Cycling App Professional

User Manual

RH-SPORTS

Contents

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.

You can also download the documentation as compressed HTML Help file (.chm) or PDF by using the links below:

Download compressed HTML help file as ZIP
Download PDF

01_Disclaimer

1 Disclaimers

1.1 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- may be out of date where we make no commitment to update the it right away.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.

1.2 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.

1.3 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."

1.4 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."

1.5 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!

We take over no responsibility in case of damages due to burn-in effects.

10_Requirements

2 Requirements

2.1 Supported Garmin devices

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

- Approach® S60
- Approach® S62
- Approach® S70 42mm
- Captain Marvel
- D2™ Air, D2™ Air X10
- D2™ Bravo
- D2™ Bravo Titanium
- D2™ Charlie
- D2™ Delta, D2™ Delta PX, D2™ Delta S
- D2™ Mach 1
- Darth Vader™
- Descent™ MK1, Descent™ MK2, Descent™ MK2s
- Descent™ Mk3 51mm
- Enduro™ and Enduro™ 3
- Epix™ 2, Epix™ Pro (Gen 2) 42mm and 47mm
- Fēnix® 3, Fēnix® 3 HR, Fēnix® Chronos
- Fēnix® 5, Fēnix® 5S, Fēnix® 5X
- Fēnix® 5 Plus, Fēnix® 5S Plus, Fēnix® 5X Plus
- Fēnix® 6/6 Pro
- Fēnix® 6s/6s Pro
- Fēnix® 6x Pro/6x Sapphire/6x Pro Solar/tactix® Delta Sapphire
- Fenix® 7, Fenix® 7s and Fenix® 7x
- Fenix® 7 Pro, Fenix® 7s Pro and Fenix® 7x Pro
- Fēnix® 7 Pro (no Wi-Fi) and Fēnix® 7x Pro (no Wi-Fi)
- Fenix® 8 43mm, 47mm, 51mm and Fenix® 8 Solar 47mm, 51mm
- 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® 630, 645, 645 Music, 735XT, 935, 945, 945 LTE, 955 / Solar and 965
- MARQ™ Adventurer, Athlete, Aviator, Captain, Commander, Driver, Expedition and Golfer
- MARQ® (Gen 2) Athlete / Adventurer / Captain / Golfer / Aviator
- Rey™
- Venu™ and Venu™ Mercedes-Benz® Collection
- Venu™ SQ and Venu™ SQ Music

- Venu™ SQ 2 and Venu™ SQ 2 Music
- Venu™ 2, Venu™ 2 Plus, Venu™ 2s
- Venu® 3 and Venu® 3s
- Vivoactive™
- Vivoactive™ HR
- Vivoactive® 3, Vivoactive® 3 Music, Vivoactive® 3 Music LTE, Vivoactive® 3 Mercedes-Benz® Collection
- Vivoactive® 4s/4
- Vivoactive® 5

2.2 Supported Garmin Edge devices

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

- Edge® 1000
- Edge® Explorer 1000

2.3 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:

- >= 1.3.0
  - ForeAthlete® 230J, 235J, 630J and 920XTJ
  - Forerunner® 230, 235, 630 and 920XT
- >= 1.4.0
  - Vivoactive™
- >= 1.4.1
  - D2™ Bravo and D2™ Bravo Titanium
  - Fēnix® 3 and Fēnix® 3 HR
- >= 2.4.1
  - Approach® S60
  - ForeAthlete® 735J
  - Forerunner® 735XT
  - Vivoactive® HR
- >= 3.0.0
  - Approach® S62
  - D2® Charlie
  - D2® Delta, D2® Delta PX, D2® Delta S

  - Descent™ MK1
  - Vivoactive® 3 Mercedes-Benz® Collection
- >= 3.1.0
  - Descent™ MK2
  - Fēnix® Chronos
  - Fēnix® 5, Fēnix® 5S, Fēnix® 5X and Fēnix® 5 Quatix
  - Fēnix® 5 Quatix
  - Fēnix® 5 Plus, Fēnix® 5S Plus, Fēnix® 5X Plus
  - Forerunner® 935
  - Forerunner® 645 and 645 Music
  - Vivoactive® 3
- >= 3.2.0
  - 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/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 Venu™ SQ Music
  - Venu™ and Venu™ Mercedes-Benz® Collection
  - Vivoactive® 3 Music, Vivoactive® 3 Music LTE
  - Vivoactive® 4s/4
- >= 3.3.0
  - Forerunner® 945 LTE
- >= 4.0.0
  - D2™ Air X10
  - D2™ Mach 1
  - Venu™ 2, Venu™ 2 Plus, Venu™ 2s >= 4.1.0
  - Fenix® 7, Fenix® 7s and Fenix® 7x
  - Forerunner® 255, 255 Music, 255s and 255s Music
  - Forerunner® 955 / Solar
  - Venu™ SQ 2 and Venu™ SQ 2 Music
- >= 4.2.0
  - Approach® S70 42mm and 47mm
  - Descent™ Mk3 51mm

  - Epix™ 2
  - Epix™ Pro (Gen 2) 42mm, 47mm and 51mm
  - Fenix® 7 Pro, Fenix® 7s Pro and Fenix® 7x Pro
  - Fēnix® 7 Pro (no Wi-Fi) and Fēnix® 7x Pro (no Wi-Fi)
  - Forerunner® 165 and 165m
  - Forerunner® 265 and 265s
  - Forerunner® 965
  - Venu® 3 and Venu® 3s
  - Vivoactive® 5
- >= 5.0.0
  - Fenix® 8 43mm
  - Fenix® 8 47 / 51mm
  - Fenix® 8 Solar 47mm
  - Fenix® 8 Solar 51mm
  - Fenix® E
  - Enduro™ 3

2.4 Garmin Firmware requirements for Edge

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

- >= 2.4.1
  - Edge® 1000
  - Edge® Explorer 1000

2.5 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.

2.6 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.

20_GettingStarted

3 Getting started

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

Topics:

3.1 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 Mobile app on your mobile phone.

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

Here a YouTube video describing the installation process:

Click here to watch the video

3.2 How to 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:

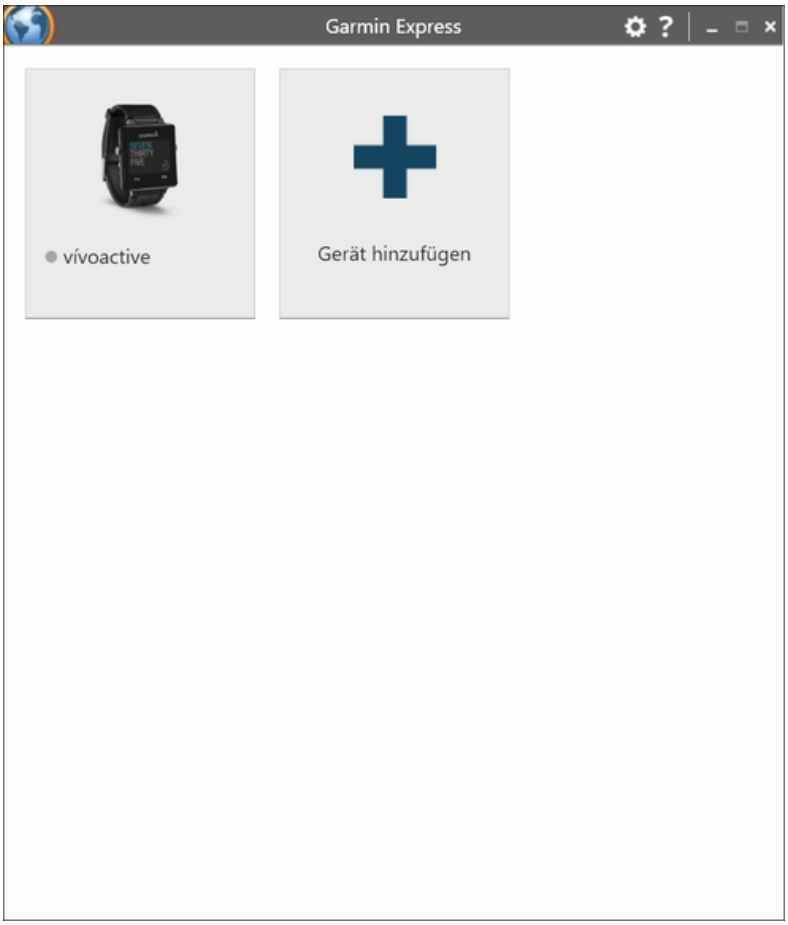
- Change User Settings on PC/MAC
- Change User Settings on Mobile Phone

3.2.1 Change user settings on PC or MAC

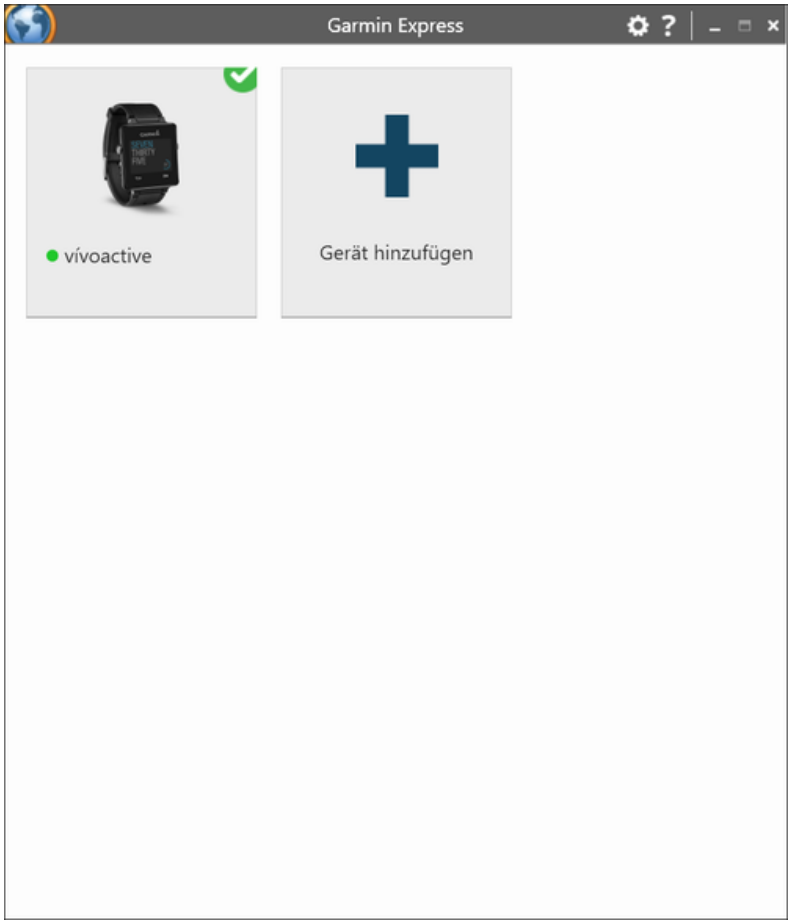
All configurations can be changed on your PC or MAC by using the Garmin Express Software. Before changing configurations, please make sure that you have installed the latest software version. The software can be downloaded from the official Garmin web site.

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

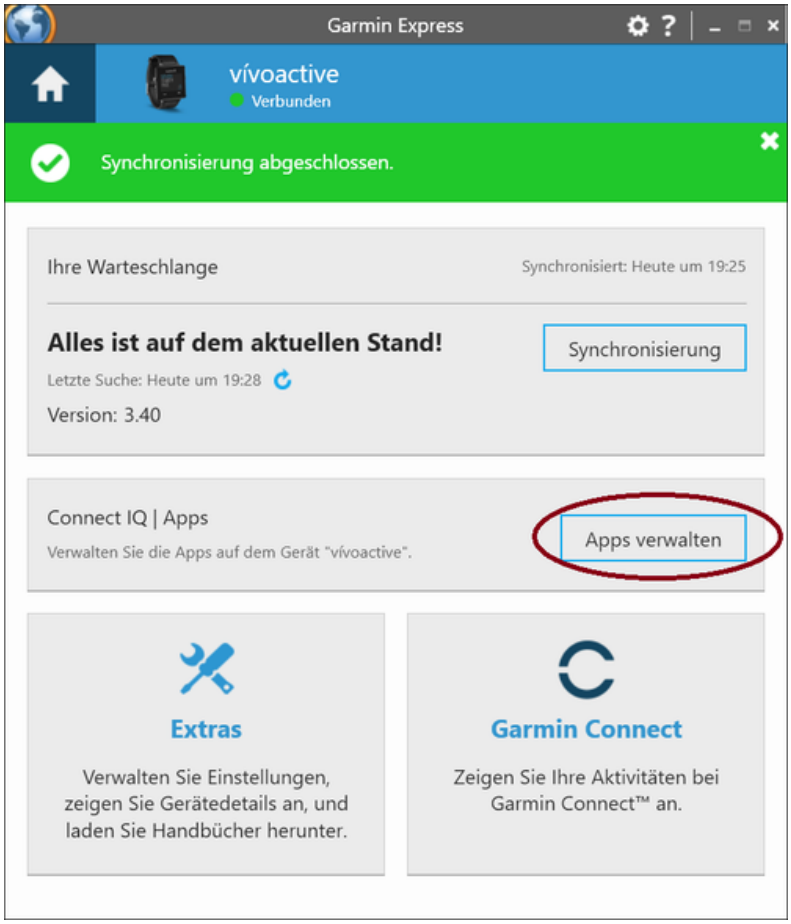
After that you should be able to see your Garmin device as shown in the picture below. If not, please add your device first. For details refer to the documentation provided by Garmin.



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 our Apps Please click the marked button in the picture above. A list of all installed applications on your device should appear. Please scroll up/down until you find the application you would like to configure as shown in the figure below:

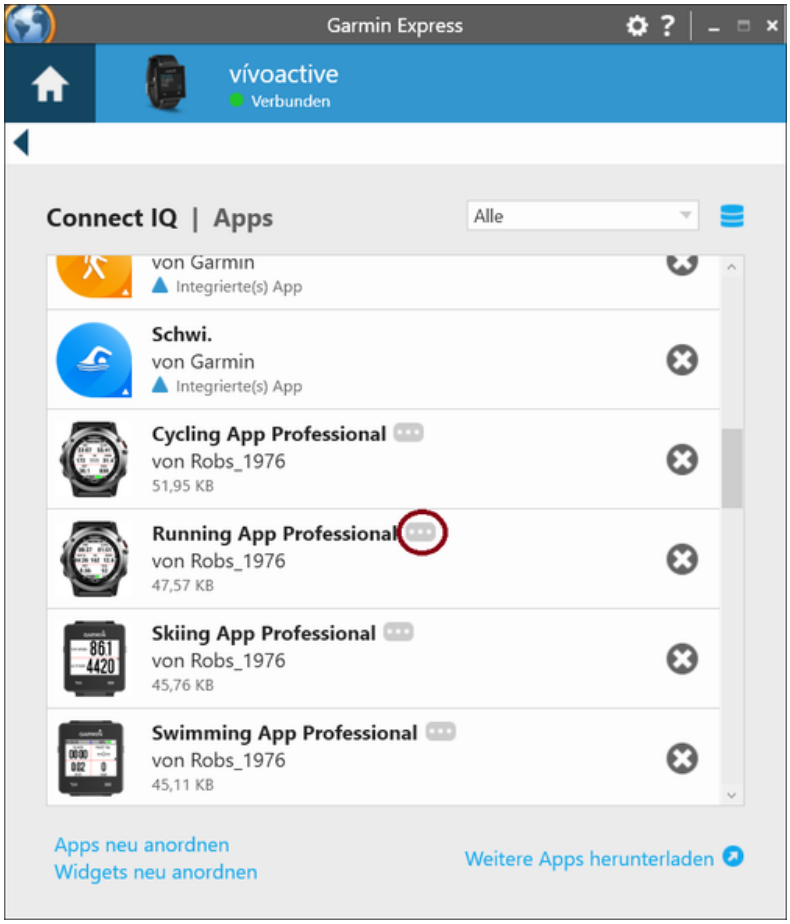


Figure 1 Default Garmin Express Software Version

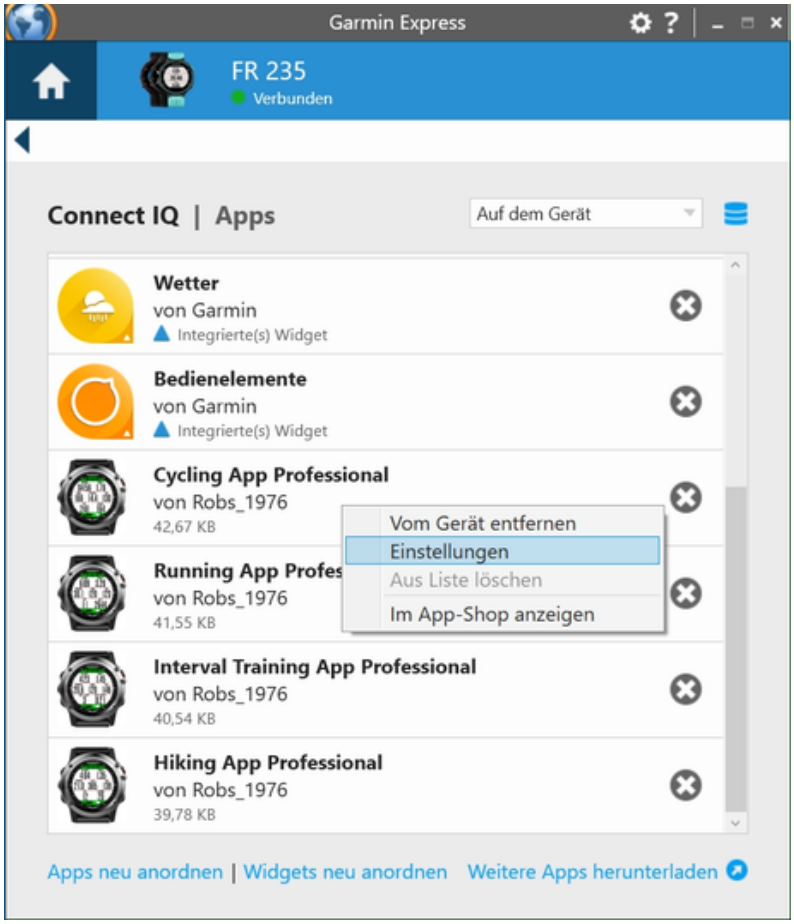
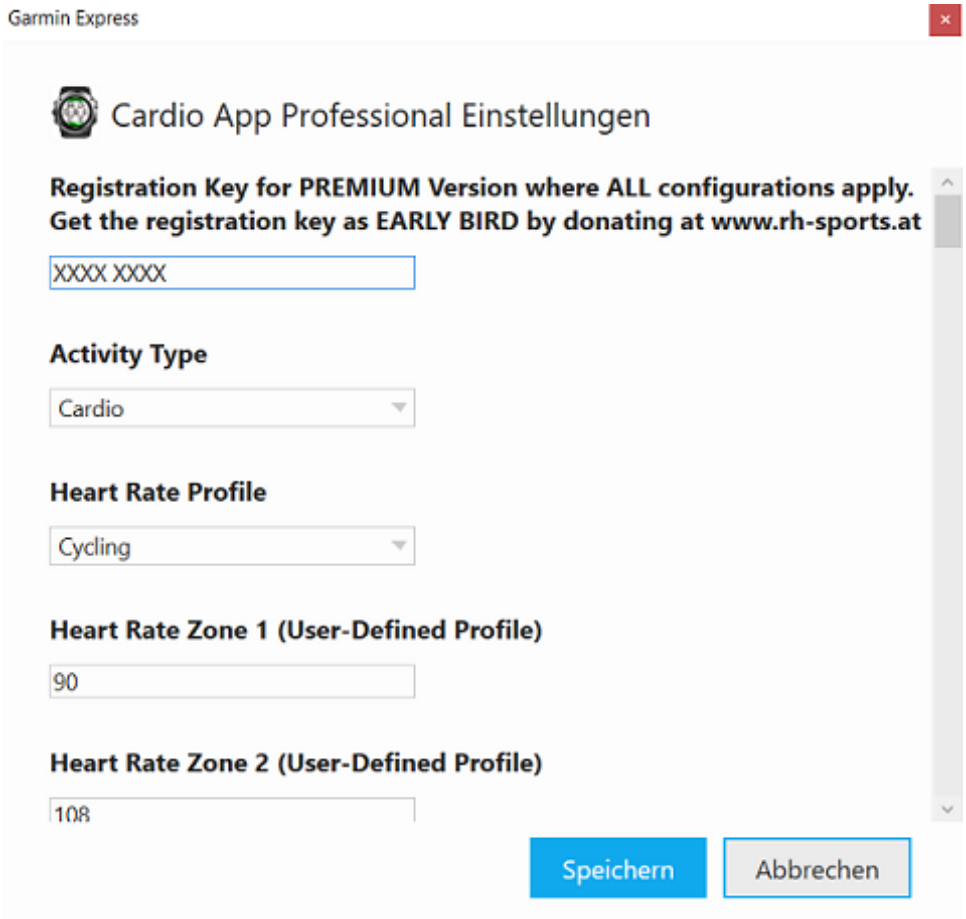


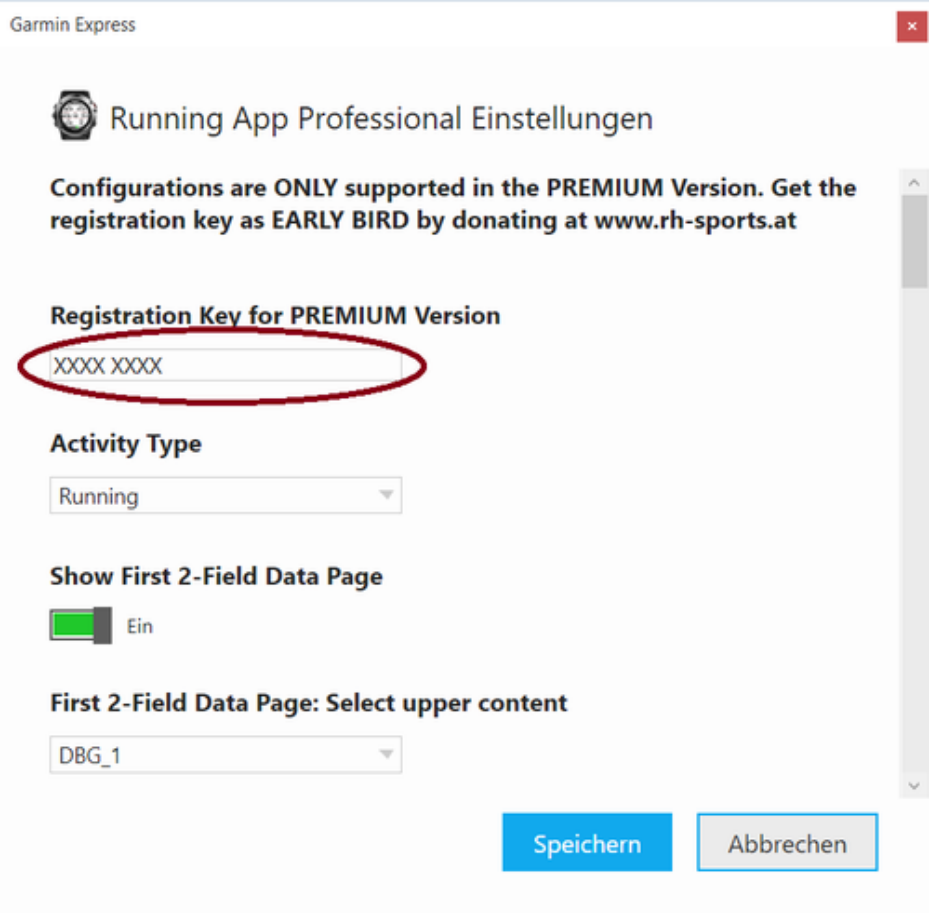
Figure 2 Some Garmin Express Software Versions

Step 5: Select App for Configuration Please select the application you would like to configure by clicking with the left mouse button to the three dots as marked in the left picture above to the app of your choice as shown in the right picture above. A context menu will be shown where you have to select "Settings"

Following screen should appear:



Step 6: Change Configuration Please note that configuration changes ONLY apply on your Garmin device if you have entered the proper PREMIUM key in the field marked in the picture below. The key consists of two times four characters separated by a space in between. If the proper key is entered, please make the configurations according to your needs and press the "Save" button at the end. 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.

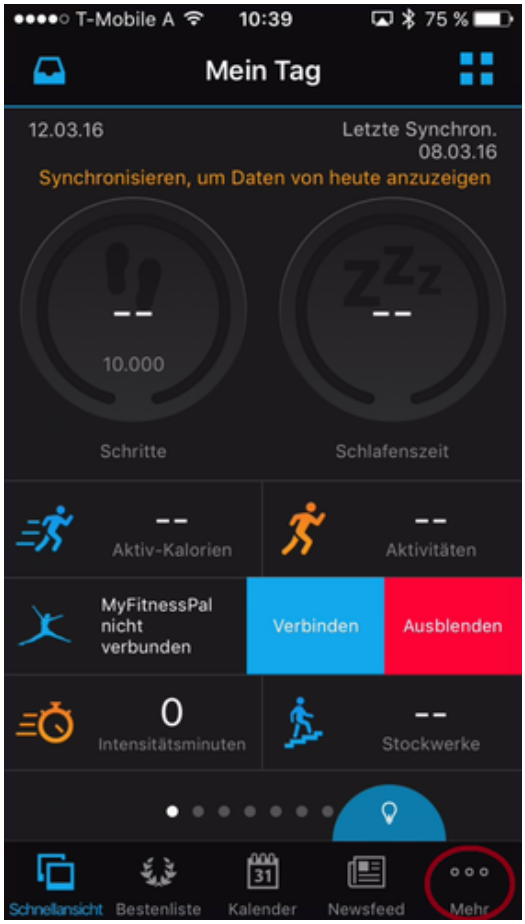
Step 8: Start Application on Device Please start your application on your Garmin device. If you have the PREMIUM Version (key was correct), then your configuration changes should have been applied. If not, please refer to our Frequently Asked Questions.

3.2.2 Change user settings on mobile phone

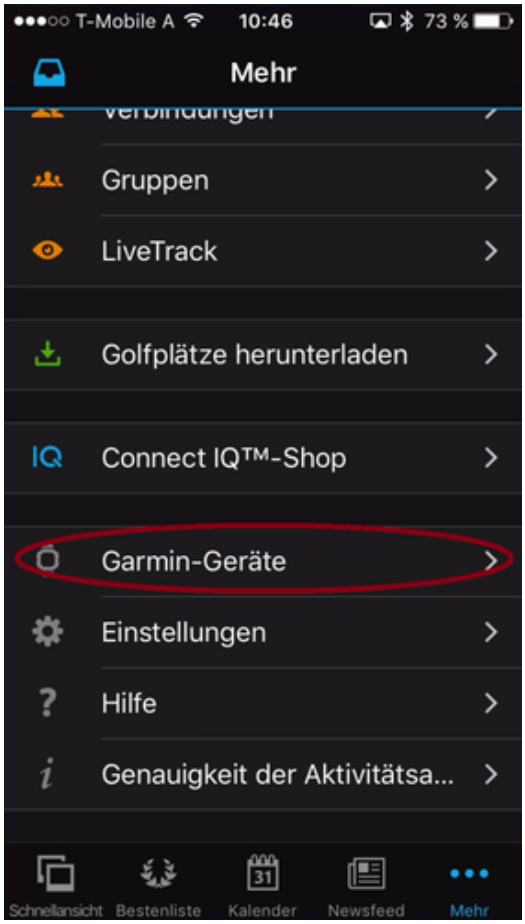
All configurations can be changed on your mobile phone by using the Garmin Connect(TM) Mobile app which is available for Android-, iOS- and Windows-compatible devices. Before changing configurations, please make sure that you have installed the latest app version. The app can be downloaded from the appropriate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

Step 1: Start Garmin Connect Mobile App Look on your mobile phone for the app with the symbol shown on the left side and click it to start the Garmin Connect™ Mobile app.

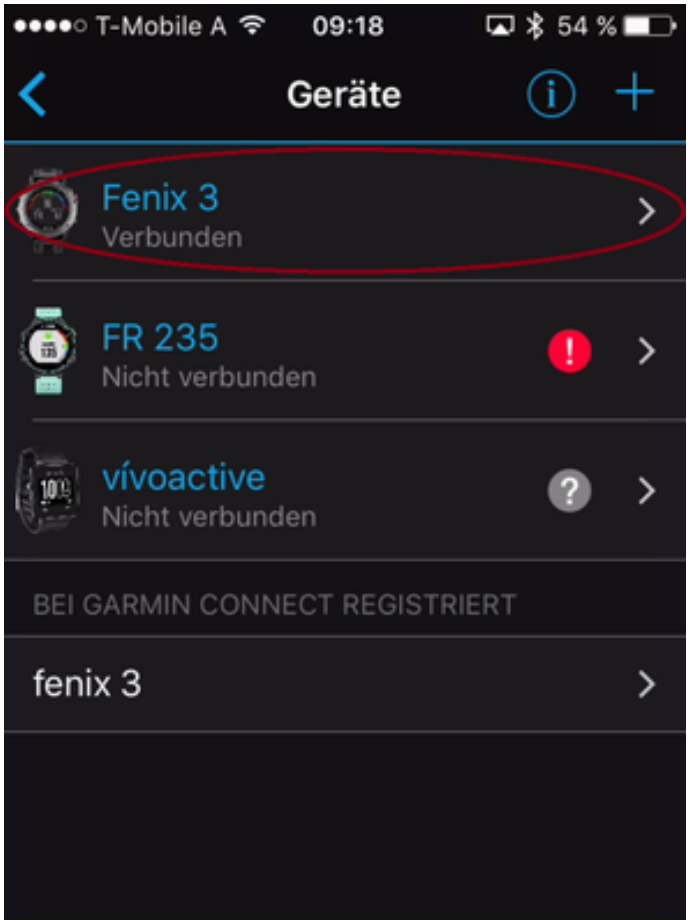
A similar window as shown below should appear.



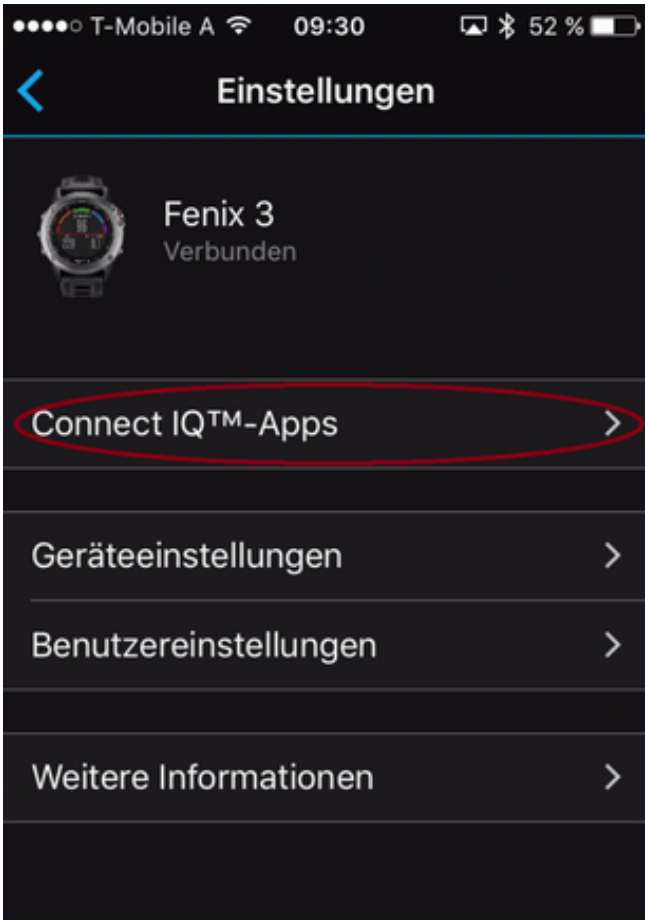
Step 2: Look for Garmin Devices List After pressing the button with the dots on the lower right side (as marked above) a new windows appears. Please scroll down until you find the entry "Garmin Devices".

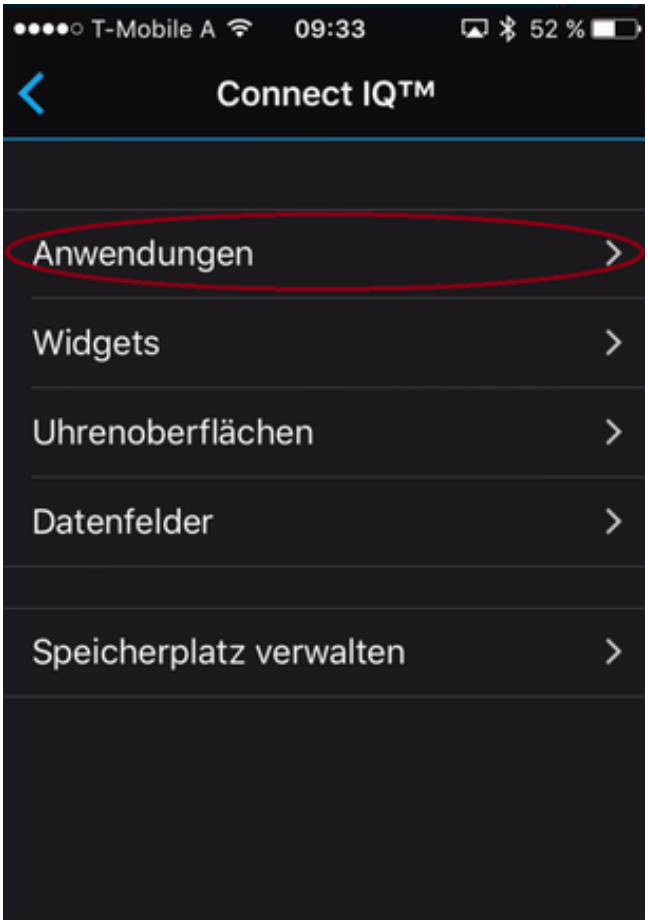


Step 3: Select your Garmin Devices After pressing the button marked above, a window with all your registered Garmin devices appears (see picture below). If you cannot find your device, please add it before by clicking on the upper right "+" sign. For further details, please refer to the documentation offered by Garmin. Then select one of your connected device.

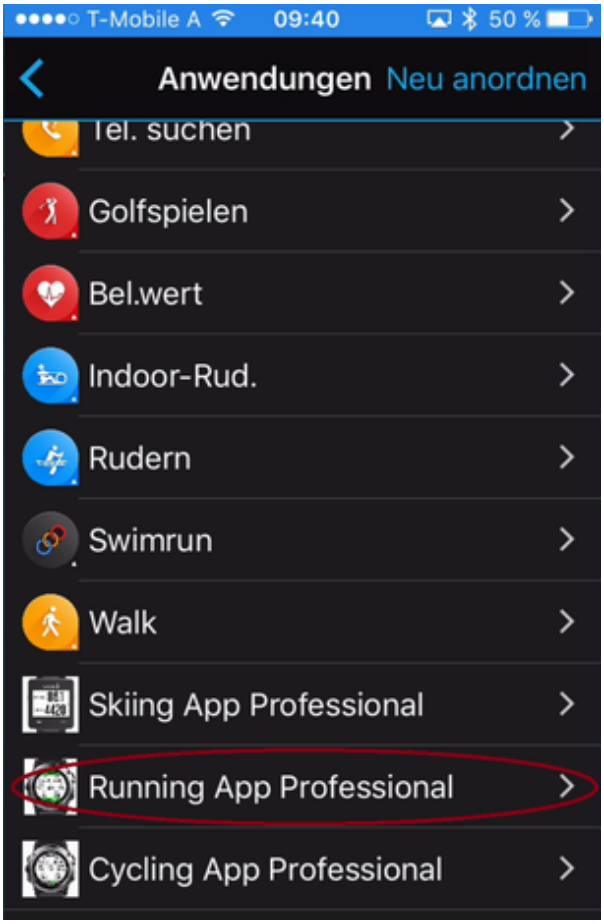


Step 4: Select Activities and Apps Please click the marked button in the picture below following by clicking to applications.

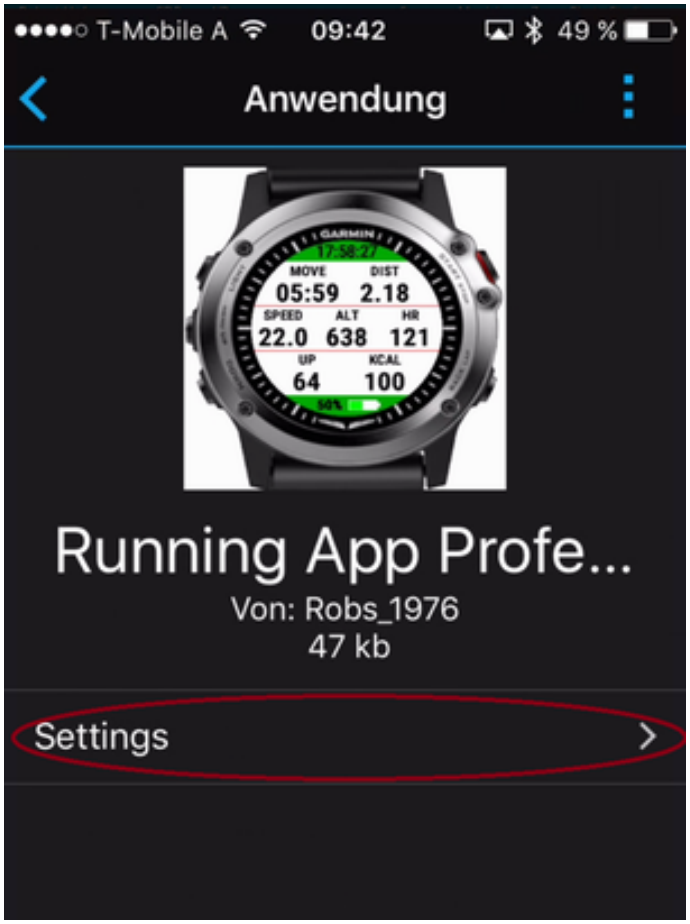

T-Mobile A
09:30
52 %
Einstellungen
Fenix 3
Verbunden
Connect IQ™-Apps
Geräteeinstellungen
Benutzereinstellungen
Weitere Informationen



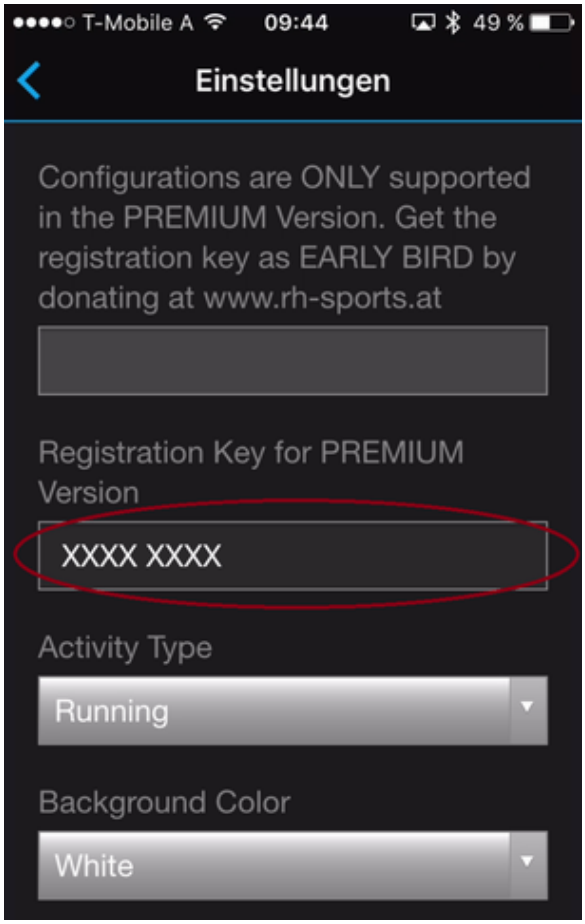
Step 5: Select an Application for Configuration A list of all applications appear. Please scroll up/down until you find the application you would like to configure as shown in the figure below:



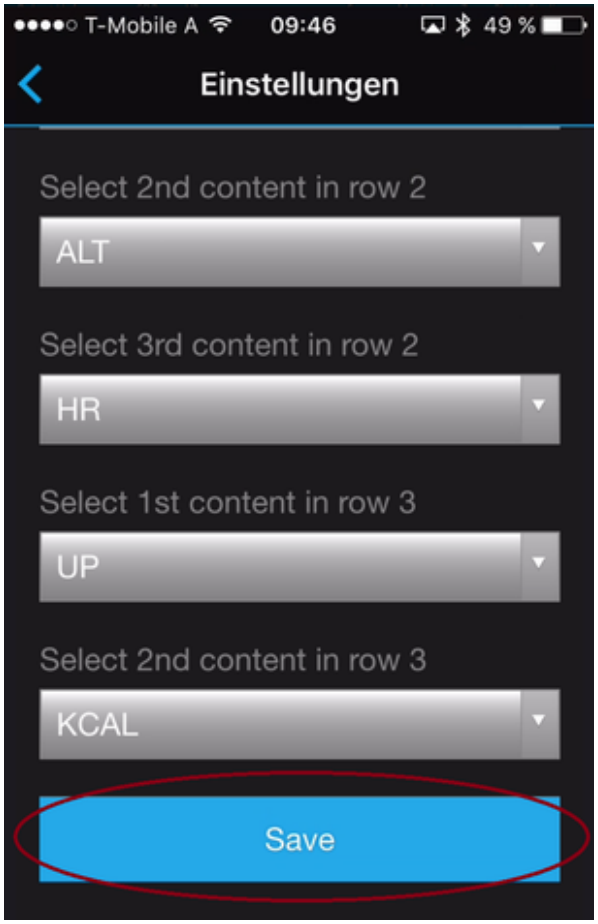
Step 6: Select Settings Please click on Settings as marked below.



Step 7: Change Configuration Please note that configuration changes ONLY apply on your device if you have entered the proper PREMIUM key in the field marked in the picture below. The key consists of two times four characters separated by a space in between. If the proper key is entered, please make the configurations according to your needs.



Step 8: Save Configurations Finally scroll down and press the "Save" button. 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 on Device Please start your application on your device. If you have the PREMIUM Version (key was correct), then your configuration changes should have been applied. If not, please refer to our *Frequently Asked Questions*.

3.3 Start application

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

3.3.1 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:

3.3.2 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.

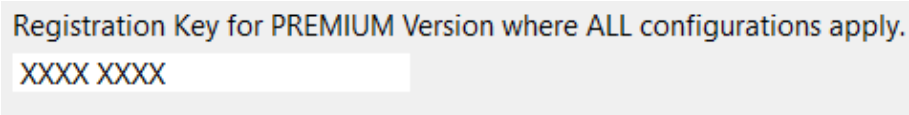
Phase 4:
The application startup process is finished and the application can be used. On a D2™ Bravo it looks like that:

3.4 User settings

	Most configuration changes are ONLY possible in the **PREMIUM version**. Please donate first to get the registration key.

3.4.1 Registration key for PREMIUM version

After successful donation you receive a mail with the PREMIUM activation key(s). Please copy the registration key exactly in the given format (XXXX XXXX) into this text field. The registration key evaluation is case sensitive and no spaces are allowed at the beginning or end. One space is mandatory after the fourth character.



Here some important registration hints:

Hint 1: Please copy the registration key with 9 characters length exactly in the given format (XXXX XXXX) into this text field. The registration key is a hexadecimal number (numbers from 0 to 9 and big letters from A to F) and the evaluation is case sensitive. No spaces are allowed at the beginning or end. One space is mandatory after the fourth character.

Hint 2: Users reported that on some devices (e.g. Android-based mobile phones) more than one space is added when copying the key to the app settings field. Please make sure that there is exactly one space after the fourth character.

Hint 3: Please synchronize the settings with your watch afterwards. If you use Garmin Express software on PC or M↩AC, please disable the bluetooth connection between your mobile phone and watch during configuration as otherwise the settings might be overwritten again.

Hint 4: Sometimes it is necessary to reboot the watch once (for whatever reason).

Hint 5: Please use the right key for the selected application or data field.

Hint 6: Please make sure that there are no floating point values in the app settings anymore (except for Swimming App where they are allowed).

3.4.2 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 dynamic↩Watch. 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.

3.4.3 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!!!

3.4.4 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.
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.

3.4.5 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!!!

3.4.6 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!
Devices with AMOLED display (e.g. Venu™ based devices) only support black background to save battery life time!

3.4.7 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!
This configuration feature is available in the FREE version as well.

3.4.8 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!
This configuration feature is available in the FREE version as well.

3.4.9 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!!!

3.4.10 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!!!

3.4.11 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.

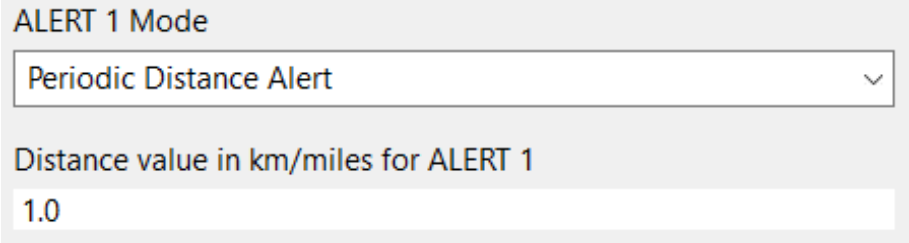
Note

This configuration feature is only available in the PREMIUM version!!!

3.4.12 ALERT features

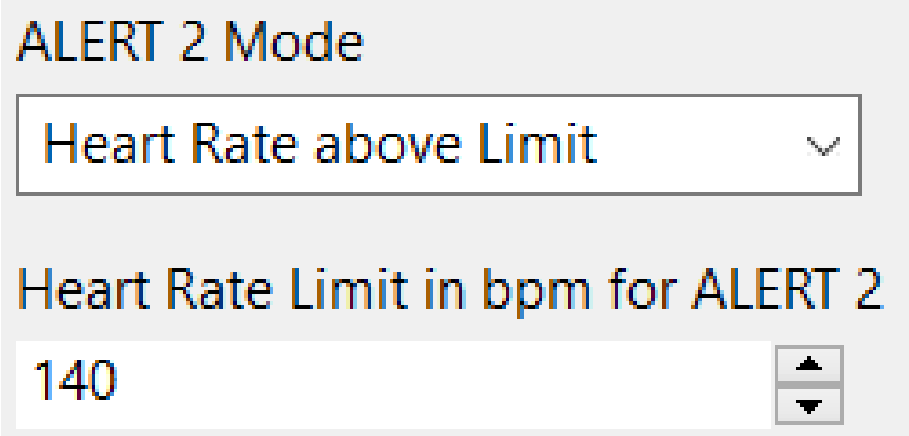
The **ALERT1 mode** configuration option allows you to select the mode for the ALERT1 feature. Please note that this configuration has to be done before manually starting a session the first time. Following options are available:

- 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!!!

3.4.13 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® S60
- Approach® S62
- Approach® S70 42mm and 47mm
- Captain Marvel
- D2™ Air X10
- Darth Vader™
- Edge® Explore
- First Avenger
- Forerunner® 55, 165, 165 Music, 245, 245 Music, 645 and 645 Music
- Rey™
- Venu™
- Venu™ SQ, Venu™ SQ Music
- Venu™ SQ 2, Venu™ SQ 2 Music
- Venu™ 2, Venu™ 2 Plus and Venu™ 2s
- Vivoactive® HR
- Vivoactive® 3, Vivoactive® 3 Music, Vivoactive® 3 Music LTE, Vivoactive® 3 Mercedes-Benz® Collection
- Vivoactive® 4s/4
- Vivoactive® 5

Note

This configuration feature is only available in the PREMIUM version!!!

3.4.14 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!

3.4.15 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!
This configuration feature is only available in the PREMIUM Version!!!

3.4.16 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!!!

3.4.17 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!!!

3.4.18 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!!!

3.4.19 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!

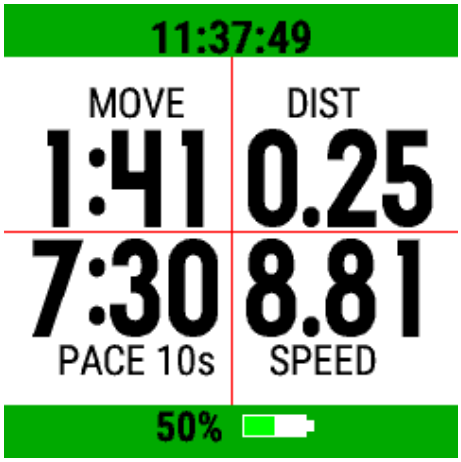
Note

This configuration feature is only available in the PREMIUM version!!!

3.4.20 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!



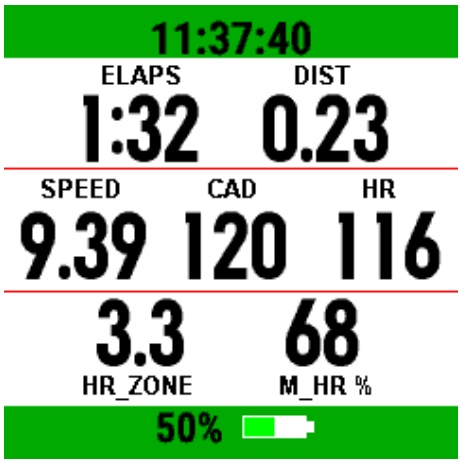
Note

This configuration feature is only available in the PREMIUM version!!!

3.4.21 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!!!

30_DataFields

4 Data fields

The following table gives you an overview about all data fields of the **Cycling App Professional** application. Please note that some of them require the PREMIUM version.

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.

Data field header	Data field description
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.

Data field header	Data field description
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 6.

On Garmin devices with CIQ 2 and higher following additional data fields are available:

Data field header	Data field description
PWR 5s	Power information in watt averaged over the last 5 seconds.
PWR 10s	Power information in watt averaged over the last 10 seconds.
PWR 30s	Power information in watt averaged over the last 30 seconds.

4.1 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!

40_Features

5 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

5.1 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:

5.2 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

5.2.1 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:

5.2.2 Heart rate alert feature

ALERT2 mode	Description
Disabled	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:

5.3 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.

LAP mode	Description
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

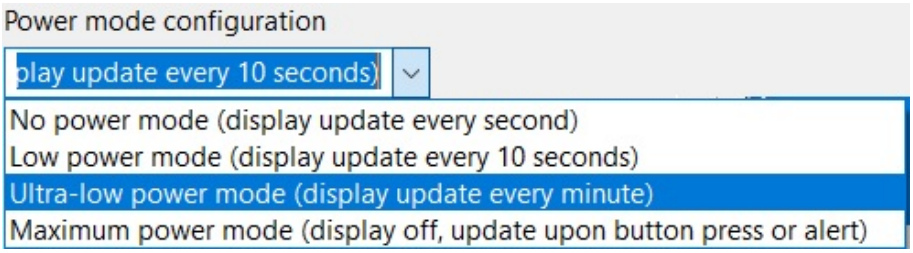
Additional information Following additional LAP-feature related information is provided:

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

5.4 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)



5.5 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:

5.6 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".

5.7 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".

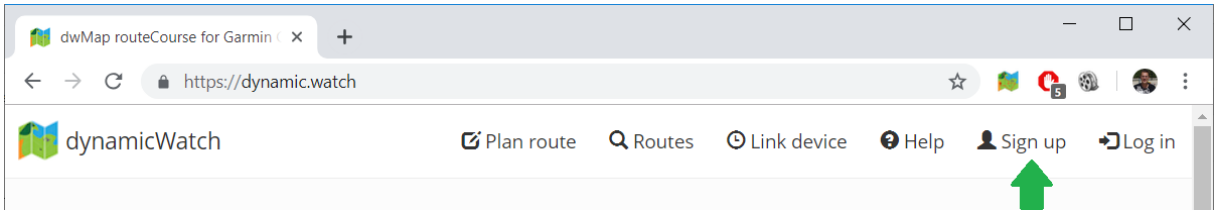
When the map page is active following different modes are available which can be selected by pressing the "START" button:

- 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.

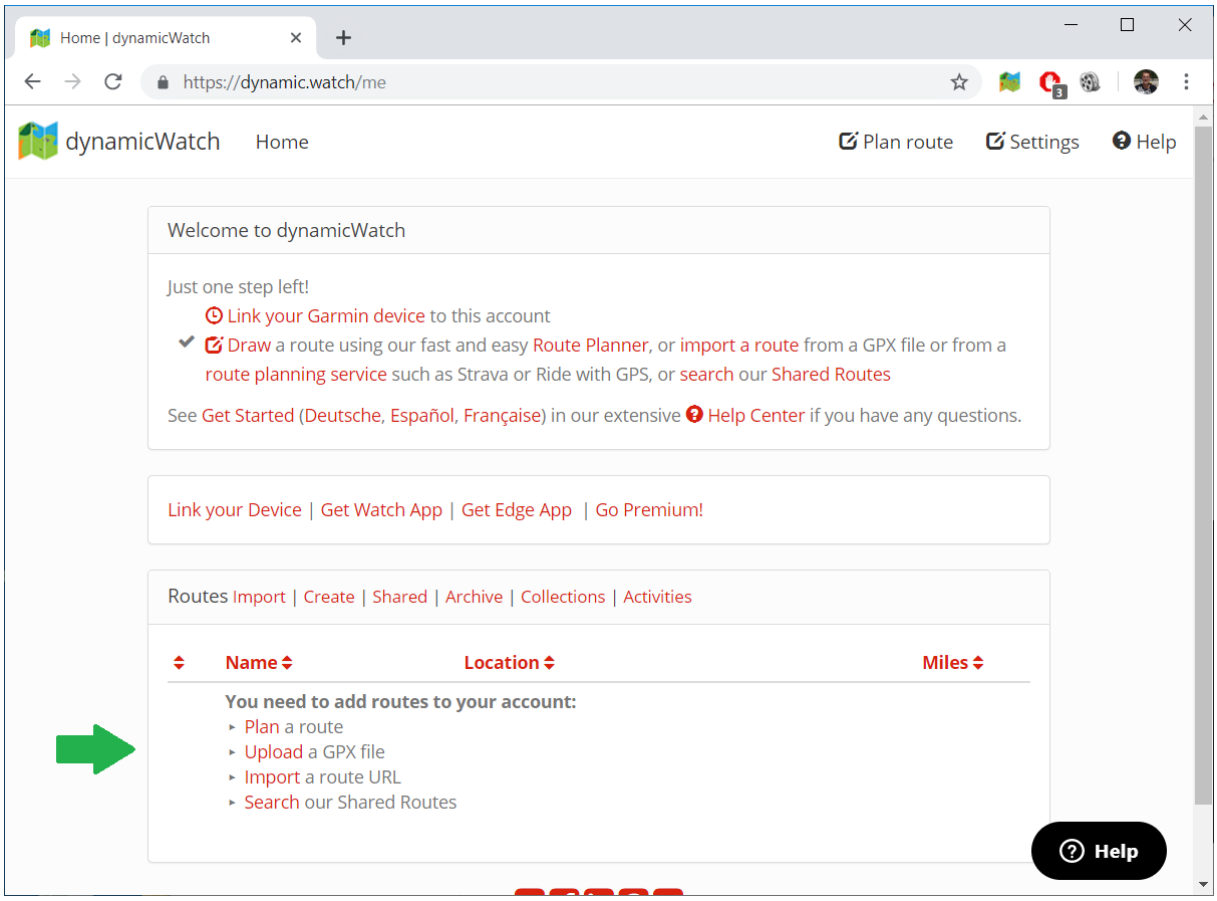
Following picture shows some of the offered modes:

5.7.1 Linking the app with dynamicWatch

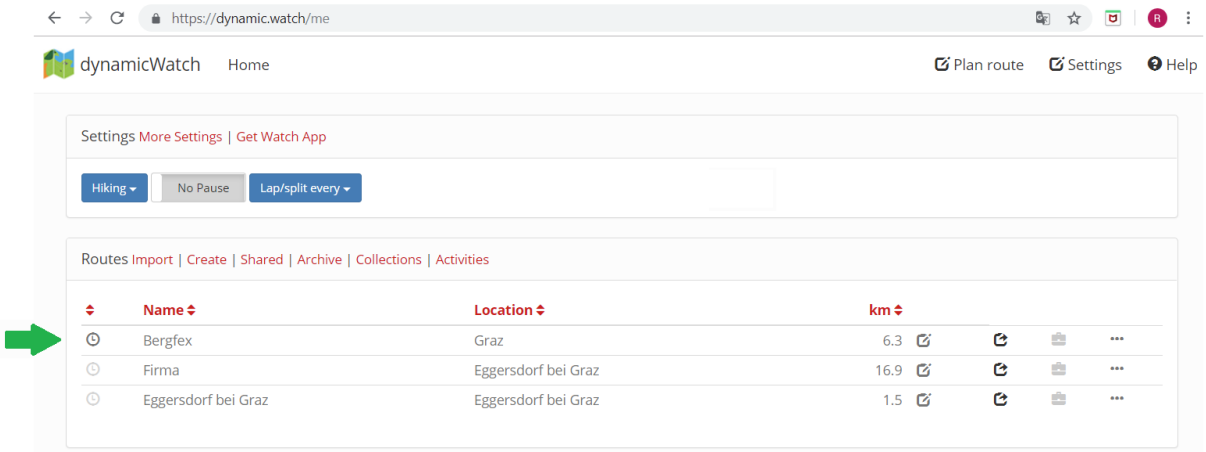
Visit the `dynamicWatch web site` and sign up for a new account as illustrated in the figure below:



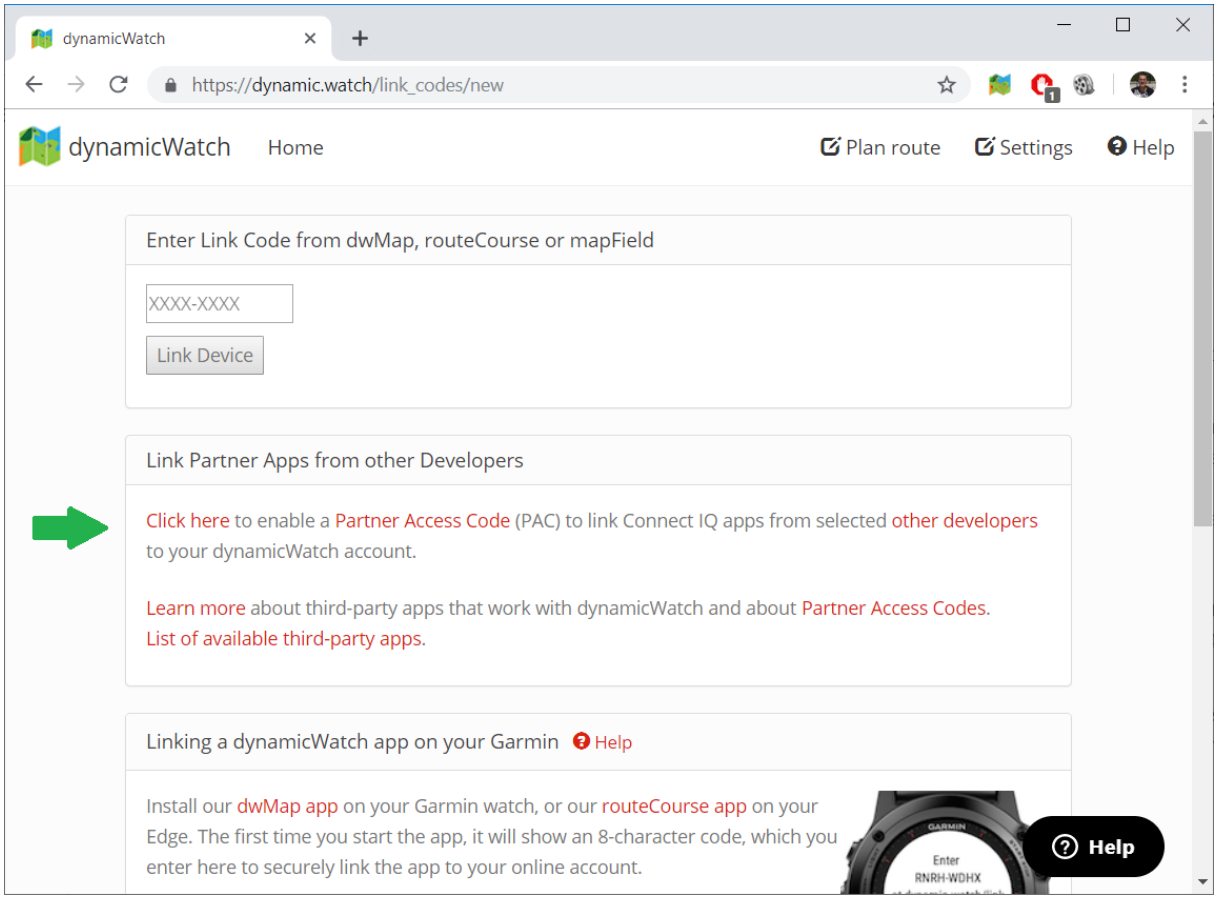
You can now create a new route for example by uploading a GPX file as shown in following figure:



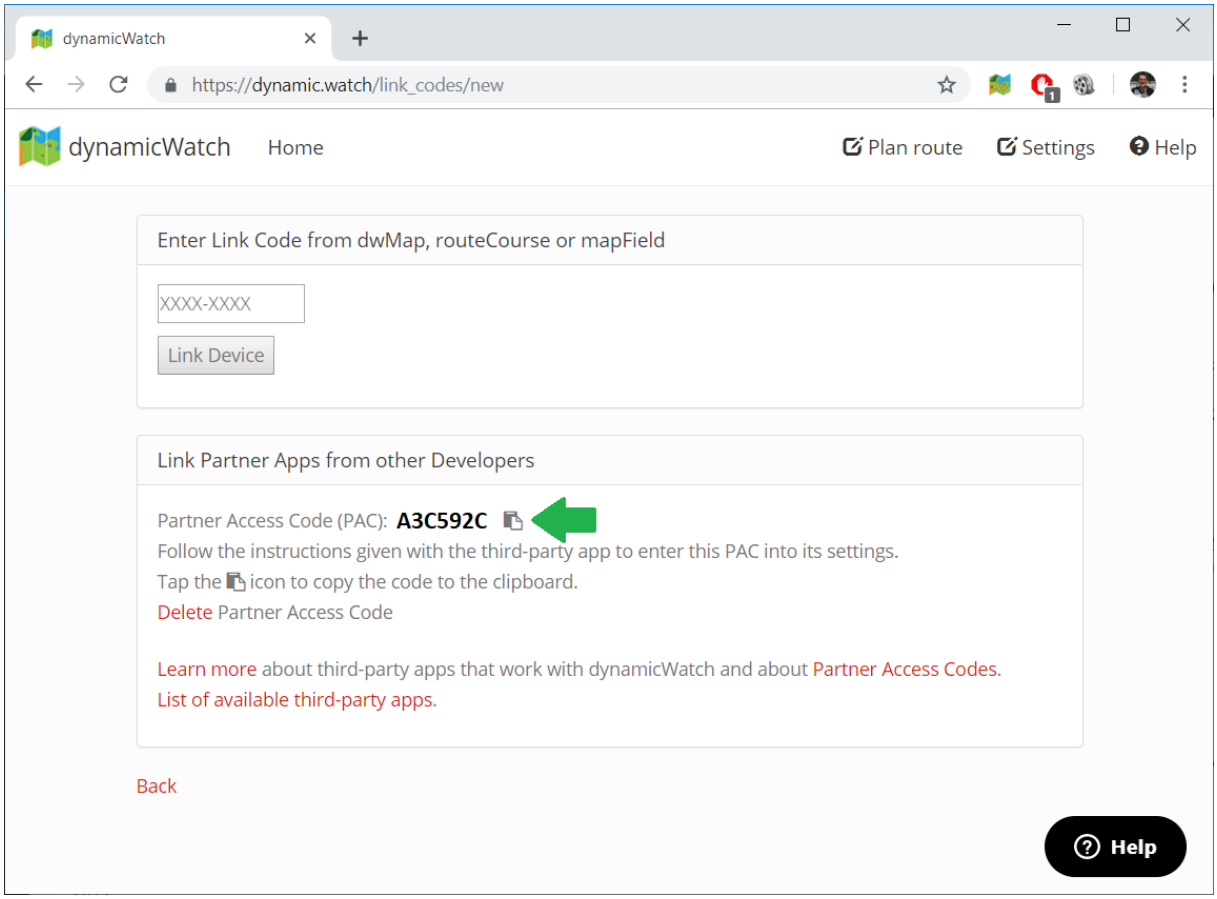
After uploading the route, click on **Back** or the **X** icon to close the edit screen and make sure that this route is marked as your active route (the clock icon is black next to your active route) as shown below:



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`

5.8 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® S60
- Approach® S62
- Approach® S70 42mm and 47mm
- Captain Marvel
- D2™ Air X10
- Darth Vader™
- Edge® Explore
- First Avenger

- Forerunner® 55, 165, 165 Music, 245, 245 Music, 645 and 645 Music
- Rey™
- Venu™
- Venu™ SQ, Venu™ SQ Music
- Venu™ SQ 2, Venu™ SQ 2 Music
- Venu™ 2, Venu™ 2 Plus and Venu™ 2s
- Vivoactive® HR
- Vivoactive® 3, Vivoactive® 3 Music, Vivoactive® 3 Music LTE, Vivoactive® 3 Mercedes-Benz® Collection
- Vivoactive® 4s/4
- 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

5.9 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.

50_Sensors

6 Sensors

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

6.1 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

Number of green bars	Meaning
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)

6.2 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!
Some sensors support ANT+ and BLE. Please make sure you paired the sensors for ANT+!

60_FAQ

7 Frequently asked questions

7.1 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. If you like it and would like to have a more advanced feature set, please donate to upgrade to the PREMIUM Version.

7.2 How to upgrade to the PREMIUM version?

If you like this application or data field and would like to have more advanced features as well, please donate to upgrade to the PREMIUM version. After donation we will sent you the unlock key immediately.

7.3 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.

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

The FREE version is active if you see the "Please donate as EARLY BIRD" message upon application start. Some users reported that the FREE version is still active after entering the registration key and synchronization. In all known cases the key was entered properly.

Here some important registration hints:

Hint 1: Please copy the registration key with 9 characters length exactly in the given format (XXXX XXXX) into this text field. The registration key is a hexadecimal number (numbers from 0 to 9 and big letters from A to F) and the evaluation is case sensitive. No spaces are allowed at the beginning or end. One space is mandatory after the fourth character.

Hint 2: Users reported that on some devices (e.g. Android-based mobile phones) more than one space is added when copying the key to the app settings field. Please make sure that there is exactly one space after the fourth character.

Hint 3: Please synchronize the settings with your watch afterwards. If you use Garmin Express software on PC or M↩AC, please disable the bluetooth connection between your mobile phone and watch during configuration as otherwise the settings might be overwritten again.

Hint 4: Sometimes it is necessary to reboot the watch once (for whatever reason).

Hint 5: Please use the right key for the selected application or data field.

Hint 6: Please make sure that there are no floating point values in the app settings anymore (except for Swimming App where they are allowed).

7.5 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.

7.6 How to enable GPS, GLONASS or GALILEO?

Garmin does not allow Connect IQ applications to controll that. Following steps seems to do the trick:

- 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.

7.7 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:

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.

7.8 What to do if settings cannot be changed?

Currently there is a show stopper problem in the Garmin mobile app for iOS that user settings cannot be changed. Garmin is aware of the problem and made an official statement with a possible work-around. For further details, please click here.

We have tested the workaround with following sequence on an iPhone 7 and it worked properly:

- Delete app with Garmin Connect app.
- Synchronize.
- Once reboot the watch.
- Install the app again with the new Connect IQ app.
- Configure it with the new Connect IQ app.

Note

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

7.9 User settings lost after update?

Unfortunately Garmin might 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.

7.10 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.

7.11 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."

7.12 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."

7.13 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.

7.14 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.

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

People with Garmin 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 watches have no barometric altimeter and are thus affected:

- ForeAthlete® 230J, ForeAthlete® 235J, ForeAthlete® 630J
- Forerunner® 735XTJ, ForeAthlete® 920XTJ, Forerunner® 230, Forerunner® 235, Forerunner® 630, Forerunner® 735XT
- Vivoactive™

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.

In this application 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

7.16 What to do if the application does not work?

We do our best to test the application as good as possible. As we do not have all physical available 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 on your Garmin watch, 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!!!! 98_Backlog

8 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!

99_ChangeHistory

9 Version history

This section lists the version history of the latest already released versions.

Table 13 Version history

Version	Date	Change description
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

Version	Date	Change description
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	Bugfixing

Note

The version history for older releases is available on request only!