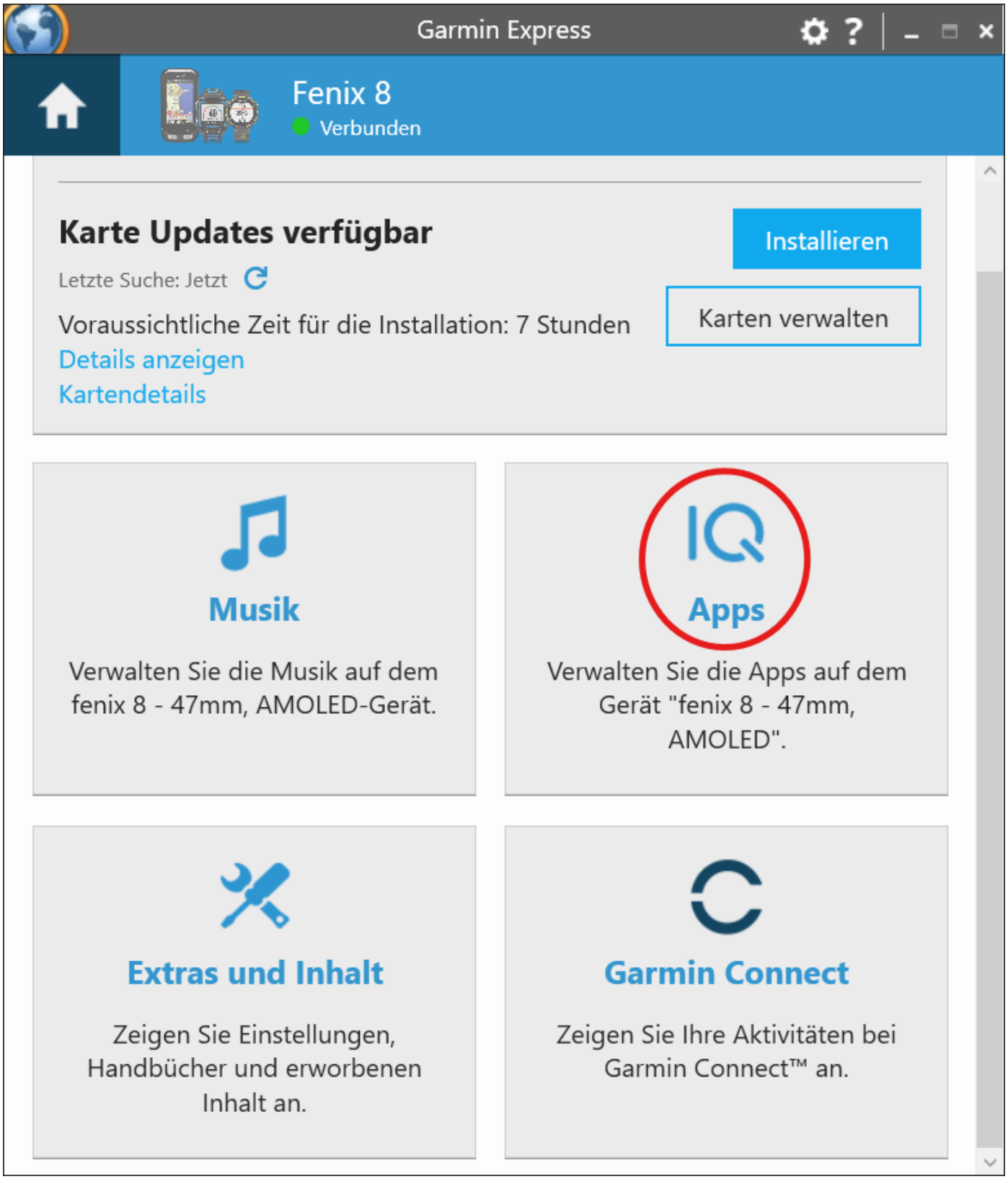
After that you should be able to see your Garmin device as shown in the picture below. If not, please add your device first. For details refer to the documentation provided by Garmin.



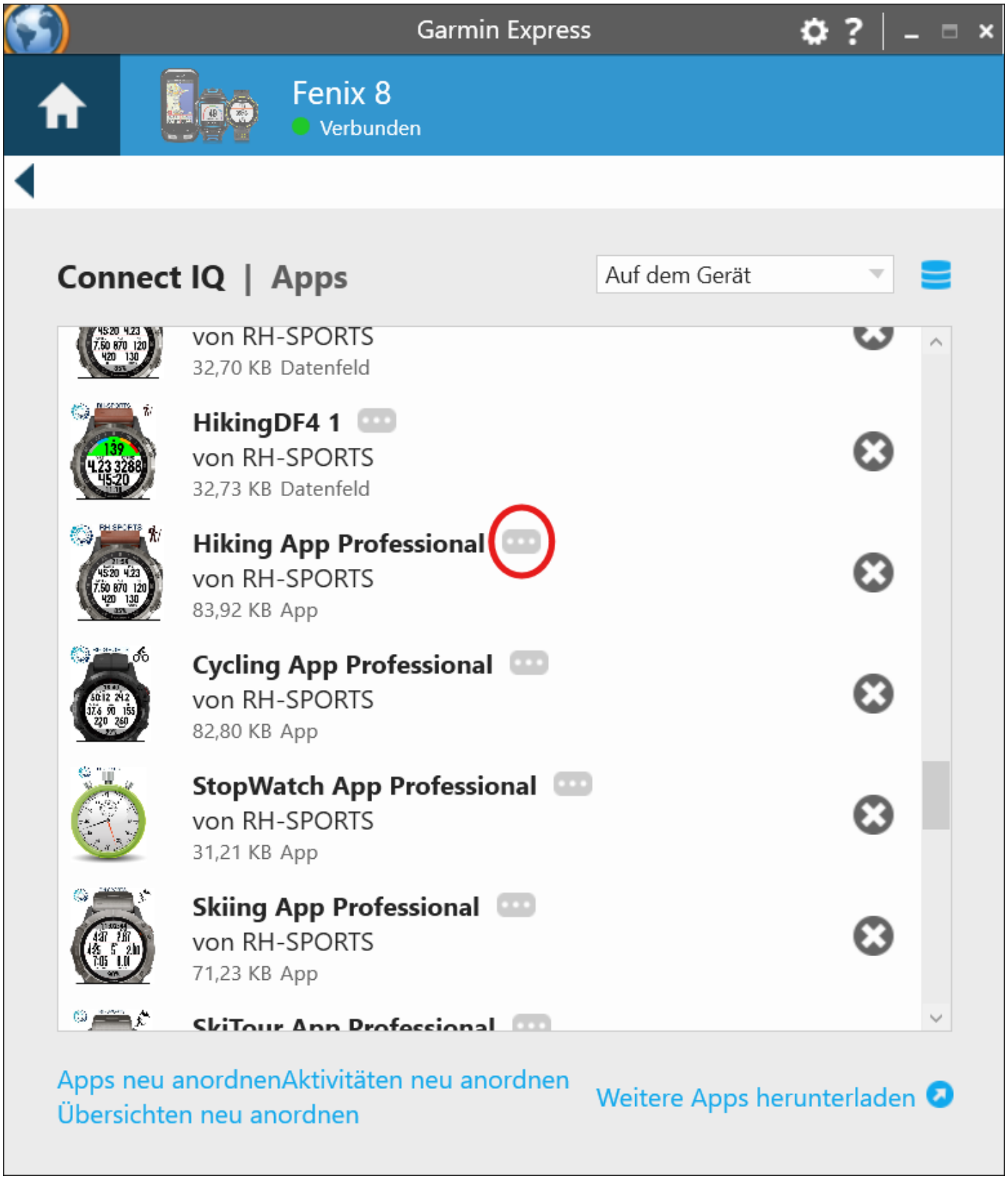
Step 2: Establish Connection between PC/MAC and the Garmin Device Connect your device via USB to your PC/MAC. Your device should be automatically detected and the Garmin Express software starts a synchronization process. When everything is ok, it is signalized via green lights as shown in the figure below. In case problems occur, please refer to the documentation provided by Garmin.



Step 3: Select Device Please click on the icon which shows your device. Following picture should appear:

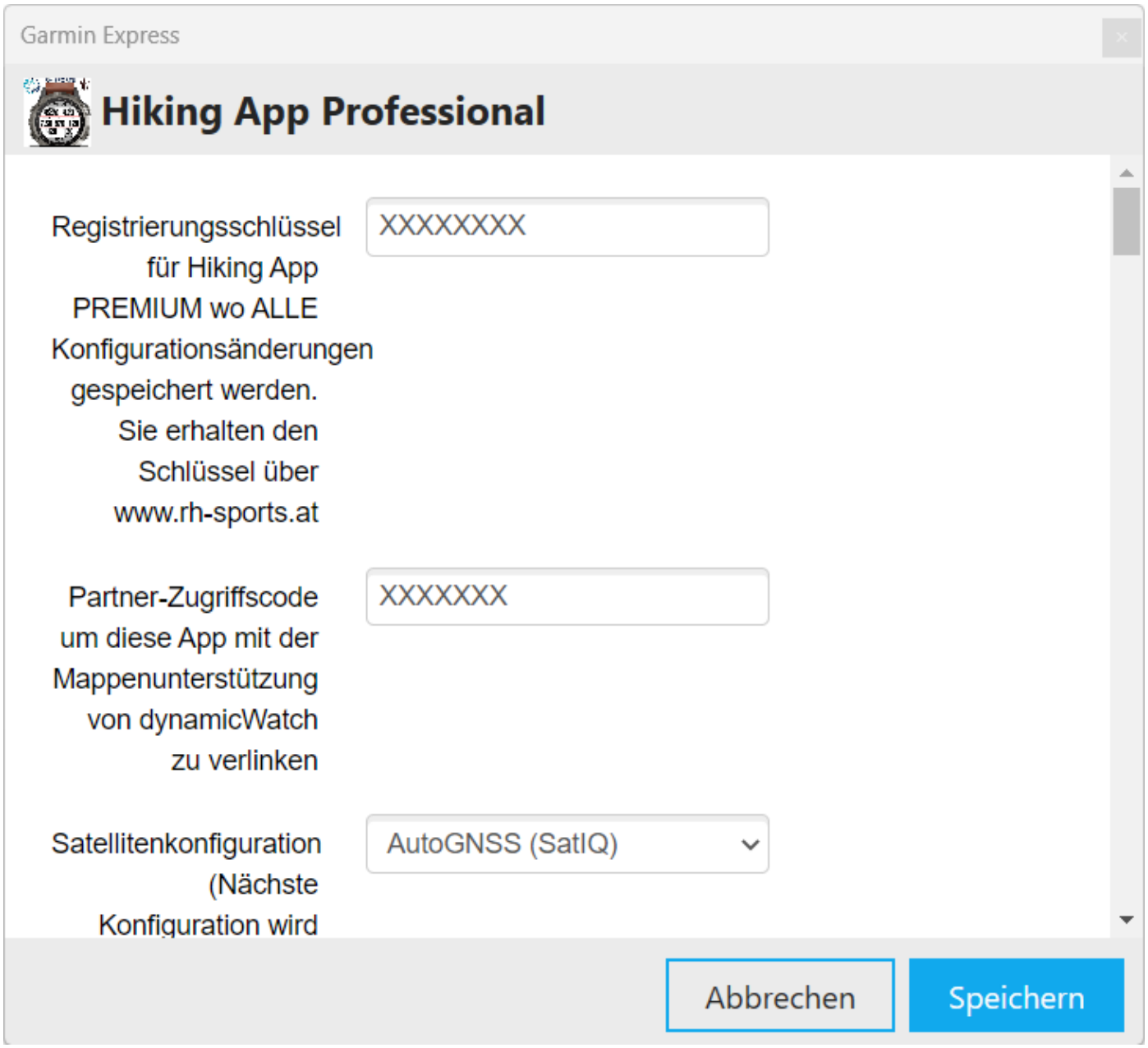


Step 4: Find Application or Data Field Please click the marked button in the picture above. A list of all installed applications and data fields on your device should appear. Please scroll up/down until you find the application or data field you would like to configure as shown in the figure below:

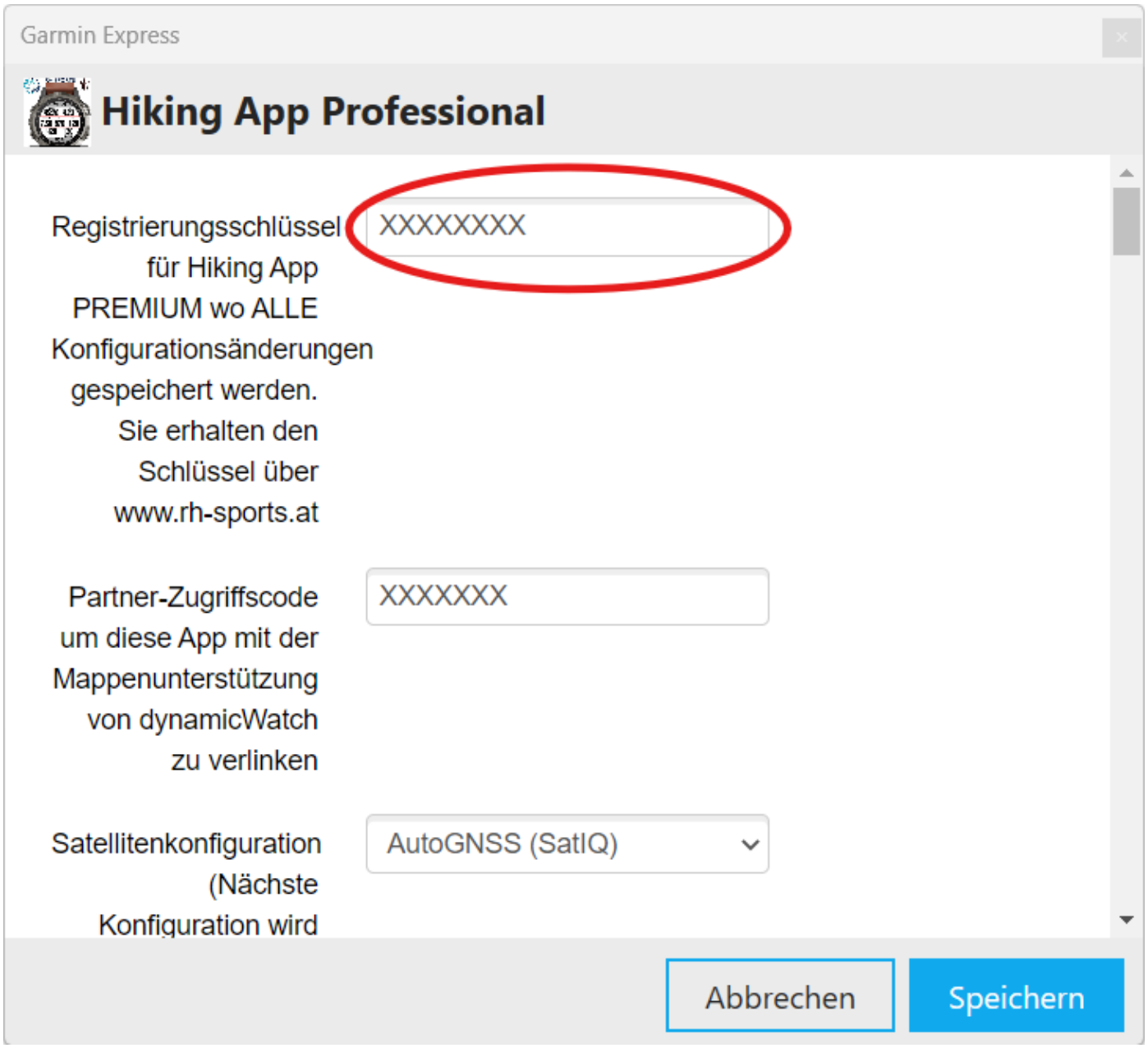


Step 5: Select Application or Data Field for Configuration Please select the RH-SPORTS application or data field you would like to configure by clicking with the left mouse button to the three dots as marked in the left picture above for your application or data field of choice. A context menu will be shown where you have to select "Settings"

A similar screen like shown below should appear:



Step 6: Change Configuration Please note that configuration changes ONLY apply on your Garmin device if you have entered a proper PREMIUM activation key in the field marked in the picture below. For details about the possible key types, please refer to the registration key details. If a proper activation key is entered, you can change **ALL** configurations according to your needs. Finnaly press the "Save" button at the bottom of the dialog. The Garmin Express Software will update the configurations on your device. In case of errors, please refer to the documentation provided by Garmin.



Step 7: Disconnect Device After the configuration changes were saved, disconnect your device from the PC/MAC.

Step 8: Start Application or Data Field on Device Please start our RH-SPORTS application or data field on your Garmin device. If you have the PREMIUM Version (key was correct), then all your configuration changes should have been applied. If not, please refer to our Frequently Asked Questions.

Change user settings on mobile phone

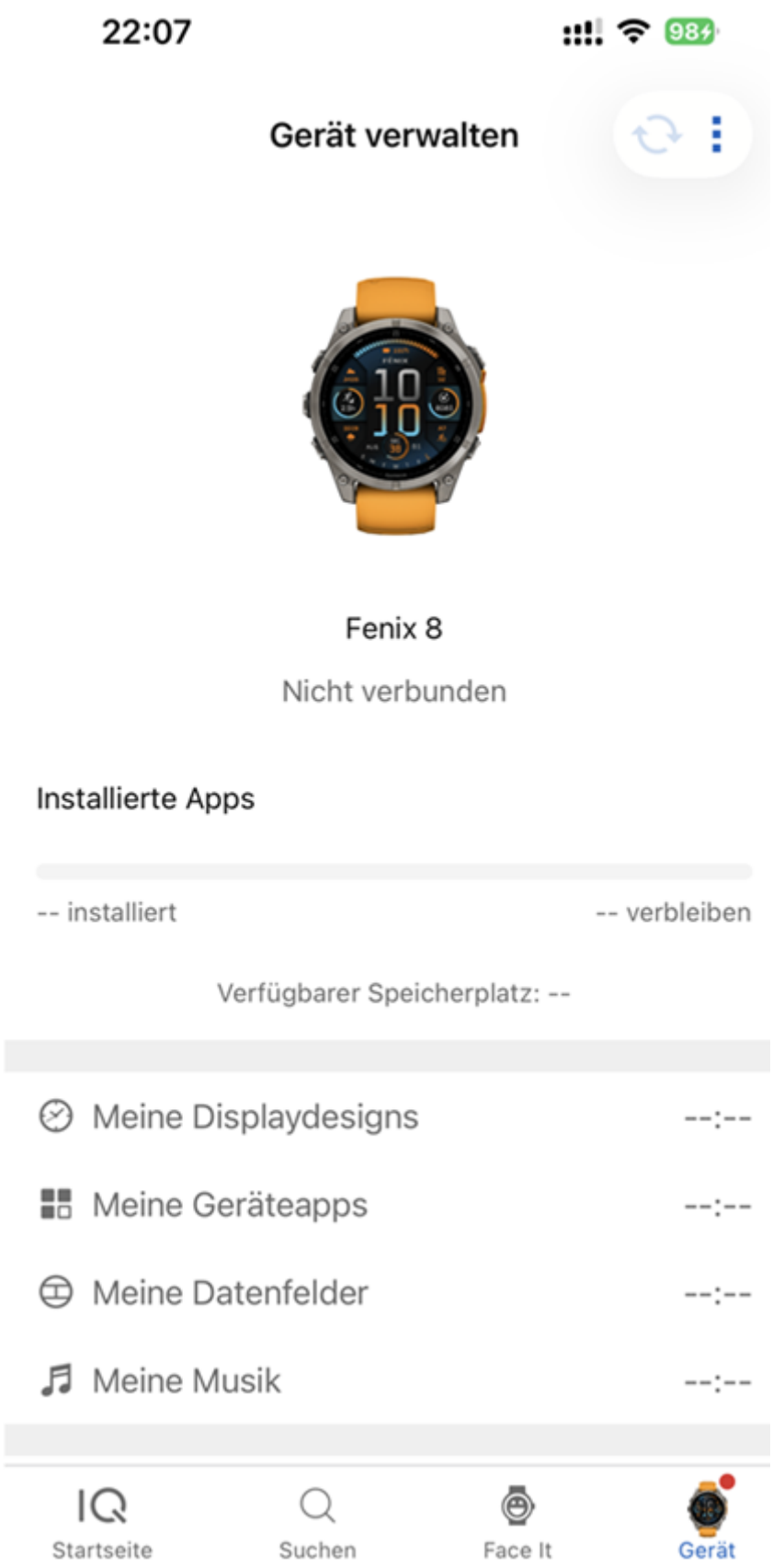
All configurations can be changed on your mobile phone by using the Garmin ConnectIQ™ mobile app which is available for Android- and iOS-compatible devices. Before changing configurations, please make sure that you have installed the latest mobile app version. The app can be downloaded from the appropriate App Stores (e.g. Google Play, Apple Store, etc.)

> **Note** The pictures in the following sections are taken from the Garmin ConnectIQ™ mobile app V2.43 running on an iPhone 14 Pro with iOS 26.2 and may be subject of change in future Garmin versions.

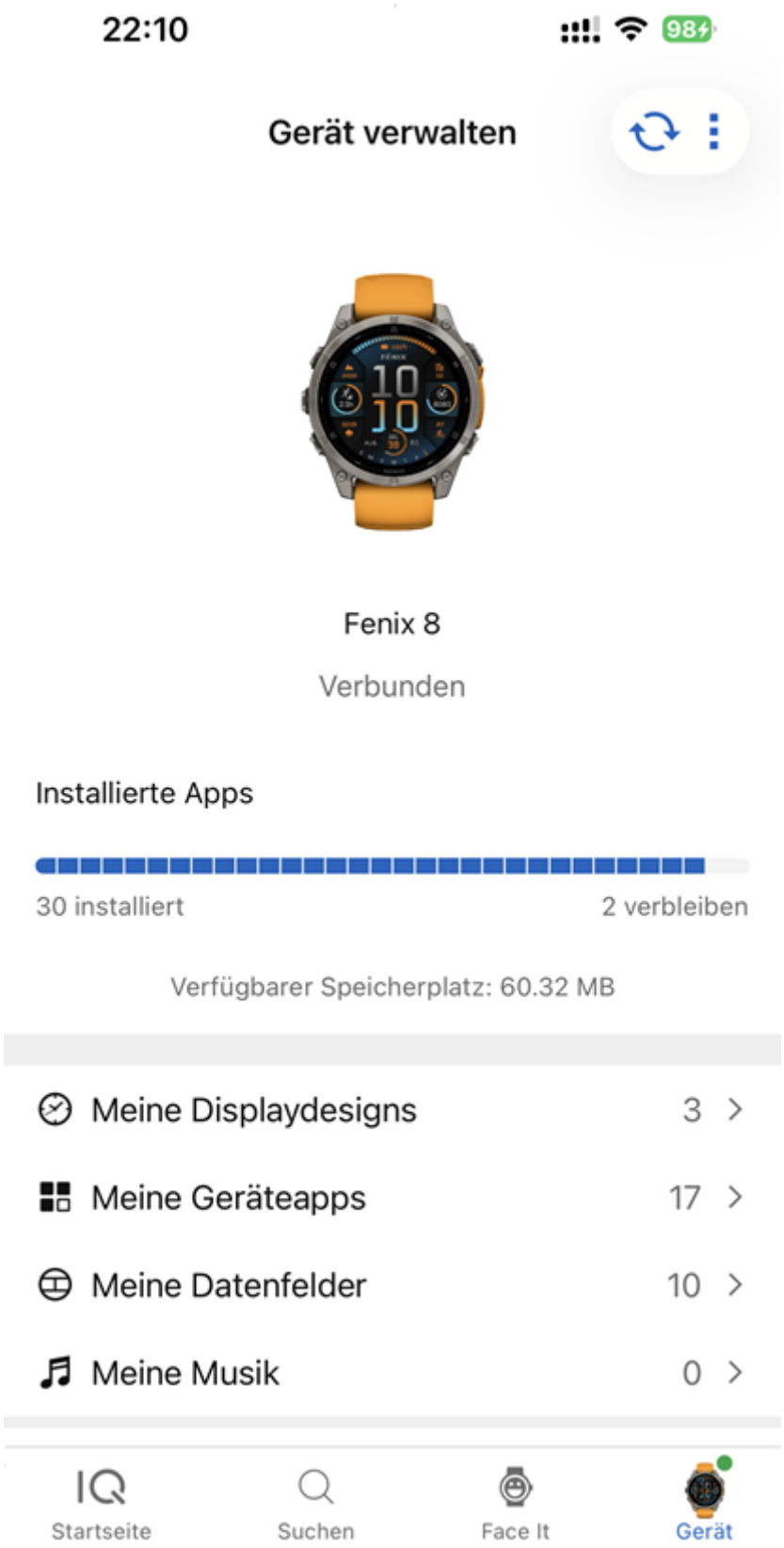
Step 1: Start Garmin ConnectIQ™ mobile app Look on your mobile phone for the app with the symbol shown belowe and click it to start the Garmin ConnectIQ™ mobile app.

A similar window as shown below should appear.

Step 2: Press device button The device button is located at the bottom on the right side. Please press it and following picture should appear if the device is not connected so far:

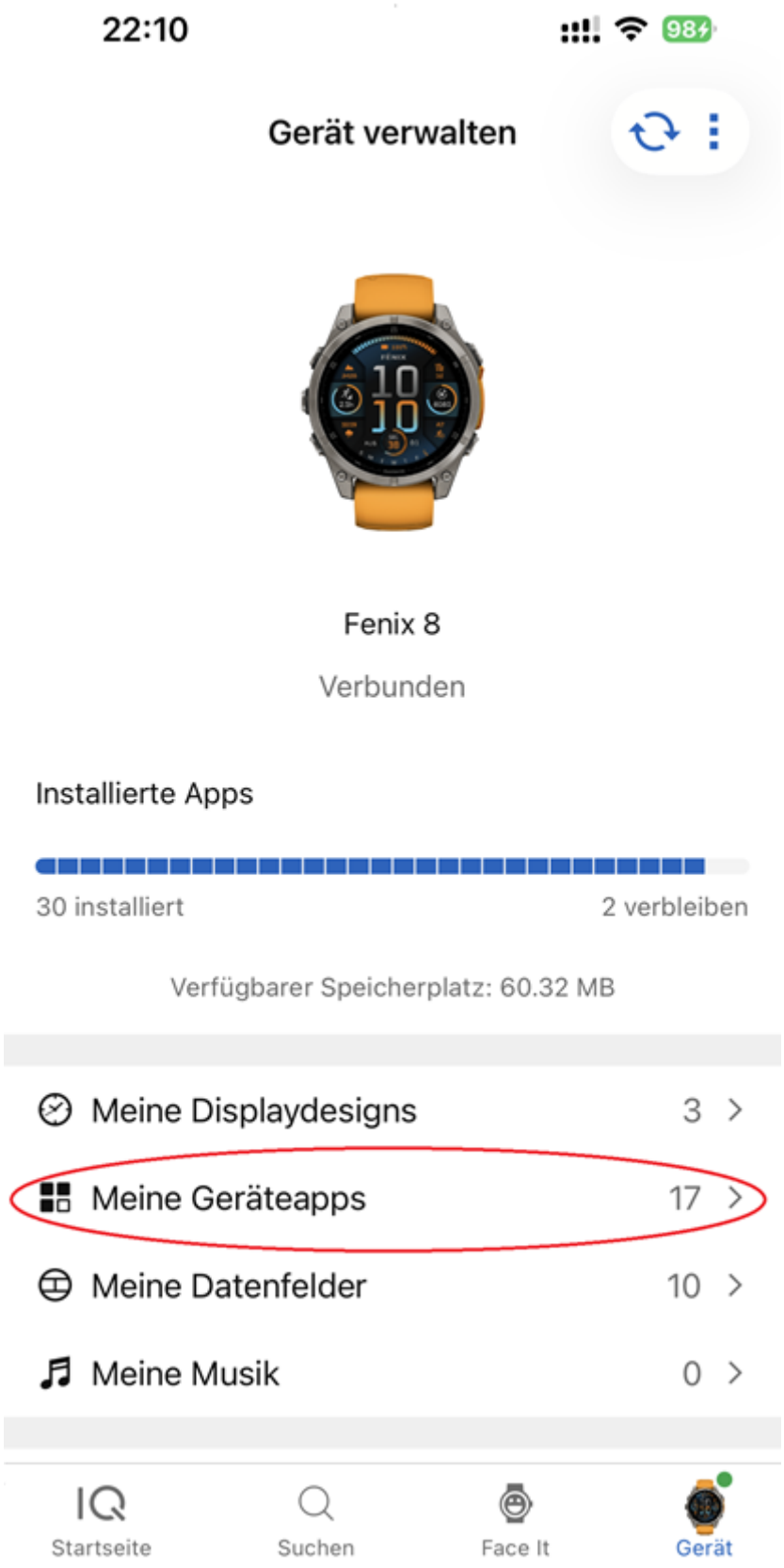


If the device is already connected with your mobile phone via Bluethooth, then the proper connection status is shown as illustrated in following picture:

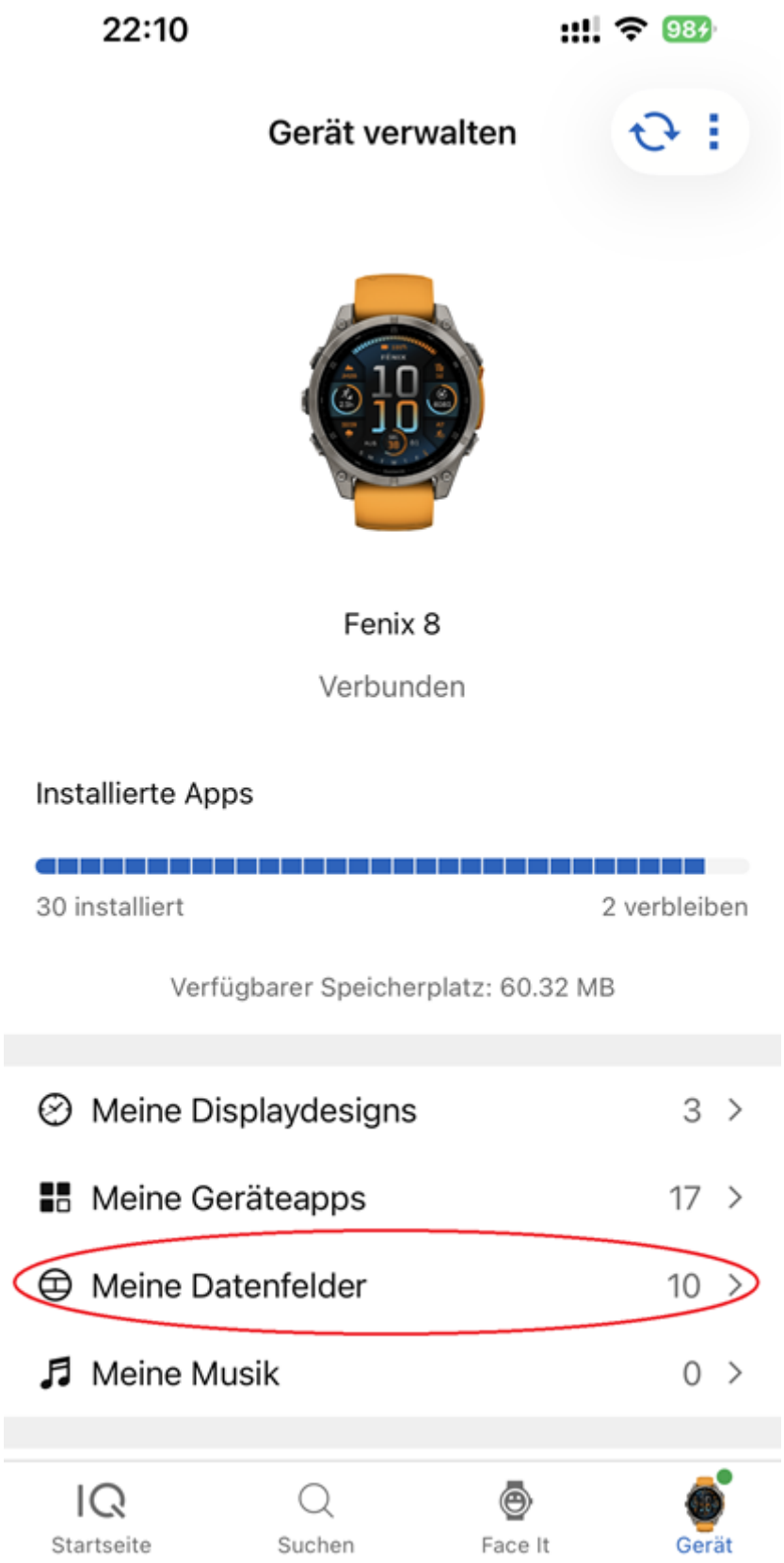


Step 3: Select your Garmin Devices If you have multiple Garmin devices and the wrong device is selected by default, please select a proper device via the button on the top on the left side.

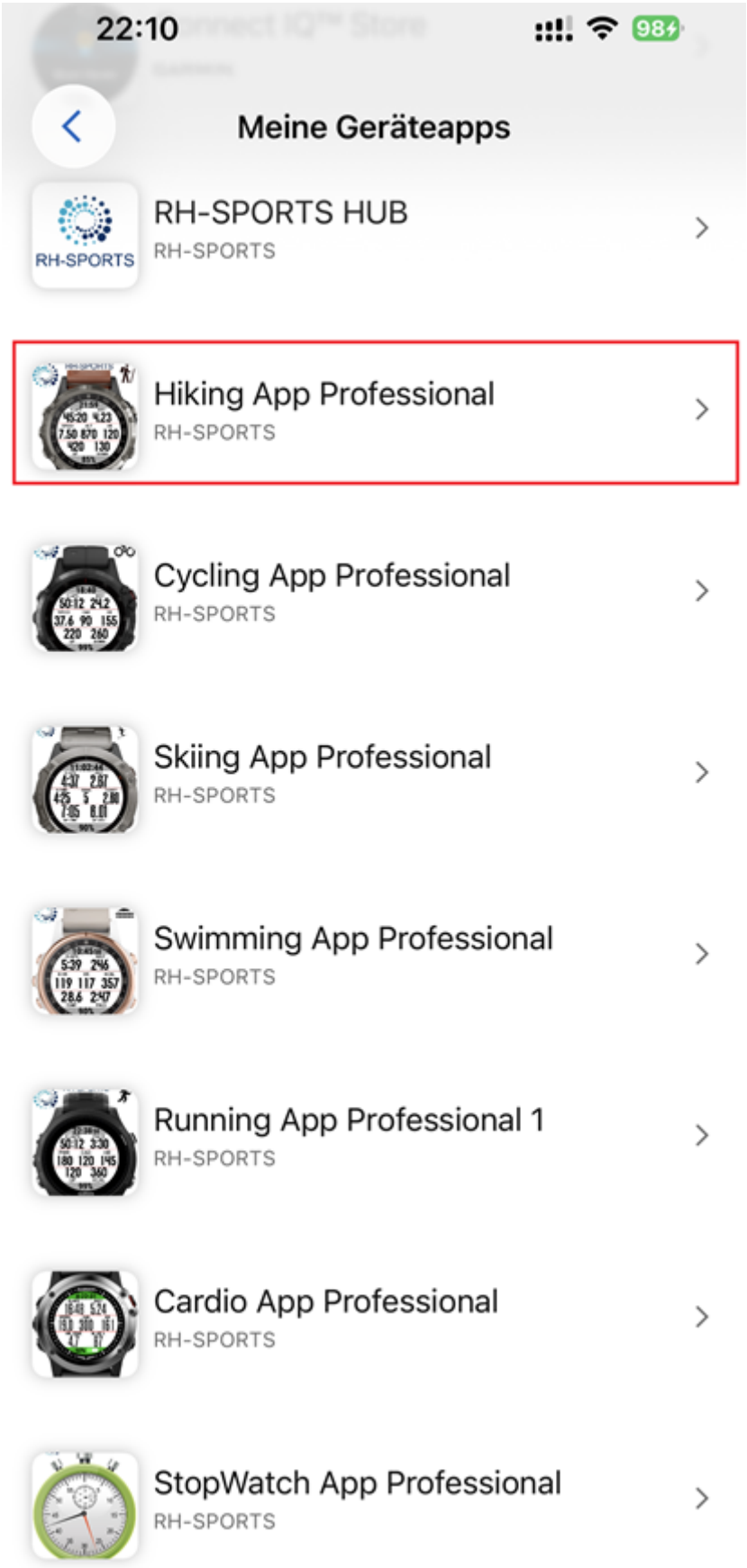
Step 4: Select RH-SPORTS product If you would like to change the settings for a RH-SPORTS application, please click the marked button **My device apps** as shown in the pictures below:



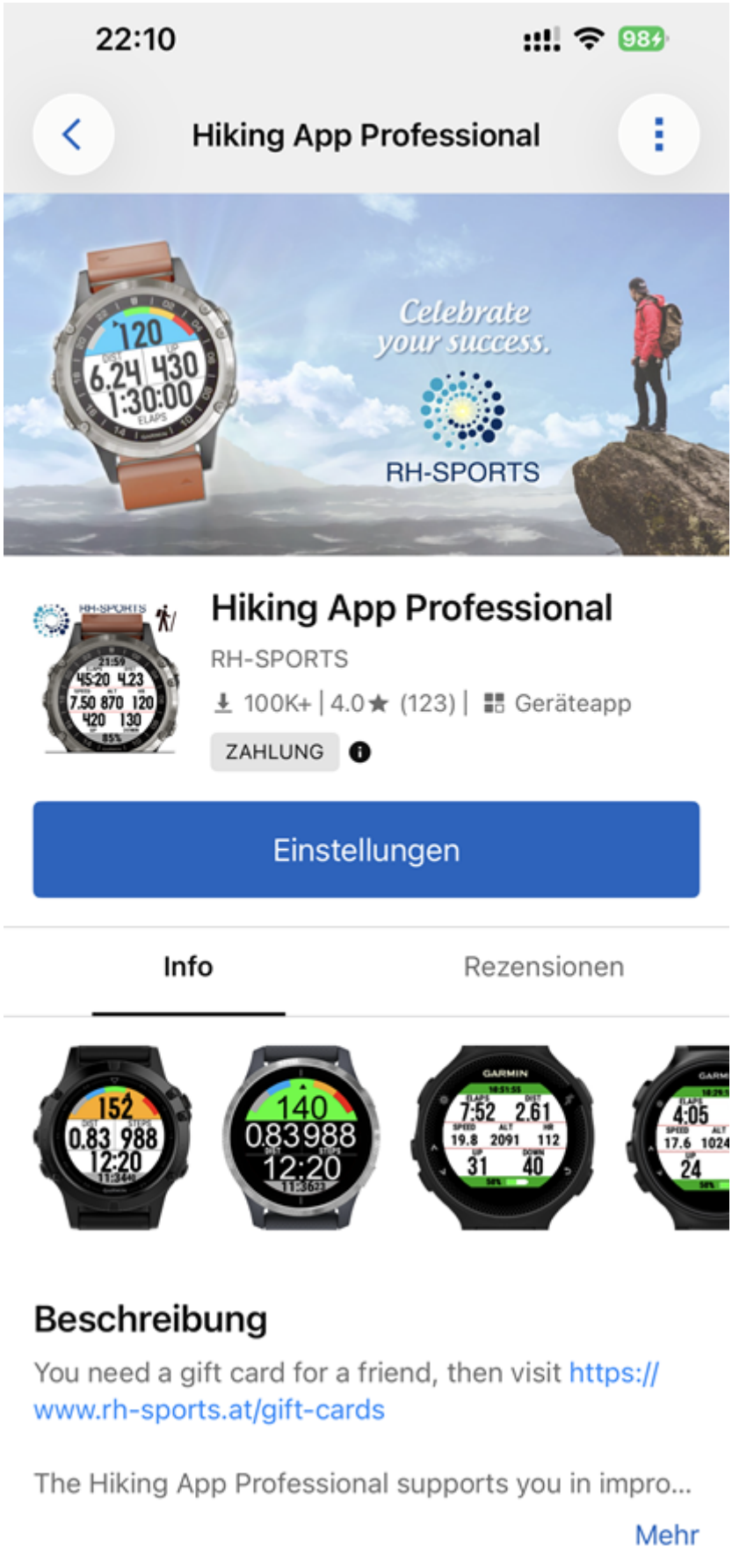
If you would like to change the settings for a RH-SPORTS data field, please click the marked button **My data fields** as shown in the pictures below:



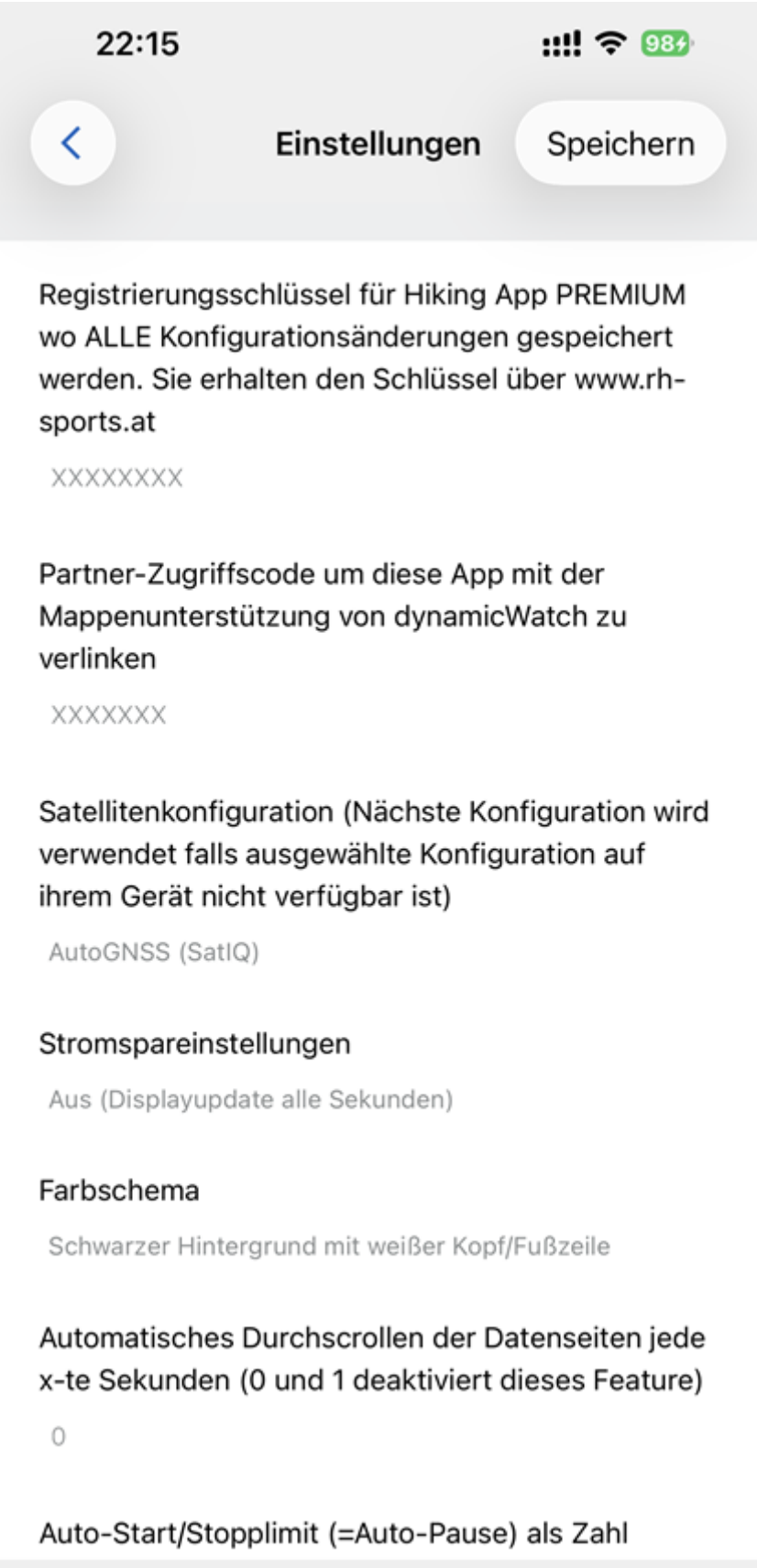
Step 5: Select an Application or Data Field for Configuration A list of all applications and data fields appear. Please scroll up/down until you find the application or data field you would like to configure as shown in the figure below:



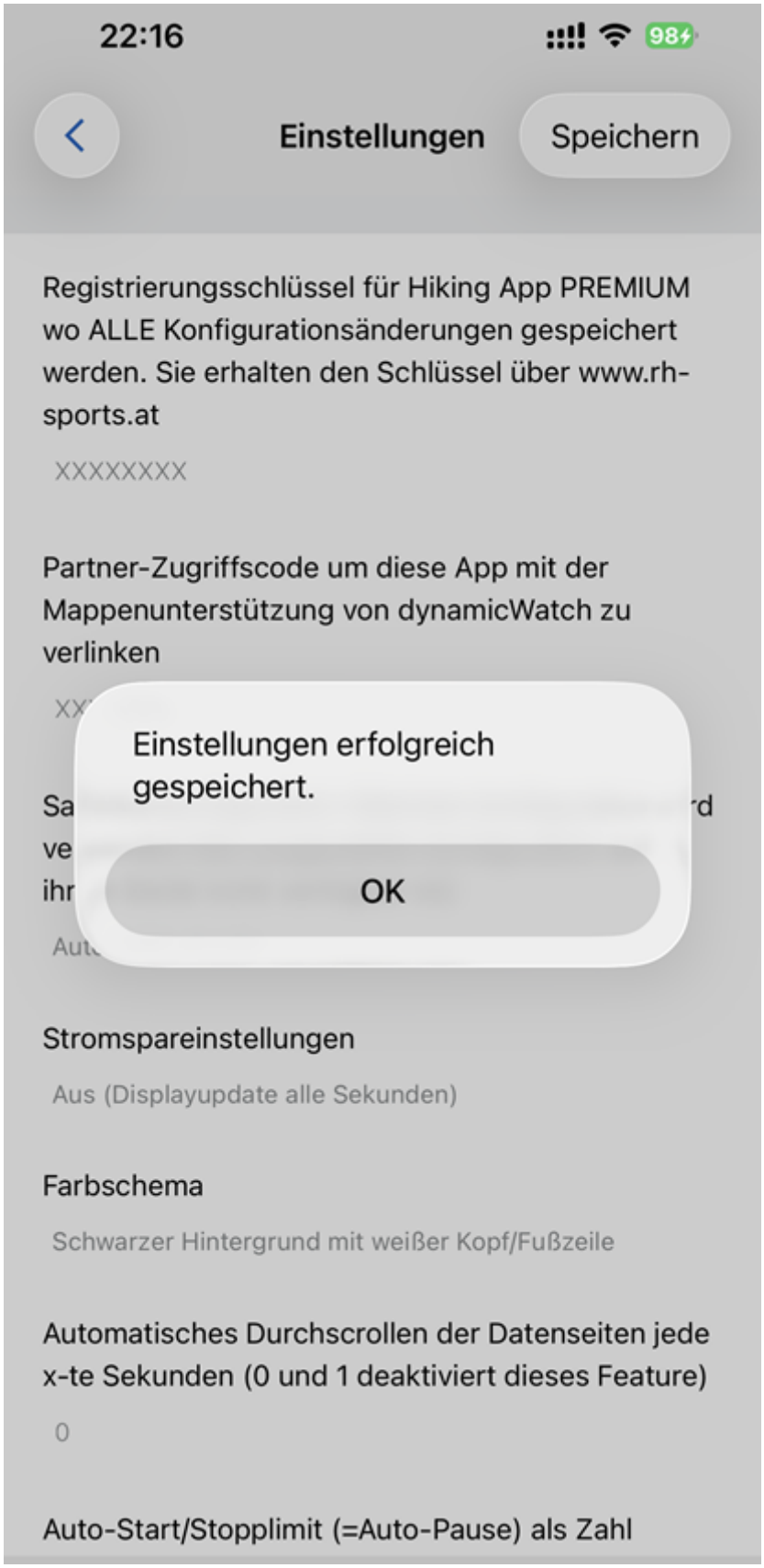
Step 6: Select Settings Please click on the **Settings** button as shown in the picture below:



Step 7: Change Configuration Please note that the configuration changes **ONLY APPLY** on your device if you have entered the proper PREMIUM activation key in the field marked in the picture below. For details about the possible key types, please refer to the registration key details. If a proper activation key is entered, you can change **ALL** configurations according to your needs.



Step 8: Save Configurations Finally press the **Save** button at the top on the right side. The Garmin mobile app will update your configurations on your device. In case of communication errors, please refer to the documentation provided by Garmin.



Step 9: Start Application or Data Field on Device Please start our RH-SPORTS application or data field on your Garmin device. If you have the PREMIUM Version (key was correct), then all your configuration changes should have been applied. If not, please refer to our Frequently Asked Questions.

2.4.3 Start application

This section describes how to start Cycling App Professional on your Garmin device.

Find application on Garmin device

After installation the downloaded **Cycling App Professional** application can be found on the Garmin Watch by pressing the “Start" Button. Search for following icon and select it to start the application:

Application start

The application start process runs through following phases:

Phase 1:
In this phase the About screen with version information is shown for ~2 seconds (FREE version) respectively ~1 second (PREMIUM version). This phase cannot be aborted. On a D2™ Bravo is looks like that:

Phase 2:
In this phase information about your registration status is shown for ~6 seconds (FREE version). In the PREMIUM Version this screen is omitted for faster startup. This phase cannot be aborted. On a D2™ Bravo is looks like that:

Phase 3:
In this phase the sensor polling screen is shown as long as no proper GPS signal has been found or the timeout is reached. If a proper GPS signal is already available, then the screen is only visible for a short moment (~1 second). If not, then this screen is shown for at most ~35 seconds. During this phase the "BACK" button can be used to abort the polling sequence. On a D2™ Bravo is looks like that:

> **Note:**
> Please make sure that your GPS or ANT+ sensors are configured and enabled on your device. Otherwise certain data fields do not show useful/ proper information.

Phase 4:
The application startup process is finished and the application can be used. On a D2™ Bravo it looks like that:

2.4.4 Change user settings

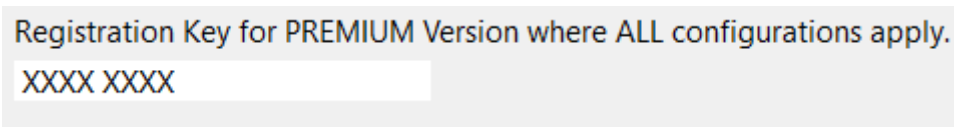
Most configuration changes only APPLY in the **PREMIUM Version** after storing the settings. Please donate first to get the registration key.

Registration key for PREMIUM version

There are following ways to get a registration key in order to activate the PREMIUM version:

- **Method 1**: After successful donation, you receive a mail from RH-SPORTS with the PREMIUM registration key(s) as PDF.
  - If you donated for the **Complete application and data field package**, you get:
    - a master key in the format "RH-SPORTS-Nxxxx", which can be used in:
      - the RH-SPORTS HUB application to start from there all other standalone applications.
      - each individual standalone app and data field.
  - If you donated for an individual application or data field or a package includes more applications and/or data fields, you get a key in the format "XXXX XXXX" for each included product.
- **Method 2**: If you have reveived an RH-SPORTS gift card then you can use the code on the gift card as master key (in the format "RH-SPORTS-xxxxxxx") in:
  - the RH-SPORTS HUB application to start from there all other standalone applications.
  - each individual standalone app and data field.

Please copy the registration key exactly in the given format (e.g. XXXX XXXX) into this text field. The registration key evaluation is case sensitive.



Here some important registration hints:

Hint 1: Please copy the registration key exactly in the given format (e.g. XXXX XXXX) into this text field:

- The registration key for individual applications or data fields is a hexadecimal number (numbers from 0 to 9 and big letters from A to F).
- The master key has the format "RH-SPORTS-xxxxxxx" where x must be a capital letter or a number.

The evaluation of the code is case-sensitive!

Hint 2: Please synchronize the settings with your watch afterwards. If you use Garmin Express software on PC or MAC, please disable the bluetooth connection between your mobile phone and watch during configuration as otherwise the settings might be overwritten again.

Hint 3: Sometimes it is necessary to reboot the watch once (for whatever reason).

Hint 4: Please use the prooper key for the selected standalone application or data field.

Hint 5: Please make sure that there are no floating point values in the app settings anymore (except for Swimming App where they are allowed).

Partner access code for link with dynamicWatch

dynamicWatch offers access to its easy and powerful route creation and management system to selected third party developers. This app is accepted as valid partner app and therefore allows the downloading of tracks from dynamicWatch. Partner apps have to implement a secure linking method called a Partner Access Code (PAC) to access your dynamicWatch account.
This app setting allows you to enter the 7-character partner access code. For further details, please refer to

- Partner apps description from dynamicWatch
- Map and track features.

Activity type

This option allows you to select among different activity types. Depending on your selection the session data will be categorized. Please note that this configuration has to be done before manually starting a session the first time.

Following options are available:

- Cycling
- Cyclo-cross
- Downhill
- Mountainbike
- Road Cycling

> **Note:**
> This configuration feature is only available in the PREMIUM Version!

Satellite configuration

This option allows you to select the satellite configuration. Following options are available on devices with CIQ 3.2 and higher:

- GPS legacy setting
- GPS only
- GPS + BEIDOU
- GPS + GALILEO
- GPS + GLONASS
- GPS + GLONASS + GALILEO + BEIDOU
- Multi-GNSS
- AutoGNSS (SatIQ)
- GPS off

> **Note:**
> Not all applications are offering all mentioned configuration options listed above.
>
> **Note:**
> If a certain configuration is not supported by GARMIN on your device then a less accurate setting will be selected automatically.

The sensor page shows you the information of the satellite configuration which is currently used. For further details about the satellite quality, please refer to here.
Please be aware that disabling satellites (GPS off) may have following impacts:

- Satellite-dependent data fields will not show proper information anymore.
- Tracking of your location will be disabled.

> **Note:**
> On devices with CIQ 3.1 and lower always GPS (legacy setting) is used as Garmin does not allow to control this here. Rumors say that the latest configuration in your Garmin native app is used which means that you could also have e.g. GPS + GLONASS.

Averaging period for pace/cadence

This option allows you to configure the averaging period in seconds for instant pace and cadence averaging. If you e.g. would like to have PACE averaged over the last 10 seconds, then please set the value to 10. The PACE xs data field shows this information. With longer averaging periods, the shown values are more stable but also lazier.

> **Note:**
> This configuration feature is only available in the PREMIUM version. In the FREE version the value is fixed to 10 seconds!

Background color

This option allows you to select the background and text color.

Following options are available on devices with CIQ 1:

- White .. white background and black text color
- Black .. black background and white text color

Please refer to following picture for better illustration:

On devices with CIQ2 and higher, following extended options are available:

- White background with black text color and grey header/footer
- Black background with white text and grey header/footer
- White background with black text and inverted colors in header/footer
- Black background with white text and inverted colors in header/footer

Please refer to following picture for better illustration:

> **Note:**
> By default the option with "Black background with white header/footer" is used for best readability on all devices!
>
> **Note:**
> Devices with AMOLED display (e.g. Venu™ based devices) only support black background to avoid burn-in damages and to save battery life time!

Auto scroll time

This option allows you to enable and configure the auto scroll feature (automatically cycles through data pages during workout) by entering the auto scroll time. This is the time in seconds when the application automatically scrolls to the next page.

> **Note:**
> A value of 0 (default) or 1 deactivates this feature!
>
> **Note:**
> This configuration feature is available in the FREE version as well.

Auto start/stop (= Auto Pause) feature

This option allows you to configure the limit in km/h or mi/h (depending on your watch unit settings for distance) when the application switches to the auto-stop mode or leaves this mode again. A value of 0 disables the auto start/stop feature completely.

> **Note:**
> Please note that no activity recording takes place while the Auto-Stop mode is active. This might cause problems especially when doing indoor training sessions!
>
> **Note:**
> This configuration feature is available in the FREE version as well.

Power mode configurations

The **Power mode ** configuration option allows you to select between following four different power modes in order to reduce battery drain:

- No power mode
- Low power mode
- Ultra-low power mode
- Maximum power mode

For further details about the power saving features, please click here.

> **Note:**
> This configuration feature is only available in the PREMIUM version!

Averaging period

This option allows you to configure the averaging period in seconds for instant calculation of following information:

- PACE
- GRADE %
- VSPD

If you e.g. would like to have vertical speed (VSPD) averaged over the last 30 seconds, then please set the value to 30. With longer averaging periods, the shown values are stabler but also lazier.

> **Note:**
> This configuration feature is only available in the PREMIUM version. In the FREE version the value is fixed to 5 seconds!

LAP features

The "LAP Mode" configuration option allows you to select the mode for the LAP feature. Following options are available:

- Feature disabled (no LAP support)
- Manual mode (new LAP has to be started manually)
- Auto mode (new LAP is started when the user-defined LAP distance is reached)
- Combined manual/auto mode (new LAP is started either manually or when the user-defined LAP distance is reached)

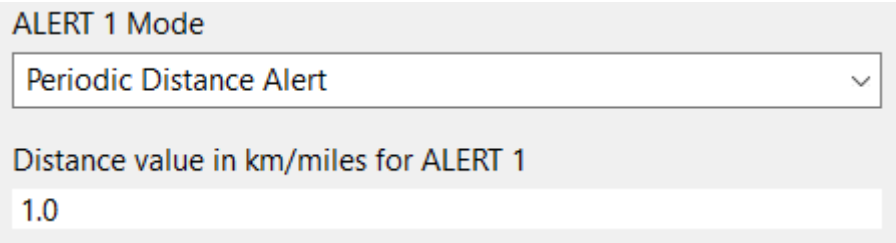
For further details about the LAP features, please click here.

> **Note:**
> This configuration feature is only available in the PREMIUM version!

ALERT features

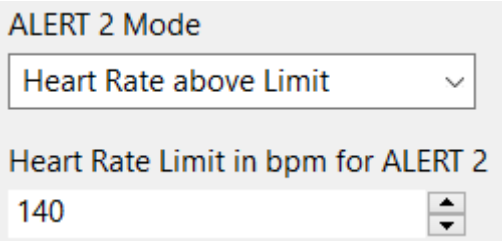
The **ALERT1 mode** configuration option allows you to select the mode for the ALERT1 feature. Please note that this configuration has to be done before manually starting a session the first time. Following options are available:

- Feature disabled (no user-defined ALERT support)
- Single distance alert (an ALERT is shown once when the user-defined distance is reached)
- Periodic distance alert (an ALERT is shown every time when the user-defined distance elapsed)



The **ALERT2 mode** configuration option allows you to select the mode for the ALERT2 feature. Please note that this configuration has to be done before manually starting a session the first time. Following options are available:

- Feature Disabled (no user-defined ALERT support)
- Heart Rate above Limit (an ALERT is shown when the user-defined heart rate in beats per minute is exceeded)



For further details about the ALERT features, please click here.

> **Note:**
> This configuration feature is only available in the PREMIUM version!

Use ANT+ power sensor

This option allows you to use an ANT+ power sensor for more precise power information. If this setting is not selected than our own algorithm is used to estimate the power in watt. Please note that this is an estimation and only works sufficiently good on watches with barometric altimeter. If the feature is activated then either the Garmin ANT+ power profile is used or our own ANT+ power profile is used for devices where Garmin does not offer this. This enables ANT+ power sensors for following devices:

- Approach® S50
- Approach® S60 and S62
- Approach® S70 42mm and 47mm
- Captain Marvel
- D2™ Air and Air X10
- Darth Vader™
- First Avenger
- Forerunner® 55, 165, 165 Music, 245, 245 Music, 645 and 645 Music
- ForeAthlete® 230J, 235J, 630J and 920XTJ (only supported in applications and not in data fields)
- Rey™
- Venu™ and Mercedes-Benz® Collection
- Venu™ SQ and SQ Music
- Venu™ SQ 2 and SQ 2 Music
- Venu™ 2, 2 Plus and 2s
- Vivoactive™ (only supported in applications and not in data fields)
- Vivoactive® HR
- Vivoactive® 3, 3 Music, 3 Music LTE and 3 Mercedes-Benz® Collection
- Vivoactive® 4 and 4s
- Vivoactive® 5

> **Note:**
> This configuration feature is only available in the PREMIUM version!

ANT+ power sensor pairing

This application or data field is supporting the ANT+ power sensor profile even on devices where Garmin does not support this natively itself.

In all cases, the ANT+ power sensor needs to be paired with the device before it can be used. Where Garmin supports the power profile natively, the pairing must be done via the watch settings. This is fully controlled by Garmin.

Where Garmin does NOT support the power profile natively, the pairing is done automatically by the application or data field upon start. Even an

automatic re-pairing is implemented during the session, if the connection to the power sensor gets lost. In order to avoid that a pairing is done to a wrong ANT+ power sensor (e.g. to one of the colleagues you ride with), the user can set the application or data field specific setting for "Paired ANT+ power sensor ID" to one of the following values:

- -1 means that a pairing to any ANT+ power sensor is possible and that this ID is NEVER locked. Upon re-connection a different power sensor might be found and used. This setting e.g. makes sense when you have more bikes with power sensors and change them regular and you ride alone. Because then you do not have to update the pairing information in the settings.
- 0 means that a pairing to any ANT+ power sensor is possible and that this ID is locked when found first. The sensor specific ID is then automatically entered into this field and a re-pairing is only possible to the same power sensor with this ID.
- other values mean that a pairing is only possible to that specific ID anymore. It can be set to -1 or 0 at any time by the user to allow a pairing to other sensors again.

> **Note:**
> By default the value -1 is set for legacy reasons to allow pairing to all ANT+ power sensors!

Enable background light

This option allows you to enable the background light during the whole workout session for better readability in dark environments.

> **Note:**
> Please note that this slightly increases the power consumption!
>
> **Note:**
> This configuration feature is only available in the PREMIUM Version!

Data field coloring

This option allows you to enable the data field coloring feature. For further details, please click here.

> **Note:**
> This configuration feature is only available in the PREMIUM version!

Use ANT+ foot pod sensor

This option allows you to use an ANT+ foot pod sensor for more precise information (e.g. for cadence)

> **Note:**
> This configuration feature is only available in the PREMIUM version!

Total weight in kg/pounds for power calculation

This option allows you to configure your total weight (your weight + bike + backpack) which is then used to calculate the estimate the power in watt with our own formulas. This setting is only evaluated if you have not configured the use of an ANT+ power sensor.

> **Note:**
> This configuration feature is only available in the PREMIUM version!

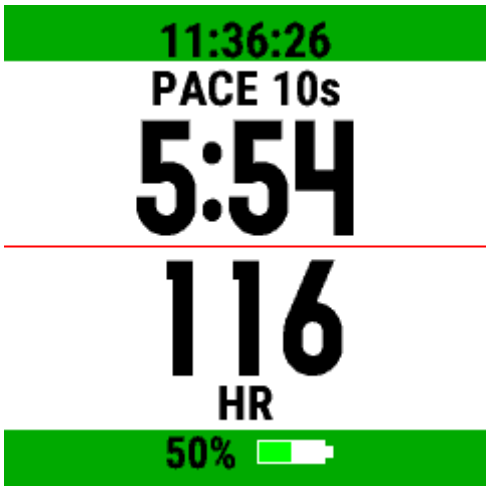
Show/hide data pages

This option allows you to select whether data pages shall be visible or not to have a better overview about your really needed information.

> **Note:**
> In the FREE version the generic page with advertisement cannot be disabled!

2-field data pages

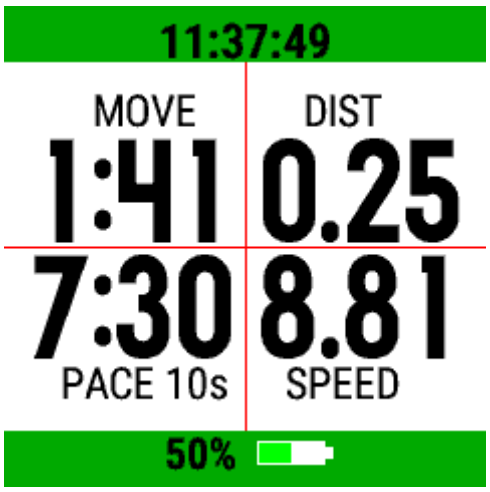
This option allows you to freely select the content of all 2-field data pages out of a huge list of all available data fields (even during the ongoing training session). This enables you to adjust all fields completely according to your personal preferences.
For an overview of available data fields, please click here!



> **Note:**
> This configuration feature is only available in the PREMIUM version!

4-field data pages

This option allows you to freely select the content of all 4-field data pages out of a huge list of all available data fields (even during the ongoing training session). This enables you to adjust all fields completely according to your personal preferences.
For an overview of available data fields, please click here!

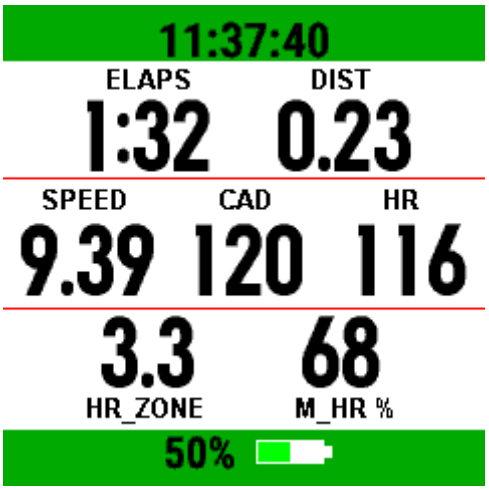


> **Note:**
> This configuration feature is only available in the PREMIUM version!

7-field data pages

This option allows you to freely select the content of the 7-field data page out of a huge list of all available data fields (even during the ongoing training session). This enables you to adjust all fields completely according to your personal preferences.

For an overview of available data fields, please click here!



> **Note:**
> This configuration feature is only available in the PREMIUM version!

2.5 Data fields

This section gives you an overview about all data fields of the **Cycling App Professional** application.

2.5.1 Data field table

Below the table with all available data fields:

> **Note:**
> Please note that some of them require the **PREMIUM Version** to be active so that they are visible!

Data field header	Data field description
ALT	Current altitude in meters or feet depending on your watch unit settings for distance. Please click here and find further information in note 1.
A CAD	Average cadence information of the whole session.
A HR	Average heart rate information in bpm for the whole session.
A PACE	Average pace information of the whole session for 1 km/mi depending on your watch unit settings for distance.
A PWR	Average power information of the whole session in watt.
A SPEED	Average speed information of the whole session in km/h or mi/h based on your watch unit settings for distance.
CAD	Current cadence information.
CL DIST	Current LAP distance in km or mi based on your watch unit settings for distance.
CL PACE	Current LAP pace information depending on your watch unit settings for distance.
CL SPEED	Current LAP speed information in km/h or mi/h based on your watch unit settings for distance.
CL TIME	Current LAP time information in in the format mm:ss or m:ss.
DIST	Distance information in km or mi based on your watch unit settings for distance.
DOWN	Negative altitude difference in meters or feet for the whole session depending on your watch unit settings for distance. Please click here and find further information in note 1.
ELAPS	Elapsed total session time (including IDLE time) in the format hh:mm, h:mm:ss or mm:ss.
GRADE %	Grade in percent. This information is derived from the distance and altitude information and averaged over the last x seconds. Please click here and find further information in note 2 and 5.
HR	Current heart rate information in bpm.
HR ZONE	Current heart rate zone in the range of 0.0 to 6.0 with following meaning: * 0.0 ... current heart rate below Zone 1 (minimum heart rate) * 1.0 - 1.9 ... current heart rate in Zone 1 * 2.0 - 2.9 ... current heart rate in Zone 2 * 3.0 - 3.9 ... current heart rate in Zone 3 * 4.0 - 4.9 ... current heart rate in Zone 4 * 5.0 - 5.9 ... current heart rate in Zone 5 * 6.0 ... current heart rate above Zone 5 (maximum heart rate). The value is derived from your cycling heart rate profile settings configured at Garmin. Please click here and find further information in note 3.
IDLE	Idle session time where speed was below the following user-defined limit (default is 0.5 km/h or mi/h).
KCAL	Kilo-calories consumption for the whole session.
LAP	Current LAP number.
LL DIST	Last LAP distance in km or mi based on your watch unit settings for distance.
LL PACE	Last LAP pace information depending on your watch unit settings for distance.
LL SPEED	Last LAP speed information in km/h or mi/h based on your watch unit settings for distance.
LL TIME	Last LAP time information in in the format mm:ss or m:ss.
MOVE	Moving session time (without IDLE time) in the format hh:mm, h:mm:ss or mm:ss.
M CAD	Maximum cadence information of the whole session.
M HR	Maximum heart rate information in bpm for the whole session.

M HR %	Current heart rate in percentage of maximum heart taken from the user settings depending on the application you are using. Please refer to HR ZONE for further details. Please click here and find further information in note 3.
M PACE	Maximum pace information of the whole session for 1 km/mi depending on your watch unit settings for distance.
M PWR	Maximum power information of the whole session in watt.
M SPEED	Maximum speed information of the whole session in km/h or mi/h based on your watch unit settings for distance.
PACE	Current pace of the last x seconds (contineously calculated) for 1 km/mi depending on your watch unit settings for distance. Please click here and find further information in note 5.
PWR	Instant power information in watt.
PWR 3s	Power information in watt averaged over the last 3 seconds.
SPEED	Current speed information in km/h or mi/h based on your watch unit settings for distance.
TEMP	Current temperature in celsius or fahrenheit depending on your watch unit settings for temperature. Please click here and find further information in note 4.
TIME	Current time in 12/24h format based on your watch system settings.
TRAIN E	The training effect score of the current activity. Training effect is a score developed by FirstBeat, which indicates an activity's level of effect on aerobic fitness. Scores range from 1.0 (easy) to 5.0 (overreaching).
UP	Positive altitude difference in meters or feet for the whole session depending on your watch unit settings for distance. Please click here and find further information in note 1.
VSPD	Vertical speed averaged over the last x seconds in m/h or feet/h depending on your watch unit settings for distance. Please click here and find further information in notes 2 and 5.

2.5.2 Notes

Note 1
This information is only precise enough on watches with barometric altimeter as altitude information cannot be derived precisely from GPS. For further details, please click here.

Note 2
Information is only precise if you have an ANT+ speed sensor and a barometric altimeter on your watch. Especially if relative altitude information is derived from GPS, then it will not be very precise due to the physical limitations of GPS as described here. For further details, please click here.

Note 3
The EPIX watch does not support the Garmin SDK >= 1.2.6. Thus it is not possible for an app to access the heart rate profiles. Therefore the heart rate zones are derived from the maximum heart rate configured by the user.

Note 4
Temperature sensor support in Garmin apps is only possible if either an ANT+ TEMPE sensor is available or the device itself has an internal temperature sensor. The ANT+ TEMPE has higher priority as the internal sensor.

Note 5
The averaging period x can be configured by the user via the app settings in the range of 5 to 30 seconds on Garmin devices with CIQ2 or higher.

> **Note:**
> On older devices, this feature is not available!

2.6 Features

This section describes the most important features of the **Cycling App Professional** in more detail. Here a short summary:

- Session features
- Alert features
- LAP features
- Power saving features
- Data field coloring
- Screen lock feature
- Map and track features
- ANT+ power profile support
- Workout summary

2.6.1 Session features

This section describes the workout session features which are very similar among all of our Garmin Connect IQ™ applications. The current workout session status is indicated by a specific sign. Following table provides an overview about all possible states of a workout session.

Session status	Visualization	Description
NOT STARTED	Blinking red border	Workout session (recording) was not started so far. This is the state after starting the app. Press the "START" button to start workout.
RUNNING	Constant grey header/footer	Workout session (recording) is running. This is the case after you manually pressed the "START" button. If the auto-stop feature is enabled, the speed must be above the specified limit, otherwise the app automatically enters AUTO-STOP mode.
AUTO-STOP	Blinking yellow pause sign	Workout session is in auto-stop mode which means that the speed is below the user-defined auto start/stop limit. Please be aware that no session recording takes place in this state.
PAUSED	Blinking red stop sign	Workout session (recording) was manually paused in the menu by selection of "Pause Session". It can be resumed at any point in time by entering the menu again and selecting "Resume Session". Please be aware that no session recording takes place in this state.

Start a workout session (NOT STARTED)

After starting the app the workout session status is "NOT STARTED" as the session has to be manually started by the user. This can be done by pressing the "START" button. This state is visualized by showing a blinking red boarder every two seconds as illustrates in following picture:

Workout session running (RUNNING)

After pressing the "START" button the first time after app start, the session status changes from "NOT STARTED" to "RUNNING". This is illustrated by a constant grey header/footer as shown in the following picture:

Auto-stop mode (AUTO-STOP)

Whenever the speed goes below the user-specific limit the app automatically enters the "AUTO-STOP" mode. When the speed goes above this limit, the app enters "RUNNING" mode again. This state is visualized by showing a blinking yellow boarder with a pause sign in the middle every two seconds as shown in following picture:

Manually paused session (PAUSED)

The user can manually pause the workout session at any time if the session status is in "RUNNING" or "AUTO-STOP" mode. This can be done by pressing the "START" button. A menu is shown where the user can select among following choices by either pressing the touch screen or by up/down or left/right buttons:

User selection	Description
Resume	Start or resume workout session
Pause	Pause workout session. This allows the user to navigate through the data pages. The workout session can be resumed again at any time by pressing "START" button and select "Resume".
Save and Exit	Save workout data and close the application. After synchronization with your watch or via Garmin Express Software the workout data will be uploaded to the Garmin cloud and will be visible via Garmin Connect.
Discard and Exit	Discard session data and close the application. Please note that all the collected workout data is lost!

A stopped session is indicated by a blinking red boarder and pause sign in the middle of the screen as shown in following figure:

2.6.2 ALERT features

Already the FREE Version of **Cycling App Professional** provides you basic ALERT features, e.g. to indicate the start and stop of the session recording.

Following figure illustrates how it looks on a Forerunner® 235:

In the PREMIUM version of the **Cycling App Professional** following additional ALERT features are provided:

- Distance alert
- Heart rate alert

Distance alert feature

In order to use this feature, please configure the proper "ALERT1 mode" and "ALERT2 mode" according to following tables:

ALERT1 mode	Description
Disabled	Feature is disabled.
Single distance alert	In this mode a distance ALERT is shown once when the user-defined distance (in km or miles) is reached.
Periodic distance alert	In this mode a distance ALERT is shown every time when the user-defined distance (in km or miles) elapsed.

Following figure illustrates how it looks on a Forerunner® 235:

Heart rate alert feature

ALERT2 mode	Description
Disabled	ALERT2 feature is disabled.
Heart rate above limit	In this mode a heart rate ALERT is shown when the user-defined limit (in beats per minute) is exceeded. If such an alert is shown then you have ~30 seconds time for reduce the heart rate below the limit, else a new alert is shown again.

Following figure illustrates how it looks on a Forerunner® 235:

2.6.3 LAP features

This app offers different LAP features. In order to use them, please configure the proper LAP mode and freely assign the LAP specific data fields in the 2-, 4- or 7-Field data pages according to your personal needs.

LAP mode	Description
Feature disabled	LAP feature is disabled.
Manual mode	In this mode the LAP number increases each time when you manually press the "BACK" or "LAP" button on your watch. The feature only works when the workout session is in running or auto-stop mode.
Auto mode (distance-based)	In this mode the LAP number increases automatically when the user-configured distance (separate configuration) is reached. The feature only works when the workout session is in running or auto-stop mode.
Combined manual/auto mode (distance-based)	In this mode the LAP number increases either manually when pressing the "BACK" or "LAP" button or automatically when the user-configured distance (separate configuration) is reached. The feature only works when the workout session is in running or auto-stop mode.

Following figure illustrates how it looks on a Forerunner® 235:

LAP-related data fields Following LAP-related data fields are available which can be freely assigned via configuration in the PREMIUM Version to any data field of the 2-, 4- or 7-Field Data Pages:

Field	Description
LAP	Current LAP number
CL DIST	Current LAP distance in km or mi
CL PACE	Current LAP pace in the format mm:ss
CL SPEED	Current LAP speed (average) in km/h or mi/h
CL TIME	Current LAP time in the format hh:mm or mm:ss
LL DIST	Last LAP distance in km or mi
LL PACE	Last LAP pace in the format mm:ss
LL SPEED	Last LAP speed (average) in km/h or mi/h
LL TIME	Last LAP time in the format hh:mm or mm:ss

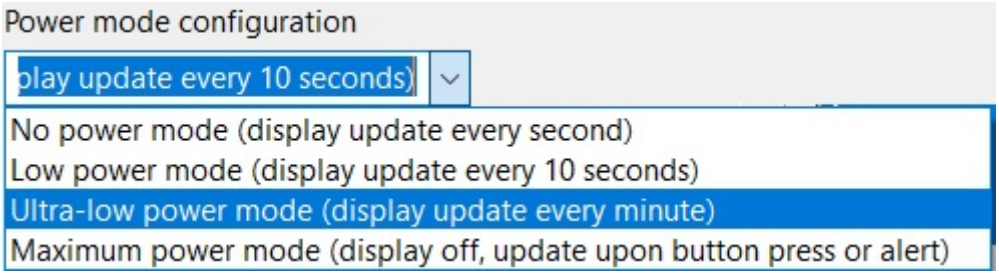
Additional information Following additional LAP-feature related information is provided:

- ALERT information when new LAP started
- LAP History for last four laps

2.6.4 Power mode features

The user can choose one of the following four different power modes in order to reduce battery drain:

- **No power mode** (Display update every second)
- **Low power mode** (Display update every 10 seconds)
- **Ultra-low power mode** (Display update every minute)
- **Maximum power mode** (Display off, update upon button press or alert)



2.6.5 Data field coloring

Data field coloring is currently only supported for the heart rate related data fields and has to be enabled via the user settings.

Following table describes the color coding:

HR zone	Color	Percentage of maximum heart rate
Zone 0	BLACK	M HR % < 50
Zone 1	GREY	50 <= M HR % < 59
Zone 2	BLUE	60 <= M HR % < 69
Zone 3	GREEN	70 <= M HR % < 79
Zone 4	ORANGE	80 <= M HR % < 89
Zone 5	RED	90 <= M HR % < 99
Zone 6	DARK RED	M HR % >= 100

Following figure illustrates how it looks on a Forerunner® 235:

2.6.6 Screen lock feature

When the session is started, the screen lock feature can be activated by following sequence:

- Press "START" button.
- Scroll down until "Lock Screen" appears in the menu.
- Select "Lock Screen".

When the screen lock feature is active, only the "START" button will be handled anymore, all other buttons or touch screen inputs are ignored.

To disable the screen lock again, please perform following steps:

- Press "START" button.
- Scroll down until "Unlock Screen" appears in the menu.
- Select "Unlock Screen".

2.6.7 Map and track features

This application shows map information on Garmin devices with integrated map features. On all Garmin devices with CIQ 2 and higher it shows the current track as well as a downloaded track from dynamicWatch.

The current track is shown by enabling the map page in the app settings or by downloading a track from dynamicWatch via the watch menu entry "Navigation/Download Track".

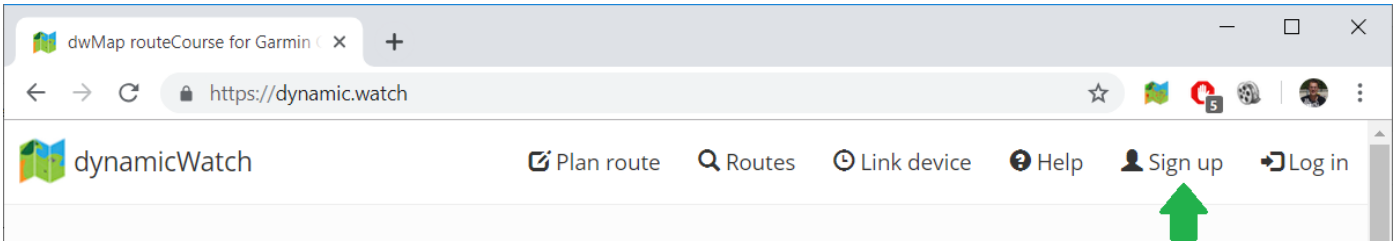
When the map page is active following different modes are available which can be selected by pressing the "START" button:

- Current view
- Centers on current view and shows current position as blue marker and current track in black color.
- Optionally the downloaded track from dynamicWatch in red color.
- Zoom view
- Centers on current view and shows current position as blue marker and current track in black color.
- Optionally the downloaded track from dynamicWatch in red color.
- Allows zoom in and out via up and down buttons or respectively swipes up and down on devices with touch screen.
- Track view
- Shows the complete downloaded track from dynamicWatch in red color.
- Shows current position as blue marker if visible (means inside) in the current track.
- Browse view
- Allows different browse modes on devices where Garmin has build-in map features.

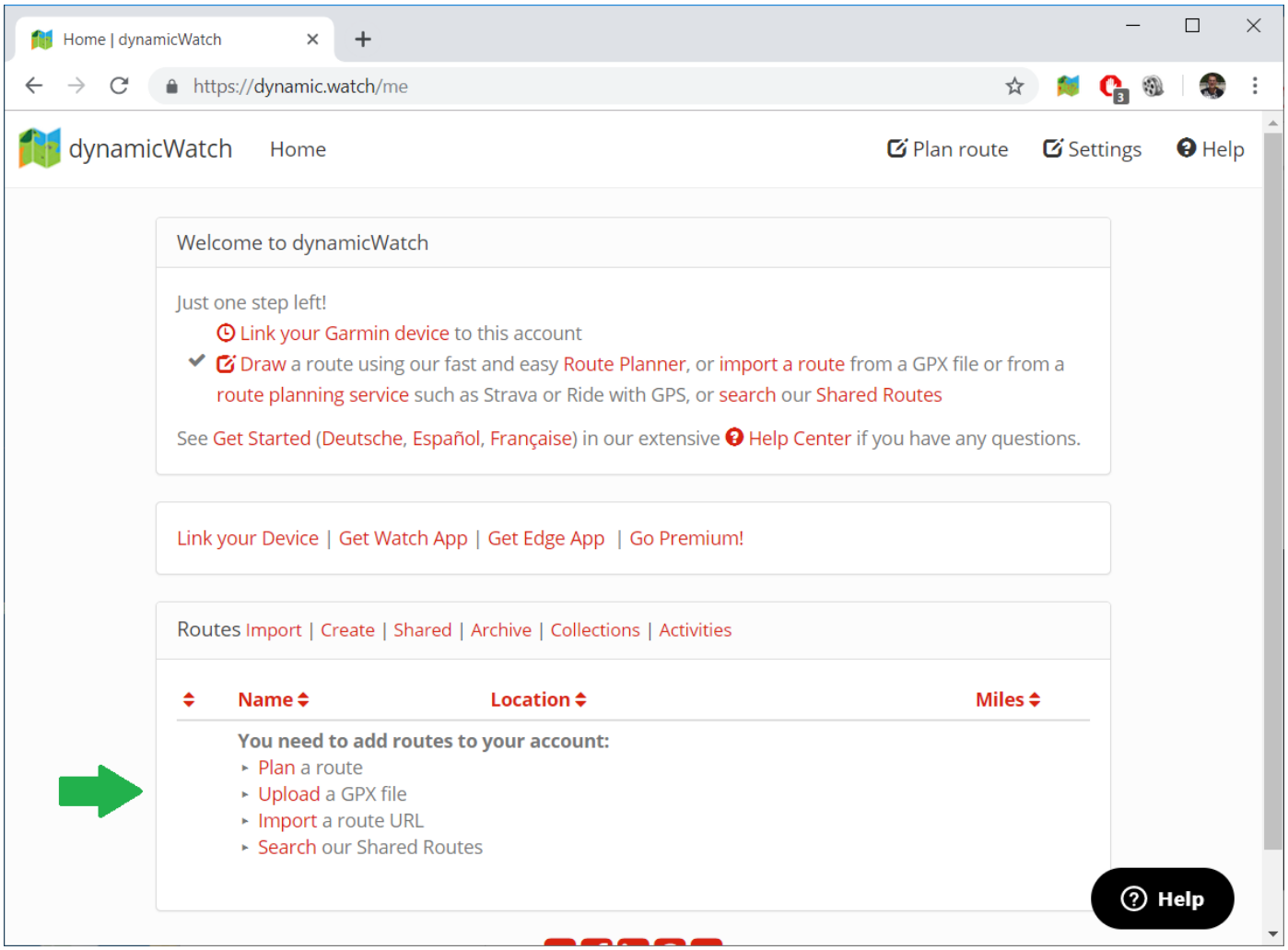
Following picture shows some of the offered modes:

Linking the app with dynamicWatch

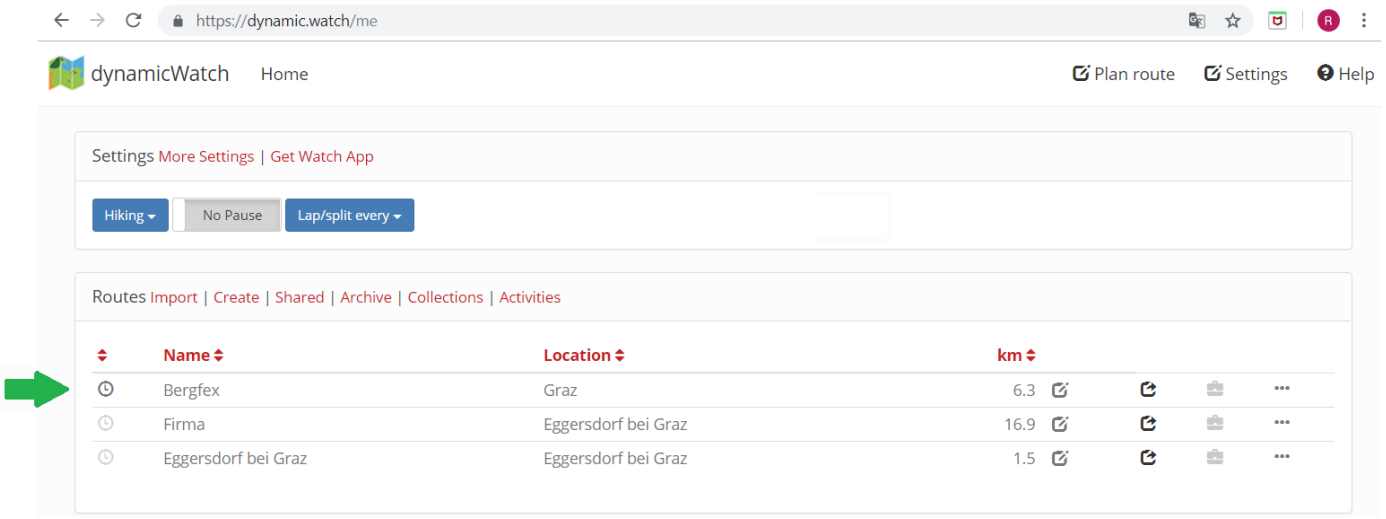
Visit the dynamicWatch web site and sign up for a new account as illustrated in the figure below:



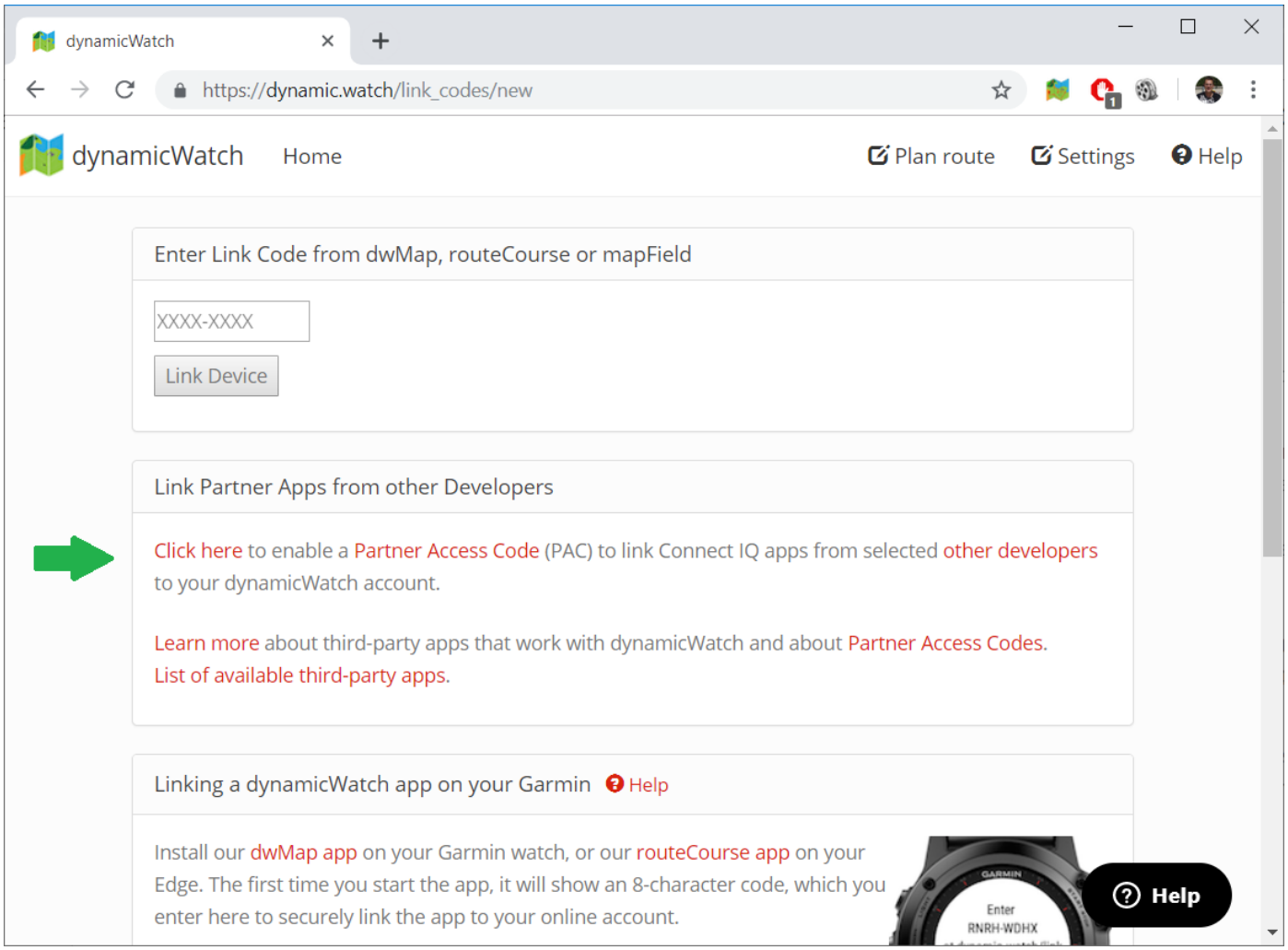
You can now create a new route for example by uploading a GPX file as shown in following figure:



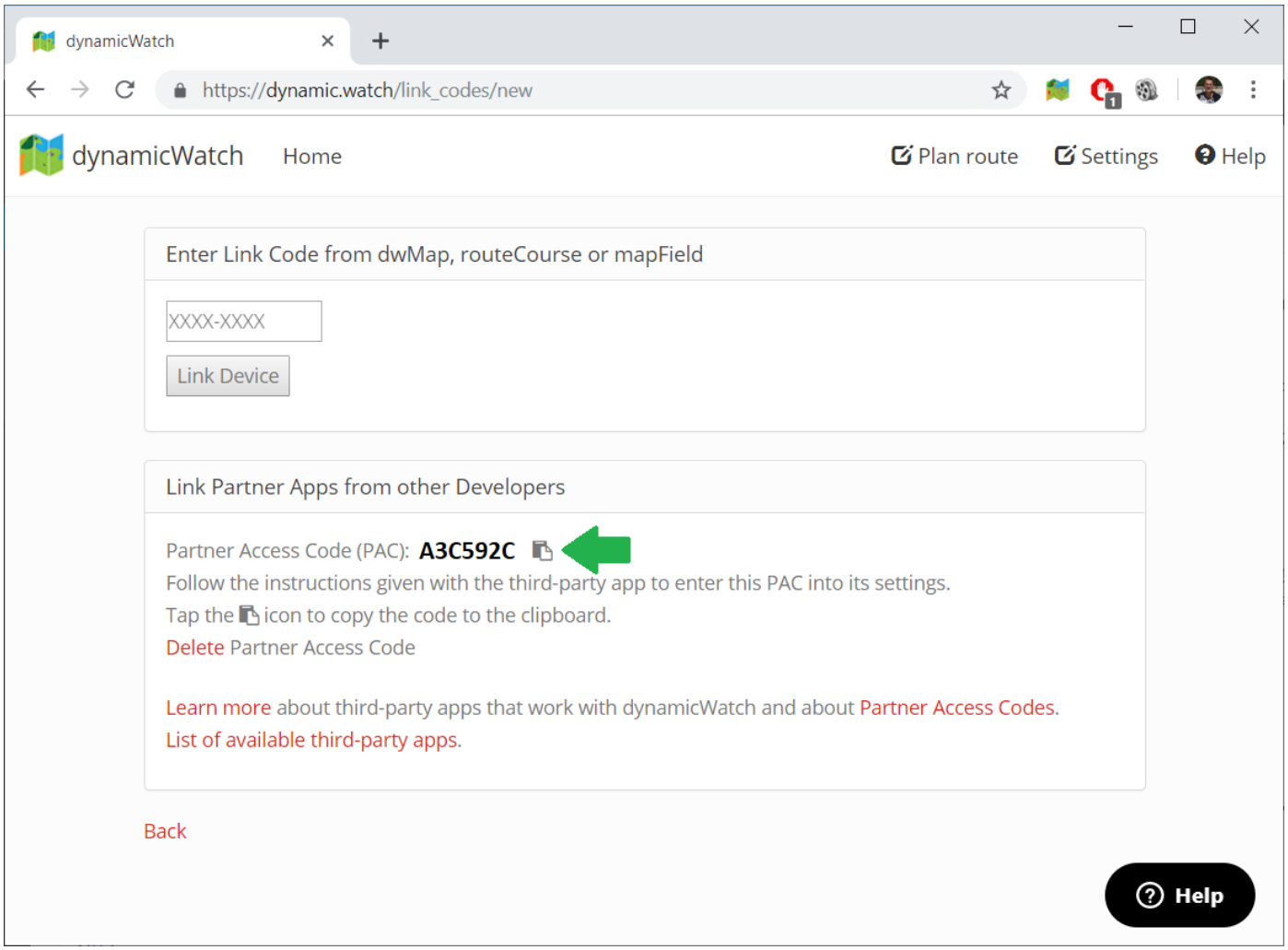
After uploading the route, click on **Back** or the **X** icon to close the edit screen and make sure that this route is marked as your active route (the clock icon is black next to your active route) as shown below:



The Cycling App Professional uses the Partner App Code system from dynamicWatch to download the routes. Before you can use this system, you need to enable this **Partner App Code** system. Click on Link your device and then click on **Click to enable**.



Copy the Partner Access Code to the clipboard



As last step, please add the 7-character partner access code to the app settings of the Cycling App Professional.

If you later want to revoke access to your account from all partner apps, you can *delete* the PAC in Link Partner App in Settings.

For further details, please refer to the documentation of dynamicWatch

2.6.8 ANT+ power sensor support

This data field supports the ANT+ power sensor profile even on Garmin devices where this is not offered by Garmin itself.
This includes following devices:

- Approach® S50
- Approach® S60 and S62
- Approach® S70 42mm and 47mm
- Captain Marvel
- D2™ Air and Air X10
- Darth Vader™
- First Avenger
- Forerunner® 55, 165, 165 Music, 245, 245 Music, 645 and 645 Music
- ForeAthlete® 230J, 235J, 630J and 920XTJ (only supported in applications and not in data fields)
- Rey™
- Venu™ and Mercedes-Benz® Collection
- Venu™ SQ and SQ Music
- Venu™ SQ 2 and SQ 2 Music
- Venu™ 2, 2 Plus and 2s
- Vivoactive™ (only supported in applications and not in data fields)
- Vivoactive® HR
- Vivoactive® 3, 3 Music, 3 Music LTE and 3 Mercedes-Benz® Collection
- Vivoactive® 4 and 4s
- Vivoactive® 5

The pairing with the ANT+ power sensor is done automatically by the data field, based on the user settings.
During the workout following information can be shown on the data pages:

- PWR (current power value in watt)
- A PWR (average power value in watt)
- M PWR (maximum power value in watt)

In case the ANT+ power sensor supports cadence this information is derived from there as well. Following information is available during the workout:

- CAD (current cadence value in revolutions per minute)
- A CAD (average cadence value revolutions per minute)
- M CAD (maximum cadence value revolutions per minute)

If a workout is executed with a present ANT+ power sensor then following information is captured and later stored on Garmin Connect:

- chart about current power values for the whole workout
- chart about current cadence values for the whole workout
- average power value for whole workout
- average cadence value for whole workout

2.6.9 Workout summary

After saving the workout session a workout summary is shown on devices with CIQ2 and later with following information:

- Duration in the format m:ss, mm:ss, h:mm:ss or hh:mm:ss.
- Distance in km or mi.
- Average speed in km/h or mi/h.
- Average heart rate in bpm.
- Average power in watt (if value > 5).
- Calories consumption in kcal.
- Elevation gain in feet or meter.
- Elevation loss in feet or meter.
- Training effect.

2.7 Sensors

This section gives an overview about the supported GPS and ANT+ sensors in the **Cycling App Professional**.

Satellite quality

The number of green bars indicates the satellite signal quality.

Following table describes the meaning in more detail:

Number of green bars	Meaning
0	No satellites available
1	Satellite quality is based on the last known fix
2	Satellite quality is poor (Only a 2-D fix is available, likely due to a limited number of tracked satellites)
3	Satellite quality is usable (A 3-D fix is available, with marginal HDOP (horizontal dilution of precision))
4	Satellite quality is good (A 3-D fix is available, with good-to-excellent HDOP)

2.7.1 ANT+ sensors

The **Cycling App Professional** supports following ANT+ sensors:

- ANT+ speed sensor
- ANT+ cadence sensor
- ANT+ heart rate sensor
- ANT+ temperature sensor
- ANT+ power sensor
- for all devices where Garmin supports the power profile natively
- for all other devices we implemented our own ANT+ power profile support

> **Note:**
> Except for the own power profile implementation, please pair the ANT+ sensor(s) before starting the application in your watch settings!
>
> **Note:**
> Some sensors support ANT+ and BLE. Please make sure you paired the sensors for ANT+!

2.8 Frequently asked questions

2.8.1 What to do if the app or data field does not work?

We do our best to test the applications and data fields as good as possible. As we do not have all physical available Garmin devices and all ANT+ sensors with all combinations of Garmin firmware versions, we have to do most of the tests on the simulator provided by Garmin. If you detect problems with our application or data field on your Garmin device, please provide us detailed feedback via the official bug report form in order we are able to understand and reproduce your problem. This gives us a fair chance to provide a fix as soon as possible.

Please press here to get the bug report dialog

THANK YOU VERY MUCH for YOUR SUPPORT!!

2.8.2 Why is an update of the firmware required?

Some users reported that an update of the firmware is requested even though the latest firmware is already installed. In such a case, please try out following options:

- Update your Garmin Express or Garmin Mobile software (if you don´t have the latest versions installed).
- Reboot your device once.

2.8.3 What is the purpose of the FREE version?

The **FREE Version** is fully functional and offers you a basic feature set which allows you to test the application or data field intensively without any risk on your Garmin device.

> **Note:**
> In our standalone applications some more advanced features (e.g. alerts) cannot be activated in the FREE verison and a periodic **FREE Version** notification is shown.
>
> **Note:**
> In our data fields all features are available even in the FREE verison but still a periodic **FREE Version** notification is shown.

If you like our application or data field we would be very happy if you donate to upgrade to the **PREMIUM Version**.

2.8.4 How to upgrade to the PREMIUM version?

If you like our application or data field and would you like to benefit of following further advantages:

- support our further development or
- unlock all (more advanced) features or
- get ride of the periodic **FREE Version** notification

we would be very happy if you donate to upgrade to the **PREMIUM Version**.

> **Note:**
> The PREMIUM version is a **lifetime license** which is valid for ALL future updates and can be used on as many devices you personally own, even at the same time!

Here two links for further details how to donate for the **PREMIUM Version**:

- RH-SPORTS website
- Online shop with additional payment options like:
  - stripe credit card
  - PayPal (including credit card, debit card and bank transfer)
  - Payment in advance (useful for countries where stripe or PayPal do not work)

2.8.5 I did not received the unlock keys for the PREMIUM Version after donation?

After successful donation you immediately will get a mail to the mail address used in PAYPAL. It contains the unlock keys and the activation information for the selected **PREMIUM version(s)**. The information is provided as attached PDF. If this is not the case, please do following:

- Check whether you used the right mail address. It is the one you are using in PAYPAL.
- Check whether the mail went to your JUNK or SPAM folder.
- Write a mail to rh-sports@gmx.at to request the keys.

2.8.6 What to do if after entering the key, still the FREE version is active?

You can detect whether the **FREE version** is still active or not in following way:

- In standalone applications (e.g. Running App Professional) the **FREE version** is active, if you see a "Please donate as EARLY BIRD" message upon application start.
- In data fields (e.g. RunningDF4 1), which have to be integrated into one of the Garmin native apps, the **FREE version** is active if you get a "FREE Version" notification upon session start and regularily after some minutes.

Some users reported that the **FREE version** is still active after entering the registration key and after synchronization. In all known cases, the wrong key has been entered. Please make sure that you enter the proper key and following the instructions below:

Here some important registration hints:

Hint 1: Please copy the registration key exactly in the given format (e.g. XXXX XXXX) into this text field:

- The registration key for individual applications or data fields is a hexadecimal number (numbers from 0 to 9 and big letters from A to F).
- The master key has the format "RH-SPORTS-xxxxxxx" where x must be a capital letter or a number.

The evaluation of the code is case-sensitive!

Hint 2: Please synchronize the settings with your watch afterwards. If you use Garmin Express software on PC or MAC, please disable the bluetooth connection between your mobile phone and watch during configuration as otherwise the settings might be overwritten again.

Hint 3: Sometimes it is necessary to reboot the watch once (for whatever reason).

Hint 4: Please use the prooper key for the selected standalone application or data field.

Hint 5: Please make sure that there are no floating point values in the app settings anymore (except for Swimming App where they are allowed).

2.8.7 What to do if GPS is not found upon start?

Sometimes it happens that GPS is not found during app startup and the app polls infinitely for a proper GPS signal. According to customer feedback this happens when the Garmin (sensor) firmware was updated. This is out of our control. Following workaround seems to do the trick:

- Once start a Garmin native app like running, cycling, etc.
- Wait until GPS is found.
- Stop the Garmin native app and start one of our apps.
- GPS should be found soon.

> **Note:**
> Indoor it is sometimes very difficult for a device to find a proper GPS signal. So please make sure you do it outdoor.

2.8.8 How to enable GPS, GLONASS or GALILEO?

On Garmin devices with CIQ below 3.3.6, Garmin does not allow Connect IQ applications to controll which satellites are used. Following steps seem to help here as workaround:

- Once start a Garmin native app like running, cycling, etc.
- Select the required positioning sources in the settings of the native app.
- Stop the Garmin native app and start one of our apps.
- According to our information the selected sources of the native app are then used for our apps as well.

2.8.9 What to do in case of a app or data field crash upon start?

If you see following icon on your Garmin device upon application start or when you add a data field into a Garmin native app:

please completely uninstall and reinstall the application or data field. The setting file changed and the automated Garmin install is not replacing the setting file.

2.8.10 How to change the language?

Even though the main supported language is english we are working on supporting other languages as well. German language is currently available

- in some applications (e.g. RH-SPORTS HUB):
  - selected language on your Garmin device is used.
- for all applications and data fields for the settings you can change via Garmin mobile app or Garmin Express on PC/MAC:
  - selected system language in Windows or on MAC is used.

Changing language on your smart watch

Changing the language on your Garmin watch can be done in two ways:

- **Method 1:** through the Garmin Connect app on your phone (easiest, especially if you can't read the current language on the watch) via following sequence (this requires an active Bluetooth connection between mobile phone and Garmin device):
    - Open the Garmin Connect app on your smartphone.
    - Open the menu:
        - Android: Tap the Menu icon (3 lines) in the top left.
        - iOS (iPhone): Tap More (3 dots) in the bottom right.
    - Tap Garmin Devices.
    - Select your specific watch image/name.
    - Select System (or General on some older models).
    - Tap Language (or Text Language).
    - Choose your desired language from the list.
    - Crucial Step: Go back to the main screen of the app and Sync your watch. The language on the watch will update once the sync finishes.
- **Method 2:** directly on the watch itself via menu by selecting 'System' and then 'Language'.

Changing language on a windows system

Here the step-by-step guideance how to change the display language (menus, windows, settings) on a Windows system:

- For Windows 11:
  - Click Start (Windows icon) and select Settings (Gear icon).
  - On the left sidebar, click Time & language.
  - Click Language & region on the right.
  - Look for "Windows display language" at the top.
    - If your language is listed: Select it from the dropdown menu.
    - If your language is NOT listed:
    - Click the Add a language button next to "Preferred languages."
    - Search for your language (e.g., "Spanish") and select it. Click Next.
    - Important: Check the box that says "Set as my Windows display language."
    - Click Install.
  - Sign Out Required: Windows will ask you to sign out for changes to take effect. Click Sign out. When you sign back in, the language will be changed.
- For Windows 10:
  - Click Start and then Settings (Gear icon).
  - Click Time & Language.
  - Click Language on the left menu.
  - Look for "Windows display language" at the top.
    - If your language is listed: Select it from the dropdown menu.
    - If your language is NOT listed:
      - Click Add a language under the "Preferred languages" section.
      - Search for the language you want and select it. Click Next.
      - Check the box "Set as my Windows display language" (or "Install language pack").
      - Click Install.
  - Sign Out: You will see a prompt to sign out. Do so, and sign back in to see the changes.

Changing language on a MAC system

Here the step-by-step guideance how to change the display language (menus, windows, settings) on a MAC system for macOS Ventura, Sonoma, Sequoia (Newer Models):

- Click the Apple Menu (ð logo) in the top-left corner.
- Select System Settings.
- In the left sidebar, click General.
- Click Language & Region on the right.
- Under "Preferred Languages," click the (+) plus button.
- Select your desired language from the list and click Add.
- A pop-up will ask if you want to use this as your primary language. Click "Use [New Language]".
- Restart Required: You will be prompted to restart your Mac. Do this to apply the changes system-wide.

2.8.11 What to do if settings cannot be changed?

Setting changes always work in the Garmin eco-system and a valid connection to Garmin serves are necessary. Sometimes these servers are down and settings cannot be changed.

> **Note:**
> Unfortunately this is out of our control and we have to wait until Garmin fixed that problem.

In case the settings are corrupted, then following seqeunce may help:

- Delete app
- Synchronize
- Once reboot your device (e.g. watch)
- Install the app again
- Change settings

2.8.12 User settings lost after update?

Unfortunately Garmin may reset the user settings when updating the Garmin firmware version of the application or data field. This leads to the problem that all configurations are lost and the **FREE Version** is active again. I´m testing some work-arounds but so far I was not successful. As soon as I have updates, I will publish them here.

2.8.13 Activity not visible on Garmin Connect?

There could be several reasons why an activity is not visible on Garmin Connect:

- Activity recording was never started.
- Activity recording was not saved upon leaving the Garmin native app.
- No synchronization between device and Garmin Connect happened.
- Especially in indoor sessions it can happen that the device stays in Auto-Stop Mode. Please deactivate this feature in the user settings.
- Especially in indoor sessions no movements might be detected by the device. Thus distance stays 0. In such a case no activity results are stored on Garmin Connect.

2.8.14 Activity tracking and fitness metric accuracy

The app uses the Garmin API´s to retrieve most of the information and cannot be more precise than the data delivered from there. Garmin states following about activity tracking and accuracy:

- "Garmin devices are intended to be tools to provide you with information to encourage an active and healthy lifestyle. Garmin wearables rely on sensors that track your movement and other metrics. The data and information provided by these devices is intended to be a close estimation of your activity and metrics tracked, but may not be precisely accurate. Garmin wearables are not medical devices, and the data provided by them is not intended to be utilized for medical purposes and is not intended to diagnose, treat, cure, or prevent any disease. Garmin recommends you consult your doctor before engaging in any exercise routine."

2.8.15 Accuracy of wrist-based heart rate (Elevate)

The app uses the Garmin API to retrieve heart rate related data cannot be more precise than the data delivered from there. Regarding wrist-based accuracy, Garmin states following:

- "The optical wrist heart rate (HR) monitor for Garmin wearables is a valuable tool that can provide an accurate estimation of the user's heart rate at any given point in time. The optical HR monitor is designed to attempt to monitor a user's heart rate 24 hours a day, 7 days a week. The frequency at which heart rate is measured varies, and may depend on the level of activity of the user. When you start an activity with your Garmin optical HR device, the optical HR monitor measures more frequently. The intent is to provide the user with a more frequent and accurate heart rate reading during a given activity."
- "While our wrist HR monitor technology is state of the art, there are inherent limitations with the technology that may cause some of the heart rate readings to be inaccurate under certain circumstances. These circumstances include the user's physical characteristics, the fit of the device and the type and intensity of the activity as outlined above. The HR monitor data is not intended to be used for medical purposes, nor is it intended to diagnose, treat, cure or prevent any disease or condition."
- "Wrist heart rate accuracy during swimming is very limited. Garmin does not recommend using wrist heart rate during swimming activities and on some products, wrist heart rate monitoring is disabled while swimming. Garmin recommends using HRM-Swim™ or HRM-Tri™ heart rate monitors with compatible devices to track heart rate while swimming."

2.8.16 Is there a way to enable/disable GLONASS?

The GPS/GLONASS setting is based on what was last used in the Garmin native apps (like cycling, running). Garmin does not allow Connect-IQ apps or data fields to change this setting.

2.8.17 Why is info derived from altitude (e.g, UP, DOWN, PWR, GRADE in %) not accurate?

People with Garmin devices (e.g. watches) are frequently concerned about the accuracy (or lack of it) of the altitude data (or from altitude derive data) if the info is derived from GPS and not from a barometric altimeter. Many suspect their equipment or the app may even be defective or buggy when they see the altitude data. Unfortunately this is NORMAL as GPS is not accurate enough regarding altitude information. Following Garmin devices have no barometric altimeter and are thus affected (list might not be complete):

- ForeAthlete® 230J, ForeAthlete® 235J, ForeAthlete® 630J.
- Forerunner® 735XTJ, ForeAthlete® 920XTJ, Forerunner® 230, Forerunner® 235, Forerunner® 630, Forerunner® 735XT.
- Vivoactive™ series.
- Others: Please take a look to the Garmin feature set description for your device.

With the integrated GPS receivers, the horizontal error is specified to be within about +/- 15 meters (50 feet) 95% of the time. Most users find this is a conservative specification and that their modern GPS receivers routinely perform better than this worst case specification. But users should expect that SOMETIMES they may see the error approach the specification limits. AND 5% of the time, the error may be "any value" from zero to whatever. Note: Unless you have a CLEAR AND UNOBSTRUCTED view of the sky you can count on your error excursions to be much greater than the above numbers. Your GPS depends on this clear and unobstructed view or it cannot make accurate range measurements to the satellites. Generally, altitude error is specified to be 1.5 times horizontal error specification. This means that the user of standard consumer GPS receivers should consider +/-23meters (75ft) with a DOP of 1 for 95% confidence. Altitude error is always considerably worse than the horizontal (position error). Much of this is a matter of geometry. If we (simplistically) consider just four satellites, the "optimum" configuration for best overall accuracy is having the four SVs at 40 to 55 degrees above the horizon and one (for instance) in each general direction N, E, W, and S.

> **Note:**
> You will get a very BAD DOP if the SVs are at the exact same elevation. Luckily, this is a rare occurrence. The similar "best" arrangement for vertical position is with one SV overhead and the others at the horizon and 120 degrees in azimuth apart. Obviously, this arrangement is very poor from a signal standpoint. As a result, of this geometry the calculated solution for altitude is not as accurate as it is for horizontal position. Almost any calibrated altimeter will be more stable at reading altitude than a GPS. GPS altitude measures the user´s distance from the center of the SVs orbits. These measurements are referenced to geodetic altitude or ellipsoidal altitude in some GPS equipment. Garmin and most equipment manufacturers utilize a mathematical model in the GPS software which roughly approximates the geodetic model of the earth and reference altitude to this model. As with any model, there will be errors as the earth is not a simple mathematical shape to represent. What this means is that if you are walking on the seashore, and see your altitude as -15 meters, you should not be concerned. First, the geodetic model of the earth can have much more than this amount of error at any specific point and Second, you have the GPS error itself to add in. As a result of this combined error, I am not surprised to be at the seashore and see -40 meter errors in some spots.

Following data fields are affected if you have no watch with barometric altimeter:

- UP
- DOWN
- GRADE in %
- PWR, A PWR, M PWR (if not derived from a compatible ANT+ power sensor)
- VSPD xs, A VSPD, M VSPD

2.9 Backlog

This section shows the backlog with potential features planned for upcoming releases:

- Show info about ANT+ power sensor connection
- Switch to own menu to allow start/stop via button on certain devices
- FTP live calculation
- New features for devices supporting Garmin Connect IQ 3
- Support for Garmin Varia radar
- Add dedicated indoor activity (with GPS off)
- New features for devices supporting Garmin Connect IQ 2 and 3
- Allow user to directly configure certain options on watch
- Add LAP heart rate information
- Cadence coloring
- Data field for normalized power (NP)
- Data field for power per weight (as available in ZWIFT)
- Allow to disable vibrations during auto pause start/stop.
- Add map/track improvements
- auto zoom functionality
- show distance indicator of current zoom level
- show compass information
- Add cadence coloring
- add current-lap average power
- add option to display power as % of FTP

> **Note:**
> Please note that there is no guarantee if and when the feature will be implemented!

2.10 Version history

The following table lists the version history of the latest released **Cycling App Professional** versions:

Version	Date	Change description
7.7.6	08.01.2026	Hotfix for proper current cadence value in FIT contribution
7.7.5	06.01.2026	Support for Instinct® 3 AMOLED 50mm added
7.7.0	29.12.2025	Support for Instinct® 3 AMOLED 45mm added Support for Instinct® Crossover AMOLED added
7.6.5	17.12.2025	Support for Forerunner® 570 42mm and 47mm added Support for Forerunner® 970 added
7.6.1	11.12.2025	Support master key also on CIQ1 devices Support gift card keys on all devices
7.6.0	09.11.2025	Support for D2™ Mach 2 added Support for Fenix® 8 Pro 47mm added Support for Venu® 4 41mm and 45mm added
7.5.5	01.06.2025	Several GUI improvements Support for Vivoactive® 6 added
7.5.0	01.04.2025	Several GUI improvements Support for Approach® S50 added Support for Descent™ G2 added
7.4.5	13.12.2024	Several GUI improvements Add feature that pairing to a ANT+ power sensor can be controlled by the user via setting
7.4.0	10.10.2024	Support for Fenix® 8 43mm added Support for Fenix® 8 47 / 51mm added Support for Fenix® 8 Solar 47mm added Support for Fenix® 8 Solar 51mm added Support for Fenix® E added Support for Enduro™ 3 added
7.3.0	22.04.2024	Hotfix for app setting problems on newer devices Hotfix for language problems Build with latest SDK 7.1.1
7.2.5	18.04.2024	Hotfix for app setting problems
7.2.1	03.04.2024	Hotfix for crashes on Forerunner® 165 and 165 Music added
7.2.0	27.03.2024	Support for Forerunner® 165 and 165 Music added
7.1.9	23.01.2024	Satellite configuration improvements
7.1.8	20.01.2024	Add chart with current cadence values for the whole workout
7.1.7	18.01.2024	Additional satellite configurations added
7.1.6	13.01.2024	Hotfix for wrong data field assignment in HR gauge data page Build with SDK 6.4.1
7.1.5	01.01.2024	Support for Descent™ Mk3 43mm added Add support for configuration options in german language Improve configuration description in english language
7.1.0	02.12.2023	Support for Venu® 3 added Support for Descent™ Mk3 51mm added Support for Fēnix® 7 Pro (no Wi-Fi) added Support for Fēnix® 7x Pro (no Wi-Fi) added
7.0.5	07.11.2023	Support for Venu® 3s added Support for Vivoactive ® 5 added

7.0.0	21.10.2023	Support for Approach® S70 47mm added Support for Epix™ Pro (Gen 2) 51mm added GUI improvements
6.9.5	23.09.2023	Support for Forerunner® 265 and 265s Support for Forerunner® 965 GUI improvements
6.9.2	26.07.2023	Hotfix with GUI improvements
6.9.0	25.07.2023	Change background color to "Black with white header/footer" for better visibility on some devices Background color can be configured in the FREE version as well Hotfix to support other satellite configurations than legacy GPS where a device supports it Support for Approach® S70 42mm added Support for Epix™ Pro (Gen 2) 42mm and 47mm added Support for MARQ® (Gen 2) Athlete / Adventurer / Captain / Golfer / Aviator added
6.8.1	11.07.2023	Support for Fenix® 7 Pro, Fenix® 7s Pro and Fenix® 7x Pro added
6.8.0	08.03.2023	Workaround implemented for FR645 and FR645m to avoid app crashes upon start due to font problems Bugfixes and stability improvements
6.7.5	26.09.2022	Support for Venu™ SQ 2 and Venu™ SQ 2 Music added GUI improvements
6.7.1	11.08.2022	Several GUI and stability improvements
6.7.0	26.06.2022	Support for Forerunner® 255, 255 Music, 255s and 255s Music added Support for Forerunner® 955 / Solar added
6.6.6	15.05.2022	Add user configuration to select if GPS is disabled during session pause or not (to save power) Several GUI and stability improvements
6.6.5	27.04.2022	Support for D2™ Mach 1 added Several GUI and stability improvements
6.6.4	17.03.2022	GUI improvements
6.6.3	19.02.2022	Support for D2™ Air X10 added
6.6.2	09.02.2022	Bug fixing

3. Deutsch

3.1 Deutsche Dokumentation

Diese Seite beinhaltet die deutschen Dokumente für alle Garmin Connect-IQ-kompatiblen Applikationen und Datenfelder von RH-SPORTS.

Aktuell ist nur eine Liste aller Datenfelder in deutscher Beschreibung verfügbar.

> **Note:**
> Die Dokumentation in deutscher Sprache ist in Arbeit und kommt in den nächsten Monaten sukzessive für alle verfügbaren Applikationen.

3.1.1 Datenfelder

Folgende Tabelle beschreibt alle Datenfelder unserer Garmin Connect-IQ kompatiblen Apps (mit Ausnahme der Skiing App). Bitte berücksichten Sie folgende zwei Punkte:

- Einige Datenfelder sind nur in der **PREMIUM Version** verfügbar.
- Nicht jedes Datenfeld ist in jeder angebotenen Applikation oder Datenfeld verfügbar.

Datenfeld	Beschreibung
AHEAD	Aktuelle Zeit die Sie vor (bei positivem Wert) oder hinter (bei negativem Wert) dem konfiguriertem Rennziel liegen. Die Angabe ist im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
ALT	Aktuelle Höhe in Meter oder Fuß, abhängig von den Einstellungen auf der Uhr für Höhe.
A CAD	Durchschnittliche Trittfrequenz in Umdrehungen pro Minute, gemittelt über die gesamte Trainingseinheit. Anmerkung: In der Cycling App Professional werden nur jene Zeiten berücksichtig, wo auch wirklich getreten wird. In Garmin Connect ist allerdings der Wert gespeichert, der auch die Zeiten ohne Treten beinhaltet.
A HR	Durchschnittliche Herzfrequenz in Schläge pro Minute gemittelt über die gesamte Trainingseinheit.
A PACE	Durchschnittliche Pace der aktuellen Trainingseinheit für einen Kilometer oder eine Meile, abhängig von den Einstellungen auf der Uhr für Pace/Geschwindigkeit.
A PWR	Durchschnittliche Power in der aktuellen Trainingseinheit in Watt. Bitte berücksichtigen Sie auch Anmerkung 4
A SPEED	Durchschnittliche Geschwindigkeit der aktuellen Trainingseinheit in Kilometer/Stunde oder Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
A VSPD	Durchschnittliche vertikale Geschwindigkeit in der aktuellen Trainingseinheit in Meter/Stunde oder Fuß/Stunde, abhängig von den Einstellungen auf der Uhr. Bitte berücksichtigen Sie auch Anmerkung 1
CAD	Aktuelle Trittfrequenz in Umdrehungen pro Minute.
CL DIST	Distanz der aktuellen Runde in Kilometer oder Meilen, abhängig von den Einstellungen auf der Uhr für Distanz.
CL PACE	PACE der aktuellen Runde für einen Kilometer oder eine Meile, abhängig von den Einstellungen auf der Uhr für Distanz.
CL SPEED	Durchschnittsgeschwindigkeit der aktuellen Runde in Kilometer/Stunde oder Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
CL TIME	Aktuelle Rundenzeit im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
CR AHR	Durchschnittliche Herzfrequenz während der aktuellen Abfahrt in Schläge pro Minute.
CR DOWN	Aktuelle negative Höhenmeter während der aktuellen Abfahrt in Meter oder Fuß, abhängig on den Einstellungen auf der Uhr für Höhe.
CR DIST	Zurückgelegte Strecke der aktuellen Abfahrt in Kilometer oder Meilen, abhängig on den Einstellungen auf der Uhr für Distanz.
CR MHR	Maximale Herzfrequenz während der aktuellen Abfahrt in Schläge pro Minute.
CR MSPD	Maximale Geschwindigkeit der aktuellen Abfahrt in Kilometer/Stunde or Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
DBG1	Debug Datenfeld das aktuell den minimalen freien Speicher anzeigt.
DIST	Aktuell zurückgelegte Strecke in Kilometer oder Meilen, abhängig von den Einstellungen auf der Uhr für Distanz.
DIST REM	Noch zu laufende Strecke in Kilometer oder Meilen, abhängig von den Einstellungen auf der Uhr für Distanz.
DOWN	Absteigende Höhenmeter in der aktuellen Trainingseinheit in Meter oder Fuß, abhängig von den Einstellungen auf der Uhr für Höhe. Bitte berücksichtigen Sie auch Anmerkung 1
ELAPS	Vergangene Zeit in der aktuellen Trainingseinheit (inkl. Standzeiten bei eingeschaltenem Auto Start/Stop Feature) im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
ETA	Geschätze Ankunftszeit auf Basis Ihrer Konfigurationen im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
GRADE %	Aktuelle Steigung in Prozent. Diese Information wird abgleitet von der zurückgelegten Strecke und Höhe gemittelt über die letzten 10 Sekunden. Bitte berücksichtigen Sie auch Anmerkung 2

HR	Aktuelle Herzfrequenz in Schläge pro Minute.
HR GOAL	Herzfrequenzziel in Schläge pro Minute.
HR ZONE	Aktuelle Herzfrequenzzone im Bereich 0.0 bis 6.0 mit folgender Bedeutung: * 0.0 ... aktuelle Herzfrequenz unterhalb der Zone 1 (= Minimale Herzfrequenz) * 1.0 - 1.9 ... aktuelle Herzfrequenz in Zone 1 * 2.0 - 2.9 ... aktuelle Herzfrequenz in Zone 2 * 3.0 - 3.9 ... aktuelle Herzfrequenz in Zone 3 * 4.0 - 4.9 ... aktuelle Herzfrequenz in Zone 4 * 5.0 - 5.9 ... aktuelle Herzfrequenz in Zone 5 * 6.0 ... aktuelle Herzfrequenz oberhalb der Zone 5 (= Maximale Herzfrequenz). Dieser Wert wird von den Herzfrequenzzoneneinstellungen des Users abgeleitet. Auf der Epix hat man darauf über die Garmin API keinen Zugriff. Deswegen werden die Zonen dort von der maximalen Herzfrequenz abgeleitet.
IDLE	Standzeit in der aktuellen Trainingseinheit wo die Geschwindigkeit unterhalb dem eingestellten Limit für den Auto Start/ Stop Modus liegt.
INT LEFT	Anzahl der offenen Intervalle.
INT NEXT	Ausständige Distanz oder Zeit bis das nächste Intervall startet.
KCAL	Aktuell verbrauchte Kilo-Kalorien in der aktuellen Trainingseinheit.
KCAL_DAY	Kilo-calories consumption of today.
LAP	Aktuelle Rundenzahl.
LL DIST	Distanz der letzten Runde in Kilometer oder Meilen, abhängig von den Einstellungen auf der Uhr für Distanz.
LL PACE	PACE der letzten Runde für einen Kilometer oder eine Meile, abhängig von den Einstellungen auf der Uhr für Distanz.
LL SPEED	Durchschnittsgeschwindigkeit der letzten Runde in Kilometer/Stunde oder Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
LL TIME	Letzte Rundenzeit im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
MOVE	Zeit in Bewegung (ELAPS - IDLE) in der aktuellen Trainingseinheit im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
M CAD	Maximale Trittfrequenz in Umdrehungen pro Minute in der aktuellen Trainingseinheit.
M HR	Maximale Herzfrequenz in der aktuellen Trainingseinheit in Schläge pro Minute.
M HR %	Aktuelle Herzfrequenz in Prozent der maximalen Herzfrequenz, die von den User-Settings ausgelesen wird.
M PACE	Maximale PACE in der aktuellen Trainingseinheit für einen Kilometer oder eine Meile, abhängig von den Einstellungen auf der Uhr für Distanz.
M PWR	Maximale Power in der aktuellen Trainingseinheit in Watt. Bitte berücksichtigen Sie auch Anmerkung 4
M SPEED	Maximale Geschwindigkeit in der aktuellen Trainingseinheit in Kilometer/Stunde oder Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
M VSPD	Maximale vertikale Geschwindigkeit in der aktuellen Trainingseinheit in Meter/Stunde oder Fuß/Stunde, abhängig von den Einstellungen auf der Uhr. Bitte berücksichtigen Sie auch Anmerkung 1
PACE	Aktuelle PACE gemittelt über die letzten x Sekunden für einen Kilometer oder eine Meile, abhängig von den Einstellungen auf der Uhr für Distanz.
PACE xs	Aktuelle PACE gemittelt über die letzten x Sekunden für einen Kilometer oder eine Meile, abhängig von den Einstellungen auf der Uhr für Distanz.
PACE REQ	Benötigte PACE um das konfigurierte Rennziel zu erreichen.
PHASE	Aktuelle Phase, entweder Run (=Abfahrt) oder Up (Liftfahrt).

PRESSURE	Barometrischer Druck in Pascal.
PWR	Aktuelle Leistung in Watt. Bitte berücksichtigen Sie auch Anmerkung 4
PWR xs	Leistung in Watt gemittelt über die letzten x Sekunden. Bitte berücksichtigen Sie auch Anmerkung 4
RUNS	Gesamtanzahl der bereits getätigten Abfahrten.
R AHR	Durchschnittliche Herzfrequenz in Schläge pro Minute gemittelt über alle Runs (=Abfahrten).
R ASPD	Durchschnittlich Geschwindigkeit aller Abfahrten in Kilometer/Stunde oder Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
R AVSPD	Durchschnittlich vertikale Geschwindigkeit aller Abfahrten in Meter/Stunde oder Fuß/Stunde, abhängig von den Einstellungen auf der Uhr. Bitte berücksichtigen Sie auch Bitte berücksichtigen Sie auch Anmerkung 1
R DIST	Aktuell zurückgelegte Abfahrtsstrecke in Kilometer oder Meilen, abhängig von den Einstellungen auf der Uhr für Distanz.
R TIME	Vergangene Zeit aller Abfahrten im Format hh:mm, h:mm:ss, mm:ss oder m:ss.
R MHR	Maximale Herzfrequenz aus allen Abfahrten in Schläge pro Minute.
R MSPD	Maximale Geschwindigkeit aller Abfahrten in Kilometer/Stunde oder Meilen/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
R MVSPD	Maximale vertikale Geschwindigkeit aller Abfahrten in Meter/Stunde oder Fuß/Stunde, abhängig von den Einstellungen auf der Uhr für Distanz.
SPEED	Aktuelle Geschwindigkeit in Kilometer/Stunde or Meilen/Stunde, abhängig von den Einstellungen auf der Uhr.
STEPS	Anzahl der zurückgelegten Schritte in der aktuellen Trainingseinheit.
STEPS T	Anzahl der zurückgelegten Schritte am heutigen Tag.
STEP G	Schrittziel für den heutigen Tag.
STEP G%	Aktueller Prozentsatz für die Zielereichung der Schritte für den heutigen Tag.
TEMP	Aktuelle Temperatur in Celsius oder Fahrenheit, abhängig von den Einstellungen auf der Uhr für Temperatur. Bitte berücksichtigen Sie auch Bitte berücksichtigen Sie auch Anmerkung 3
TIME	Aktuelle Tageszeit 12- oder 24-Stundenformat, abhängig von den Einstellungen auf der Uhr.
UP	Aufsteigende Höhenmeter in der aktuellen Trainingseinheit in Meter oder Fuß, abhängig von den Einstellungen auf der Uhr für Höhe. Bitte berücksichtigen Sie auch Bitte berücksichtigen Sie auch Anmerkung 1
VSPD xs	Aktuelle vertikale Geschwindigkeit in der aktuellen Trainingseinheit in Meter/Stunde oder Fuß/Stunde gemittelt über die letzten x Sekunden, abhängig von den Einstellungen auf der Uhr. Bitte berücksichtigen Sie auch Anmerkung 2

3.1.2 Anmerkungen

Anmerkung 1

Diese Information ist nur dann genau genug wenn die Uhr über einen barometrischen Höhenmesser verfügt. Eine Ableitung der Höheninformation über GPS ist zwar möglich aber ungenau.

Anmerkung 2

Diese Information ist nur dann genau genug wenn Sie über einen ANT+ Geschwindigkeitssensor und eine Uhr mit barometrischem Höhenmesser verfügen. Speziell die Höheninformation ist aufgrund physikalischer Grundsätze sehr ungenau, wenn sie von GPS abgeleitet wird und für Differenzmessungen verwendet wird.

Anmerkung 3

Eine Temperatur-Messung in Garmin Apps funktioniert nur dann wenn Sie über einen ANT+ TEMPE Sensor verfügen.

Anmerkung 4

Diese Information ist nur dann genau genug wenn Sie über einen ANT+ Power Sensor verfügen. Alternative ist auch eine Schätzung der Leistung implementiert, die aber für brauchbare Genauigkeit einen barometrischem Höhenmesser benötigt.

None