

Kite Tracker V.2.0.0

Kite track application, which tracks all relevant information during kite surfing.

More information about developments and documentation can be found on:

<http://www.007software.eu/apps/kite-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 kiting, you won't be able to check them anyway.*
- *The App supports relocation of fields on the first 3 screens.*

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  and heart rate belt  is connected and will be shown.

If you have a Tempe sensor attached, 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. The tempe value is not used for calculation of the jump height in the pressure supported devices. The temperature from the weather forecast is used or you can manually set the temperature (see setting wind direction)

When the GPS strength is strong enough you can press the Start(enter) button to start recording. 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.

To set the wind direction and temperature manually, press the up button on button devices or tap the screen for touch screens. The wind direction screen will pop up. The top arrow shows the wind direction from the weather data (if fetched). The lower arrow shows the direction you walk to. Put your nose in the wind and walk exactly towards the wind for a while. When the arrow is correct, press the start button. The default height will be set, so start only at sea level. Here you can also set the temperature. On button devices, use the up and down keys for adjustments. On touch screen devices tap on the arrow images on the screen. For measuring the jumps with the pressure sensor it is important to set the right temperature.



Note: If you don't set the wind direction manually, the wind direction from the weather data is taken. If you disabled the fetching of the weather data in the setting screen a message will appear telling you the wind direction is not set. No use to start the app if you want to use the direction graphs, so set the wind direction manually by using the Up button. When the wind direction is not available you will see a red exclamation sign in the green triangle after pressing the start button. If the weather data is not fetched a default temperature is used: 20 degree Celsius or 68 degree Fahrenheit. Again, for measuring the jumps with the pressure sensor it is important to set the right temperature.

You can choose to use Pressure or GPS to calculate the jumps in the setting screen. On watches which support raw Ambient pressure readings the Altitude of the jumps are calculated based on the raw Ambient pressure (is more accurate), otherwise the normal pressure from the barometer is used.

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 4 screens for the devices with low memory (see paragraph 1.2 notes) and 5 screens for the other devices in which the fields can be relocated)

To scroll through the screens:

- On touchscreens. Tap at the top or bottom of the screen or swipe up or down or left or right (on the Vivo Active 3, swiping from left to right won't work, since this is the back functionality)
- On non-touch screens. Press the up or down button



- You can return to this screen by press-and-hold the down key and by tap-and hold on touch screen devices

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.

When you don't move, the screen lines will be red, stating the app is paused. When you move again recording will resume and the lines will become green.

1.2 First data screen (simple, can be set in the setting screen)

- Time
- Speed
- Max. speed
- Max. speed graph
- Distance
- Timer
- Wind direction
- Heart beat zone



Note:

The simple screen is only selectable for the following devices: d2bravo, d2bravo_titanium, fr230, fr235, fr630, vivo active, fr920xt, fenix3, fenix3_hr, fr735xt, because they have not enough memory to support relocation of the fields for the first 3 screens.

The max speed graph is:

- Green with speeds up to 30 m/h or km/h.
- Green/yellow with speeds >30 and <=40
- Green/yellow/orange with speeds >40 and <= 50
- Green/yellow/orange/red with speeds >50 and <= 60
- Full red with speeds >60

1.3 First data screen

This is an example. You can select which fields are shown in the first 3 screens screen

- The speed
- Maximum speed color indicator
- Number of legs
- Your heading
- Timer
- Time
- Heart rate zones



1.4 Second data screen.

This is an example. You can select which fields are shown in the first 3 screens screen

The second screen shows:

- Time
- Heart rate zones (top left)
- Maximum jump height
- Latest time in the air
- Number of jumps
- Number of legs
- Angle graph2 (bottom left, see note)
- Wind direction
- Your heading
- Note: The upper indicator show if your angle from the base line to the wind is + or -. The ideal kite direction is +20 degrees towards the wind. This way you go in a fairly



straight line and you are able to jump, so you won't be blown away downwind too much. So from 0 to + the white indicator is in the green, otherwise in the yellow.

- The lower indicator also shows your angle from the base line to the wind, but then in degrees. Colors mean the same as the upper indicator

1.5 Third data screen.

This is an example. You can select which fields are shown in the first 3 screens screen

- Maximum distance jump
- VMG
- DoW = degrees off the wind
- Average speed
- Time
- Heart rate zones (top left)
- Number of legs (on the left bottom)
- Your heading (bottom)



1.6 Fourth data screen

This is the take me home screen

- On the bottom you will see the direction which points to the starting point.
- On the top position you will see an arrow. This points the direction you have to take to get to the starting point.
- On the left is a number which shows you how far you are away from your starting point
- On the right is the unit of the number (miles or km's)
- In the middle you see a relative distance graph. The outer circle is default 3 miles/km. When you go past the 3 mile/km it will be scaled to 6 mile/km.



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.

1.6.1 Map view screen

The Map View screen has 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

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

While Climbing, the route you climbed 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.

1.6.1.1 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)

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.

1.6.1.2 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.

1.7 Fifth data screen

The last screen shows:


- The wind speed and direction
- The state of the battery(Circle at the edge)
- If a tempe device is attached
- If you are connected to your phone
- If your connected to your heart belt
- The temperature in degrees or Fahrenheit (if a tempe device is attached the temperature comes from this device, otherwise it comes from the weather service)
- GPS status
- Altitude



2 Start/stop

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):

- Discard. 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 (not for touch screen devices).

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

In the Garmin IQ fields the following data should be visible:

- Number of jumps
- Maximum jump height
- Maximum jump distance
- Maximum jump time
- Maximum speed downwind
- Maximum speed upwind
- VMG max downwind
- VMG max upwind

Note: Garmin does not always show the IQ fields. I can't do anything about it.

3 Locking keys

It is possible to lock the keys. For a Garmin Vivo active HR it is possible to use the normal button (press back key for 3 seconds) for that. For other watches I don't know.

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.

4 Thresholds

In the settings screen (see below) you can set the threshold for detection of a jump. It is set to 2 as default (if you use the miles setting on your watch the number will be divided by 3.28, because the height is calculated based on the ambient pressure, which is in meters)

- Auto pause. Default is ON.
- Jump threshold. It is set to 2 meters or 2 feet as default
- Threshold degrees legs turn. Default is set to 30 degrees. So if you make a turn and the deviation is within 30 degrees of the starting zero line, an leg will be recorded
- Simple screen. Check if you don't want the Graph screen with angle and wind directions.
- Select the distance unit.
 - Miles/km's. When set it detects the units from your watch settings
 - Nautical miles. The distance is displayed in nautical miles
- Select the speed unit
 - Miles or km's per hours. When set it detects the units from your watch settings
 - Knots. The speed is displayed in knots
- Vibration angle. When 0 the watch will not vibrate when sail angle changes. When set on a value, this value is compared to your sail angle when it passes the set angle, the watch will vibrate every 5 seconds, warning you your angle is too far away from the 0 angle.
- Speed alarm. If set to 0. Speed alarm is off. When set every 10 seconds a vibration will occur if your speed is higher than the setting.
- Speed threshold before recording. This is for beginners. If set to 0. The setting is off. If set the recording will start/resume when the speed is higher than the setting. If the speed is lower. The recording is paused. **This will only work if the auto pause is set to on.**
- Wind unit in km/mile/h or m/s
- Use GPS instead of pressure to calculate the jumps
- Set the default screen
- Use Map view screen

- Default is on. Even when it is on, map view is not available for all devices, but only for: Descent MK1, Edge 1030, Edge 520 plus, Edge 820, Edge 820 Explore, Edge 830, Edge Explore, Fenix 5 plus, Fenix 5S Plus, Fenix 5X, Fenix 5X plus, Fenix 6S Pro, Fenix 6 Pro, Fenix 6x Pro, Fore runner 945, Marq Athlete, Marq Aviator, Marq Captain, Marq Driver, Marq Expedition

The following is not relevant for the devices listed in the paragraph 1.2 notes.

1. Relocation 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 in on screen 1 in the top right corner, the timer field is on screen 1 in the bottom-right corner and max. speed is on screen 1 in the bottom left corner.

Screen 1

Set distance field on/off

Position

Set speed field on/off

Position

Set timer field on/off

Position

Set max. speed field on/off

Position

Set Angle graph field on/off

Position

Adding your license key

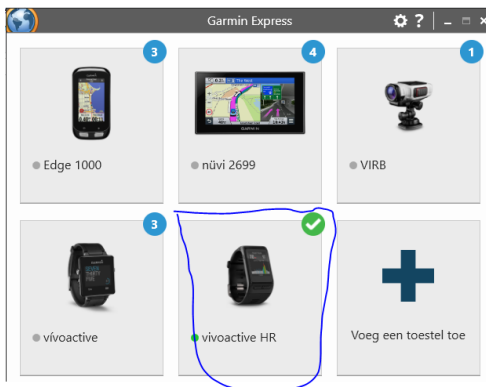
This can be done in two ways:

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

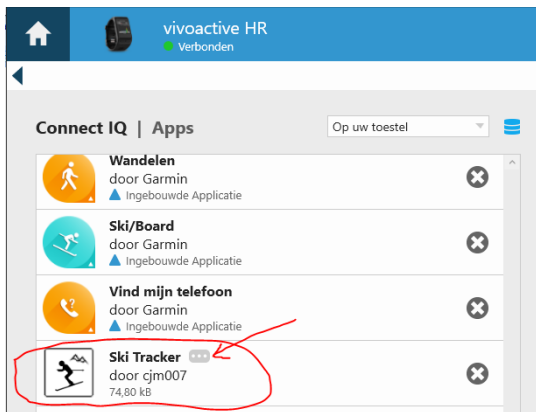
4.1 With the computer



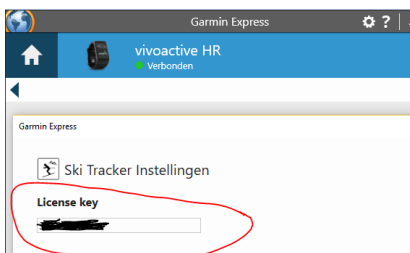
Attach your Garmin watch to your computer. Start the program Garmin express



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



Look for the Kite App in the list and click on the dots on the right of the description. (The image shows an example of the Ski tracker)

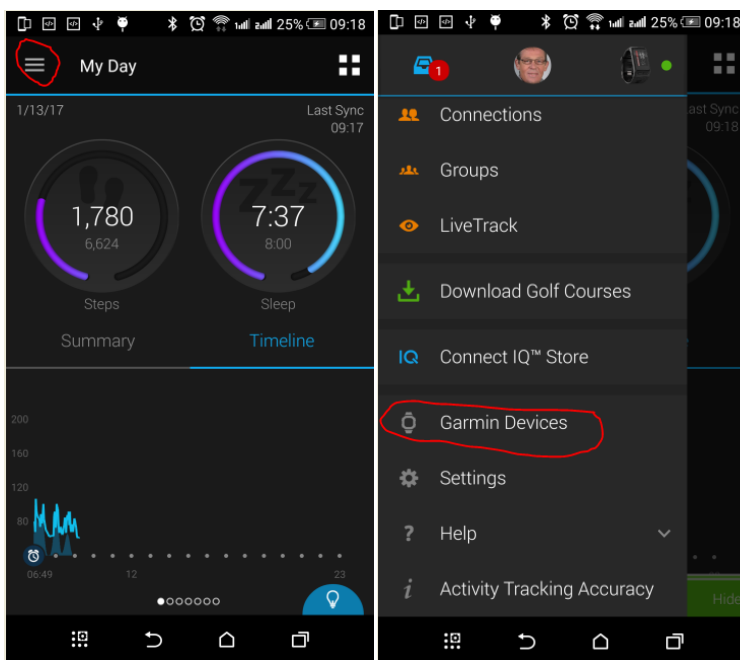


In the next screen you can enter your license key and save it.

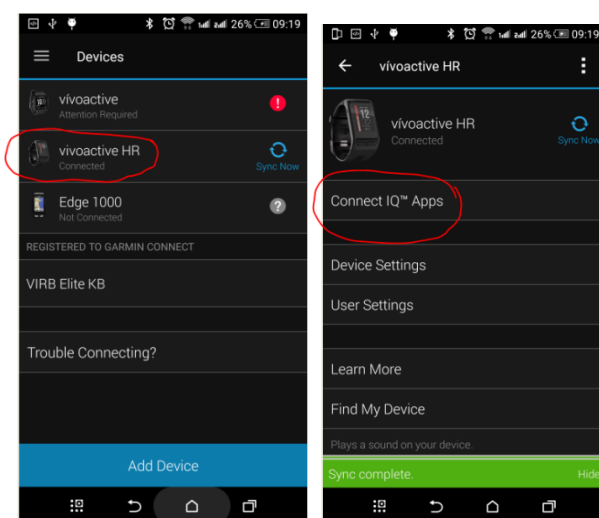
5 On your phone

Start the Garmin Connect App.

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

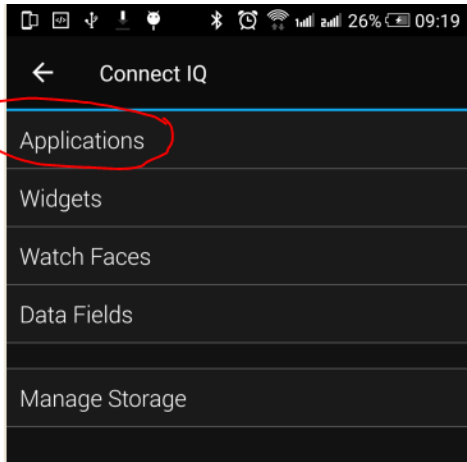


Select your Garmin watch

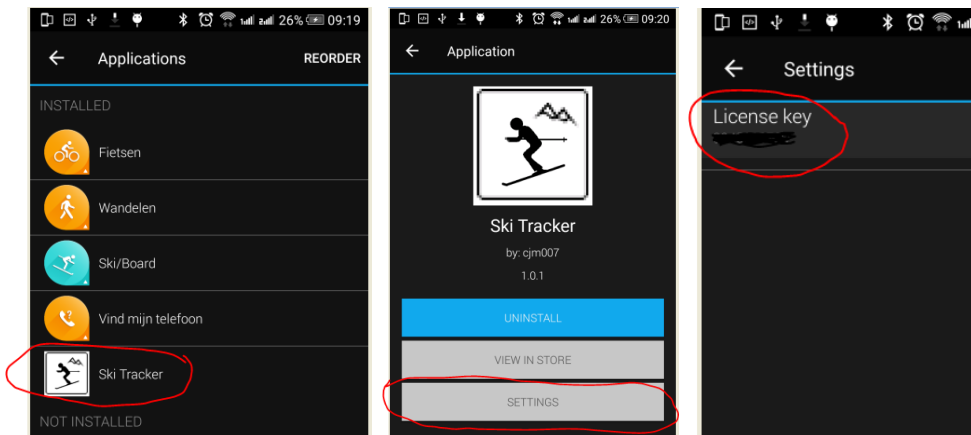


and click on “Connect IQ apps”

Then click on “Applications”.

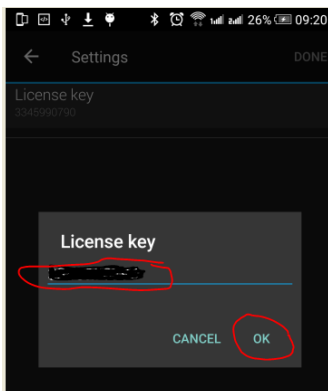


In the list with applications, click the Kite Tracker App (here the Ski Tracker is shown as an example)



and the button "Settings".

Click on the License key and fill in the key.

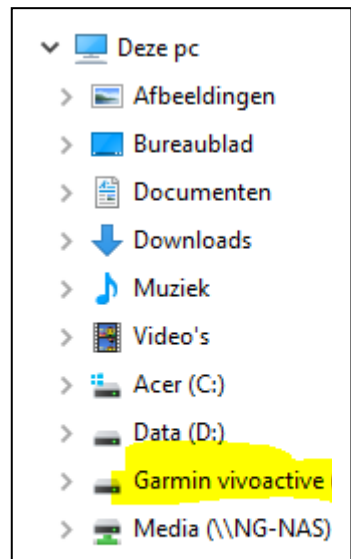
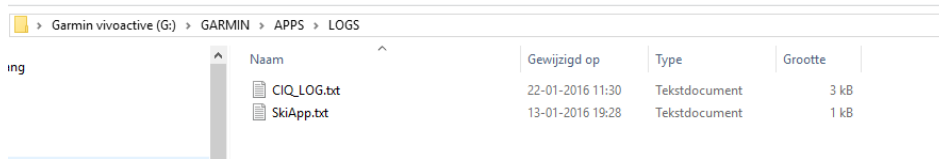


Save your entry and you are done (click on OK and then on OK or Done in the right upper corner).

6 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



7 Notes

- The app can be used for the following languages English, Danish, Dutch, French, Polish, Portuguese, Italian 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.

8 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:

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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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