

The track recorder

The track recorder allows you to record GPS locations at regular intervals along your path, so you can get detailed statistics and graphics of your hikes.

It runs in a light background service called the “AlpineQuest agent”, and can track your locations even if the main application is completely closed to save as much battery as possible. If you use any memory cleaning application, be sure to exclude the agent from being automatically killed.

All recorded tracks can be stored in the application or exported in various formats to be displayed in external softwares like Google Earth.

How to start recording a track?


To start the track recorder:

- Tap on the “**Positioning**” ① menu icon and on the “**Track recorder toggle**” ②.

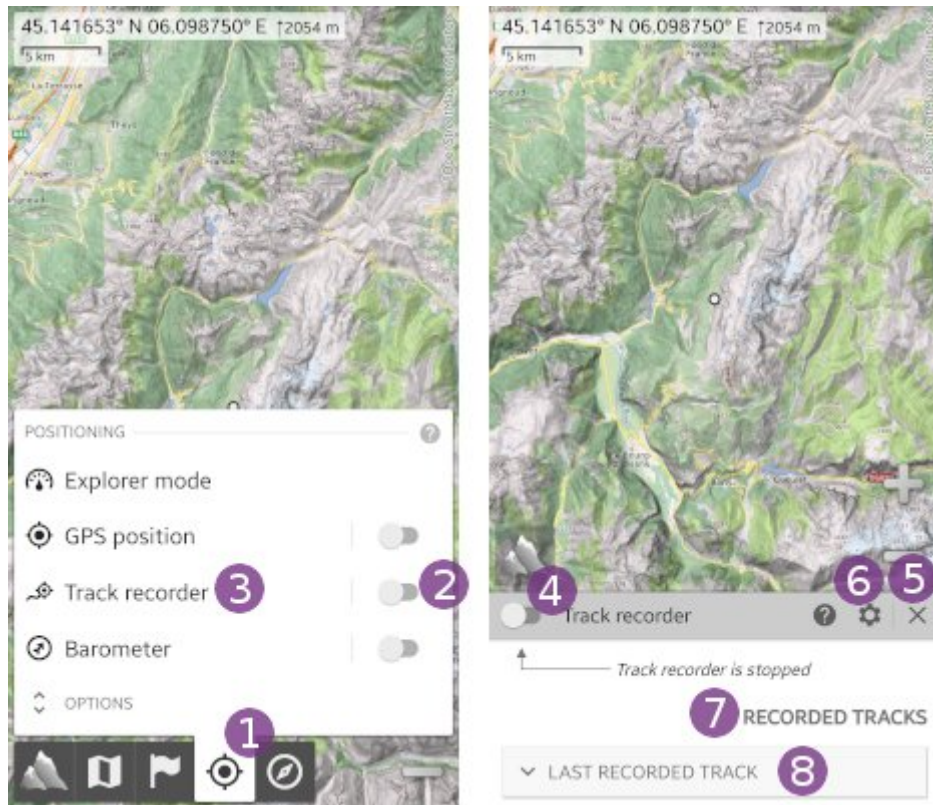
Alternatively, you can:

- Tap on the “**Positioning**” ① menu icon;
- Tap on “**Track recorder**” ③ to display the track recorder panel;
- Tap on the “**Track recorder toggle**” ④ at the left of the title bar.

This second method allows you to change the track recorder settings before starting it, by tapping on the “**Settings**” ⑥ icon.

 At any time you can close the track recorder panel by tapping on the “**Close**” ⑤ icon, or even completely close the application, the track recorder will keep on recording locations in the background.

If you have previously recorded some tracks, you can list them by tapping on “**Recorded tracks**” ⑦ or get details on the last recorded track by tapping “**Last recorded track**” ⑧.



How to get information on the current track?

When the track recorder is started, an information box **1** is displayed giving the total length and time recorded so far. The positioning menu button **2** turns blue, and the recorded track is displayed in blue **3** on the map.

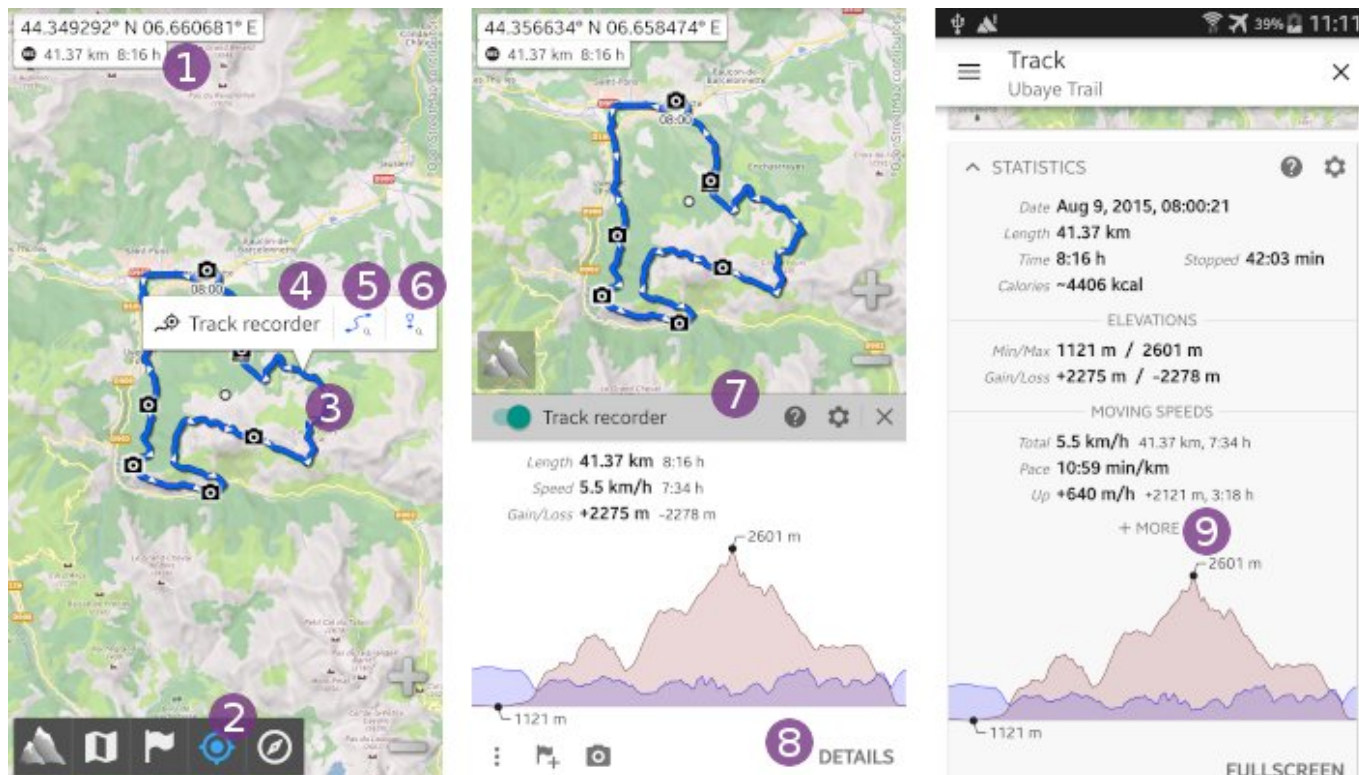
At any time, you can tap on the recorded track **3** to display the track recorder popup menu.

- Tap on **“Track recorder”** **4** to display the track recorder panel **7**;
- Tap on track icon **5** to get detailed information and statistics on the whole track;
- Tap on location icon **6** to get information on the selected location.

The **“Track recorder panel”** **7** gives you the main statistics on your track (total length, total time, moving speed, moving time, elevation gain and loss), together with the speed and elevation profiles.

Tap on **“Details”** **8** to get detailed statistics. In the information window, you can tap on **“More”** **9** to get even more statistics.

i More information on [statistics is available here](#).



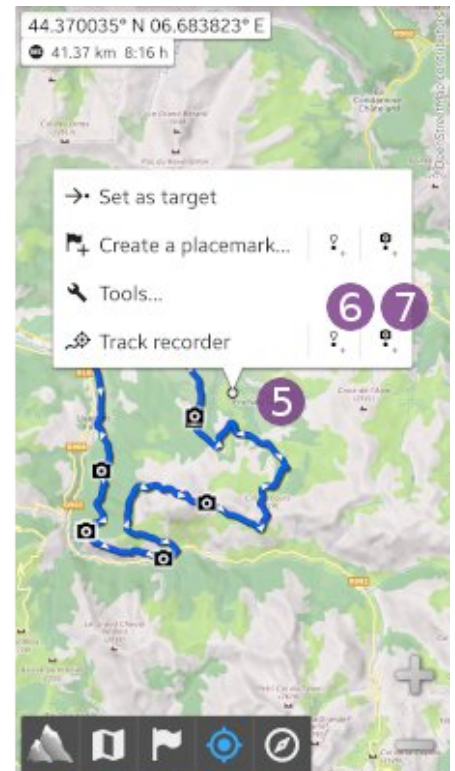
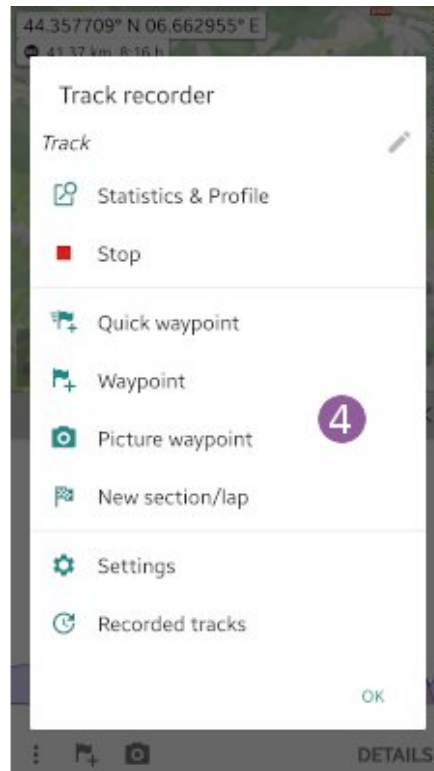
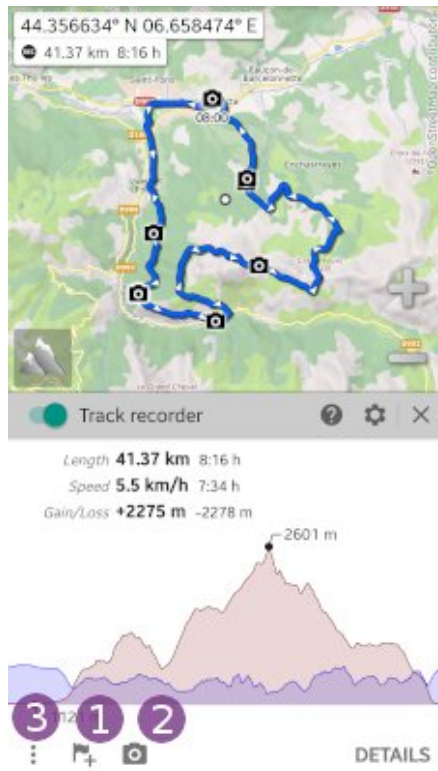
How to add waypoints and pictures?

While recording a track, you can add waypoints and pictures to it.

- To add a waypoint or a picture at your current location, open the track recorder panel and tap on the **“Add waypoint”** ① icon to add a waypoint, or on the **“Add picture”** ② icon to add a picture.
- You can also display the track recorder menu ③ where you'll find more options ④.
- To add a waypoint or a picture at any other location, move the screen center icon ⑤ over the location you want to add the waypoint or picture on, and tap on it to display the track recorder popup. Tap on the **“Add waypoint”** ⑥ icon to add a waypoint, or on the **“Add picture”** ⑦ icon to add a picture.

i The application calls the default device Camera application to take pictures. If the default Camera application is not compatible, you won't be able to take pictures as explained here. The alternative solution is to take regular pictures with your Camera application, and add them later using waypoints linked to pictures taken from your gallery.

i Track waypoints are exported with the track when choosing the GPX, KML or KMZ formats. Pictures are only exported when choosing the KMZ format. The resulting file size may be large depending on the number of pictures.



How to stop the record?

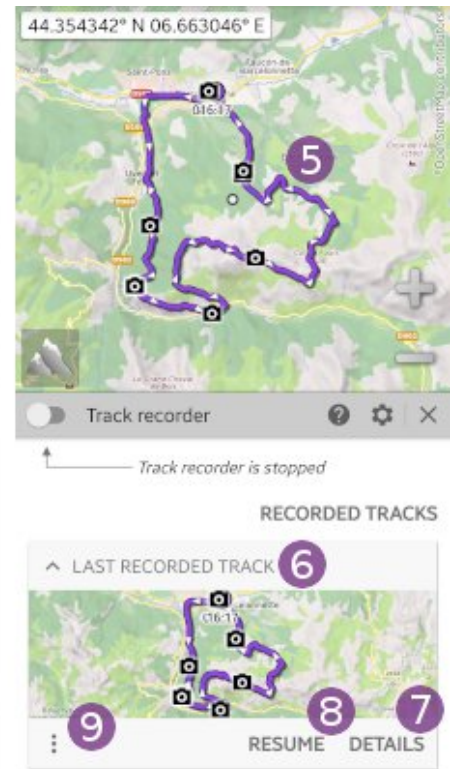
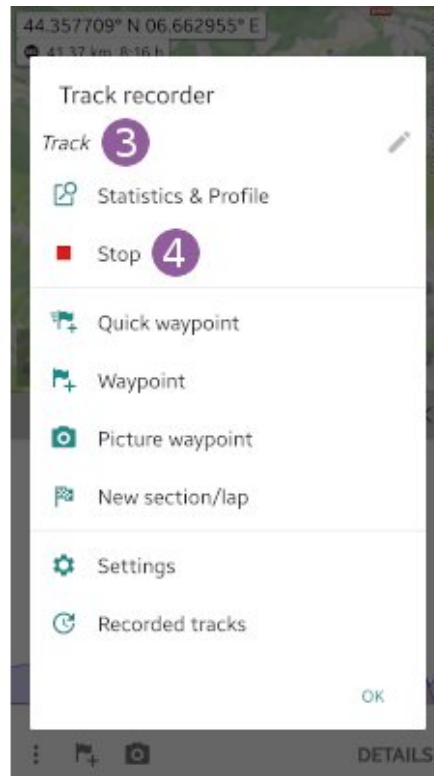
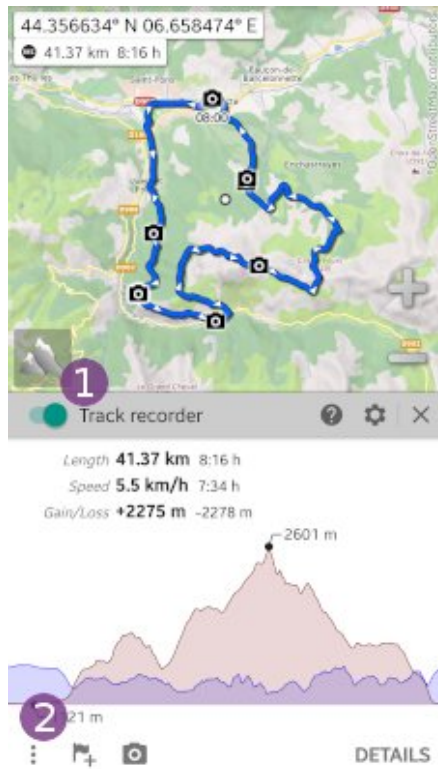
At any time, you can stop the track recorder by tapping on the location tracker toggle **1**. The background service will be completely stopped, the recorded track saved and displayed on the map with a (by default) purple color **5**.

i You don't have to stop the track recorder during small breaks, the application will automatically detect that you're not moving and will take this into account when computing statistics.

If you want to name the recorded track before stopping the recording, tap the track recorder menu icon **2**, and tap on the current track name **3**. You can name the recorded track at any time during the recording, or after stopping the track recorder by editing the track details. You can also stop the recording from this menu by tapping **"Stop"** **4**.

Once you've stopped the track recorder, the last recorded track will be displayed in the **"Last recorded track"** **6** section, from where you can:

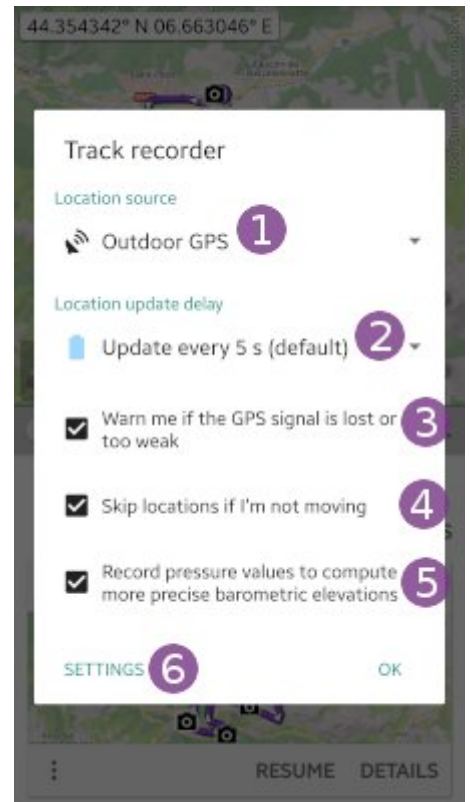
- Display details, statistics and graphics by tapping on **"Details"** **7**;
- Resume it by tapping on **"Resume"** **8**;
- Tap the track menu icon **9** to display the track menu where you'll find more options.



How to manage recorded tracks?

[See here how to list, filter, manage and export recorded tracks.](#)

The track recorder settings



- The “**Location source**” ① let you choose which locations to record. Most people will choose “**Outdoor GPS**”, but you can change it to “**External locations**” if you have an external bluetooth GPS you want to use;

i Some location sources can be disabled from the device settings. Tap on “**Settings**” ⑥ to open the device location settings.

- The “**Update frequency**” ② allows you to choose how fast the locations have to be recorded. For runners, a precise tracking like “**(/2 seconds)**” is recommend, whereas hikers should prefer a medium one like “**(/10 seconds)**”, since a fast tracking will use more battery.
- Check “**Warn me if the GPS signal is lost or too weak**” ③ if you want to be notified (by a notification sound) if the GPS signal is lost (recommended);
- Check “**Skip locations if I'm not moving**” ④ if you don't want to record multiple locations at the same place when you're not moving (recommended);
- If your device has a built-in pressure sensor, you can check the “**Record pressure values to record more precise barometric elevations**” ⑤ option. The application will compute elevation values based on the air pressure, in addition to the common GPS elevations. These barometric altitudes are much more accurate and reactive, and can be computed precisely even if the GPS signal is very poor.

i The pressure values are automatically calibrated by the application using GPS locations.

How to correctly setup your device for background track recording?

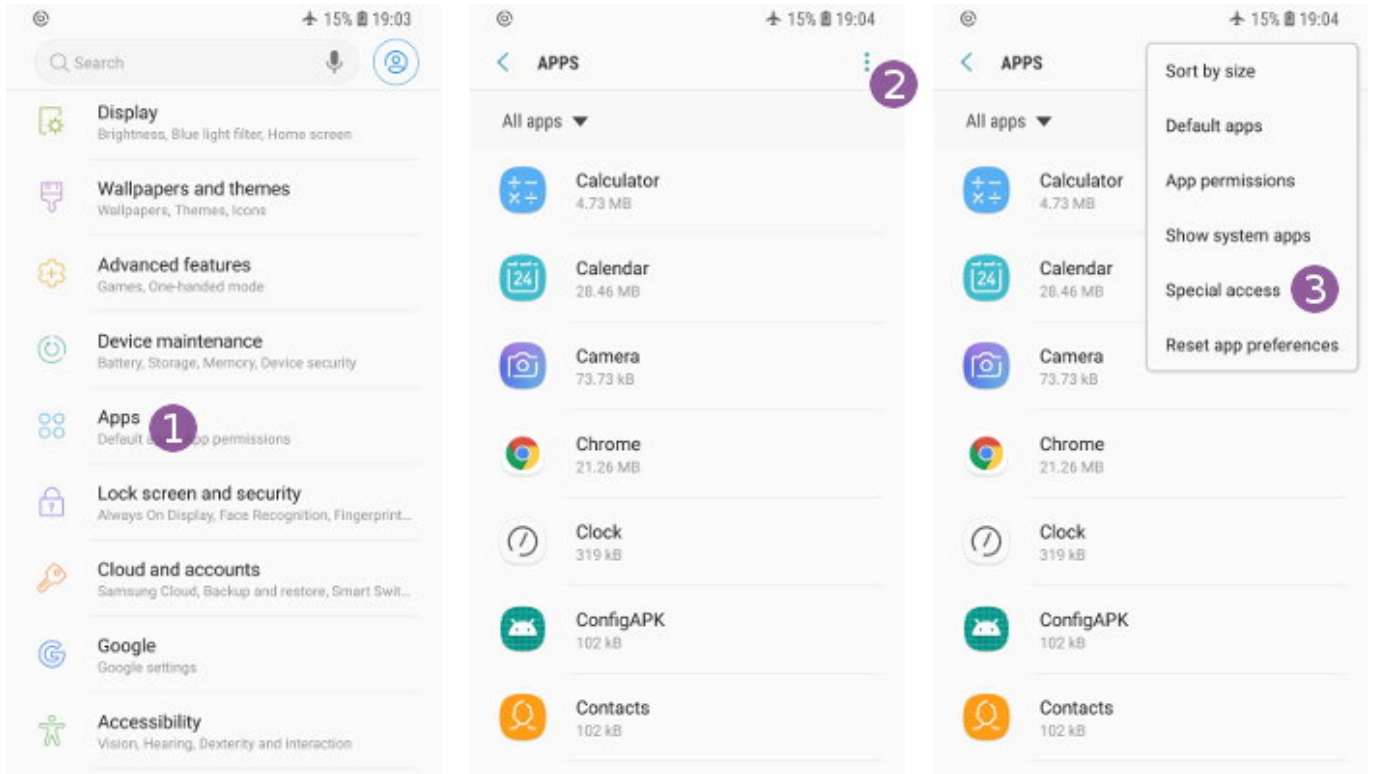
In recent Android versions, multiple optimization tools have been added in order to reduce battery usage, especially targeting background applications. For example, the “Doze” mode will stop all applications on your device when your screen is turned off for some time. In order to correctly record tracks even when your screen

is turned off, you need to disable those optimizations for the application.

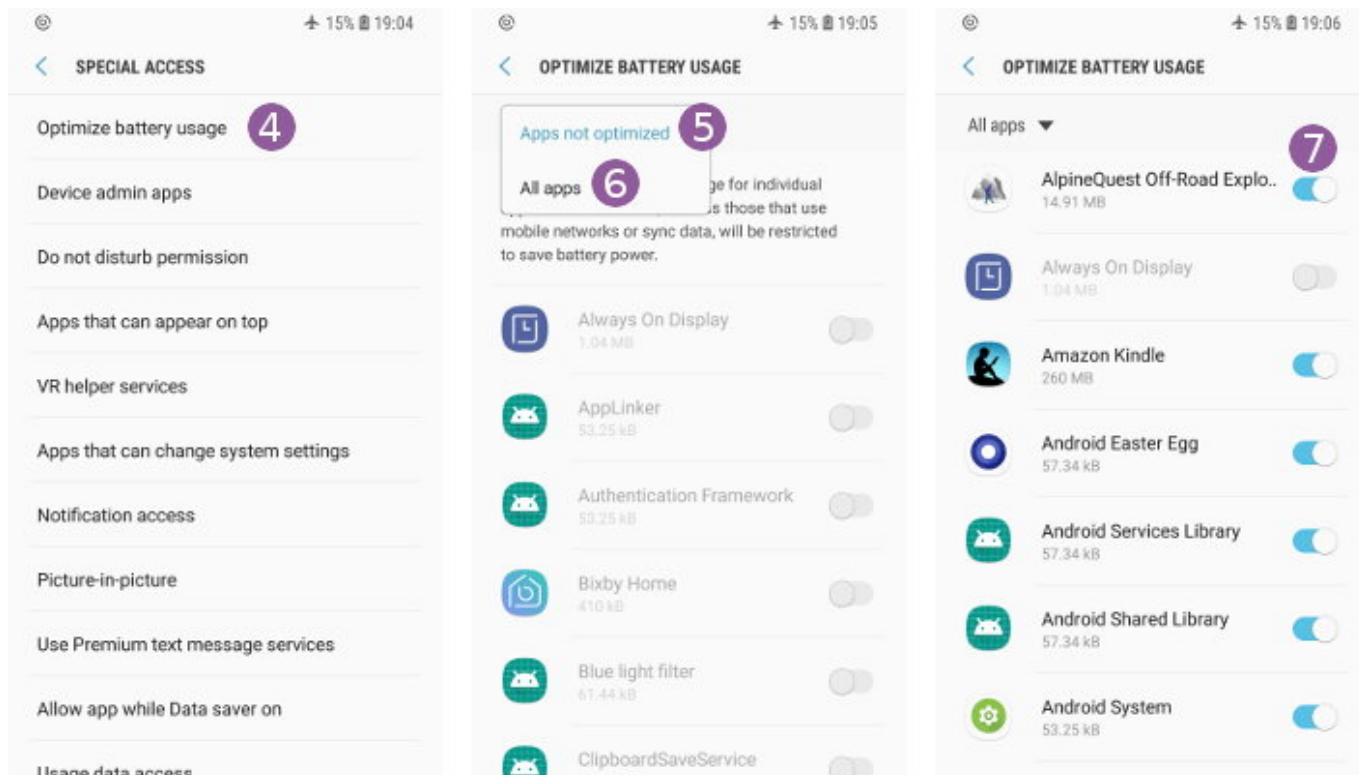
i Exact steps may vary depending on your device brand and system version.

Example on Samsung devices:

- In your devices settings, tap “**Apps**” **1**;
- Tap the top/right menu icon **2** and “**Special access**” **3**;

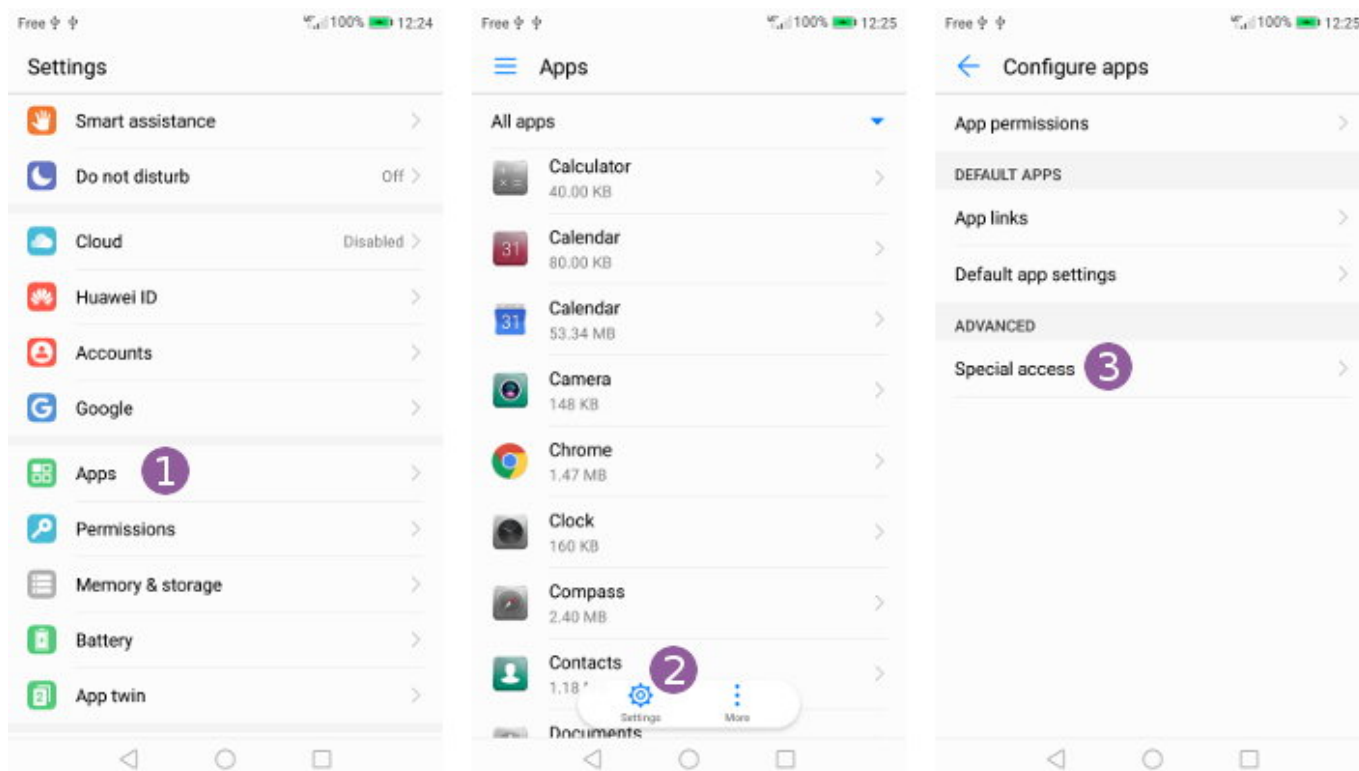


- Tap “**Optimize battery usage**” **4**;
- Tap on the “**Apps not optimized**” **5** drop down list and select “**All apps**” **6**;
- Locate and un-check “**AlpineQuest**” **7** do disable optimization for this application.

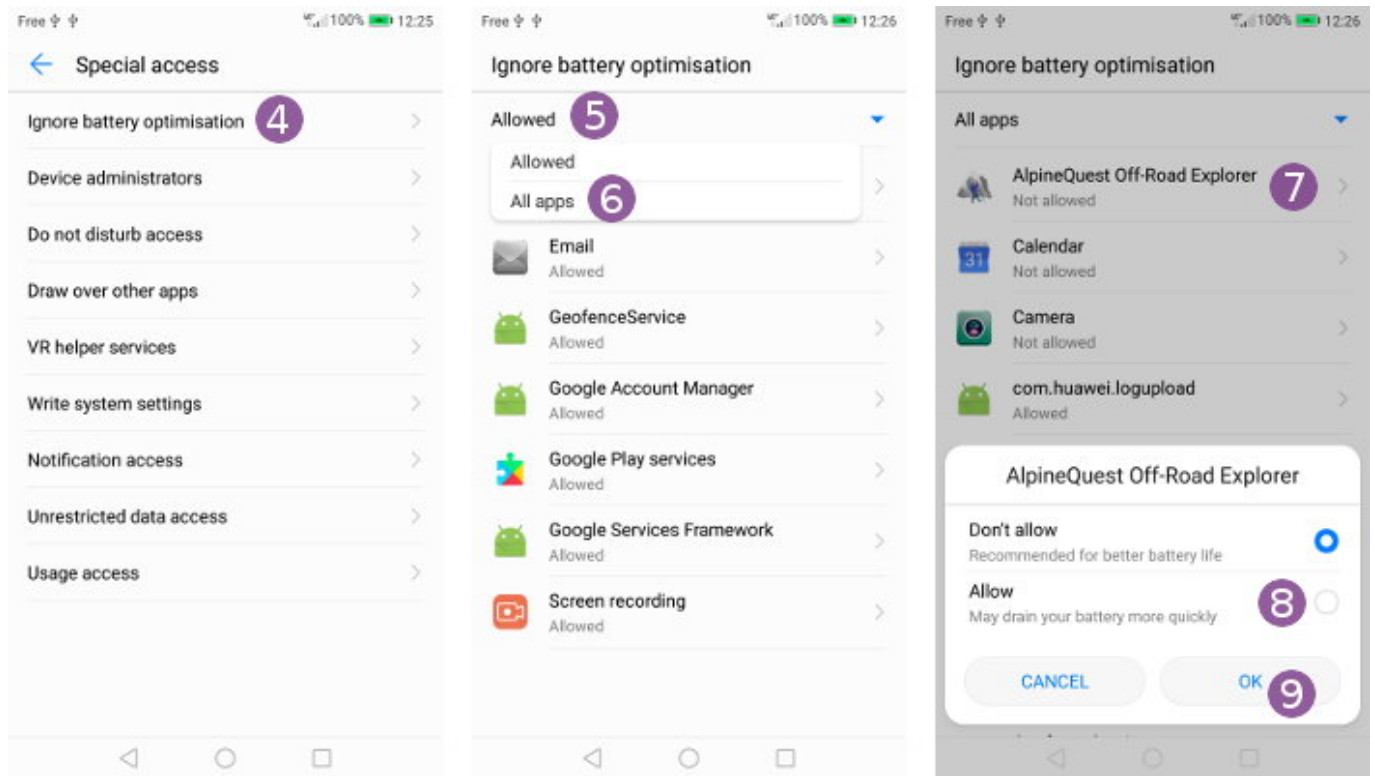


Example on Huawei devices:

- In your devices settings, tap “**Apps**” **1**;
- At the bottom of the applications list, tap “**Settings**” **2** and “**Special access**” **3**;



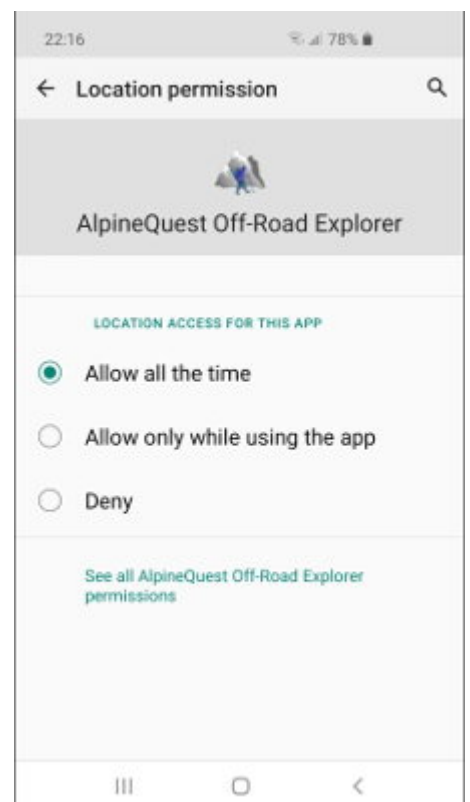
- Tap “**Ignore battery optimisation**” **4**;
- Tap on the “**Allowed**” **5** drop down list and select “**All apps**” **6**;
- Locate and tap “**AlpineQuest**” **7**, check the “**Allow**” **8** option and tap “**Ok**” **9** to validate.



Additional information can be found here: sleep.urbandroid.org.

i Depending on your device, you may need to configure additional settings as explained below.

Problems with the track recorder



Most (if not all) of the tracking problems are due to the battery optimisations made by the Android system itself. Commonly, the GPS is disabled when the screen is turned off, or background applications are killed after some delay.

You need to correctly setup your device and be sure that:

- The application (it's tracking service) is not stopped by the system after some time;
- The GPS remains available to applications even if the screen is turned off.

There are usually only a few settings to change (see above section [here](#)), but some device brands add their own economy tools and more settings may need to be changed. In case of problems, please contact your device's brand help desk to ask how to disable battery optimisation related to the GPS.

 There is unfortunately nothing we can do if the device system stops the application or the GPS by itself.







Track not correctly recorded when the screen is turned off

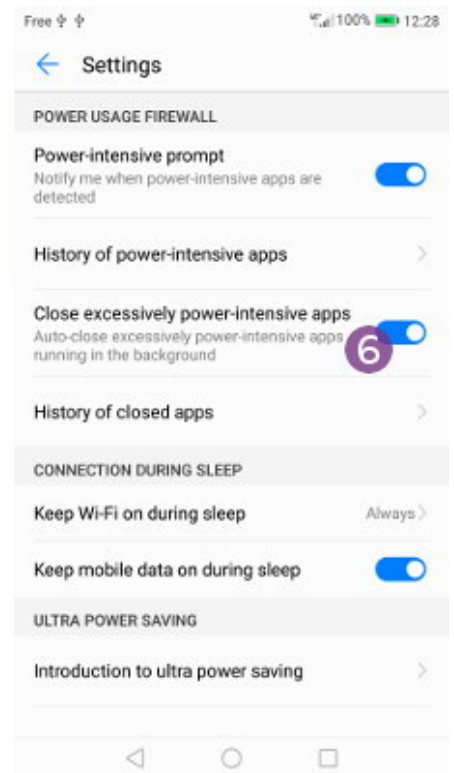
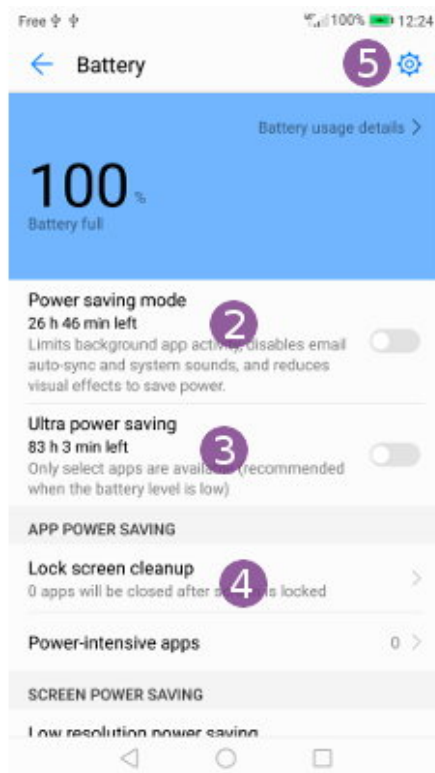
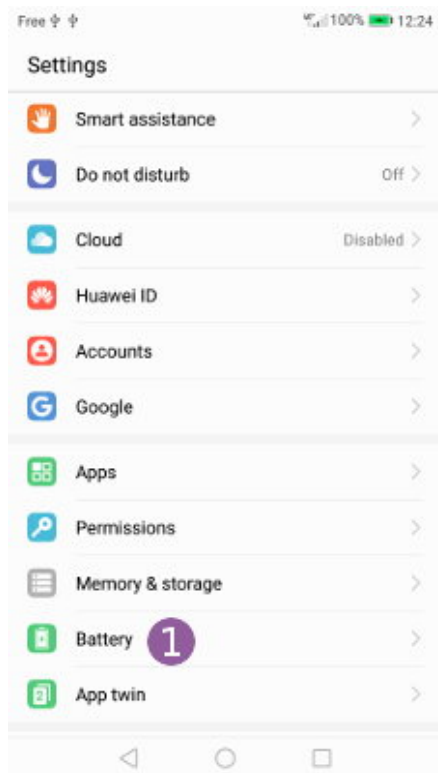
On top of the Android battery optimization tools (see above section [here](#)), some brands also include their own tools that may disable the use of GPS or network for background applications, and so prevent the good operation of the track recorder. Be sure to disable those behaviors or grant the application the correct permissions.

For example, you can check that the application is allowed to access to your GPS location even when the device is not used (screen off) as you can see on the right.

Here are some other examples:

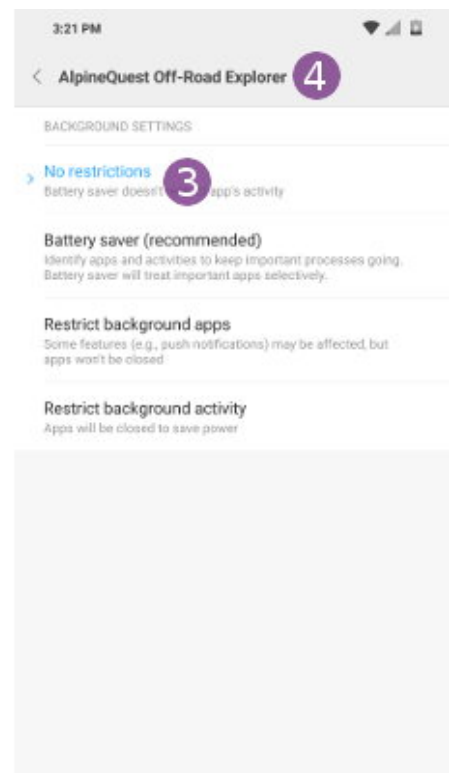
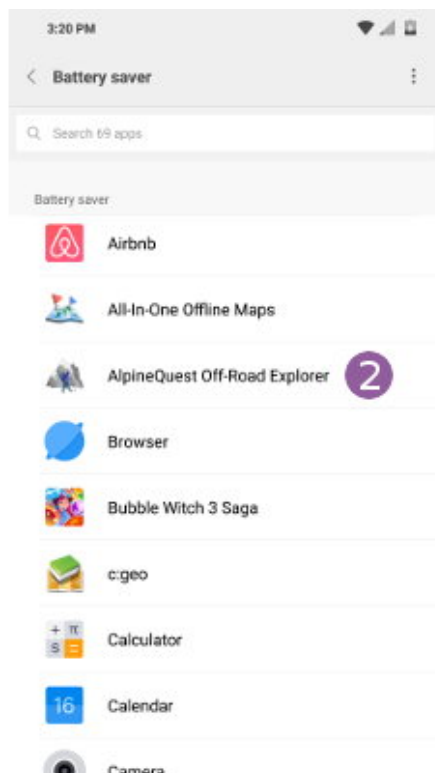
For Huawei devices:

- In your devices settings, tap **"Battery"** ;
- Be sure not to have activated the **"Power saving mode"**  or the **"Ultra power saving"** ;
- Be sure not to have the AlpineQuest listed in the **"Lock screen cleanup"**  list;
- Tap on the **"Settings"**  icon;
- Un-check **"Close excessively power-intensive apps"**  to prevent the application from being closed.



For Xiaomi/Vivo devices: ([see here](#))

- In your devices settings, tap “**Battery & Performance**”;
- In the battery saver category, tap “**Choose apps**” 1;
- Locate and tap “**AlpineQuest**” 2;
- Tap “**No restrictions**” 3 to allow the application to run in the background without being closed;
- Tap the top application name 4 to validate and return to the applications list.




For HTC devices:

[See here](#)

For some other devices:

- *Settings > Battery > Battery Optimization*
- *Settings > Battery > Manage apps battery usage > No restrictions*


For some devices (like Huawei Mate 10), a system update can also fix this problem.

 More information can be found on dontkillmyapp.com.



The track recorder service stops

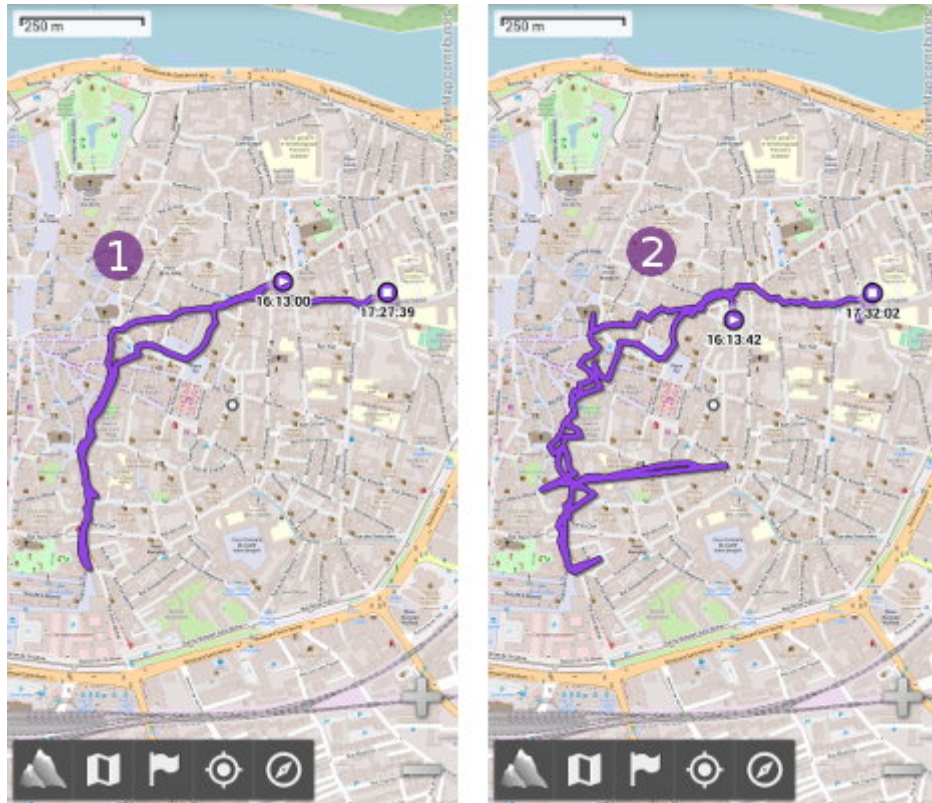
In addition of being closed by the system as seen before, some “device/memory cleaner/booster” applications automatically kill background processes. If you use such applications, be sure to add the track recorder service in the exclude list of your cleaning application so it doesn't get killed.

Loss of the GPS signal

A common issue when recording a track is the loss of the GPS signal, leading to a missing part in the recorded track (seen as a straight line longer than usual). It usually happens because the device doesn't have a good enough access to the sky, for example when the device is placed in a deep pocket or in a bag. The GPS signal emitted by GPS satellites is weak and get easily lost when going through any material. If you have checked “**Warn me if the GPS signal is lost or too weak**”  option, the application will play a song when this happens.

Recorded track doesn't precisely follow my real locations

Some devices perform better than others when using the GPS, depending on the quality of the hardware used and the internal conception (placement of the GPS chip inside the device). Some devices require a stronger GPS signal to give an acceptable accuracy. For example, here is the same track recorded at the same time by two different devices (one in the left pocket, one in the right) during a small outside walk with occasional stays inside buildings. We can see that the Samsung Galaxy S9  performs better than the Huawei P10 Lite . [Here is a very interesting list](#) describing the hardware used in a large number of devices.



Device gets hot

Tracking a path requires frequent GPS location updates and some devices (mainly old or low-cost ones, but not always) doesn't support the GPS being turned on for long hours. Common symptoms in this case can be:

- The device becomes more hot than usual;
- The GPS doesn't report satellites anymore for some time, the location fix is lost, leading to a missing track part;
- The track recorder service is simply closed, the record is stopped.

If you encounter one of these symptoms, you can try to:

- Reduce the tracking frequency, a location per 10 seconds is a recommended setting for hours long tracks;
- Use an economy tracking frequency (starting at 1 location / 20 seconds), in which the GPS is completely turned off between update. Be sure to leave your device in view of the sky so the GPS can quickly retrieve a location for each update;
- Turn off the use of barometric elevations to leave the pressure sensor turned off (this one can also be the source of problems when continuously used for long time).