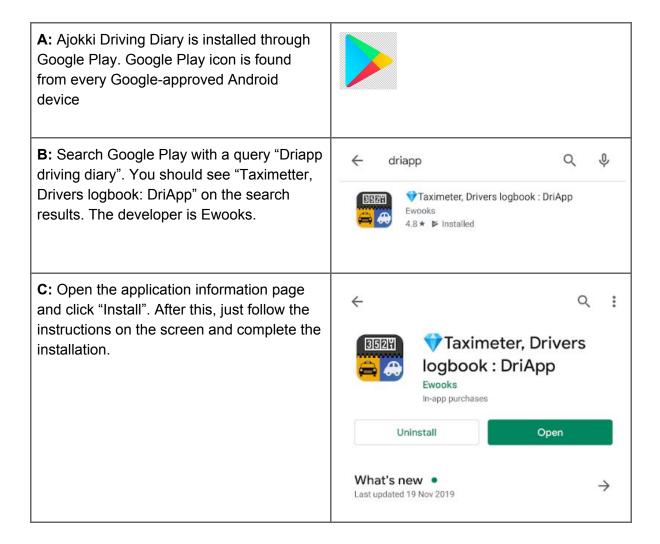


# How to use Driving Diary App (Ajokki, DriApp or Cabidi)

#### 1.0 Installation

Driving Diary is installed on a phone or a tablet device with an Android operating system.

Android 7.0 or newer is recommended. You also need a fast net connection, 8-18 gigabytes of memory and efficient double core CPU. Smallest recommended screen size is 5.0" and the largest 8". The application is not available for devices with a larger screen through Google Play.





# 2.0 First run and privileges

#### 2.1 Privileges

After the installation is done, locate the Ajokki Ajopäiväkirja icon and run the application. Read and accept the safety instructions and user agreement.

During the first run, the user has to accept the user agreement and allow the use of Location and Memory. In order for the driving diary function correctly, you have to allow the use of both. You can change these rights later through the settings of the device.

#### Can Ajokki use the location of this device? ALLOW

Ajokki Driving Diary measures distance by GPS. A device has to allow the application to track the GPS location by the user. Make sure that the GPS uses the greatest possible accuracy through the GPS settings. This gives the best possible accuracy for the measurements.

#### Can Ajokki use the pictures, media and files of the device? ALLOW

Ajokki Driving Diary stores the map and driving data to the memory of the device. If this is not allowed, the maps won't work and the driving data can't be exported from the device.

As per rules set by Google, the privileges can't be changed without the direct approval by the user of the device.



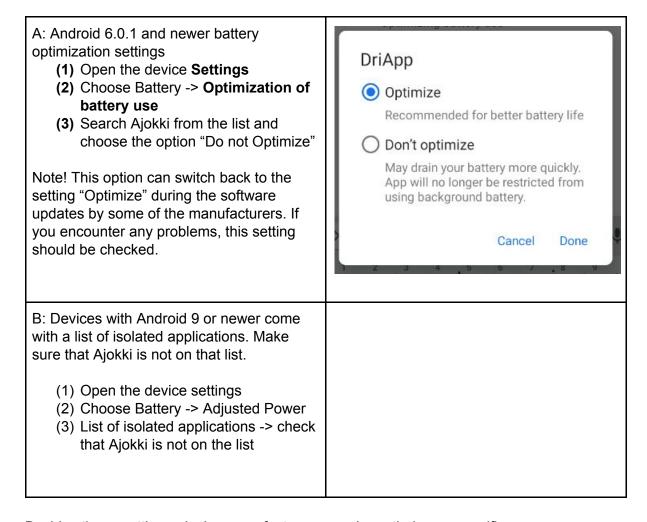
#### 2.1 Optimizing the use of battery

One of the most important things by the user is the optimization of battery life. At this moment Android devices have several applications installed in them by Google and device manufacturers. The settings of these applications may cause problems.

# As per rules set by Google, the privileges can't be changed without the direct approval by the user of the device.

It is recommended to keep the device on a car recharger during the use of Ajokki and if the user device is a phone, not to make calls during the use of the application. In some cases, the device manufacturers have prioritized phone calls so that other applications are shut down automatically during a phone call.

You can check the rules in the following manner:



Besides these settings, device manufacturers may have their own specific settings/limitations. Instructions to these settings can be found from the manufacturers own instructions or from 3rd party maintained site <a href="https://dontkillmyapp.com/">https://dontkillmyapp.com/</a>. The site contains a list of devices with most problems. We are happy to help you with issues found from this list



if any problems in making or finding the settings arise. You can ask for more information from support@ajokki.fi

#### 3.0 Basic use

#### 3.1 License

The use of Ajokki Driving Diary requires a license. You can get the monthly license directly from the application store menu or by ordering it through Ewooks web page <a href="http://www.ewooks.fi/ajopaivakirjan-tilaus/">http://www.ewooks.fi/ajopaivakirjan-tilaus/</a>

Required device code and number can easily be found from Ajokki Driving Diary "store" view. Choose Menu -> Store and scroll down for the device codes. In most cases, it is enough to inform us of the digits so we can find the device and activate the license for use.

When the license is active you will get a notification to your e-mail.

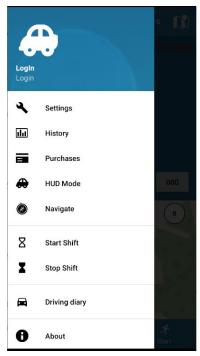


Image 1: Menu

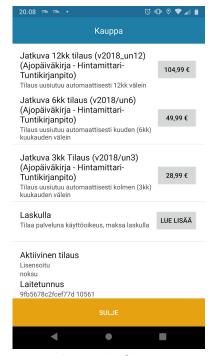


Image 2: Store

You can find instructions, prices and forms for Google Play and invoice order from our web page <a href="https://www.ewooks.fi">https://www.ewooks.fi</a>.



#### 3.2 Placing the device in the car

When you use Ajokki Driving Diary, you have to make sure, that the device is installed on a firm hold. With the right kind of a hold, the use of Ajokki is easy. It is recommended, that the device is not operated during driving. The starting and stopping of the measurement should be done when the vehicle is stationary. The device should be placed so that has an unobstructed view to GPS satellites, i.e. near the windscreen of a car.

It is recommended to keep the device on a charger during the use, as active measuring drains the battery a bit more than a standard standby mode.



Image 3: Placement of the device in a car



#### 3.3 Fare-settings

The basic use of Ajokki Driving Diary is easy. Before use, check the "General Settings" tab if the application is set on "private" or "work" mode. Fares T1, T2, T3 and T4 have to be set according to employer or tax authority rules. You should also add the license number of the used vehicle or some other identification tag which will be printed on the monthly report. I basic use, there is no need to touch on other settings. You can exit the settings by touching the small arrow on the upper corner.

The default setting for T1 is 0.43€/km, which is the fare used by the Finnish tax authority for 2019. More info about Finnish taxation can be found here:

https://www.vero.fi/syventavat-vero-ohjeet/paatokset/47405/verohallinnon-p%C3%A4%C3% A4t%C3%B6s-verovapaista-matkakustannusten-korvauksista-vuonna-2019/#kilometrit

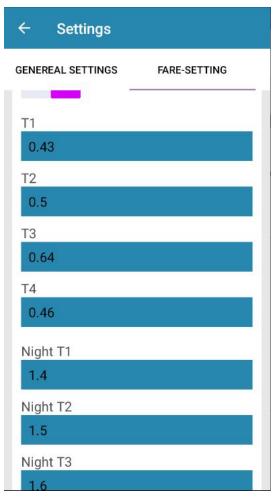
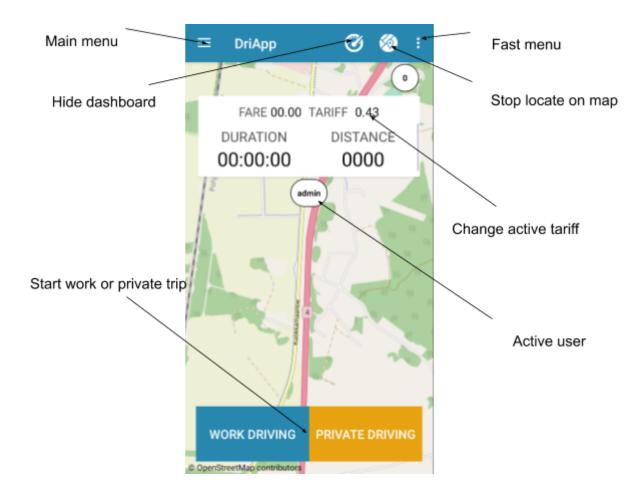


Image 4: Fares



#### 3.4 Driving diary basic view

After making the basic settings, we can get acquainted with the basic view of the Driving Diary. The user interface is kept as simple as possible. The following image shows the user interface buttons as well as the touch spots.



To start a drive, you choose either "Työ (Work)" or "Yksityisajo (Private)". On basic settings, Driving Diary will now ask the overall driven distance of the vehicle. Note, that in some cases the overall distance is given with the preceding zeros, just as the car meter shows. I.e. if the car has been driven 3100km (image 5), the number you have to give to Ajokki is 003100 after which you proceed by pressing "Continue (jatka)". The distance query can be turned off from the settings. If ODB is in use, the distance can be acquired automatically from the car drive computer. To use ODB, you need an external device to be plugged into the car.

The drive is ended by pressing Stop (seis) button for a couple of seconds. This will save the driven distance to the memory (image 6).



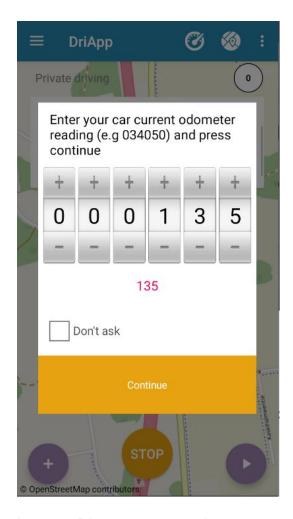


Image 5: Distance meter settings



Kuva 6: Driving Diary in use. STOP, pause and location notation buttons.

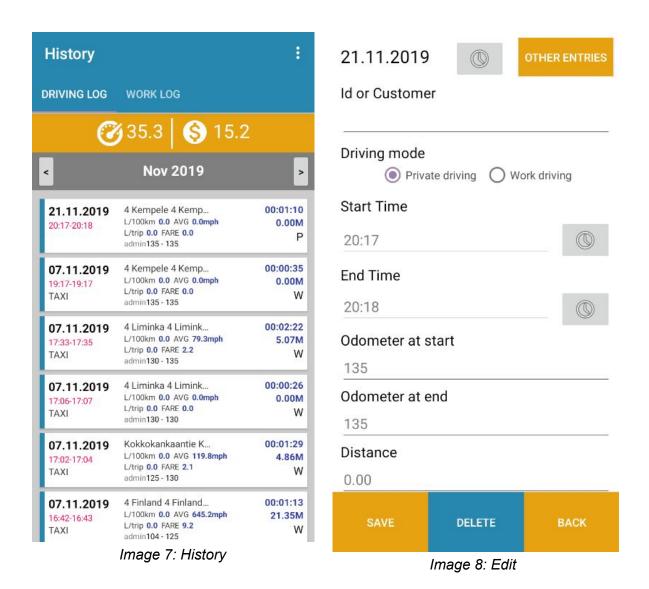
# 4.0 Handling the data of Driving Diary

## 4.1 Reports

All the required information can be found in the history-view (Image 7). The information can be displayed by the month or all time. It is recommended to clean up the stored data from time to time as if there is a lot of data, processing of it can slow down considerably.

the stored information can be modified by pressing long on the desired data cell. This opens up the edit view (image 8).





Information can be added manually by selecting "Add a new drive" from the history menu. (Image 9)



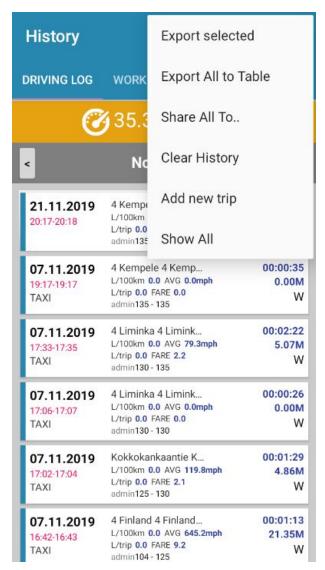


Image 9: History menu

Monthly reports can be exported into an Excel sheet with "Export chosen month"-function. When the function is pressed, a file is saved on the devices storage memory in a root folder "TripPRO". The folder can be accessed with the devices own file manager.

During this process, Driving Diary will ask if you want to send or open the formed report (image 10). Choosing to send opens the basic file handling application menu of the Android device. through this, you can send the file to email or save it to the Google Drive for an example. Options depend on what applications you have installed on the device (image 11).

A popular method to share these files is to use a shared Google Drive folder of a company. The open option opens the file on a 3rd party Excel app installed on the device. These apps can be found from Google Play and device manufacturers have often installed an application on the device as well.



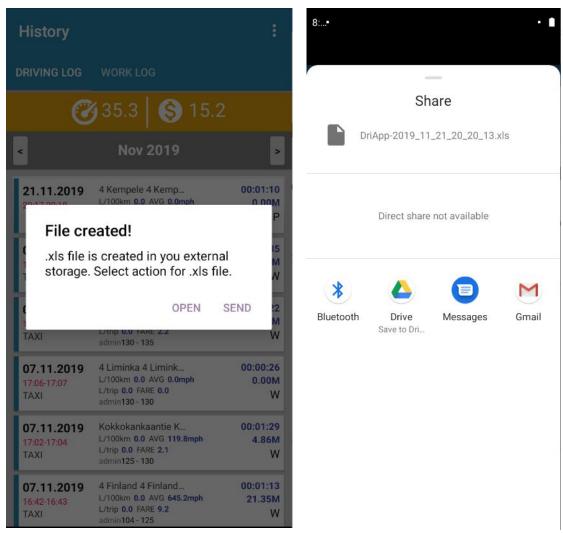


Image 10: file has been created

Image 11: Share the file

#### 4.2. backups

Driving Diary data is stored to the memory of the device, but restoring the date if the device breaks can be difficult. It is recommended to make regular backups of the data manually or by using Google Drive backup functionality that can be automatized. To use Google Drive, the device needs a Google account. If the company devices all share an account, the backups should be directed to separate folders in Google Drive. by doing this overwriting files can be averted. Google Drive backup takes the whole database to Google Drive. This way the database can be restored to a device or taken to an entirely new device. The database is in an SQLite format and can be edited on a computer with an appropriate tool.

Backup can be activated by selecting "Backup" from the menu. During the first time, the application asks for the account credentials you want to use as the backup target. Give your approval for all the rights if the device asks for them. The next step is to choose an appropriate folder for the backup, "Choose backup folder". During this phase, a new folder



for the backup can be created to Google Drive. You can turn on an automated backup and determine how often it is taken. These intervals are I.e. never, every day, once a week or once a month. The time is checked every time Driving Diary is re-opened. If a previous backup has been taken for an example a week ago, it is done in the background. (Image 12)

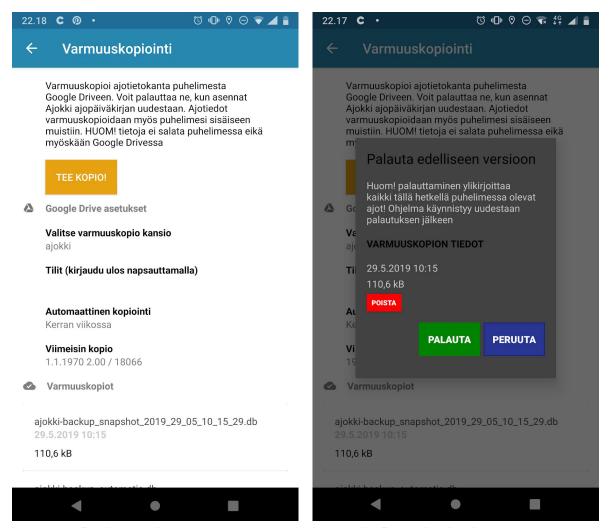


image 12: Backup settings

image 13: Restoring backup

More information and instructions can be found from <a href="https://www.ewooks.fi">https://www.ewooks.fi</a>
You can also contact us via email <a href="mailto:support@ajokki.fi">support@ajokki.fi</a> or use a form found from our web page or by using the webchat.



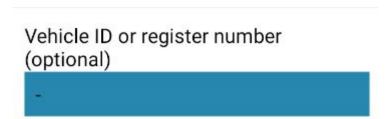
# 5.0. Settings

in this chapter, we go through the settings of the Driving Diary

#### 5.1. General Settings

General settings tab has settings, which effect for an example screen views. These settings also have things not related to other more specific settings.

1. Vehicle registration number or other identification. This field is used if you want to individualize saved date for example by using a registration number of the vehicle. this identification is saved to the excel reports exported from the application.



2. The driving mode default value can be set here. During normal use, the Driving Diary will automatically use the previously used mode. Fare-mode changes the appearance of the whole UI and activates the required functions.



3. Horizontal view forces the screen to show in horizontal view.



4. Day/night colours change the colour theme to fit better to either day or night use.



5. Print interval, this setting allows altering how the fare is shown on the view. This won't affect the total tally, but it can make the screen look less hectic. the default value is 0.1, which equals to 0.10€



# Display drop interval

0.1

6. Keep GPS running makes the GPS update more often. It also makes starting faster when the drive is commenced.

## Keep GPS on

Keep GPS always on. Speed up GPS use.



7. Speed cameras. If the current location has speed camera data, the cameras are shown on the map and you can also get notifications of them.

# **Speed Cameras**

$\overline{}$	P 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Show
	Show

Alarm near

# 5.2 Fare-settings

From fare-settings view has all the settings related to fare based driving as well as fares T1, T2, T3 and T4 which can are used on the regular Driving Diary.

Lock button. If necessary, fare-settings can be locked with a PIN-code. This prevents the unauthorized changing of the fares.	LOCK TARIF SETTINGS
Title. By changing this, you can alter the text "Ajokki" shown in the fare mode. You can use i.e. you company name here (i.e. Pekka's Taxi). This way you can display your company or brand a bit better.	Header name in taxmetter  Taximeter
Company information. Put your company name and business ID here. This information is used when a receipt is formed.	Comppany information Pekka's Taxi 123456-7



Driver. The name, number or initials of the driver. (Note that this info is set from users tab starting from version 7.41)	Kuljettaja (esim. Matti L tai 12345) Pekka
Car ID, number or registration number	Car id AAA-123
free cell. any text written here will be visible in fare-view on the bottom of the screen. For example, you can place the full name of the driver her (Driver [first name][last name])	Free field (if empty not show)  Pekka Taksari
T1-T4 and T1 night - T4 night per/km fare prices, including VAT. T1-T4 are for daytime driving, T1 night -T4 night is meant for night fares.	
Currency. You can set the wanted currency shown on the screen. This affects on SumUp payments as well. NOTE! MXN (Mexico) and RUB (Russia) currencies are not supported by SumUp	Currency EUR
Calculation mode. you can set if the fare price is calculated by distance, time or in a combination of the two.	Calculate price by distance or time  Distance Time Distance + Time
Day- or night fare in use. You can alter this directly in the fare more with a dedicated button.	Day or Night prices in use  Day Night
fare per minute. The fare for a minute based charge.	Price per minute 0.0



Starting fee. the basic fee that is added automatically on a start of every drive.	Base Price 0.0
Minute price for waiting	Waiting price per minute 0.0
airport fare. Fixed fare added to the total price.	Price to airport  0.0
Extras button. You can build 4 different kinds of fares and name them as you want. see Extra-fares.	EXTRA
Automatic wait mode if the speed slows bellow set value	Automatic waiting mode if speed is smaler:  0.0
STOP button behaviour. Either show payment options or end drive instantly	Show payment menu first, when press stop?

#### 5.2.1 Extra-fares

in Extra-fares views, you can create 4 fares of your own, based on the existing fares or by giving them your own values. Named buttons are visible in the Fare-mode in a menu. The table below shows different combinations.

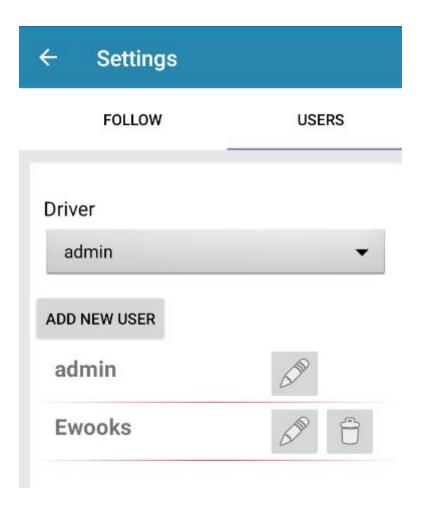


Taksa kombinaatiot extroille	Y.					
Nimi	Start Fee type	Custom fee	Distance Fee type	Distance fee	Time fee	Extra Only
E1	NORMAL (YÖ/PÄIVÄ)		NORMAL		EI	EI
E2	NORMAL (YÖ/PÄIVÄ)		сиѕтом	asetettu	EI	EI
E3	NORMAL (YÖ/PÄIVÄ)		OFF		EI	EI
E4	NORMAL (YÖ/PÄIVÄ)		NORMAL		KYLLÄ	EI
E5	сиѕтом	asetettu	NORMAL			
E6	сиѕтом	asetettu	сиѕтом	asetettu		
E7	сиѕтом	asetettu	OFF			
E8	сиѕтом		NORMAL		KYLLÄ	
E9	OFF		NORMAL		EI	EI
E10	OFF		сиѕтом	asetettu	EI	EI
E11	OFF		OFF		EI	EI
E12	OFF		NORMAL		KYLLÄ	EI
E13	El muokattavissa	asetettu	Ei muokattavissa	Ei muokattavissa	Ei muokattavissa	KYLLÄ



#### 5.2.2 Users

Starting from version 7.41, user management can be found from the Users tab. The basic license allows two different users and one administrator. Users can be assigned a PIN that prevents non-admins from seeing the user information. A user can be granted admin rights, so they can see all the device events.



## 5.3 OBD-settings

Ajokki Driving Diary supports ELM 327 compatible OBD-II Bluetooth devices. OBD-device can be plugged to an OBD slot found from a car in order to take measurements directly from the cars own drive computer. In general, every car made from 2005 onwards has an OBD-slot. The data that can be read from a car through OBD differs depending on the make and model of the car. Because of this, we can't guarantee that OBD measurements will work on your car. From the list below, you can find cars that have been tested with Ajokki as well as the data that has been read through OBD. The cars tested have been from 2015 or newer

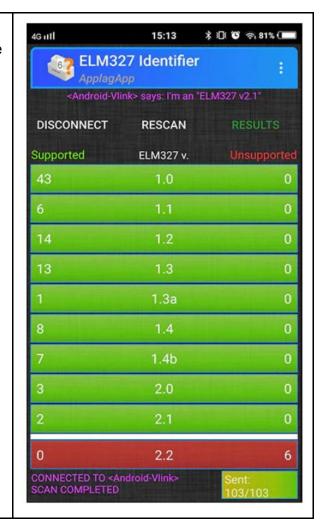
Note, that you can get OBD-devices with faulty software or connections. It is recommended to check the version of your device for example with ELM327 Identifier application found from Google Play



https://play.google.com/store/apps/details?id=com.applagapp.elm327identifier

image: ELM327 Identifier application: Software version has to be at least 1.5. The newer versions will work better on newer cars.

After the test, remember to disconnect the application, otherwise, it will keep the connection open, allowing access from other applications.



#### 5.3.1 OBD-devices used in the tests



# Fuj:tech OBD II ELM327 Bluetooth diagnostic-sensor

retailer: www.verkkokauppa.com



#### Super Mini ELM327 OBD2 Bluetooth V1.5

Retailer: China (we imported a small number of these ourselves)



ELM 327 Switch V2.1 OBDII Bluetooth with on/off switch. Software version 1.5

Retailer: China (we imported a small number of these ourselves)





#### **OBDII Bluetooth Car Diagnostic**

retailer: <a href="www.dx.com">www.dx.com</a> ja <a href="https://www.elekma.com">https://www.elekma.com</a>



#### 5.3.2 Tested OBD functions in cars

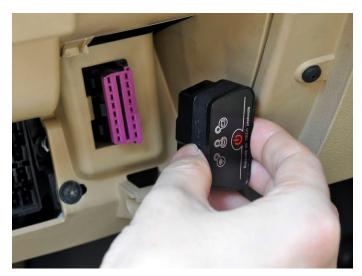
Below a list of cars, we have tested with OBD-use. The list is not complete because of the number of makes and models of cars and we cannot guarantee 100% compatibility. You can inform us of the compatibility of your car by email info@ewooks.fi

Make (2015->)	Nopeus/Speed	Kierrokset/RPM	Ilmavirta/MAF	Lämpö/Temp	Kulutus/MPG
Opel	ОК	OK	OK	OK	ОК
Volvo	OK	OK	OK	OK	ОК
vw	OK	OK	OK	OK	OK
Nissan	OK	OK	NOK	OK	NOK
Toyota	OK	OK	OK	OK	OK
Renault	OK	OK		Testissä	Testissä
Skoda	Testissä	Testissä	Testissä		

## 5.3.2 Installing OBD-device

The first thing is to locate the OBD-slot from your care. The location of the port depends on the manufacturer, but the most common location for it is on the left side of the driver side of the car, near the circuit box.





OBD-slot in a car

After installing the OBD-device, power up the car and check if there is an indicator light turned on on the device. Do note that not all devices have indicator lights. the next phase is to pair the OBD with your Android device.

1: Make sure, that Android Bluetooth is active	
2: star Driving Diary and open OBD-settings from the settings.	
3: Activate "Use OBD"-function. Note, that in this mode GPS measurement is not in use. Communications speed should be "Normal" in this phase. If there are problems in connectivity, you can try other methods from here.	
4: Return to Driving Diary and choose desired drive mode, i.e. Work drive	
5: During the first start, the application asks which device you want to connect on. As you shouldn't have connected OBD-II device yet, choose "Add".  If you already have an OBD-II device, go to	
point 8.	

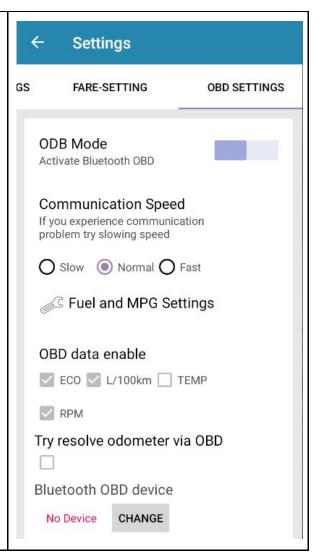


6: From the view Android Bluetooth and device connection choose "form a new device pair with a new device"	
7: Wait till a new OBD-device appears to the list. The name depends on the manufacturer. Choose the wanted device and connect to it. The device PIN depends on the manufacturer but can be, for example, 0000 or 1234. Check this PIN from the manufacturer's instructions.	
8: Return to Driving Diary and choose an OBD device from the list. Test the connection by starting the measurement.	

# 5.3.3 OBD-settings view



- Use OBD on/off switch
   Communication speed. Car computers might work better by using different speeds. We have defined 3 presets. Test which works the best with your car. "Fast" is recommended, if it works with your car/OBD device.
   fuel and consumption view
- 4: OBD data, what data is gathered and shown on the computer. Note, that ECO, consumption, temp and RPM are shown only in Driving Diary mode.
- 5: Try to get odometer count from the ODB. Note, that the car manufacturers won't allow access to the correct value, so this will work only if the value has been set/reset during maintenance of the car. the value is not always correct.
- 6: Active OBD and switch device button.



#### 5.4 Routes and saving

Odometer query? On/off switch. If you want, the application will ask the odometer count when the measurement is started. This helps to keep the odometer count correct.	
Odometer count shows the latest measurement count. This value can be altered manually.	
Save waypoints. If this function is on, street names are saved to diary descriptions. The information is gathered through the OpenStreetMap server, so it is possible not every name is found from the service.	



Anyone can update faulty information or ask the addition of the information. More info <a href="https://www.openstreetmap.org">https://www.openstreetmap.org</a>	
Save time to route. If this is turned on, waypoints are time stamped.	
Automatic measurement. You can opt to use automated saving. The function tries to determine when you are in a car and when the trip is starting or ending. the accuracy of the function depends on the used device. this function can't be used in fare-mode.	
Timed automatic stop. How long it will take to stop the measurement if the app notices the car is not moving in driving speed.	
Metric or imperial system. The application supports both metric and imperial measurements (SI-system).	
Use google navigation. Activates Google navigation button and floating widget that can be used atop of different applications.	

# 5.5 Tracking

Tracking is meant for fare-mode and customer transportations. the option allows the driver to show the location of the car on the <a href="https://taksit-kartalla.fi">https://taksit-kartalla.fi</a> map. It is possible to share a temporary or permanent tracking code. Temporary sharing works in a normal driving diary use as well.

The published information is shown on the map: Phone number, given in Messageswitch-tab, company information from the Fare-settings Tab and GPS location.

Your code. Permanent tracking code	
The phone number you want to be contacted if the device location is public.	
I am active on/off switch. If in the off mode, the location information is not publicised.	
don't show location on a public map on/off	



switch. You can share your location by using a private tracking code on the fare-mode. Driving Diary only uses private mode, so the switch will have no effect.	
Send button. You can use this to send a temporary location link by using WhatsApp, SMS or some other desired method. The code is changed when the drive is ended.	



# 6.0 FAQ

Q: How accurate is the measurement of Ajokki Driving Diary?	Speed	Distance(km)	Time(minutes)
A: The accuracy depends on the hardware in use (Phone, GPS, OBD, car). With OBD devices, it depends on how well the OBD, phone and the car ECU communicate. Ajokki itself uses calculations that are in a laboratory environment 100% accurate.  the table on the right shows OBD simulated drive at a speed of 100km/h. The sample speed rate in Ajokki was set in 200ms while the ECU RPM was read. The temp and the average consumption rates were calculated from values taken from ECU	100km/h	8,333333333333333333333333333333333333	5 10 15 20 25 30 35 40 45 50 55 60 65
Q: Does Ajokki support hybrid and electric car?			
A: We haven't yet been able to test this. It is possible, that OBD works in these models as well. We hope to get more information from our users.			
In GPS mode Driving Diary works in all vehicles.			
Q: why is Ajokki chargeable?			
A: The fees are used in the development, maintenance of the applications and the map system. A portion of the payments is used to this purpose, 30% is taken by Google and the rest to the developer.			
Q: Is Driving Diary made according to EU measurement directives? (MID, 2004/22/EU)			
A: No, because it is a mobile phone/device application, NOT a measurement device. In Finland, a device that fulfils the directive is needed for so-called KELA rides, but with other driving the only requirement is that			



there is an understanding between the client and the driver on what the charges are based on.	
Measurement is reliable with the system developed for the Driving Diary. To minimize misunderstandings, it is recommended to use fixed prices. Finnish legislation ratified in 2018 allows the use of mobile devices in fee-based driving. In other countries, you should check out the local legislation before adopting the application. Two supported measurement modes for Ajokki are ODB directly from the car and GPS.	
Q: Can I pay Ajokki with an invoice?	
A: You can order Ajokki as a service and pay with an invoice. More information:  https://www.ajokki.fi/tilaus.html	
Q: Who Open Street Maps instead of Google Maps?	
A: Google maps update slower from some countries than OSM maps. Administrating and pricing of Google Maps is also out of the scope of our product. We also support up to date OSM information what comes to roads of Finland.	
Q: Address not found?	
A: You can add missing addresses directly to OSM system  https://www.openstreetmap.org/ We can also add the addressed for you if you send us the missing information support@ajokki.fi	
Q: SumpUp keeps failing (frowny face pops up)	
A: The frowny face pops up only if SumpUp returns a failed payment to Driving Diary. This indicates a problem between SumUp and payment terminal.	



- 1: Make sure that you have the newest version of SumUp installed.
- 2: Remove the pairing of the payment terminal and SumUp
- 3: Reconnect SumUp and the payment terminal
- 4: retry paying again through Driving Diary
- 5: Repeat the process if necessary.
- Q: Can I do cash payments through SumUp?
- A: You can activate cash payments through SumUp application itself. However, SumUp doesn't support direct exporting of cash payments as is with debit or credit payments. You have to enter these figures manually through SumUp's own interface
- Q: OnePlus GPS is not working?
- A: The fault lies in OnePlus hardware, as is admitted by Oneplus. A temporary fix is to reset GPS
- 1: Open Phone Call App
- 2: press in a sequence \*#808# which should open a test menu
- 3: Locate GPS from the list
- 4: choose Cold Start from the upper corner menu

After this GPS should function normally.

#### Source:

https://forums.oneplus.com/threads/gps-not-working-properly.627589/







- Q: Are any other payment terminals besides SumUp supported by Ajokki?
- A: At the moment only SumUp is supported. Cash payments have to be entered manually with SumUp as it lacks the needed API. iZetlen can be launched through Ajokki, but it lacks the required



Android API to handle payments automatically.

Q: Which receipt printers are directly supported by Ajokki?

A: At the moment Ajokki supports devices with standard ESC/POS printing language capable Bluetooth printers using 58mm paper.

Examples of printers we have tested: ZJ-5805DD 58mm

With Star printers, you have to set ESC/POS compatible mode as follows

- 1: Switch on the printer and open the protective lid
- 2: Hold POWER and FEED buttons until you see ERROR light flashing five (5) times. ESC/POS language is switched on automatically.
- 3. After paper settings, close the lid.
- 4. Restart the device every time you change the printing language.

