V-AI12 Video Hardware

User Manual

Firmware version 5.x.x.x and above

PowerFleet for Logistics

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What is in the box?

Before you get started with the PowerFleet V-AI12 dashcam, check for the following items in your box:

V-AI12

mounting bracket

hardwire kit

speciality screwdriver

Caution

Take note of the camera's IMEI number. The IMEI number is on a sticker on the camera itself and on the backside of the camera box. You will need this number when setting up the camera.

Important

The dashcam supports a micro-SIM card, which is required to activate the dashcam. The SIM card can be purchased from PowerFleet or separately.

See also

- Insert the SIM and SD cards into the dashcam
- Connect the dashcam to a power source
- Hardwire the dashcam to the vehicle fuse box
- Connect the dashcam to an OBD2 port for power
- Set the dashcam viewing angles
- Calibrate the dashcam sensors

Installation checklist for the V-AI12 dashcam

You can refer to this checklist to ensure that all the necessary steps for installation are completed.

Installation checklist

1. Insert the SIM and SD cards.
2. Mount the dashcam to your windshield.
3. Connect the dashcam to a power source.
4. Set the road-facing and in-cabin-facing viewing angles.
5. Calibrate the accelerometer.
6. Check the live video of the road-facing and in-cabin-facing cameras.

Note

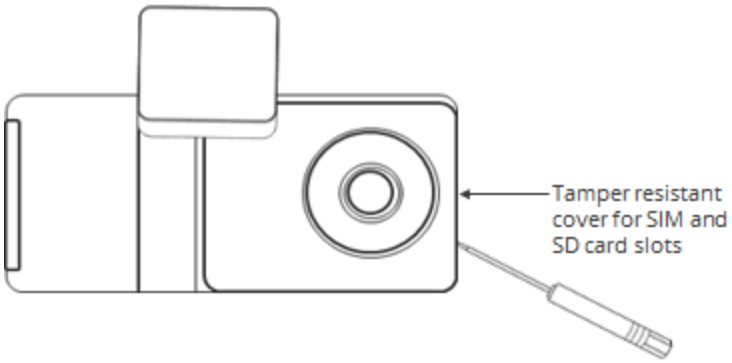
When a dashcam is in storage, the battery gets completely drained. Before using the dashcam, you need to charge it for an extended period, using at least a 2A power source, before the dashcam turns on.

Insert the SIM and SD cards into the Dashcam

When you receive a new V-AI12 dashcam, the SD card is already inserted. The SIM card is either purchased from PowerFleet, in which case it's already inserted, or purchased separately and needs to be inserted. There is a tamper-proof cover over the SIM and SD card slots that can be opened with the screwdriver included with your dashcam. You may need to reinsert the SIM and SD cards, or insert new ones.

To install the SIM and SD cards:

1. Use the special screwdriver included in the box when you purchased the dashcam to remove the safety screws that lock it.
2. Insert the SIM and SD cards, as needed.



3. **Caution**
    a. Only insert a microSIM card. If you insert a different sized SIM card, it can damage the dashcam.
4. Format your SD card.
    a. Press the touchscreen of the V-AI12 dashcam to wake it up.
    b. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.
    c. Press **Settings**.
    d. Select **Format SD card**.

See also

- What is in the box?
- Connect the dashcam to a power source
- Hardwire the dashcam to the vehicle fuse box
- Connect the dashcam to an OBD2 port for power
- Set the dashcam viewing angles

- Calibrate the dashcam sensors

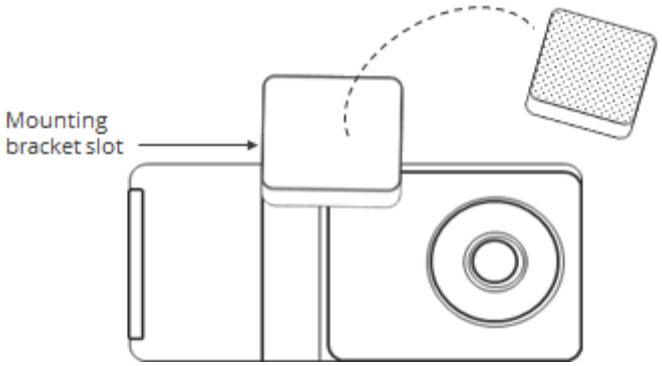
Mount the dashcam onto your windshield

Important

Before you start, make sure that the vehicle is parked on a level surface and that the windshield is clean and dry.

To mount the V-AI12 dashcam on a vehicle's windshield:

1. Attach the mounting bracket onto the dashcam.

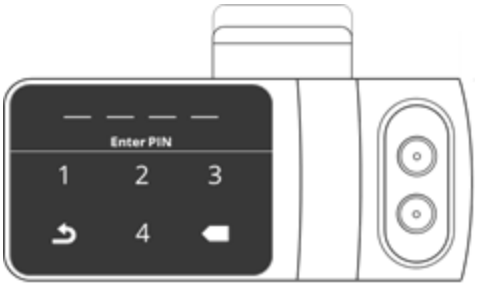


2. Once attached, the mounting bracket locks the dashcam into position.
3. Press the touchscreen of the V-AI12 dashcam to wake it up.

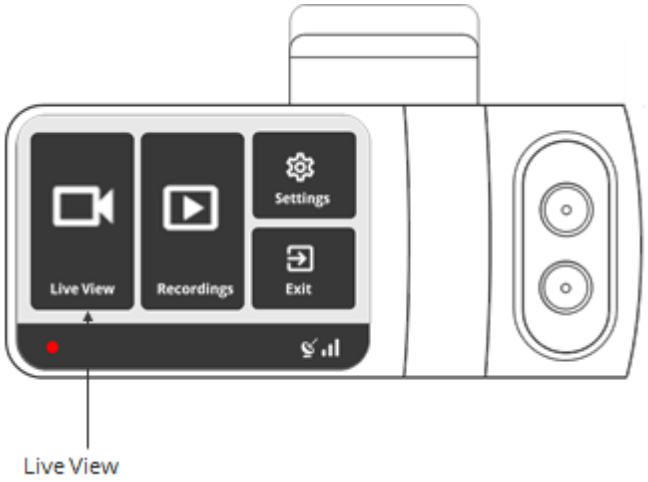
Note

When a dashcam is in storage, the battery gets completely drained. Before using the dashcam, you need to charge it for an extended period, using at least a 2A power source, before the dashcam turns on.

4. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.



5. Press **Live View**.



Use the arrow keys to toggle between the road-facing and in-cabin-facing views.

6. Use the dashcam views to position the dashcam.

When positioning the dashcam, ensure that:

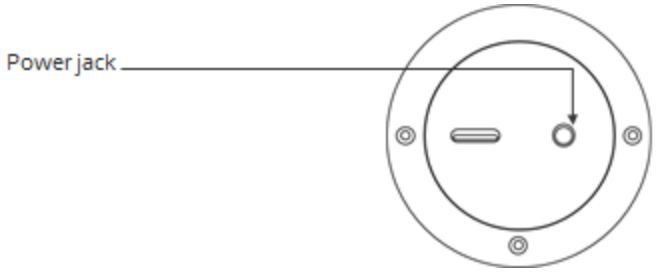
- you have a clear view of the driver's upper body
- you have a clear view of the road
- the dashcam doesn't obstruct the driver's field of vision
- the dashcam has a direct line of sight to the sky

7. Remove the adhesive tape cover and mount the dashcam onto the windshield.

Connect the dashcam to a power source

To utilize the full features of the V-AI12 dashcam, including Standby mode, your dashcam must be connected to a constant 12V or 24V minimum 2A power source. The dashcam should only be connected to a power source using the supplied cables.

The input power connector is located on the side of the dashcam cylinder.



Note

USB-C can NOT be used to power the dashcam.

You can connect the dashcam to a power source as follows:

- by hardwiring the dashcam to the fuse box of the vehicle
- with an OBDII cable

See also

- What is in the box?
- Insert the SIM and SD cards into the dashcam
- Hardwire the dashcam to the vehicle fuse box
- Connect the dashcam to an OBD2 port for power
- Set the dashcam viewing angles
- Calibrate the dashcam sensors

Hardwire the dashcam to the vehicle fuse box

To utilize the full features of the V-AI12 dashcam, including Standby mode, the dashcam must be connected to a constant 12V or 24V minimum 2A power source using the supplied cables. You can do this is by hardwiring the dashcam to the fuse that has a constant power source.

Warning

This installation should be performed by a qualified or professional person only. Working with your vehicle's power system can be dangerous. Consult a professional for guidance.

Note

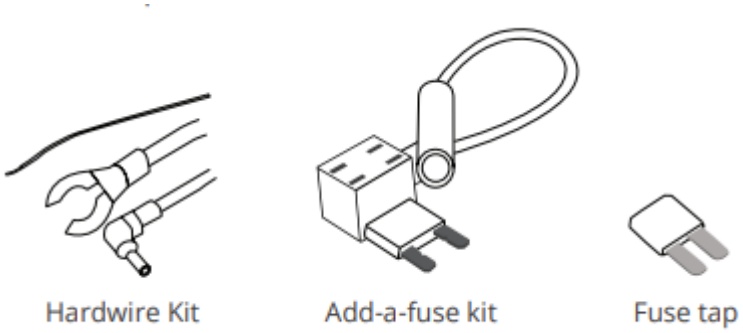
While in **Standby** mode, you can retrieve recordings from the dashcam. In **Standby** mode, the dashcam draws a current of 34 mA.

When you are ready, follow these steps:

- Get organized
- Hardwire the dashcam

Get organized

To hardwire the camera to the fuse box, use the following equipment:



Note

The hardwire kit includes three wires:

- a wire for constant power
- a black ground wire for a metal ground bolt
- a red wire to connect the dashcam to power

These wires require a 24V power source.

Locate your fuse box

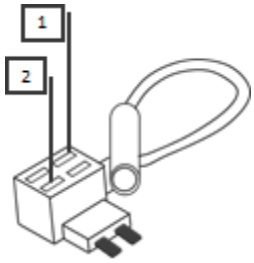
Check the owner's manual of the vehicle to find the fuse box, which may be located in different places depending on the vehicle model. Remove the plastic panel to access the fuse box. Open the fuse box by lifting a tab and pulling it toward you or with a trimming tool.

Which slot should I use?

Use a circuit tester to test which fuse is constant. A fuse that is constant stays on when the car is off.

Add-a-fuse kit

Use the add-a-fuse kit included in our hardwire installation kit for a more secure, long-lasting installation. The add-a-fuse kit provides a fuse slot for the existing circuit (#2 in picture below) and another fuse slot for the new circuit for the dashcam device (#1 in picture below).



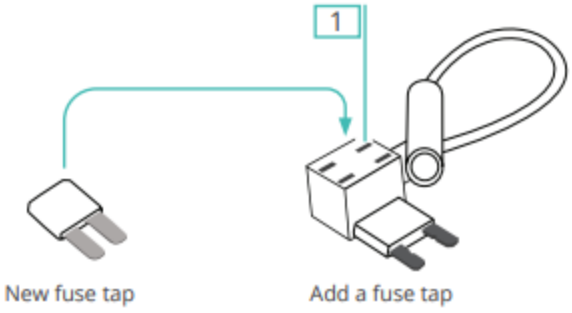
The ground wire

The ground wire is usually in the shape of a ring or a C.

Hardwire the dashcam

To hardwire the dashcam:

1. Insert the new fuse box tap that was provided in the installation kit into **slot 1** of the add-a-fuse kit.

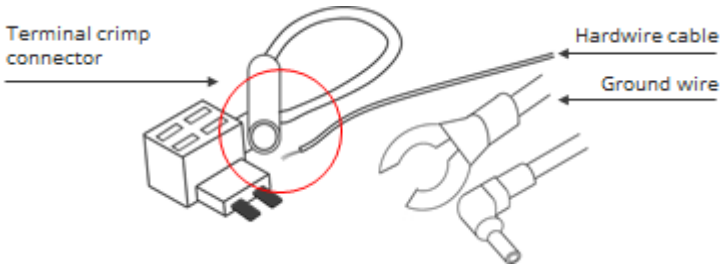


2. Insert the fuse from the vehicle fuse box into **slot 2**.

Note

If you insert them in the wrong order, the power will not feed through.

3. Trim off some of the rubber tubing to expose the wiring on your hard-wired cable.
4. Using a standard needle-nose pliers, crimp the hard-wired cable with the terminal crimp connector that was included in the add-a-fuse kit.

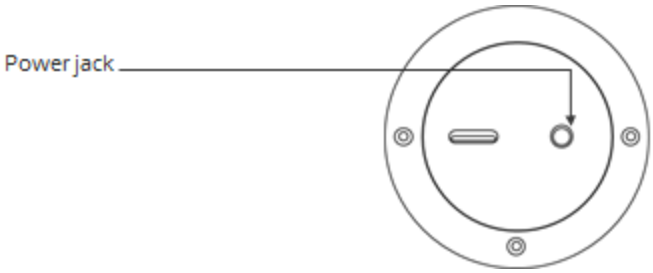


5. Connect your add-a-fuse kit to the vehicle fuse slot you chose.
6. Connect the ground wire by slipping it under a metal bolt or screwing it into your vehicle. If needed, use a socket wrench set to loosen the bolt.

Note

A loose ground wire can result in power issues for your dashcam. We recommend grounding your wire to an unpainted bare metal bolt.

7. Connect the power cable to the dashcam.



Important

Once you have hardwired the power source, the camera starts up automatically every time you turn on the vehicle.

8. Start your vehicle to test the dashcam.

Note

When a dashcam is in storage, the battery gets completely drained. Before using the dashcam, you need to charge it for an extended period, using at least a 2A power source, before the dashcam turns on.

9. Once you have tested your dashcam, run the power cable along the headliner of the vehicle from the A-Pillar to the power source.

See also

- What is in the box?
- Insert the SIM and SD cards into the dashcam
- Connect the dashcam to a power source
- Connect the dashcam to an OBD2 port for power
- Set the dashcam viewing angles

- Calibrate the dashcam sensors

Connect the dashcam to an OBD2 port for power

To utilize the full features of the V-AI12 dashcam, including Standby mode, the dashcam must be connected to a constant 12V or 24V minimum 2A power source using the supplied cables. You can do this by connecting the dashcam to an OBD2 port. Purchase an OBD2 cable from your authorized reseller.

Warning
This installation should be performed by a qualified or professional person only. Working with your vehicle's power system can be dangerous. Consult a professional for guidance.

Note
While in **Standby** mode, you can retrieve recordings from the dashcam. In **Standby** mode, the dashcam draws a current of 34 mA.

To connect your dashcam to an OBD2 port:

1. Locate the engine diagnostic port.

The port is usually found in the driver area, at or below knee level.

2. Align the connector end of the OBD2 cable with the engine diagnostic port.

Connectors can vary by vehicle. If a different one is needed, contact your authorized reseller.

3. Push the connector into the port.

Note
Ensure that the OBD2 cable is secure and well-connected to the port.

4. Connect the OBD2 cable to the dashcam.

5. Start your vehicle to test the dashcam.
6. Once you have tested your dashcam, run the power cable along the headliner of the vehicle from the A-Pillar to the power source.

See also

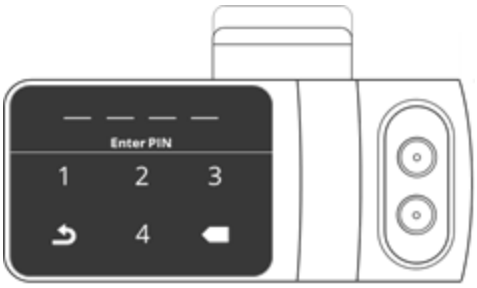
- What is in the box?
- Insert the SIM and SD cards into the dashcam
- Connect the dashcam to a power source
- Hardwire the dashcam to the vehicle fuse box
- Set the dashcam viewing angles
- Calibrate the dashcam sensors

Set the dashcam viewing angles

You can set the viewing angles of both the road-facing and in-cabin-facing lenses.

To set the view angles:

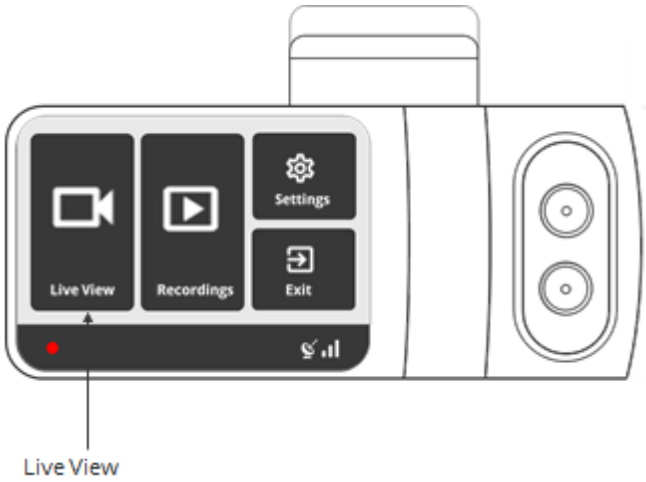
1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.



Note

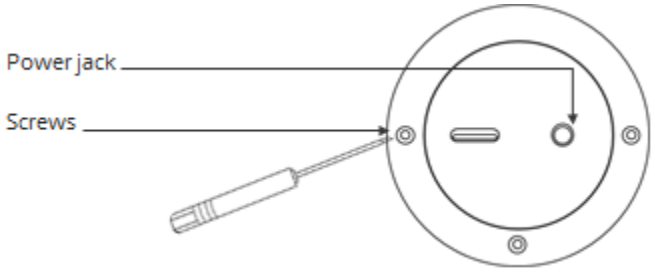
See Set and manage your dashcam PIN if you need help with your PIN.

3. Press **Live View**.

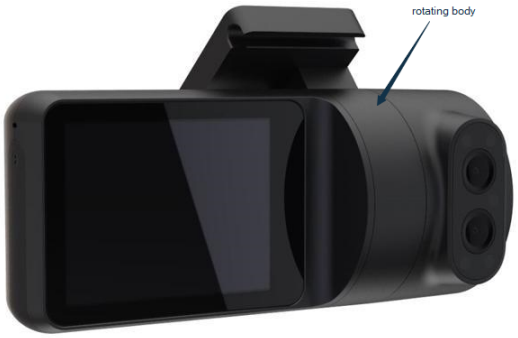


4. Use the arrow keys to toggle between the road-facing and in-cabin-facing views.

5. Use the special screwdriver that was included in the box to loosen the three security screws on the round side of the dashcam. Do not remove the screws fully.



6. Adjust the viewing angle of the road-facing lens by rotating the body of the dashcam; then adjust the viewing angle of the in-cabin-facing lens by rotating the ring. Make sure all the viewing angles are set correctly.



7. Use **Live View** to position both the road-facing and in-cabin-facing lenses in the proper directions. Use the arrow keys to toggle between the views.

When positioning the dashcam, ensure that:

- you have a clear view of the driver's upper body
- you have a clear view of the road
- the dashcam doesn't obstruct the driver's field of vision
- the dashcam has a direct line of sight to the sky

Note

When a dashcam is in storage, the battery gets completely drained. Before using the dashcam, you need to charge it for an extended period of time, using at least a 2A power source, before the dashcam turns on.

8. Tighten the three side screws when finished.

See also

- What is in the box?

- Insert the SIM and SD cards into the dashcam
- Connect the dashcam to a power source
- Hardwire the dashcam to the vehicle fuse box
- Connect the dashcam to an OBD2 port for power
- Calibrate the dashcam sensors

Calibrate the dashcam sensors

The PowerFleet V-AI12 dashcam contains internal sensors that detect risky driving events. You need to calibrate the sensors before using the dashcam.

Note
Before you start, make sure that the vehicle is parked on a level surface.

To calibrate the accelerometer:
1. Turn on the vehicle ignition.
2. Check that the dashcam is on.
3. Press the touchscreen of the V-AI12 dashcam to wake it up.
4. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.
5. Press **Settings**.
6. Press **Calibration**.

The calibration process takes about a second and once completed, the status changes from **Not Done** to **Done**.

Note
If you move the dashcam to another vehicle, you should recalibrate it.

See also
- What is in the box?
- Insert the SIM and SD cards into the dashcam
- Connect the dashcam to a power source
- Hardwire the dashcam to the vehicle fuse box
- Connect the dashcam to an OBD2 port for power
- Set the dashcam viewing angles

Standby Mode

To use **Standby** mode, the V-AI12 dashcam must be connected to a constant power source. See Hardwire the dashcam to the vehicle fuse box for more details.

While in **Standby** mode, you can retrieve recordings from the dashcam. In **Standby** mode, the dashcam draws a current of 34 mA.

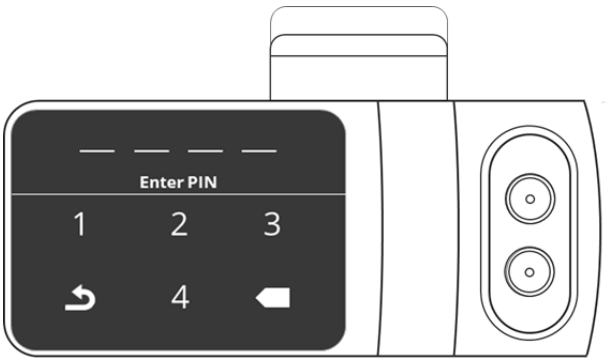
The dashcam moves to **Standby** mode at a minimum of ten minutes and a maximum of sixty minutes after the vehicle stops moving. This enables continued streaming and recording from the vehicle for that grace period after the driver has turned off the vehicle. Adjust the number of **Idle minutes to enter standby** from the Settings menu of the dashcam or from the cloud.

Set and manage your dashcam PIN

The default PIN is 3333. This PIN is publicly available in our support documentation and website knowledge base. To secure access to the V-AI12 dashcam, you should change the PIN for your dashcam.

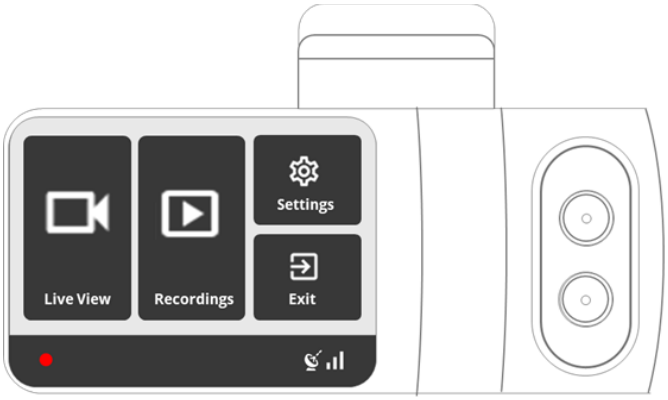
To change the PIN:

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

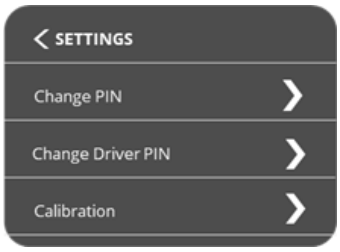


The screen unlocks and the menu can be viewed.

3. Press **Settings**.



4. Scroll down to **Change PIN**.



5. Insert four digits for a new PIN.

Note

You can also set an additional PIN for the driver. See Manage PINs for drivers

Auxiliary camera installation overview

Auxiliary cameras can be installed on different spots of the vehicle to enable tracking of other perspectives during trips. Once installed, fleet managers associate each auxiliary camera with a single main V-AI12 dashcam directly from the settings of the dashcam itself. They control the functionality of each of the auxiliary cameras from their cloud account by accessing the associated dashcam.

Warning
This installation should be performed by a qualified or professional person only. Working with your vehicle's power system can be dangerous. Consult a professional for guidance.

There is a single **Camera wire** that comes out of the camera, splitting into the following three wires:

- **Power connection** - with a round power barrel connector socket for power - 5.5x2.1mm (no pin).

  A round barrel pigtail connector (sold separately) or a round DC connector should be used to power the connector that appears below.

Caution
The round barrel socket may be cut and spliced - but this must be done (as should the entire installation) by a professional. Power should be connected to a 12V power source that is on only when ignition power is on (and not through constant power).

- **Reset button** - a button designed to change the Wi-Fi connectivity or to reboot the camera.

To reboot the camera, press the button once.

Hold the reset button for 10 seconds to return the camera to its factory default settings and to enable the camera as a Wi-Fi hotspot.

Warning
The reset button cable must not be removed as it is the only way to return the camera to factory default settings in case of any issues.

- **Ethernet connector** - This connector is used in case the camera is wired with an ethernet connector. This connector can be removed if needed.

Important
Cutting the ethernet connector cable must be done past the point where the initial cables splits to 3 cables.

Hardwire the auxiliary camera to the dashcam

Fleet managers can hardwire each auxiliary camera to a single main V-AI12 dashcam. A wired connection is the preferred method to connect auxiliary cameras to the main dashcam. This connection is helpful when the auxiliary camera is placed in an area with possible interference to the Wi-Fi signal, such as the back of the vehicle. The auxiliary camera needs a 12V minimum 2A power source.

Warning

This installation should be performed by a qualified or professional person only. Working with your vehicle's power system can be dangerous. Consult a professional for guidance.

Before you start, the following equipment is needed:

- V-AI12 dashcam
- V-AI12 auxiliary cameras with a hardwire option
- USB Type-C to RJ-45 adapter, purchased separately
- Router (not a hub), purchased separately
- RJ-45 CAT-6 network cables, purchased separately
- A pigtail connector, purchased separately
- When using a tamper proof case, some USB Type-C to RJ-45 connectors fit the case while others require an extension USB Type-C cable with a low-profile connector, purchased separately

Note

For devices purchased separately, choose from this list. If you want to use a device not on the list, first test it to ensure to works.

To connect using the wired connection:

1. Connect the USB Type-C to RJ-45 adapter to the dashcam.

Note

Contact PowerFleet support to enable USB power in the dashcam for the RJ-45 adapter to work.

Note

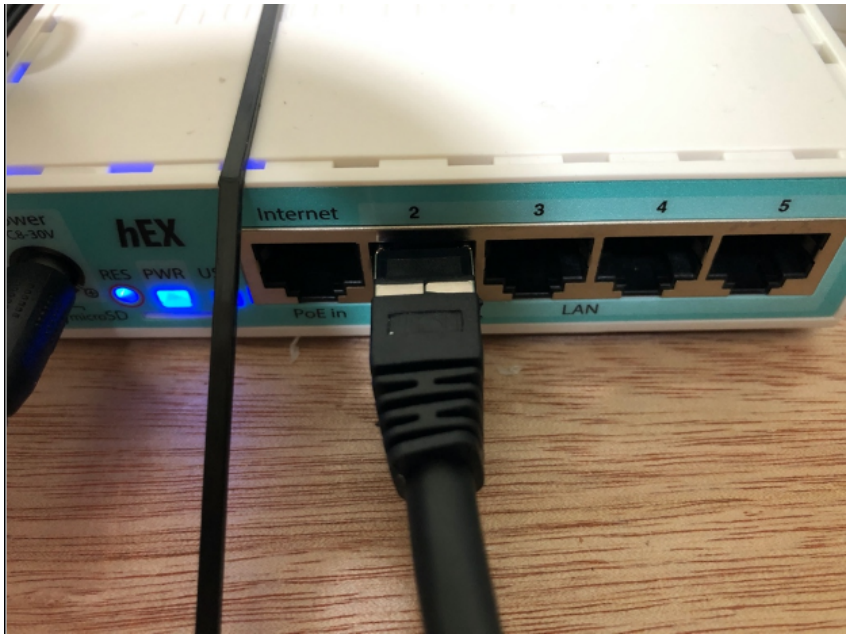
For dashcams purchased before July 2020, you need to get a new hardwire kit or OBDII power connection. Using an older kit or power connection may cause the dashcam to remain in standby.

2. Connect an RJ-45 network cable to the USB Type-C to RJ-45 adapter.

Caution

Protect the RJ-45 connection with the waterproof connector supplied with your camera.

3. Connect the other end of the RJ-45 network cable to the LAN port of your router.



Caution

Protect the router in your vehicle. For example, place the router in a plastic enclosure to protect against water damage.

4. Connect the router to the vehicle ignition power using a pigtail connector.
5. Connect the auxiliary camera to the vehicle ignition power.
6. The auxiliary camera is automatically added to your dashcam.

Tested equipment

The following equipment has been tested by PowerFleet and works well with the auxiliary cameras.

USB Type-C to RJ-45 adapter:

- TP-Link UE300C - https://www.tp-link.com/ae/home-networking/computer-accessory/ue300/
- Lenovo USB Type-C adapter - https://support.lenovo.com/il/en/solutions/acc100324

Router:

- Microtik RouterBOARD hEX RB750Gr3 Router – https://mikrotik.com/product/RB750Gr3
- Microtik hAP AC-Lite - https://mikrotik.com/product/RB952Ui-5ac2nD

Pigtail connector:

- N/X DC power pigtail cable - https://amzn.to/3k2QE5d
- Chanzon DC power connector - https://amzn.to/37msy0b

Pair the auxiliary camera over Wi-Fi using the PowerFleet View app

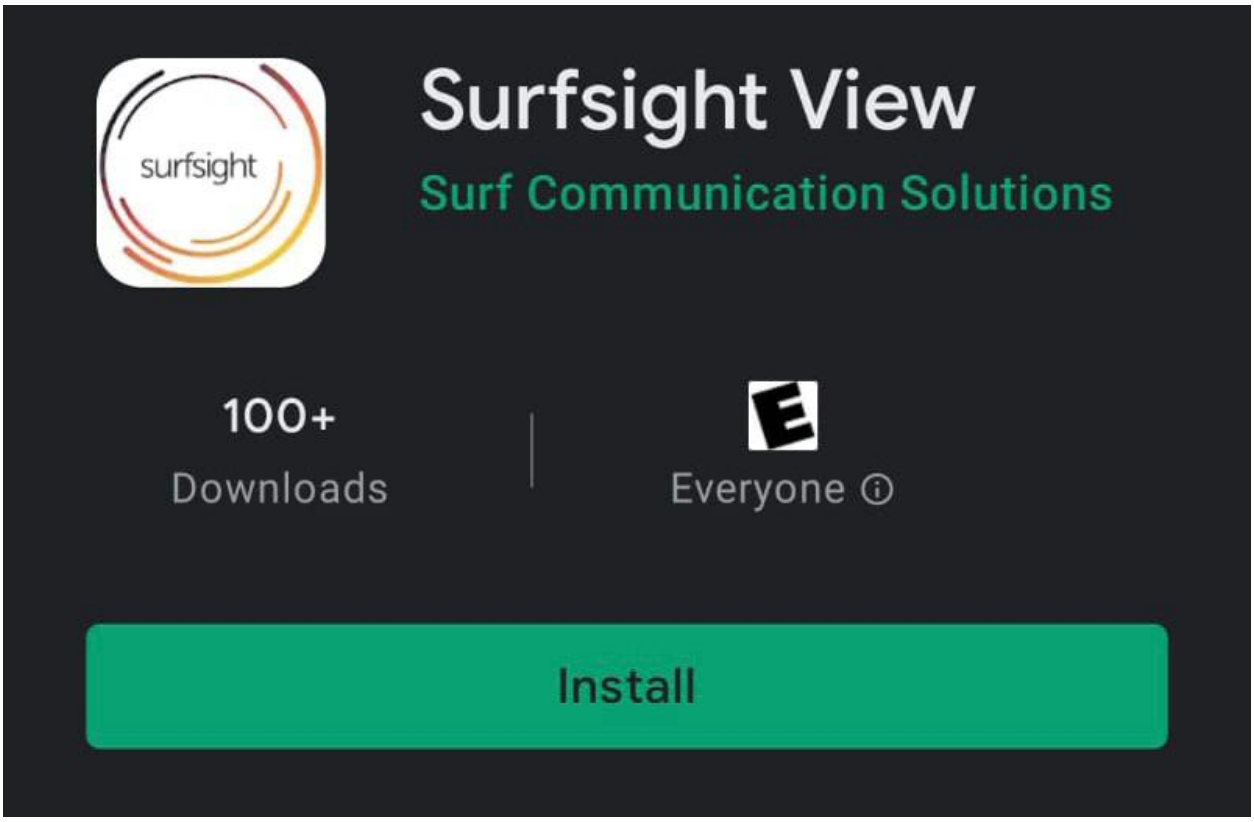
You can download the **PowerFleet View** app on any Android device to simplify installing auxiliary cameras and pairing them with a V-AI12 dashcam. The app works on phones and tablets. The app also allows drivers to view their auxiliary cameras in real time.

Warning

The app is not an additional camera and should not be used as one. For example, drivers should not use the app to help with reversing a vehicle.

To pair auxiliary cameras using the app:

1. Install the **PowerFleet View app** from your app store onto an appropriate device.

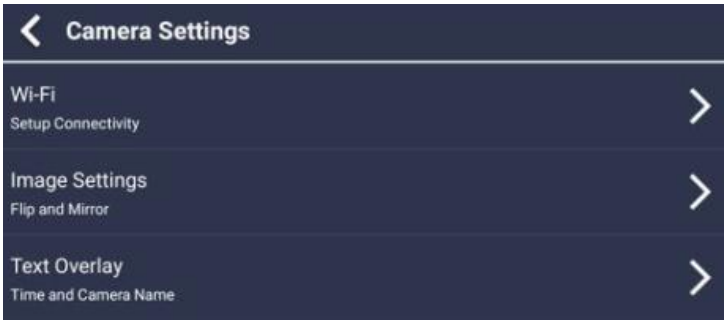


2. From the device settings, select the auxiliary camera's Wi-Fi.

Auxiliary camera Wi-Fi names appear like: IPCAM-XXXXXX.

3. Open the PowerFleet app and wait until the auxiliary camera selected above is recognized.

4. Press to the right of the camera.
5. Select **Wi-Fi**.



6. Enter the **SSID**, **Encryption Type**, and **Password**.

The **SSID** and **Password** are found in your dashcam's Wi-Fi settings.

The **Encryption Type** is WPA2-PSK.

7. Press **APPLY**.
8. Press to close the app.
9. Repeat steps two through eight for any additional auxiliary cameras you want to pair to the dashcam.

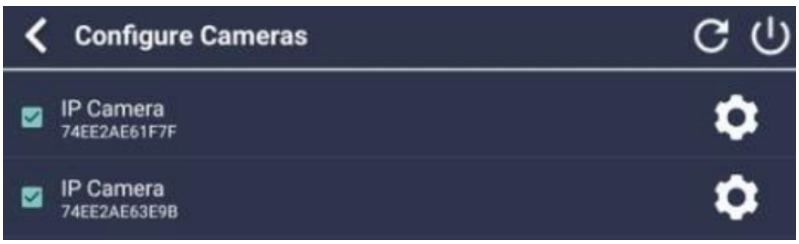
Note

You can pair up to four auxiliary cameras to each V-AI12 dashcam.

10. From the device settings, select the dashcam's Wi-Fi.

The dashcam's Wi-Fi name appears like: Dash-XXXX.

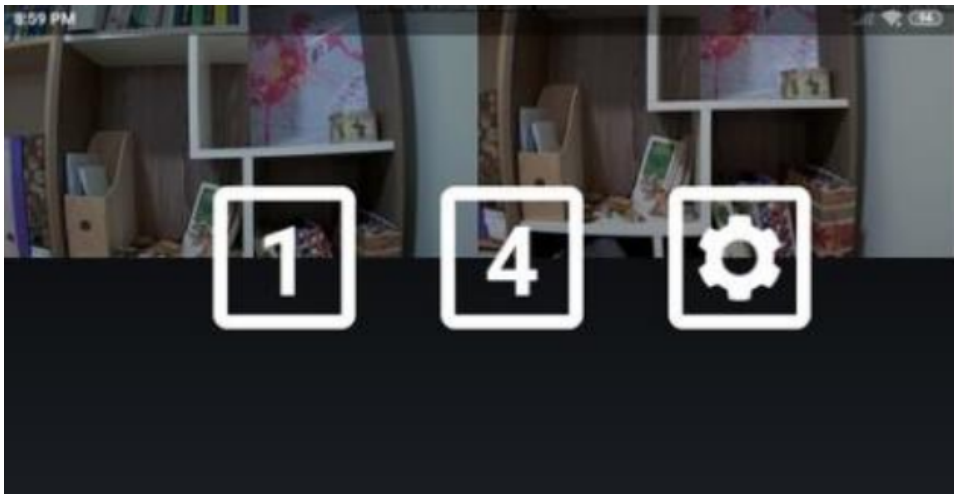
11. Open the **PowerFleet View** app.
12. Select the auxiliary cameras you want to pair with this dashcam.



13. Press the back arrow at the top left of the page.

A single camera view appears.

14. Click anywhere on the screen to see the following menu:



Press **1** to return to the single camera view.

Press **4** to view a four-tile screen with all the video streams - the dashcam's and any paired auxiliary cameras.

Press to return to the **Configure Cameras** screen.

Connect the auxiliary camera to Wi-Fi using a web browser

Note

To connect an auxiliary camera to Wi-Fi, you need to have access to the auxiliary camera, a power source, and a computer or mobile device such as a smartphone or tablet.

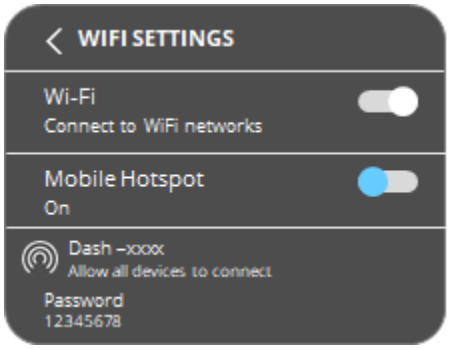
1. Connect the camera to a 12V power source.
2. Open the internet network on the device you are using to set up the connection.
3. Turn on the Wi-Fi connection for the camera. A new Wi-Fi connection appears on the list: ‘IPCAM-XXXX’ (the serial number of the auxiliary camera).
4. Connect to the new ‘IPCAM-XXXX’ Wi-Fi.
5. Enter the password 01234567.
6. Once your connection is set, open a web browser and navigate to 192.168.1.88.
7. Click **PC View**.
8. Enter admin in both the username and password fields and click **Login**.

The auxiliary camera dashboard opens.

9. From the left navigation bar, click **Settings** at the top.
10. Click **Network** in the sub-menu and then click **Wireless**.
11. In the SSID text area, enter the dashcam's default hotspot: Dash-XXXX. The default hotspot consists of 'Dash’ and the last four digits of the IMEI, which can be found on the camera's sticker.
12. Set **Security mode** to WPA2-PSK.
13. Set **WPA Algorithm** to AES.
14. In the **Key** text area, enter the camera's default Wi-Fi hotspot password: 12345678.

Note

To find the PowerFleet V-AI12 dashcam hotspot name and password you can also turn on the V-AI12 dashcam. Click **Settings** and then **Wi-Fi**. Turn on **Mobile Hotspot**. The Wi-Fi network name and the Wi-Fi password should appear.



Connect the auxiliary camera to Wi-Fi using a web browser

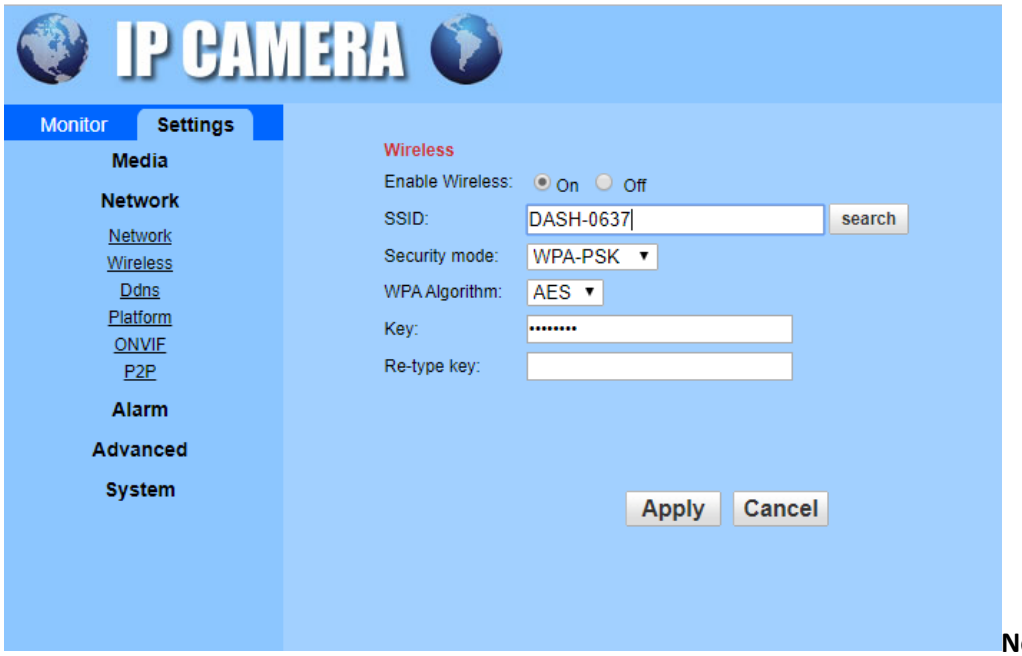
Note

To connect an auxiliary camera to Wi-Fi, you need to have access to the auxiliary camera, a power source, and a computer or mobile device such as a smartphone or tablet.

1. Connect the camera to a 12V power source.
2. Open the internet network on the device you are using to set up the connection.
3. Turn on the Wi-Fi connection for the camera. A new Wi-Fi connection appears on the list: ‘IPCAM-XXXX’ (the serial number of the auxiliary camera).
4. Connect to the new ‘IPCAM-XXXX’ Wi-Fi.
5. Enter the password 01234567.
6. Once your connection is set, open a web browser and navigate to 192.168.1.88.
7. Click **PC View**.
8. Enter admin in both the username and password fields and click **Login**.

The auxiliary camera dashboard opens.

9. From the left navigation bar, click **Settings** at the top.
10. Click **Network** in the sub-menu and then click **Wireless**.
11. In the SSID text area, enter the dashcam's default hotspot: Dash-XXXX. The default hotspot consists of 'Dash’ and the last four digits of the IMEI, which can be found on the camera's sticker.
12. Set **Security mode** to WPA2-PSK.
13. Set **WPA Algorithm** to AES.
14. In the **Key** text area, enter the camera's default Wi-Fi hotspot password: 12345678.



Note

To find the PowerFleet V-AI12 dashcam hotspot name and password you can also turn on the V-AI12 dashcam. Click **Settings** and then **Wi-Fi**. Turn on **Mobile Hotspot**. The Wi-Fi network name and the Wi-Fi password should appear.

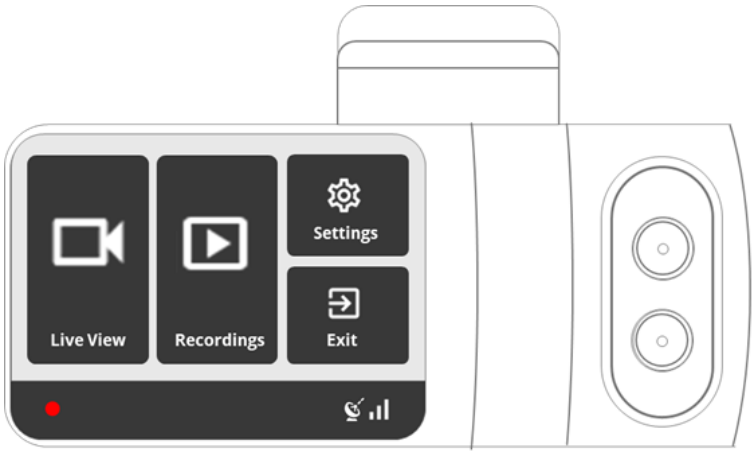
Navigate the dashcam screen

From the touchscreen of the V-AI12 dashcam, you can access the menu from the default screen.

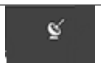
To turn on the dashcam screen and access the menu:

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

The screen unlocks and the menu can be viewed.



The main screen has the following menu items:

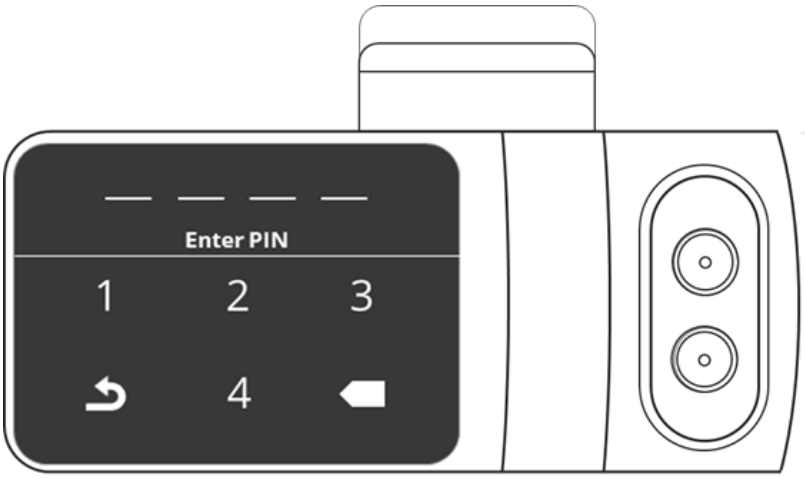
Component	Icon	Description
Live View		Access and view live video.
Recordings		Access and view recordings stored on the SD card.
Settings		Access all dashcam settings.
Exit		Exit the menu and lock the screen.
Recording indicator		Indicates whether the dashcam is currently recording.
GPS connectivity		Indicates whether there is a GPS connection. When there isn't any GPS reception, a red bar appears across this icon.

Connection indicator		Indicates whether a data or Wi-Fi connection is available and the strength of that connection. To access Wi-Fi, the camera should have a SIM card or be connected to a PowerFleet cloud app account.

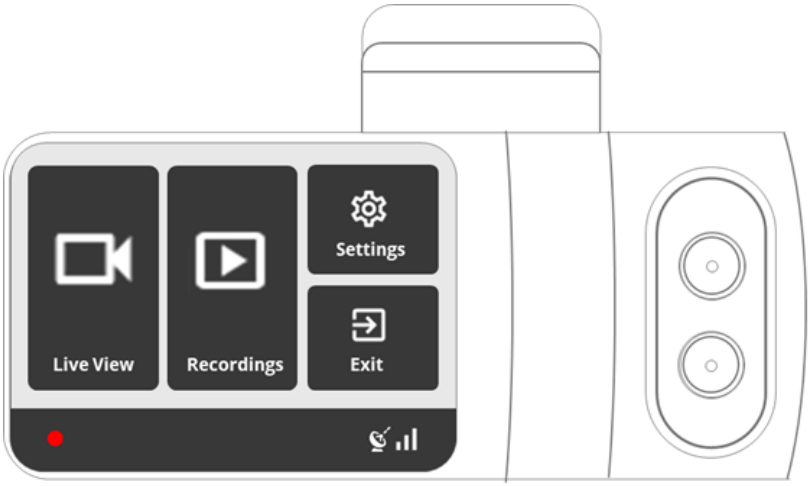
3. Press any of the options to access or activate their functionality.

V-AI12 dashcam settings

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.



The screen unlocks and the menu can be viewed.



3. Press **Settings** to open a menu with the following items:

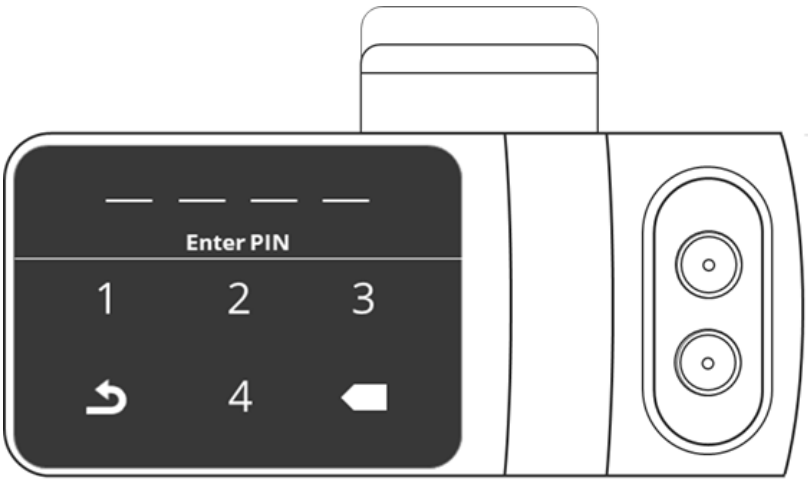
Menu Item	Description	Default Value
Wi-Fi	Turn the Wi-Fi on/off. Turn the Mobile Hotspot on/off.	Hotspot – On
Select APN	Select the APN that is available on the SIM.	N/A
Add APN	Add customized APN parameters – scanning a barcode.	N/A
Text Overlay	Turn the text overlay in video recordings and video events on/off.	On
Distracted Driver	Turn the distracted driver feature on/off.	On
In-Cabin Recording	Turn the in-cabin recordings on/off while keeping distracted driver feature working. The driver is notified when in-cabin recording is turned off.	On
Driver Position Left/Right	Set where the driver is sitting to calibrate the distracted driver feature.	Left
Speed in MPH	Switch between MPH and KPH for speed display in video recordings and video events.	MPH
US Date format	Switch between US Date format and ROW format.	US Format
Audio Alarms	Turn the audio alarms for dangerous and distracted driving events on/off.	On
Notify Live Streaming	Turn the driver notification when someone is watching the live stream through a text indication on the dashcam screen on/off.	Off
Change PIN	Change the **Settings** PIN.	3333
Change Driver PIN	Set or change the driver's PIN. This gives the driver less access to the dashcam menu.	2112
Calibration	Calibrate the accelerometer of the dashcam.	Off
Brightness	Control the screen brightness.	High
Language	Select the dashcam's language.	English
IMEI	Display the camera IMEI number (a unique identifier of the camera).	N/A
More Info	Display more information about the dashcam, such as software version, number of external cameras, and internet interfaces.	N/A
Certification	Display the dashcam's certifications.	
Build Version: XX.XX.XX	Displays the dashcam's software version.	
Format SD card	Format the SD card. This needs to be done for new SD cards.	N/A
Factory Reset	Reset the camera to factory settings.	
Power Off	Turn the dashcam off.	N/A

Set and manage your dashcam PIN

The default PIN is 3333. This PIN is publicly available in our support documentation and website knowledge base. To secure access to the V-AI12 dashcam, you should change the PIN for your dashcam.

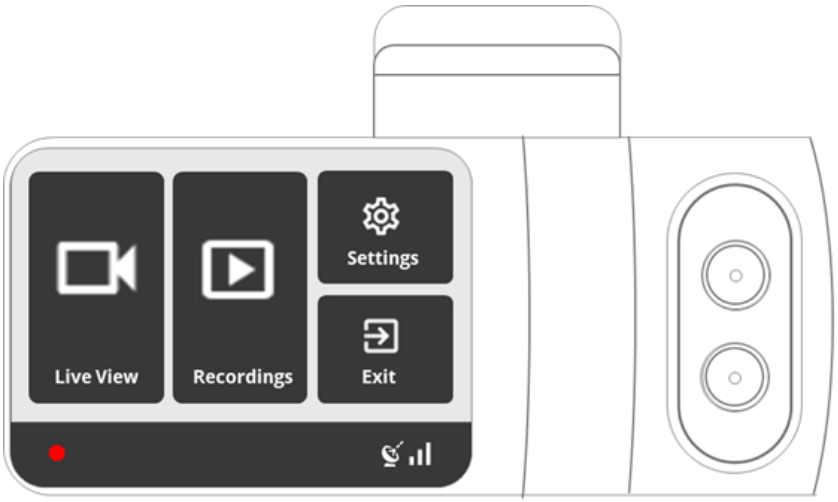
To change the PIN:

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

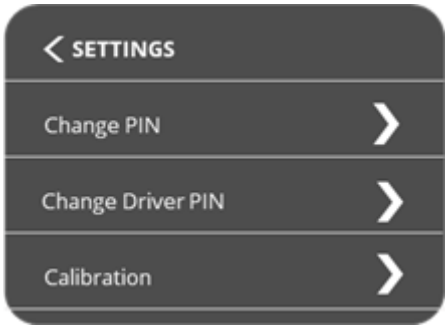


The screen unlocks and the menu can be viewed.

3. Press **Settings**.



4. Scroll down to **Change PIN**.



5. Insert four digits for a new PIN.

Note

You can also set an additional PIN for the driver. See Manage PINs for drivers

Manage PINs for drivers

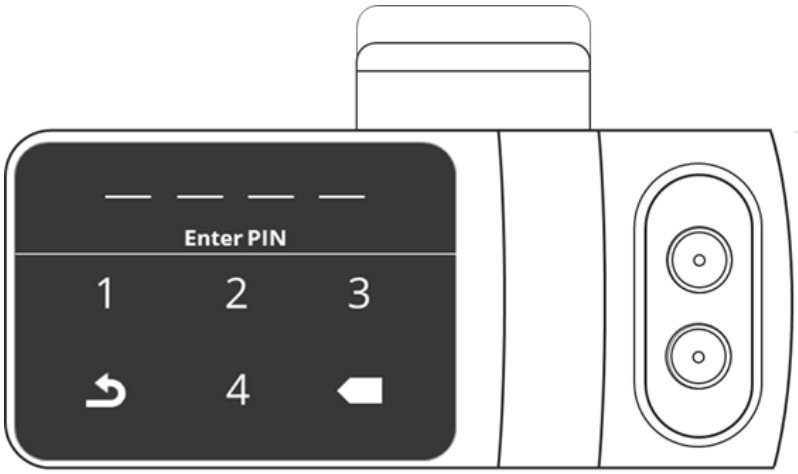
By setting a Driver PIN, you give the driver limited access to the V-AI12 dashcam menu. They can access **Live Video**, **Recordings,** and exit the menu. With this PIN, drivers cannot access **Settings**.

To set and change the Driver PIN:

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

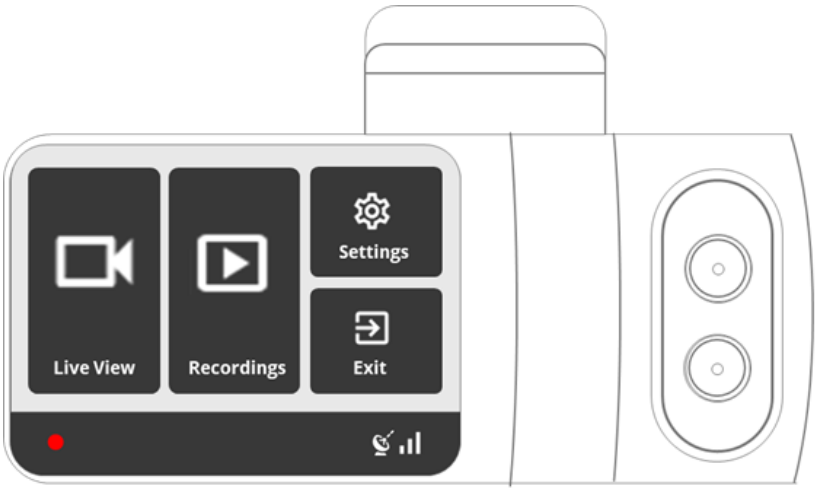
Note

See Set and manage your dashcam PIN if you need help with your PIN.

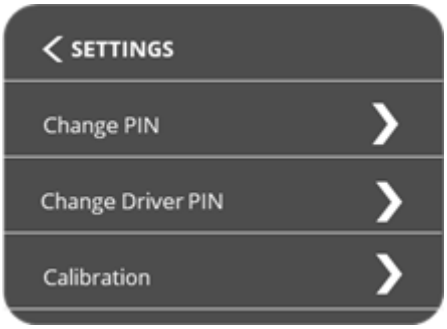


The screen unlocks and the menu can be viewed.

3. Press **Settings**.



4. Scroll down to **Change Driver PIN**.



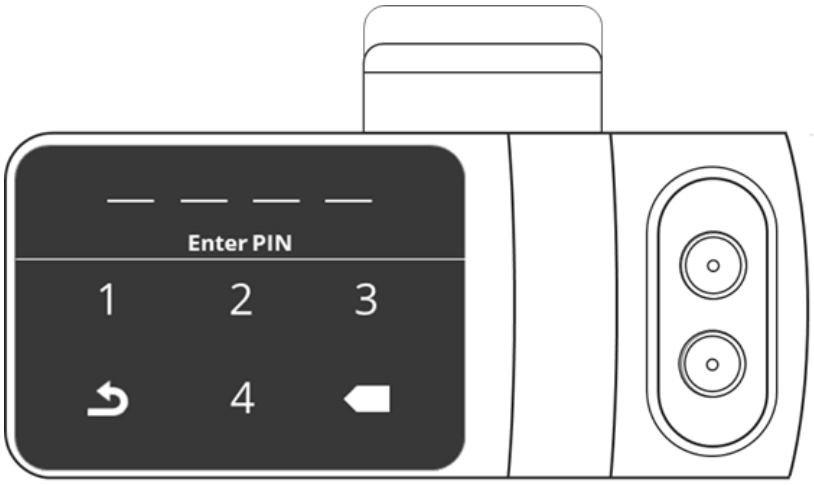
5. Enter four digits to set the PIN.

Unlock the dashcam to access and adjust settings

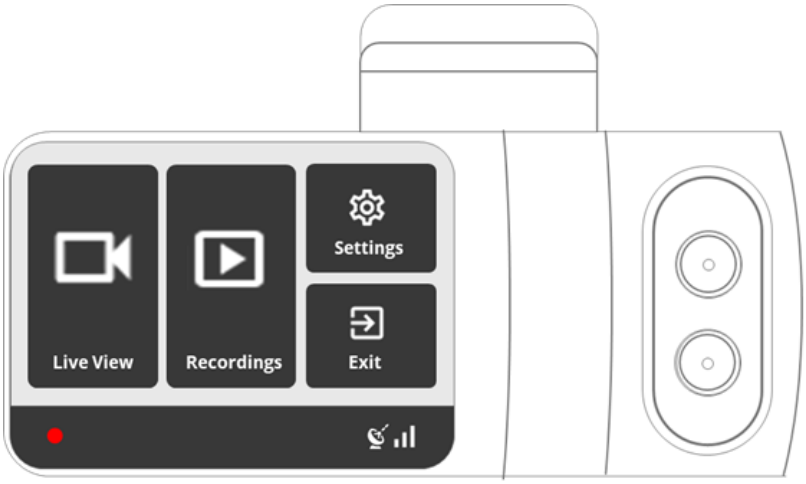
1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

Note

See Set and manage your dashcam PIN if you need help with your PIN.



The screen unlocks and the menu can be viewed.



The in-cabin-facing camera

The V-AI12 dashcam has cameras on both sides, enabling the driver and cabin to be filmed as well as the view of the road from the cabin. With the in-cabin-facing camera, the following features are available:

- Distracted driver visual and audio alerts
- Video recordings and details of distracted driving events
- In-cabin live video streaming

The in-cabin-facing camera has two lenses - one for day and one for night. The night vision lens uses infrared light to illuminate the cabin.

By default, the in-cabin-facing camera is turned on. The subsequent recordings in the cloud are called **Rear** recordings.

When you turn the camera off entirely, none of these features are available.

Note

To turn the visual and audio alerts off, see Set distracted driver features.

To turn the recordings off, see Set in-cabin-facing camera recordings.

See also

- Set in-cabin-facing camera recordings
- Set distracted driver features

About the GPS

The GPS of your dashcam tracks the vehicle's location. The vehicle's location is then used to calculate the speed of the vehicle. This information gets updated every five seconds while the dashcam is online and is uploaded to the PowerFleet cloud app every five minutes.

Note

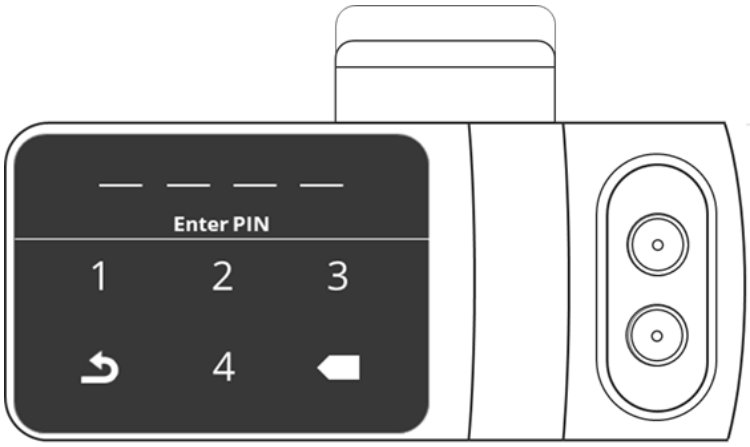
The accelerometer is not used to calculate speed. It measures G-force when detecting sudden acceleration/deceleration or violent turns.

Power off or restart the dashcam

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

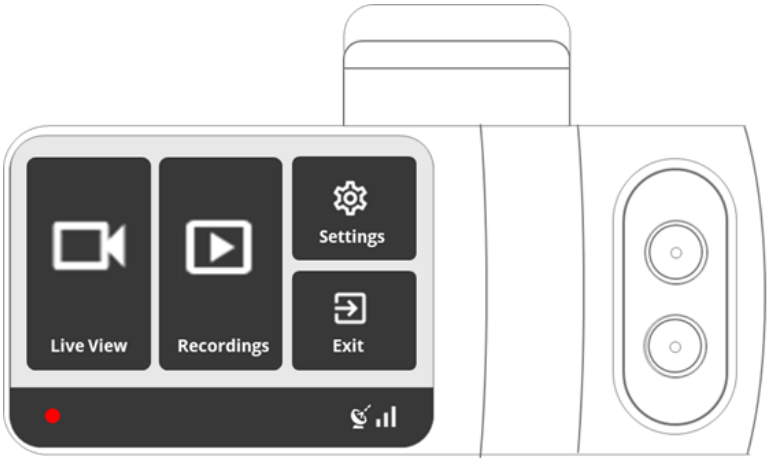
Note

See Set and manage your dashcam PIN if you need help with your PIN.

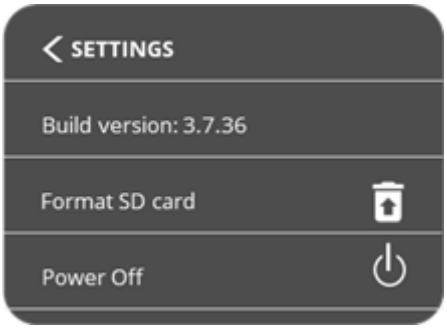


The screen unlocks and the menu can be viewed.

3. Press **Settings**.



4. Scroll down and press **Power Off**.



5. A confirmation window pops up.
6. Disconnect the power cable and from the screen press **Ok**.

If a tamper proof case is installed on the dashcam, you cannot disconnect the power cable. Press **Ok** and the dashcam restarts instead of shutting down.

7. To turn the dashcam on, insert the power cable.

Set in-cabin-facing camera recordings

By default, the in-cabin-facing camera recordings are turned on. The recordings can be turned on or off to meet different privacy regulations around the world.

If you turn off this setting:

- In-cabin video and dangerous and distracted driving video event recordings are *no longer* uploaded to the cloud.
- Distracted Driver in-cabin visual and audio alerts *remain on*.
- The screen display notifies the driver that the in-cabin *recording* is turned off.

Note

To turn the visual and audio alerts off, see Set distracted driver features.

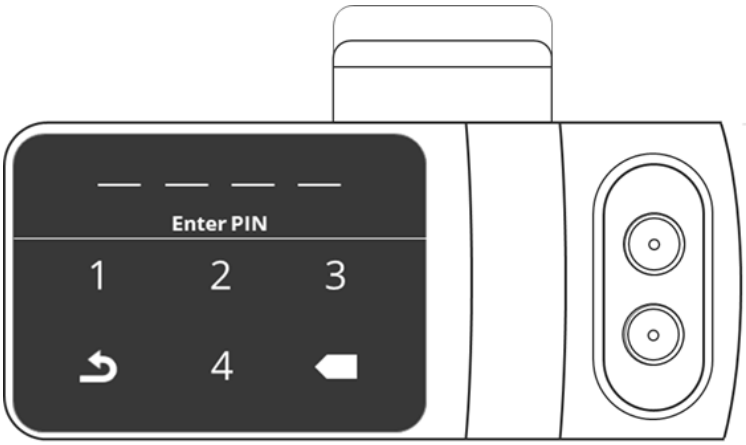
To turn the driver-facing camera off, see The in-cabin-facing camera.

To set the in-cabin-facing camera recordings:

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

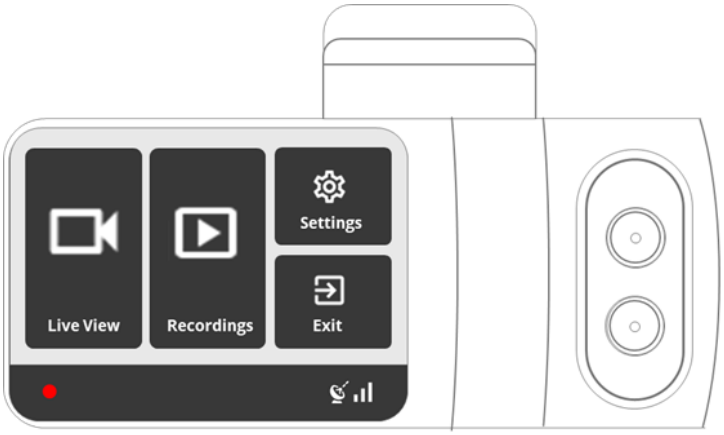
Note

See Set and manage your dashcam PIN if you need help with your PIN.

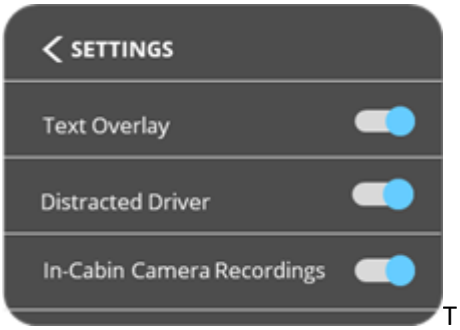


The screen unlocks and the menu can be viewed.

3. Press **Settings**.



4. Scroll down to **In-Cabin Camera Recordings**.



T

5. Toggle the button to turn recordings on or off.

Note

You can keep the in-cabin-facing camera on and simultaneously turn the in-cabin-facing camera recordings on and off.

See also

- The in-cabin-facing camera
- Set distracted driver features

Set distracted driver features

Distracted driving features comprise two parts:

- Distracted driver visual and audio alerts, as described here
- Recordings and events of distracted driving

The **Distracted Driver** feature includes alerts for the following MV+AI events:

- cell phone usage
- smoking
- eating and drinking
- general distracted driving
- unfastened seat belt

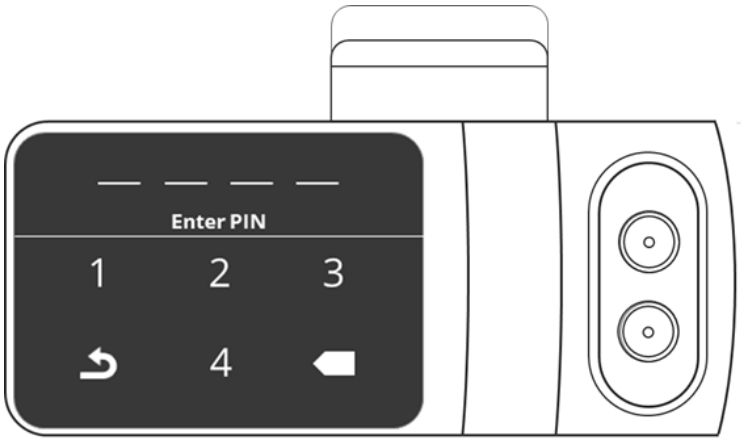
By default, the **Distracted Driver** feature in the V-AI12 dashcam is turned **On**, enabling drivers to receive in-cabin visual and audio alerts whenever a distracted driving event occurs. Only administrators can change this setting, similar to all other camera settings.

To turn distracted driver alerts off:

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

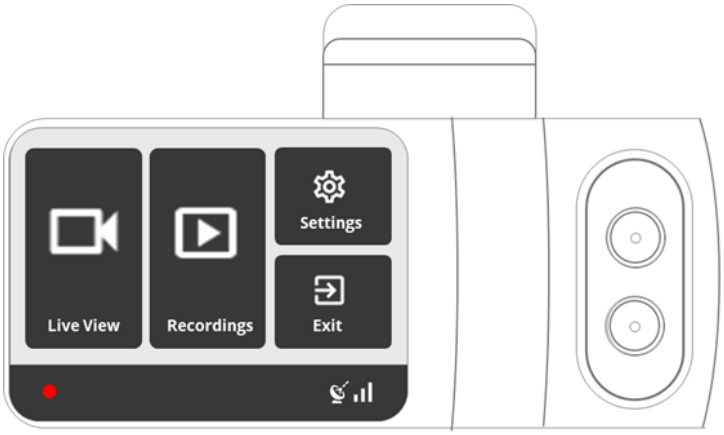
Note

See Set and manage your dashcam PIN if you need help with your PIN.

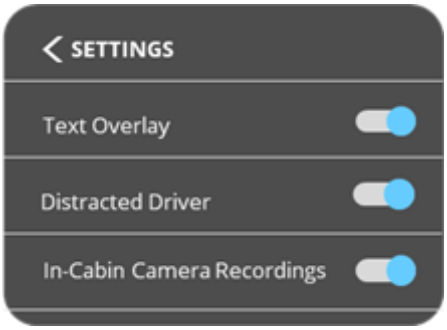


The screen unlocks and the menu can be viewed.

3. Press **Settings**.



4. Scroll down to **Distracted Driver**.



5. Toggle the button on or off.

Note

When the **Distracted Driver** setting is turned off, alerts and recordings are still sent to the cloud.

See also

- The in-cabin-facing camera
- Set in-cabin-facing camera recordings

Set the dashcam Wi-Fi connection

To connect the V-AI12 dashcam to Wi-Fi, make sure you have the dashcam with you, as well as access to the relevant PowerFleet cloud app account.

Note

If you connect the dashcam to a Wi-Fi hotspot in your vehicle instead of using a SIM card, the time stays on GMT and does not switch to local time.

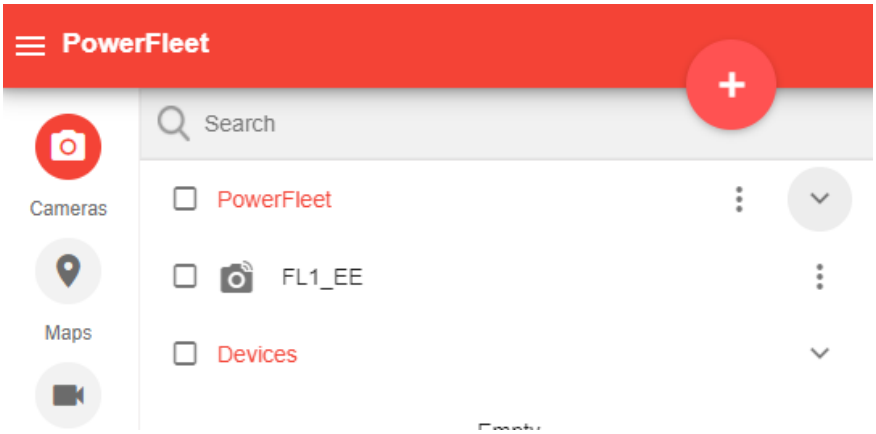
To connect the dashcam to Wi-Fi:

- Create a Wi-Fi QR code
- Connect to the Wi-Fi with the QR code

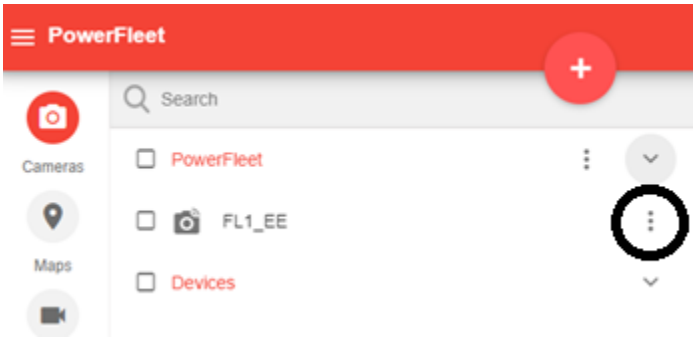
Create a Wi-Fi QR code

1. From the PowerFleet cloud app dashboard, click **Cameras** on the navigation bar.

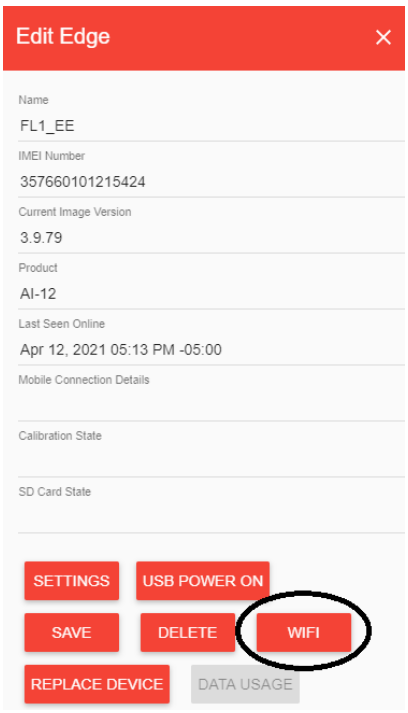
The list of dashcams appears.



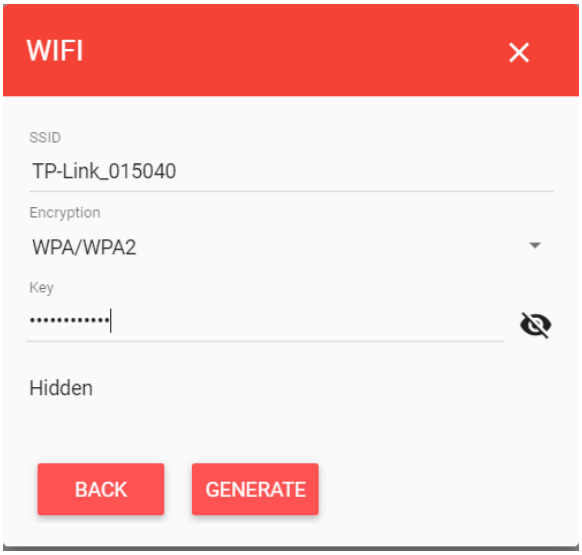
2. Select the relevant dashcam.
3. Click the three dots next to that camera.



4. Scroll to the bottom of the window and select **Wi-Fi**.



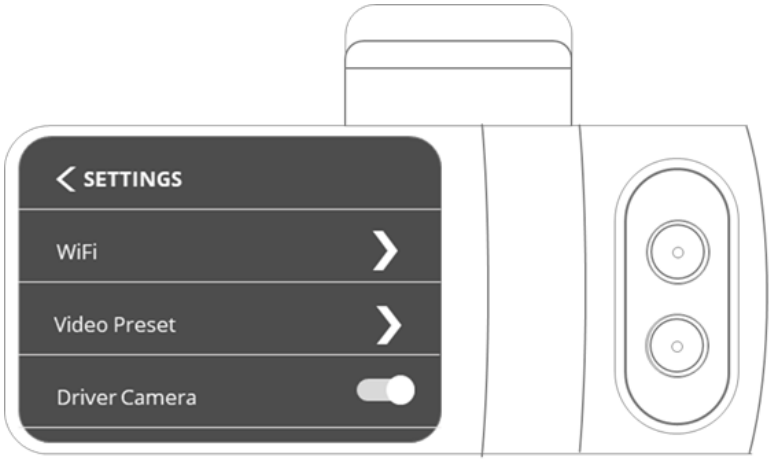
5. The **Wi-Fi** window opens.



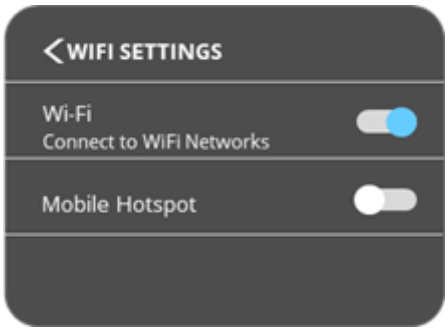
6. In the **SSID** field, enter the name of the Wi-Fi network to which you want to connect the camera.
7. Select the **Encryption** relevant to your network from the drop-down list.
8. In the **Key** field, enter the password of your Wi-Fi.
9. Click **GENERATE**.
10. A QR barcode opens on your screen.

Connect to the Wi-Fi with the QR code

11. Turn on the dashcam.
12. Go to the dashcam **Settings**.
13. Select **Wi-Fi**.



14. Toggle the button to turn on the Wi-Fi connection.



15. When enabled, a list of available networks appears on the screen.
16. Press **Connect to a Different Network**.

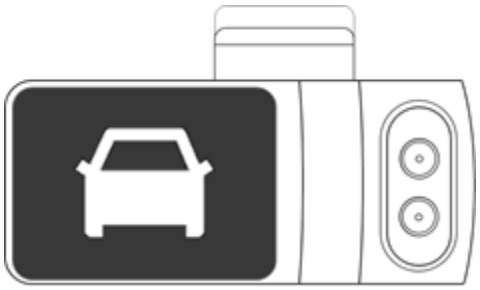
17. The camera beeps several times.
18. Point the camera at the QR barcode on the screen of your computer to scan the code.

19. The camera connects to the Wi-Fi network.

Driving alerts

The V-AI12 dashcam triggers visual and audio alerts when detecting a risky driving or distracted driving event. An icon on the dashcam touch screen turns red, indicating a visual alert, while the dashcam also plays a voice alert.

The icon changes depending on the type of event. For risky driving events, the icon is a car, as shown below. For distracted driving events, the icon refers to the type of distracted driving. For example, when smoking is detected, the icon is a cigarette.



Note

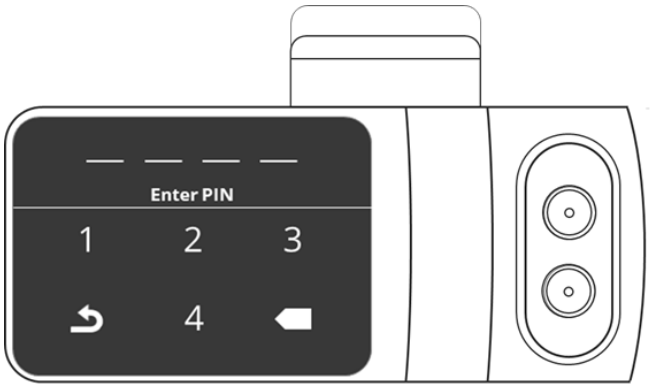
To set up the alerts, administrators can view Set distracted driver features.

View live video from the camera

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

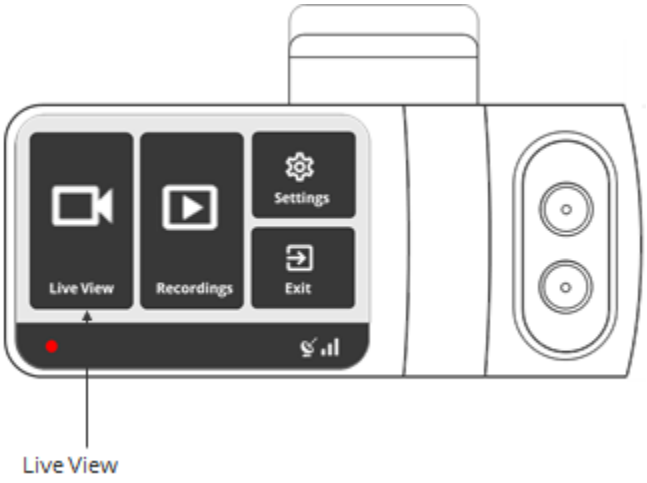
Note

See Set and manage your dashcam PIN if you need help with your PIN.

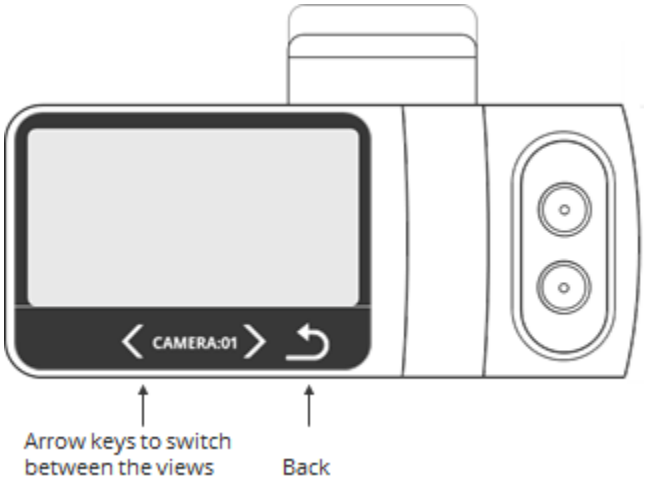


The screen unlocks and the menu can be viewed.

3. Press **Live View**.



4. The live video is displayed on the screen.
5. Use the arrow keys below the screen to switch between the front (road-facing) and rear (in-cabin-facing) cameras.
6. Use the arrow back button to return to the main menu.

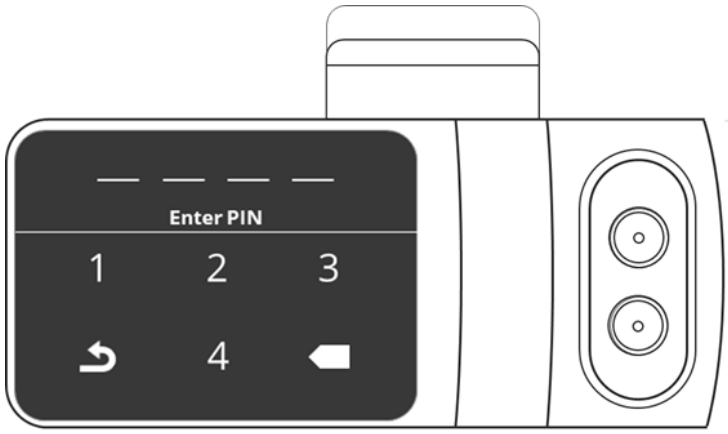

CAMERA:01
Arrow keys to switch between the views
Back

View recorded videos from the camera

1. Press the touchscreen of the V-AI12 dashcam to wake it up.
2. Enter the default PIN 3333 to unlock the dashcam for the first time, or your own PIN subsequently.

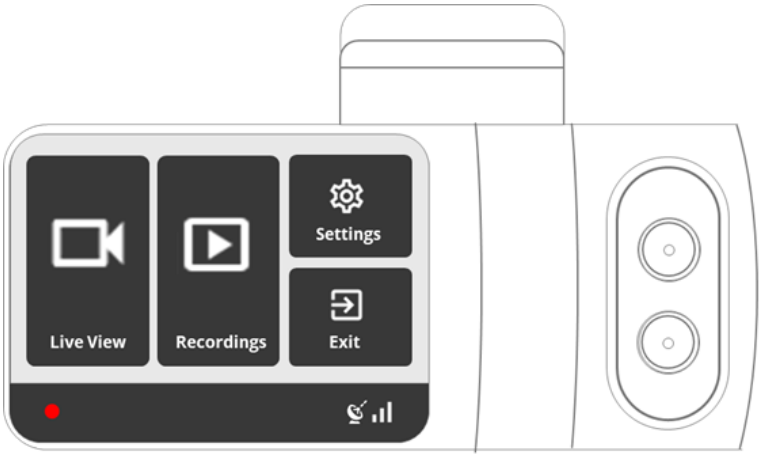
Note

See Set and manage your dashcam PIN if you need help with your PIN.



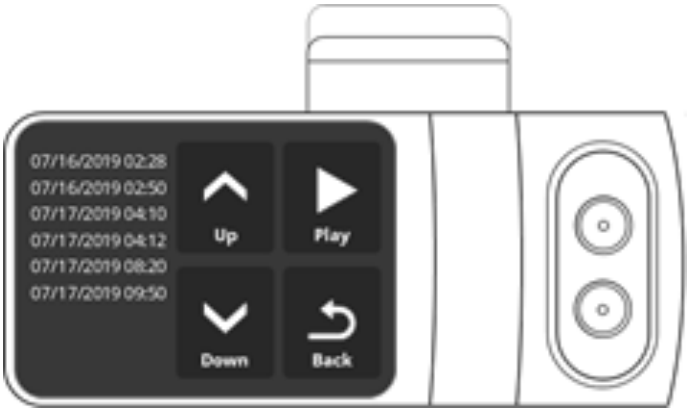
The screen unlocks and the menu can be viewed.

3. Press **Recordings**.



All the recorded videos on the SD card load in a list, sorted by date and time.

4. Use the arrow buttons to scroll through the list.
5. Select the video you would like to view and press **Play**.


07/16/2019 02:28
07/16/2019 02:50
07/17/2019 04:10
07/17/2019 04:12
07/17/2019 08:20
07/17/2019 09:50
Up
Play
Down
Back

About MV+AI

Machine vision (MV) and artificial intelligence (AI) help drivers and fleet managers correct distracted driving as it occurs. Data is collected when your vehicle moves and is analyzed to detect distracted driving events. The driver receives visual and audio alerts when an event is identified. If the driver continues their behavior, the event is uploaded to the cloud.

The events include:

- cell phone usage
- smoking
- eating and drinking
- general distracted driving
- unfastened seat belt

Position the dashcam viewing angles for MV+AI

You can set the viewing angles of both the road-facing and in-cabin-facing lenses.

When using MV+AI, the driver's upper body must be in view of the in-cabin-facing camera.

Warning

If the dashcam is not positioned properly, MV+AI events may not be triggered.

For more information about setting the V-AI12 dashcam viewing angles, see Set the dashcam viewing angles.

Control MV+AI alerts

MV+AI alerts depend on the settings of your V-AI12 dashcam. You can control these settings from the dashcam or the PowerFleet cloud app.

Settings		Features		
Distracted Driver	**In Cabin Recordings**	**Live View**	**Recordings**	**Events**
On	On	Yes	Yes	Yes
Off	Off	No	No	No
On	Off	No	No	Yes
Off	On	Yes	Yes	No

Note

When the in-cabin-facing camera is turned off, none of these features are available. For more information, see the in-cabin-facing camera.

MV+AI confidence levels

Data is collected and analyzed every ten seconds while your vehicle is moving. Within every ten-second window, a confidence level for whether an event is occurring is determined each second. When the number of seconds in a window determined to have events occurring passes a pre-configured threshold, we mark the event as identified.

Note

The threshold is hard-coded and cannot be changed.

The driver is warned after an event is identified for a few ten-second windows in a row (**Intervals to beep** in the table below). If the event continues to be identified for a few more ten-second windows (**Intervals to send event** in the table below), an alert is sent to the cloud.

The following table identifies the number of intervals required for each event:

Event	Intervals to beep	Intervals to send event
Cell phone	1	3
Smoking	2	4
Food and drink	1	2
Distracted driver	1	2
Seat belt	5	6

Note

The number of intervals before a warning is sent to the driver or an alert is sent to the cloud are hard-coded and cannot be changed.

Troubleshooting: dashcam

The following table suggests solutions for issues that may arise with the V-AI12 dashcam.

Issue	Possible cause	Suggested solution
The imager (sensor) does not start and record video.	The dashcam has a hardware issue.	Contact your reseller support agent to replace the dashcam.
The dashcam restarts from time to time.	The dashcam requires a software upgrade or has a hardware issue.	Contact your reseller support agent for further help.
The dashcam fails to record two times in the last twenty-four hours.	The SD card isn't working as expected and recordings may not be written properly to the SD card.	Monitor this unit for accurate recordings. Contact your reseller support agent if it continues to not work.
The GPS of the dashcam works correctly on the map, but when the live video feature is pressed, the screen turns black, and it doesn't live stream video from the vehicle.	There is a reception issue of the cellular network in the area or insufficient data on the SIM card.	1. Check the cell network reception. 2. Check data usage of the SIM card.
The dashcam generates vibration events for a moving vehicle.	There is a poor power connection from the dashcam to the vehicle.	Check the cables for a stable connection.
The list of video recordings available for download is empty.	The SD card has not been installed.	1. Check if the SD card is inserted from the diagnostic menu on the dashcam. 2. If not, insert the SD card. 3. Reboot the dashcam.
	The SD card isn't recognized.	1. Format the SD card. 2. Replace the SD card if formatting does not work.
The driver is not receiving audio and visual alerts during distracted driving events.	The distracted driver feature, audio alarms, or volume settings are turned off.	Turn these features on from the dashcam settings menu.
	The driver position is set incorrectly.	Verify that the driver position set in the dashcam settings menu is on the side of the vehicle where the driver is actually sitting.
	The driver's upper body is not in view of the driver-facing camera lens.	Look at the driver-facing camera through the dashcam live view and verify that the driver's upper body is visible.
	Audio alerts are turned off.	Turn audio alerts on from the dashcam settings menu.

The car icon on my dashcam screen is not turning red during risky driving events.	The dashcam is not calibrated correctly.	Stop the vehicle on a level plane and click calibrate from the dashcam settings menu.
My dashcam won't turn on.	The dashcam is not charged.	1. Fully charge the dashcam. This can take a few hours. 2. Reset the dashcam. For more information, see Reset the dashcam.
My dashcam is not connecting to the internet.		1. Restart the dashcam, by selecting **Power Off** from **Settings**. 2. Reset the dashcam. For more information, see Reset the dashcam.
My dashcam screen is frozen.		Reset the dashcam. For more information, see Reset the dashcam.

Troubleshooting: live video

The following table suggests solutions for issues that may arise when using live video:

Issue/question	Possible cause	Suggested solution/explanation
My live video does not have the GPS, speed, or date details but the text overlay feature is enabled.	**Text Overlay** only displays on recordings and video events, not during live videos.	Access the recorded videos to see the GPS, speed, and date information.
The GPS of the dashcam is working correctly on the map but when I click the live video feature, the screen is black and does not stream from the vehicle.	There is a reception issue with the cellular network in the area.	Check your network reception and the data utilization of your SIM card.
Live video is not available, and no events are registering. **I've already installed the SIM card, and the dashcam is mounted in a vehicle that is on the road already.**	The SIM has most likely not been activated yet.	Contact your reseller support agent for SIM activation.
I'm not able to watch my dashcam's live video, even though the dashcam appears to be online.	The user does not have the proper user permissions.	Verify your user permissions.
	Your cameras are not listed in the PowerFleet cloud app.	In the PowerFleet cloud app, click on the dashcam and verify that all cameras (front, rear, and auxiliary) are listed, and you aren't receiving a "Live video is not available" message.
	There is a firewall blocking WebRTC streaming interface.	In the PowerFleet cloud app, click the gear button in the live video dialog and switch to **HLS Streaming**.
	The network speed is too low.	Perform a speed test through your Wi-Fi hotspot. If the upload speed is less than 250 Kbps, live video does not work. Contact your SIM provider.
My live video streaming has suddenly stopped working.	The maximum amount of live video streaming for your data profile has been reached.	Upgrade your data profile.

Troubleshooting: record function

The following table suggests solutions for issues that may arise when recording from the V-AI12 dashcam:

Issue/question	Possible cause	Suggested solution/explanation
The dashcam is not recording.	The SD card hasn't been inserted.	1. Insert the SD card. 2. Reboot the dashcam.
	The SD card isn't recognized.	1. Format the SD card. 2. Replace the SD card if formatting doesn't work.
	The SIM hasn't been activated.	Contact your reseller support agent for SIM activation.
The imager (sensor) does not start and record video.	The dashcam has a hardware issue.	Contact your reseller support agent for further help.
The dashcam fails to record two times in the last twenty-four hours.	The SD card is not working as expected and recordings may not be written properly to the SD card.	Monitor this unit for accurate recordings. Contact your reseller support agent if it continues to not work.
I can't change the event time from ten seconds to a longer time period.	Currently the event time is set only to ten seconds.	You can retrieve video recordings from the dashcam since the camera always records if the vehicle is operating.
A trip records as starting in the wrong place.	The dashcam doesn't power up or isn't connected to the cloud when the trip starts.	Check the power connection and **Data Usage**.
The dashcam does not record any video during the 24 to 48 hours after the vehicle has been turned off.	Currently the dashcam only records for a minimum of ten minutes and a maximum of sixty minutes after turning off the vehicle; it is something PowerFleet might change in the future.	To change the amount of time during which the dashcam keeps recording after turning off the vehicle, see Standby mode.
My most recent trip did not record.	The trip was less than 100 meters.	Cameras do not record trips that are less than 100 meters.

Troubleshooting: video recordings

The following table suggests solutions for issues that may arise with video recordings:

Issue/question	Possible cause	Suggested solution/explanation
The video quality is poor. How can I get better video quality?	The video quality is set to the lowest level.	The V-AI12 dashcam comes with five preset video quality levels: Level 1 being the lowest quality and Level 5 being the highest quality. Change the video quality level in **Video Preset** from the **Settings** of the dashcam.
Video quality of the recordings and events is different than the live video quality.	Video recordings are saved locally on the SD card of the dashcam, and the recorded events are uploaded to the cloud. The video quality is displayed exactly as the dashcam processes the video for future viewing and analysis.	The V-AI12 dashcam comes with five preset video quality levels: Level 1 being the lowest quality and Level 5 being the highest quality. Change the video quality level in **Video Preset** from the **Settings** of the dashcam.
I cannot access video recordings for a dashcam that is offline.	Video recordings are saved locally on the SD of the dashcam. The dashcam needs to be online or in **Active-Standby** mode to retrieve those video recordings.	Ensure that the dashcam is in **Active-Standby** mode. **Active-Standby** mode allows you to download recordings directly from the SD card when the vehicle is not running. Note that the dashcam must be connected to constant power for this feature to be available. For more information, see Standby mode.
The list of video recordings available for download is empty.	The SD card hasn't been installed.	1. Check if the SD card is inserted from the diagnostic menu on the dashcam. 2. If not, insert the SD card. 3. Reboot the dashcam.
	The SD card isn't recognized.	1. Format the SD card. 2. Replace the SD card if formatting does not work.

Troubleshooting: maps, trips and GPS

The following table suggests solutions for issues that may arise with maps:

Issue/question	Possible cause	Suggested solution/explanation
I see a trip that started in a different place than the location where the previous trip ended.	The dashcam did not power up or was not connected to the cloud during the initial start of the trip.	Check the power connection and **Data Usage**.
The GPS icon is crossed out in the dashcam's main menu.	The dashcam is installed in a bad location.	Verify that the camera is installed with a direct line of sight to the sky.

Troubleshooting: Wi-Fi and hotspot issues

The following table suggests solutions for issues that may arise with the Wi-Fi and hotspot:

Issue/question	Possible cause	Suggested solution/explanation
I connected my device to the hotspot enabled on the dashcam, but I still do not have internet.	The network connection information is entered incorrectly.	Verify that you entered the network connection information correctly. The network connection information is case sensitive (uppercase and lowercase letters must be considered) and ensures that network encryption type is correct based on the network security encryption.
The dashcam hotspot doesn't work.	The hotspot of the V-AI12 dashcam is not turned on.	From **Settings** on the dashcam, press **Wi-Fi** and toggle the hotspot feature on.
	The network connection information is entered incorrectly.	Verify that you have entered the network connection information correctly. The network connection information is case sensitive (uppercase and lowercase letters must be considered) and ensures that network encryption type is correct based on the network security encryption. The dashcam network name is “Dash-XXXX” (the numbers are the last four numbers of your dashcam's IMEI number), and the default network password is “12345678”.

Troubleshooting: auxiliary cameras

The following table suggests solutions for issues that may arise with auxiliary cameras:

Issue/question	Possible cause	Suggested solution/explanation
The auxiliary camera does not record a vibration event.		The auxiliary cameras connect only after the main dashcam wakes up from **Standby** mode upon sensing movement.
The auxiliary cameras do not record after the vehicle has been turned off.	The auxiliary cameras stop recording at a minimum of ten minutes and a maximum of sixty minutes after the vehicle turns off, just like the main dashcam.	To change the amount of time during which the dashcam keeps recording after turning off the vehicle, see Standby mode.