

BC-Ski Tracker V.3.0.0

Back country Ski track application, which tracks all relevant information during Back Country skiing.

More information about developments and documentation can be found on:

<http://www.007software.eu/bc-ski-trackers-page/>

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1 Usage




Notes

- *If you check the checkbox for fetching the weather data automatically in the settings of Garmin Connect, your watch should be paired with your phone and your phone needs to be connected to the internet.*
- *The Free version will show all fields and functionality and recordings will be saved to Garmin connect, but after 6 times only 1 screen will be visible and the recordings will not be saved anymore. It took many hours to develop this App. For the price of a beer for me and a wine for my wife, you can purchase the Pro version and enjoy all features of this App.*
- *Register at www.007software.eu (not mandatory). You can buy the Pro version via the web shop. You get a license key, which you enter in the settings of the app via Garmin Express or through Garmin Connect on your phone. Instructions follow in this document.*
- *When you use this app, it is better to disable all notifications from your phone. When skiing, you won't be able to check them anyway.*

1.1 Start screen

Once started the GPS will search for your location. The green lines on the bottom of the

screen will show the signal strength. 

A check is made to see if your phone , your tempe device  and heart rate belt  is connected and in the Pro version they will show.

If you have a Tempe sensor, then the temperature from this Tempe device will be shown. Also note that with a Tempe, it may take a minute or more before the temperature is shown.

When the GPS strength is strong enough you can press the Start(enter) button to start recording. (The green arrow will blink when the GPS is oke). If you do this before the strength is good, the watch will still try to get the GPS and starts automatically when the strength is oke.

When you don't press the Start(enter) button the screen will close after 2 minutes. After pressing the Start button. The record screen is displayed. This consists of 5 screens.

To scroll through the screens:

- On touchscreens. Tap at the top or bottom of the screen or swipe left or right.
- On non-touch screens. Press the up or down button

If you checked the checkbox for fetching the weather data automatically in the settings of Garmin Connect for this app, the weather data is fetched and shown on the first screen.



The battery level is visible as a ring at the edges of the screen on round watches and at the bottom on square watches.

To access the first screen with the weather information again, press and hold the up-button. For touch screen devices tap and hold. When the first screen is visible again, you can press the back-button to fetch the weather data again.

When you don't move, the screen lines will be white, stating the app is paused. When you move again recording will resume. This can be overridden in the settings of the app. (auto pause)

When you go up the lines will be red. When you go down the lines are blue

1.2 First data screen (changeable)

The first screen could show:

- Number of laps
- Timer
- Distance
- Speed
- Maximum speed
- The heading
- Colored heartrate indicator based on your profile
- Indicator (bottom left) which shows if you are going up or down



1.3 Second data screen (changeable)

The second screen could show:

- Number of laps
- Average speed
- Current lap distance
- Total ascent
- Total descent
- The heading
- Colored heartrate indicator based on your profile
- Indicator (bottom left) which shows if you are going up or down



*In the setting screen you can set the threshold for ascent or decent in meters or feet before a new lap is recorded.

*If you want to set a lap manually. Be sure you are NOT in the weather screen and press the back button.

1.4 Third data screen (changeable)

The third screen could show:

- Number of laps
- Current time
- Heart beat
- Max heartbeat
- Vo2max
- Altitude
- The heading
- Colored heartrate indicator based on your profile
- Indicator (bottom left) which shows if you are going up or down
-



1.5 Fourth data screen

The fourth screen shows:

- Total workout time
- Last two laps
- Distance of the last 2 laps with up or down indicator
- Ascent of the last 2 laps
- Descent of the last 2 laps
- Max. and min. altitude (Not on all watches)
- Indicator (top right) which shows if you are going up or down
- Total ascent and descent



1.6 Fifth data screen

Take me home screen or map view screen. On devices which support Garmin's Map view functionality, the Map View screen will be visible. On the other devices the "take me home screen" is visible.

1.6.1 Take me home screen

The "take me home screen" screen shows the relative position you are from the start of the hike. It also shows you the direction to go to get to the starting point.

- The center is your starting point.



- The red dot is your current position from the starting point.
- The number near the last circle is the distance scale. It will change to 6 when you reach a distance of more than 3.1, etc.
- The heading on the bottom shows the direction you need to walk to go back to the starting point
- The heading on the top shows the direction you are walking now. It will be red if it is different from the heading on the bottom. If it is green you will walk in the direction of your starting point.
- The wind arrow will show you the direction to take to walk in the direction of your starting point



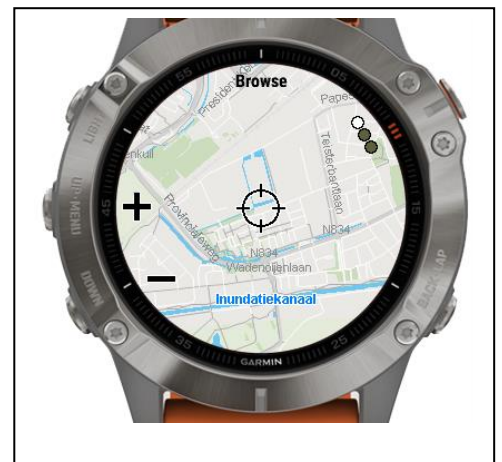
Note:

-The “take me home screen” is not a navigation system. I tried it several times and it will indeed get you close to the starting point. Usage is at your own risk however.

1.6.2 Map view screen

The Map View screen consists of 2 modes. The preview and the browse mode. At least this is how Garmin intended it to be. The functionality is not yet mature yet. On some watches it behaves different than Garmin intended it to be. Later you read more about this.

In the preview mode you can see where you are at the moment and if you created a route/itinerary, it will be visible when you are near the starting point. (later more about creating a route/itinerary)



In the browse screen you can zoom/pan in the screen to navigate around and get acquainted to the surroundings.

While Hiking, the route you walked will be visible on the screen.

In the following section you will find more about the buttons you can use to use the different screens and other functionalities.

1.6.2.1 Button devices

On button devices when enter the Preview screen you can long-press the Up-button to set a waypoint. (When you are in one of the data field screens you can also press the Up-button to set a waypoint)

To enter the Browse mode, press the select/start button once, You will feel a vibration. The screen changes and you will see “+” and “-“ signs near the Up and Down button.

- By pressing the up and down buttons you can zoom in or out. Pressing the select/start button again the signs change to “Up” and “Down” arrows.
- By pressing the up and down buttons you can pan up or down. Pressing the select/start button again the signs change to “Left” and “Right” arrows.
- By pressing the up and down buttons you can pan Left or Right. Press the “Back” button to leave the Browse mode and return to the Preview mode.

- Press the Back button again to return to the Data fields screens.




Note: On some devices the preview mode will also show the “+/-“, “up/down” and “left/right” signs next to the Up and Down buttons. This I can’t control. You have to see if the Preview mode fulfills your needs, otherwise press the select/start button to enter the browse mode. Sometimes the “+/-“, “up/down” and “left/right” signs are overlaid. Just press the select/start button until they are not overlaid anymore.



The App does not navigate you as in pointing directions.

The D2 Charlie and the Descent MK1 work a little different. See later on in the manual (paragraph 1.6.2.3)

1.6.2.2 Edge devices

Without touch screen


Use the  button to set a waypoint when you are in the data field screens. Use the  button when you are in Preview mode. To go to Browse mode press the  button. When you are in the Browse mode, the screen changes and you will see “+” and “-“ signs near the Up and Down button.

- By pressing the up and down buttons you can zoom in or out. Pressing the  button again the signs change to “Up” and “Down” arrows.
- By pressing the up and down buttons you can pan up or down. Pressing the  button again the signs change to “Left” and “Right” arrows.
- By pressing the up and down buttons you can pan Left or Right. Press the “Back” button to leave the Browse mode and return to the Preview mode.
- Press the Back button again to return to the Data fields screens.

Note: On some devices the preview mode will also show the “+/-“, “up/down” and “left/right” signs next to the Up and Down buttons. This I can’t control. You have to see if the Preview mode fulfills your needs, otherwise press the select/start button to enter the browse mode. Sometimes the “+/-“, “up/down” and “left/right” signs are overlaid. Just press the select/start button until they are not overlaid anymore.

The App does not navigate you as in pointing directions.

With touch screens

Use the  button to set a waypoint when you are in the data field screens and in the Bottom right button to set a waypoint in Preview mode. Tap on the screen to enter the Browse mode. You will hear a play tone and the screen changes and you will see “+” and “-“ signs on top of the screen.

- Tap them to zoom in or out.

- Swipe the screen to pan around.
- Press the Back button to return to the Preview mode. You will hear a play tone again.
- Press the Back button again to return to the data field screens.

Note: On some devices the preview mode will also show the “+/-“, “up/down” and “left/right” signs next to the Up and Down buttons. This I can’t control. You have to see if the Preview mode fulfills your needs, otherwise press the select/start button to enter the browse mode. Sometimes the “+/-“, “up/down” and “left/right” signs are overlaid. Just press the select/start button until they are not overlaid anymore.

The App does not navigate you as in pointing directions.

1.6.2.3 D2 Charlie and Descent MK1 devices

On these devices the zoom and pan signs are not visible in my simulator in the Browse screen. I don’t know if this is really the case on the watches too. If you don’t see them, don’t worry the Up and down buttons control them anyway and the select/start button work fine too. Otherwise the functionality is the same as for the button devices.

1.6.2.4 Create route/itinerary

It is possible to use a route/itinerary you can follow during your Hike. Here you will find how to create them and enter them in the setting screen.

Go to the website: <https://developers.google.com/maps/documentation/utilities/polylineutility>


In there you can create a polyline. Please read the instructions. When you are done, copy the text in the field “Encoded Polyline:”. Make sure you don’t miss any characters. If you can’t see all of the text enlarge the field by dragging the bottom right corner.

Open the settings screen of the App in Garmin connect mobile or Garmin Express. Go to the last field on the bottom named “Route/itinerary” and paste the text in there. When you start the app and go to the Map view screen, you will see your route/itinerary, which you can follow during your Hike.

2 Start/stop/pause

The app is paused when no movement is detected(The line will become red). When you start moving again, registration resumes(The lines become green again). You will also feel a slight vibration. ***In the setting screen of the app in your phone, you can enable or disable the auto pause functionality.***

To stop the recording press the Start button again. A screen is shown in which you can select (tap on the image for touch screen devices):

- Remove. To remove your recording and stop the program
- Save. To save your recording and stop the program
- Return  to return to the recording



The selected “Button” has a green dot in it.

Once saved, the recording will be uploaded, if you are connected to your phone and you have set your Vivo Active to upload immediately. The recording can be seen in Garmin Connect.

In the summary on GC, you will see a section “IQ fields”. In there you will find.

Number of runs
Number of up runs
Number of down runs
Distance up
Distance down
Vo2Max

3 Thresholds

- License key
- Get the weather data automatically
- You can set the contrast to
 - Black on light grey
 - Black on white
 - White on black
- Use Map view if it is compatible for your watch
- Route. You can use this field for your route/itinerary (Paragraph 1.6.2.4)
- Auto pause. Default is ON.
- Set the number of meter up or downhill to calculate a lap
- Set the speed in meter/feet per hour
- Set auto scroll of screen on or of
- Set seconds to auto scroll
- Wind unit. Default is km/h or miles/h, but you can set it to m/s
- Set the default screen
- Relocate the position of the fields

Draw 3 screens on a paper and put in the fields you like to see per screen. This way you won't mix up or set too many fields on the same screen (you will get an warning for this on the start screen)

Now select per screen which fields has to be shown and on which location. As an example you see on the right an image where the distance field in on screen 1 in the top-left corner, the speed field is on screen 1 in the top right corner, timer field is on screen 1 in the bottom left corner, etc.

Screen 1

Set position of distance field
Top-Left

Set position of speed field
Top-Right

Set position of timer field
Bottom-left

Set position of max. speed field
Bottom-right

Set position of avg. speed field
No position

Set position of total ascent field
No position

4 Locking keys

Note: Activation of the lock can only be done in screen 1.

- For watches with a touch screen tap 3 times on the top of the screen in the first record screen. Your watch will vibrate, stating that it is locked and an exclamation sign is behind the time. Tap 3 times on the top of the screen again to unlock. The watch vibrates again.
- For watches **without** a touch, press the UP button 3 times in the first record screen. Your watch will vibrate, stating that it is locked and an exclamation sign is behind the time. , press the UP button 3 times again to unlock. The watch vibrates again.

5 Auto scroll

In the setting screen you can activate the auto scroll of the screens. Also you can set the number of seconds for scrolling

6 Adding your license key and select automatic fetching of weather data, set thresholds for detecting laps and enable/disable auto pause

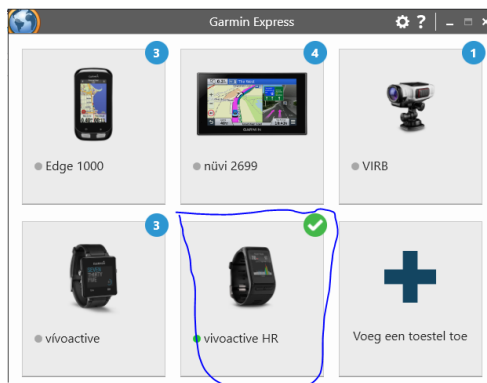
This can be done in two ways:

1. With your computer, via Garmin express
2. On your phone, via the Garmin connect app.

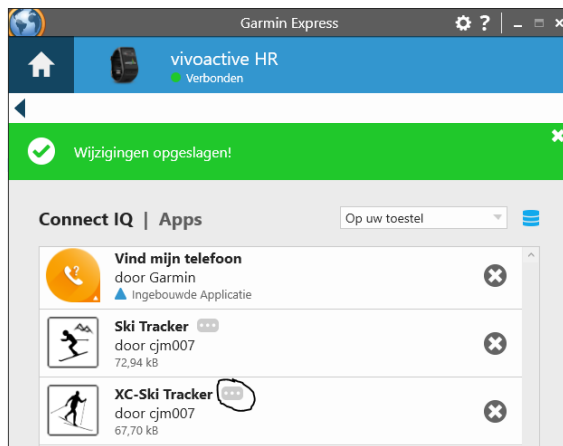
6.1 With the computer



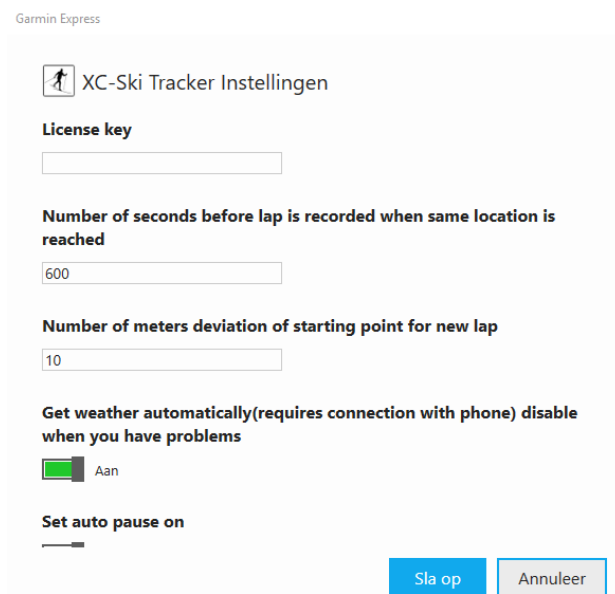
Attach your Garmin watch to your computer. Start the program Garmin express



Click on your watch symbol and then on the button Control App



Look for the BC-Ski Tracker App in the list and click on the dots on the right of the description



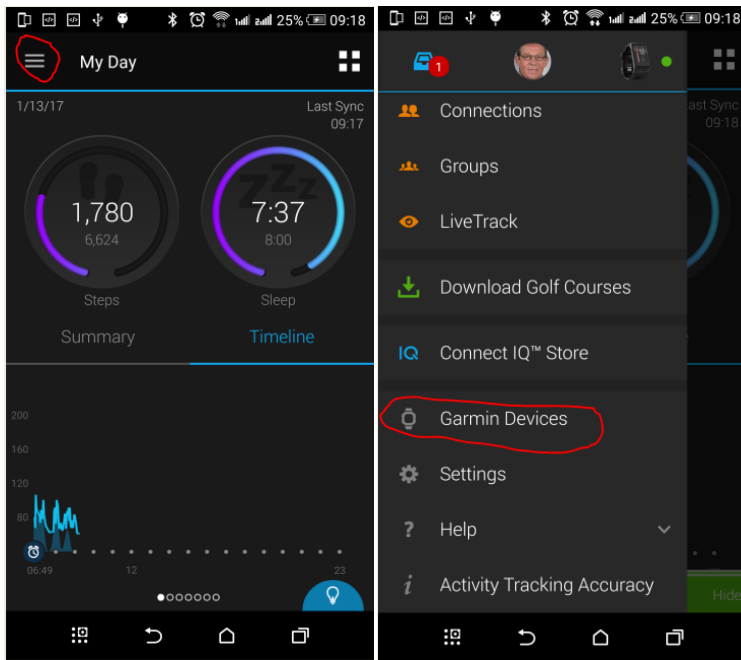
In the next screen you can enter your license key and save it.

- To determine if a next lap is to be recorded, the app check if you are in the same place as when you started. This can deviate a little. That is why you can set the “Number of meters deviation of starting point for new lap” is set on 10 meters, but you can change it to your needs. To prevent a new lap , when you are within the 10 meters another setting “Number of seconds before lap is recorded when same location is reached” can be set. Standard setting is 600 seconds (19 minutes). You can change it to your needs.

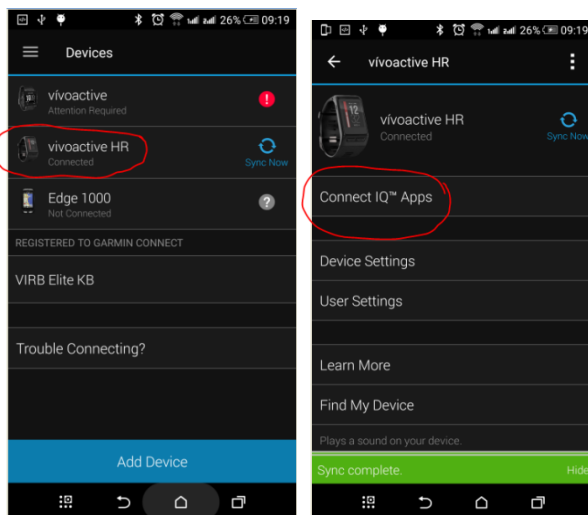
6.2 On your phone

Start the Garmin Connect App.

Click on the menu symbol and go to “Garmin devices”.

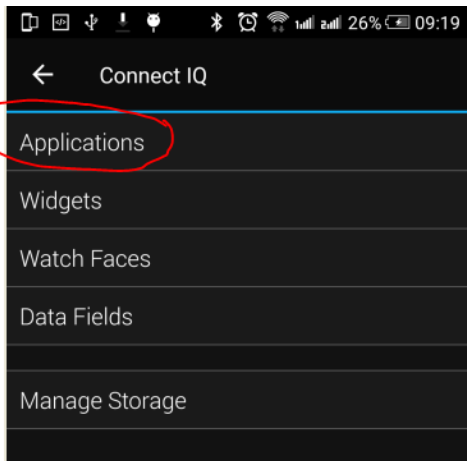


Select your Garmin watch

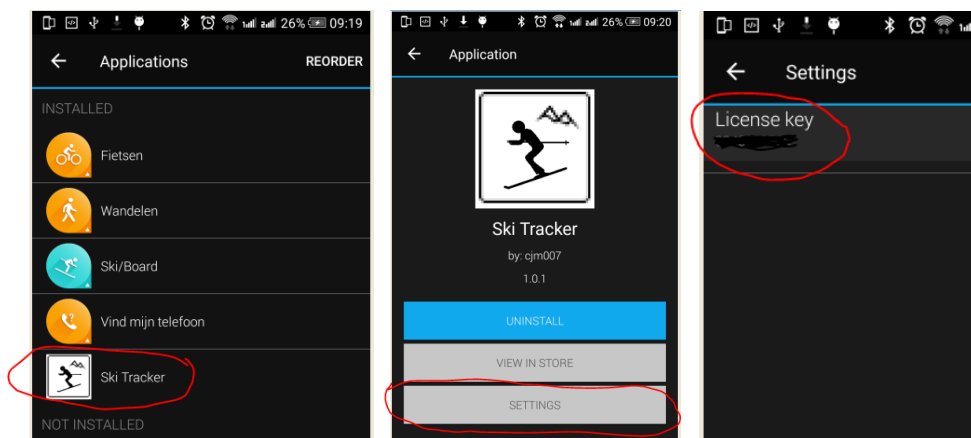


and click on “Connect IQ apps”

Then click on “Applications”.

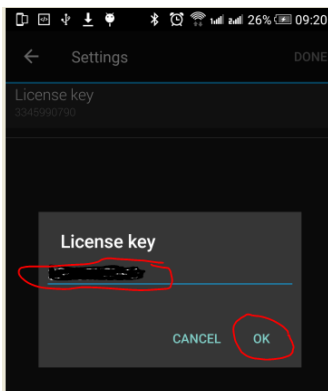


In the list with applications, click the BC-Ski Tracker App (In this example the Ski Tracker is used)



and the button "Settings".

Click on the License key and fill in the key.

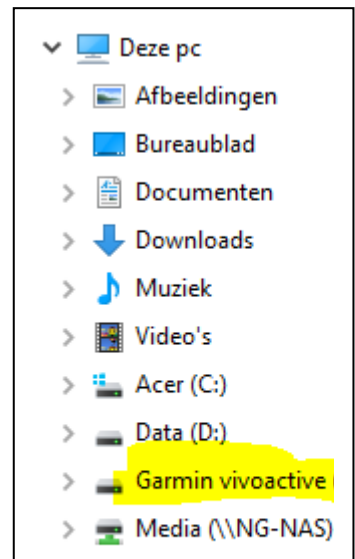
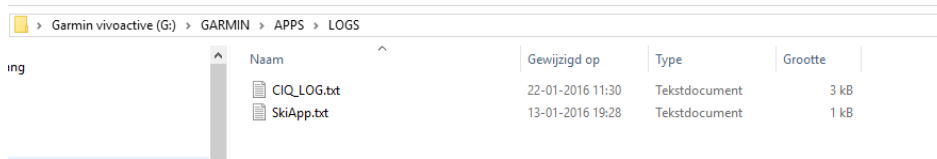


Save your entry and you are done (click on OK and then on OK or Done in the right upper corner).

7 Trouble shooting

When you encounter problems with the app. Connect your watch with your computer. After a while you here a short sound. This means the watch is connected. Open your file explorer (mostly it will open up after connection is successful) and look for you Garmin directory.

Open the map GARMIN->APPS->LOGS, and add a file called CIQ_LOG.txt to this directory. Disconnect your watch an start the App again. When it crashes, the error is written in this file. Connect your watch to the PC again, go to the log-directory and mail the file CIQ_LOG.txt to kees@007software.eu



8 Notes

- The app can be used for the following languages English, Dutch, French, Italian, Polish, Portuguese, Danish, Czech, Spanish, Swedish and German. If you want a new translation in your language, send me a mail!
- Please report any mistranslations to kees@007software.eu. (I'm Dutch :))
- If you encounter any problems, please put the file "CIQ_LOG.txt" in the "GARMIN-APPS-LOGS" directory of your watch. Run the app again and send the file to my email address.

10 Software disclaimer

My apps which can be downloaded from the Garmin store is 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, I (Kees Bond) makes no warranty that:

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

Software and its documentation:

1. could include technical or other mistakes, inaccuracies or errors. I may make changes to the software or documentation made available on this web site.
2. may be out of date, and I make no commitment to update the software right away.
- 3.

I assume no responsibility for errors or omissions in the software or documentation

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