

# **Locus Map for Garmin**

Created by WearSoft

## **USER GUIDE**

Hot shortcuts: Devices compatibility, Course import, Activity data screens, Activity record, Troubleshooting

Locus Map for Garmin is an extension which provides features of **Locus Map** mobile app on **Garmin** devices while providing some native Garmin activity functionalities. It consists of two applications:

- Android add-on Locus Map for Garmin available on Google Play
- Garmin Connect IQ application Locus Map available on Connect IQ Store





#### **Main Features**

- display real-time data from Locus Map running on your smartphone:
  - navigation
  - guidance
  - track recording
  - device status (battery, GPS.. )
- record activities, provide their statistics via data fields and store them on Garmin Connect
- render maps stored on your Garmin device (on supported devices)
- import routes/courses from your smartphone to your Garmin to navigate by them with Garmin native activity apps (on devices supporting navigation features)

# **Compatibility**

In order to use Locus Map for Garmin, you must have compatible both Android phone and Garmin device. Android add-on is compatible with all smartphones running OS Android 4.1 and higher.



With new 4.20 version of Garmin Connect Mobile, Garmin without notice blocked required type of connectivity resulting that Locus Map on Android 9 do not work (unable to connect to smartphone or throw -300 error during track import). We are in touch with Garmin team to get Garmin Connect application fixed as soon as possible. Before that, the only way to make it work again is to downgrade your Garmin Connect application to version 4.19. Please follow our Facebook page for more udpates.

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#### **Garmin devices**

Due to large differences between Garmin products, please check the table below to see the compatibility of your Garmin device. In case no feature is available for your device yet, you will not be able to install the application from Garmin Connect IQ Store.

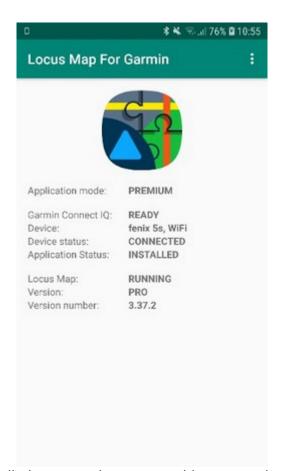
Device	Main activity app	<b>Import Courses</b>
D2™ Charlie	YES	YES
D2™ Delta	YES	YES
D2™ Delta PX	YES	YES
D2™ Delta S	YES	YES
Descent™ Mk1	YES	YES
Forerunner® 245	YES	YES
Forerunner® 245 Music	YES	YES
Forerunner® 645	YES	YES
Forerunner® 645 Music	YES	YES
Forerunner® 735 XT	YES	YES
Forerunner® 935	YES	YES
Forerunner® 945	YES	YES
fēnix® 5, quatix® 5	YES	YES
fēnix® 5 Plus	YES	YES
fēnix® 5S	YES	YES
fēnix® 5S Plus	YES	YES
fēnix® 5X, tactix® Charlie	YES	YES
fēnix® 5X Plus	YES	YES
fēnix® Chronos	YES	YES
MARQ™ Athlete	YES	YES
MARQ™ Aviator	YES	YES
MARQ™ Captain	YES	YES
MARQ™ Driver	YES	YES
MARQ™ Expedition	YES	YES
vívoactive® HR	YES	N/A
vívoactive® 3	YES	N/A
vívoactive® 3 Music	YES	N/A
vívoactive® 3 Mercedes-Benz® Collection	YES	N/A
EDGE bike computers	IN CONSIDERATION	
fēnix® 3, fēnix® 3 HR, quatix® 3, tactix® Brave	IN CONSIDERATION	PLANNED

Possibility to add other devices is constantly being analyzed.

## Main activity app / Import courses

There are two main ways how to use Locus Map for Garmin (based on the device you use). It can act as main activity application (providing navigation and activity recording while connected to Locus Map in your phone) or to provide imports of courses to device's storage to be used in native activity apps (if supported by device).

## **Android add-on**

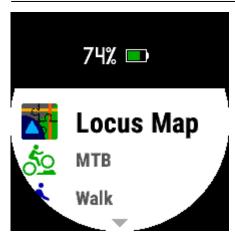


This application has to be installed on your phone to provide communication between **Locus Map** mobile outdoor navigation in your phone or tablet and Locus Map in your **Garmin** device via Bluetooth. It does not work without main Locus Map app. The application further requires **Garmin Connect Mobile** installed on your phone.

For usual usage of Locus Map for Garmin, the user is not required to open this application as it is started automatically in the background when Connect IQ application is started. It also automatically stops itself if not needed. Running the app in background is indicated by icon "L" in the notification area.

The main screen of the application provides information about the state of connectivity and reports if there is some problem preventing communication with the Connect IQ application.

# **Connect IQ application**



After installation Connect IQ application Locus Map will appear in activities/apps list on your Garmin device.

#### **Preview/Premium modes**

At the first start, the app runs in a "Preview mode" offering limited functionality. Its "Premium mode" can be permanently unlocked for about 4 euros via Locus Store within Locus Map in your smartphone.



Preview Mode allows the user to get feel about application possibilities and check that app connectivity with the phone behave as expected. While in Preview Mode, screen elements shown by orange color do not provide their intended function and are there for illustration of screen layouts in Premium mode.

By activating the Premium mode, the user gains:

- graphical and text navigation instructions
- arrow on compass screen pointing to the desired position or next navigation point
- dynamic screen manager showing only available screens for particular recording/navigation modes
- more data fields on Locus Map track recording screen
- no Preview mode splash screen with a delay

### **Application start**

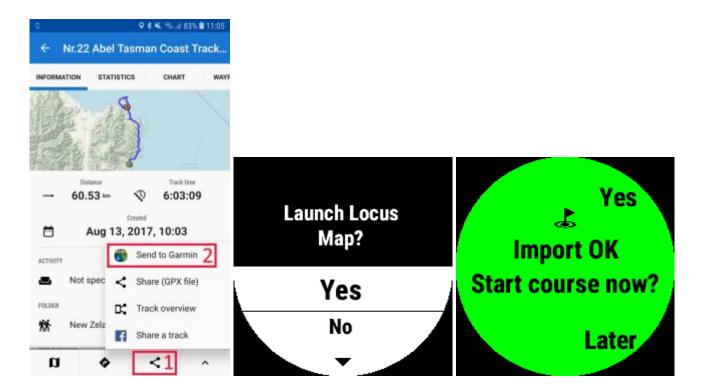


After every start, the application will first try to start the background process of Android add-on application which provides connectivity. This process may take several seconds. Please be aware, that app is unable to detect that user didn't installed Android addon app yet.

Messages shown on Garmin screen under application logo during this process are only informative and don't affect initializing as the application is trying to connect repeatedly.

In case connectivity is not initialized even after about 20 seconds and the app doesn't throw any error, starting of android background communication process probably failed. In this case, please see the troubleshooting section.

#### **Course import**



This feature allows user by an easy process to do the export of desired route/course/track from Locus Map and import it to the Garmin device. The feature is available only on Garmin devices with native navigation capabilities.

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Locus Map app in Garmin doesn't further utilize imported courses, they are only for use with native Garmin activity apps. You don't need to import courses to Garmin if you want to use navigation/guidance controlled directly by Locus Map android application.

Usage: Open in Locus Map in Android track you want to work with and click to Share icon > Send to Garmin. Then confirm the automatic start of Locus Map on your Garmin and wait for import completion. You can then select whether to automatically start navigation along this route by some of the native activity app or save it on the device for later.

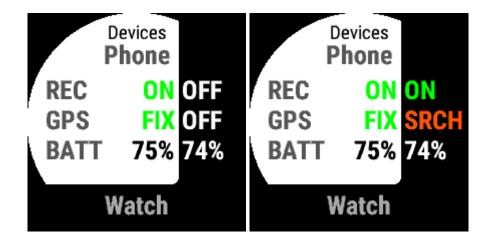
This functionality currently works only if Locus Map in Garmin isn't already running. If the app is already running, track import will be ignored by the Garmin app to prevent possible loss of activity data.

#### **Data screens**

To prevent confusion, activity screens which show data generated by Android Locus Map are with white background, while activity screens showing data from the Garmin device have a black background.

In Premium mode, data screens except devices info screen are automatically hidden unless related features are turned on.

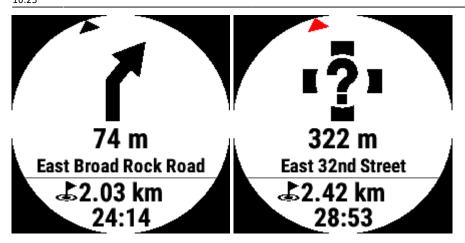
#### **Devices info screen**



This screen shows the state of both phone and your Garmin device. For both devices, it shows:

- track/activity recording status
- · GPS state
- battery state

#### **Navigation screen**



This is the main navigation screen available if navigation or guidance along the routes is running in Locus Map on Android.

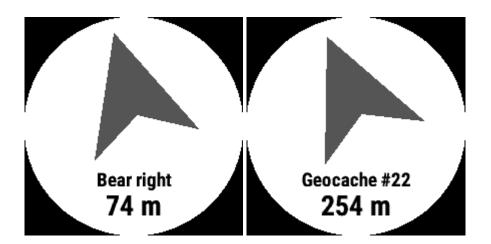
It shows the next navigation event represented by a big graphical icon, distance to it and text instruction. In the text, instruction is either name of the street to which you should heading or if unknown, text description of direction what user should take there.

Below the horizontal line, there is distance and expected time to reach the end of the route.

The small arrow on the edge of the display shows the true direction to the next navigation event for better orientation.

In case the user leaves the route, a small arrow will turn to red navigating back to the route and an unknown navigation action will be shown as visible on the second image. Automatic recalculation of navigation instructions will happen based on settings in Android Locus Map. In case guidance along the route is running in Android Locus Map, navigation instruction will be visible only if they are part of the planned route.

#### **Direction screen**



The screen is available if navigation, guidance along route or guidance to waypoint are running in Android Locus Map.

It shows the true direction which the user should take. Direction algorithm using data provided by

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Android Locus Map and Garmin built-in compass data, so direction reacts to the orientation of the Garmin device.

Below the arrow, the user will find text describing to what it direct. It can be either text instruction what the user should do there (if navigation is active) or name of the waypoint or course point. Further below is remaining distance.

In case the user will leave route along which is navigated, the arrow will turn to red color and shows direction back to the original route.

In case the user doesn't get valid direction by the arrow, it is advisable to calibrate compass of Garmin device by main device settings.

#### **Garmin Map screen**



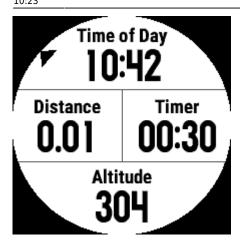
This screen is available only for devices with native mapping capabilities.

The screen renders map from the internal storage of the Garmin device based on the system configuration. The map is centered based on available location data - source can be either:

- Garmin GPS position is shown by a blue arrow which rotates based on the current heading
- GPS on phone position is shown by orange map pin icon with "L". (Due to the limitation on Garmin side, the blue arrow is not hidden in this mode and it may not show valid position)

User can change the map scale by pressing the MENU button. If the user enabled activity recording on Garmin devices, the recorded track is also rendered on the map. Navigation/guidance related information is currently not available on this screen.

#### Locus Map track recording screen

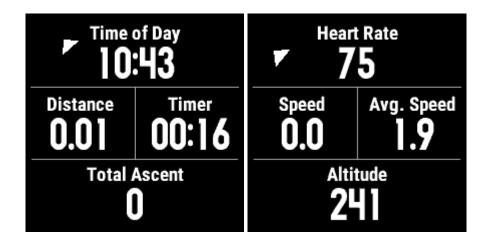


The screen is available if user activated track recording in Android Locus Map.

It shows current time, distance and timer of track recording and altitude measured by GPS in Android.

The small arrow on the edge of the screen indicating direction is visible if navigation or guidance is active.

#### **Garmin activity recording screens**



Screens are available if user activated activity recording in Garmin Locus Map application.

They show data from ongoing activity as measured by Garmin device.

The small arrow on the edge of the screen indicating direction is visible if navigation or guidance is active.

## **Activity recording**

If a user wants to record activity, there are options to record it by Locus Map in Android by track recording functionality or record it in Garmin device as a standard activity which is uploaded to Garmin Connect after the finish. State of both recordings can be easily reviewed on device info data screen.

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By default, application on start automatically turns on GPS in the Garmin device to search for GPS satellites to gain location to be ready for activity recording. If the user starts track recording in Android Locus Map or doesn't start any type of recording in the next 5 minutes, GPS is automatically turned off to save the battery of GPS device. Garmin GPS auto-start feature can be disabled in the settings menu.

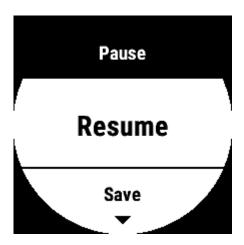
#### **Garmin Activity recording**



Activity recording by Garmin device can be initialised by START button on any data screens (in case they are not limited by Preview mode for non-touch devices). User must first select which type of activity wants to record. Type of activity will affect which sensors will be connected and added to activity data, and results as activity type on Garmin Connect after its export.

If Garmin device is configured to connect for example power meter sensor for bike activities, Locus Map will use this sensor as well and add its data to activity, just like native bike activity app.

If activity recording is running or paused, 2 activity data screens with a black background are available with pre-configured data fields.



Recording can be paused or restarted by another press of the START button. If paused, the app will show a menu where user can save activity and prepare it for export to Garmin Connect. This is done automatically by Garmin device during next synchronisation with Garmin Connect Mobile or with Garmin Express desktop app.

By pressing the BACK button (or sliding to right on touch-enabled devices) on this menu or selecting "Keep paused", user can go back to data screens while activity recording is paused.

The app will not allow the user to close it before the activity is either saved or manually discarded, even if the app loses connection with the phone. This prevents unwanted loss of recorded activity data

## Settings menu



User can affect the behavior of the application by accessing settings in the app menu. Settings are stored in device permanent memory.

- Garmin GPS autostart turn on or off automatic starting of GPS in Garmin device. More on section Activity recording
- No record alert turn on or off showing a red alert on edge of the screen which indicated that user doesn't record activity.
- Vibrate on connect turn on or off vibration if connectivity is initialized or lost.

This menu is available only on devices with Connect IQ 3.0. On older devices, settings can be changed via Garmin Express or Garmin Connect Mobile.

## Losing phone connectivity

If the application loses connectivity with the phone or Android companion app was forced to close, the app will automatically try to reconnect and continue. Garmin activity recording is not affected by losing connectivity, and even if connectivity was not established user can still select to save or discard it before leaving the app.

# **Troubleshooting**

## Garmin application keeps loosing connectivity



With new 4.20 version of Garmin Connect Mobile, Garmin without notice blocked required type of connectivity resulting that Locus Map on Android 9 do not work (unable to connect to smartphone or throw -300 error during track

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import). We are in touch with Garmin team to get Garmin Connect application fixed as soon as possible. Before that, the only way to make it work again is to downgrade your Garmin Connect application to version 4.19. Please follow our Facebook page for more udpates.



If you experience loosing of app connectivity with the phone while staying in its Bluetooth range, the reason is that Battery Saver Management in Android is set too strictly and keeps closing background process of Android add-on.

Smartphones from various brands - for example, Huawei, Honor, Xiaomi doesn't by default allow to run apps in the background unless the user changes it in system settings. Please ensure, that you **enable to start in the background for applications Locus Map for Garmin and Garmin Connect** or try to turn-off battery saving features.

 Huawei & Honor: Settings > Battery > App Launch > set manual for Locus Map for Garmin and Garmin Connect

You can also access native Android battery optimization settings via the top-right menu in Locus Map for Garmin.

#### **Unable to connect - MORE FOUND device status**

Android add-on application doesn't currently support selecting from the list of more connected Garmin devices to choose which device should communicate with Locus Map. If you have more Garmin devices and want to use Locus Map, just ensure, that other your devices will not be connected to your phone at the same time and reopen Locus Map for Garmin app. The application goes through all your paired devices and if only one is connected, it will automatically try to connect to this one.

## Navigation instructions during guidance skips to next one to soon

This is affected by settings in the main Locus Map application. To change this behavior, please open Locus Map in your phone and go to Settings>Guidance>Next route point distance. You can set it to minimal 10 meters value.

## Heading arrow shows in wrong way

Compass in your Garmin may need to calibrate. You can do it in the sensors settings or on some watches even while Locus Map is running by holding Page Down buttom > Compass widget > Calibrate.

## Importing track keeps ending with error

There is an unresolved bug on Garmin Connect application which can cause failing of track import. Please write to us if you experience such an issue so we will be able to ask you for more details and make the app even more robust!

## Keep getting "Bluetooth error - reconnect your Garmin to phone"

Due to issue in Garmin Connect Mobile, it may rarely happen that you get this error while trying to start application. From this error app usually do not recover by itself. In order to initialise app properly, please disconnect your Garmin from phone and reconnect it again. You can quickly do it by opening round context menu on your watch (by holding light button on non-touch devices or select button on touch devices) and use Phone connection option. After that the app should initialise properly.

## Contact us

If you didn't find the answer to your question or you will be so kind as to let us know your feedback, please write to us!

Email: locusmap@wearsoft.info

Facebook: https://www.facebook.com/wearsoft.info/

Community platform: https://help.locusmap.eu/topics/all/status/all/category/27/sort/updated/page/1

Locus Map Forum: https://forum.locusmap.eu/index.php?topic=6540.0

https://docs.locusmap.eu/ - Locus Map Classic - knowledge base

https://docs.locusmap.eu/doku.php?id=manual:user\_guide:add-ons:locusforgarmin&rev=156274699

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