

DEFENDR+

INTERACTIVE MOBILE USER MANUAL

Last Updated: 07/16/18

BEFORE YOU BEGIN

- The DEFENDR+ is not intended to run 24/7.
- Depending on your vehicle, your cigarette outlet may always be “hot”. This means your cigarette outlet will remain on when you turn off and leave your vehicle. In this case, you will have to manually unplug your camera from the cigarette outlet when you leave your vehicle. Another option is to hardwire your camera to a “hot on start” fuse. This is an advanced installation and should be conducted by a technician. We are not responsible for any damages from hardwiring.
- For optimal performance please use one of the following memory cards: **Transcend 400x**, **Transcend High Endurance**, or the **SanDisk High Endurance**.



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IMPORTANT SAFETY INFORMATION



WARNING: Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to your GRDIAN device or other property. Read all the safety information below before using the DEFENDR+.

Handling Handle the DEFENDR+ with care. The DEFENDR+ can be damaged if dropped, burned, punctured, crushed, or if it comes in contact with liquid. If your DEFENDR+ is damaged, do not continue using it, as it may cause injury. Use the correct input voltage. Do not spray cleaning products on the device. Detach the power cord from the device if the device emits an unusual smell or if there is smoke. Do not remove the microSD card while it is saving or reading data. Remove the power cord from the device if you are planning not to use the device for a long time. If the product is damaged or the power supply is cut due to an accident, video may not be recorded.

Repairing Do not attempt to repair the DEFENDR+ yourself. Doing so will void the Warranty, damage your device or may cause injury. If your DEFENDR+ is damaged or is defective, contact GRDIAN.

Distraction Do not operate the product while driving. Operate only when your vehicle is parked. Do not install the device where it interferes with the driver's vision.

Exposure to Extreme Heat The DEFENDR+ and its accessories comply with applicable surface temperature standards and limits. However, even within these limits, sustained exposure to heat for long periods of time may cause damage to the device. Use common sense to avoid situations where your skin is in contact with a device or its power adapter when it's operating or plugged into a power source for long periods of time. It is important to keep the DEFENDR+ and its power adapter in a well ventilated area when in use. **DO NOT PLUG THE CAMERA INTO A CONSTANT POWER SOURCE. The camera is not intended to operate 24/7. If your cigarette outlet provides a constant power source, you may need to hardwire your camera into a "Hot-on-Start" fuse.**

Choking hazard Some accessories may present a choking hazard to small children. Keep these accessories away from small children.



ABOUT THIS MANUAL

Thank you for your purchase of the DEFENDR+. The contents of this manual may be subject to change without prior notice.

Warranty This product does not guarantee that it will record all accidents. In accordance with Personal Information Security Law & related legislation, GRDIAN is not responsible for any problems due to illegal use of this product. Recorded video produced by this product constitutes the secondary data that may help to determine the circumstances of an accident. GRDIAN is not responsible for any loss or damage caused by an accident.

For more information about Warranty visit: <https://www.grdian.com/warranty>

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ACCESSORIES



Suction Cup Mount



Adhesive Mount



Car Charger



USB



**GPS Adapter
(Optional)**



A QUICK LOOK

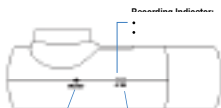
DEFENDR+

Front



Camera Lens

Bottom



Reset Button

Power Indicator

Recording Indicator

Side



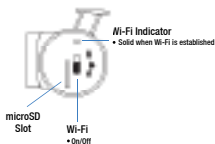
Power Button
• Manually turn off when recording

mini USB

mini HDMI

Manual Stop/Start Recording

Side 2



Wi-Fi Indicator

• Solid when Wi-Fi is established

microSD Slot

Wi-Fi
• On/Off



GETTING STARTED (QUICK GUIDE)

MEMORY CARD

For optimal performance, we highly recommend using one of the memory cards found on our recommended memory cards list.

- www.grdian.com/blog/dash-cam-memory-cards
 - Capacity up to 128gb
1. Make sure the microSD does not contain any files. Format the card on your computer before inserting your memory card in.
 2. The device should be completely turned off before inserting your microSD into the memory card slot found on your device.
-

DOWNLOAD THE APP

The DEFENDR+ is compatible only with iOS and Android devices. (Android 4.0.3 or later & iOS 8.0 or later.)

Download:

LINKINEYES

CONNECTING THE DEFENDR VIA WI-FI

1. Plug the DEFENDR+ into the cigarette outlet with the provided car charger. Once your device is powered on, wait for the Wi-Fi indicator to turn solid green. It may take a few seconds for Wi-Fi to establish.
 2. Once the Wi-Fi indicator turns solid, you can now connect the DEFENDR+ to your mobile phone.
 3. Connect the DEFENDR+ to your mobile device in your Wi-Fi settings. Locate **AMBA_XXXXXX** and connect.
 4. Enter the password: **1234567890** or **12345678**
-

USING THE APP

1. Once connected, open the APP. You will be automatically connected.
2. For more detailed information about the APP visit [page 8](#).



GETTING STARTED (QUICK GUIDE)

SETTINGS AND PERFORMANCE

By default, the DEFENDR+ has been preconfigured for optimal performance.

Tips

- Higher the resolution, the larger the file. This will impact download time over Wi-Fi.
 - The fastest way to retrieve multiple files is to insert your memory card into your computer.
 - Using a larger memory card will impact loading time when viewing the media manager. *We recommend using a maximum of 32gb if you find yourself downloading videos via Wi-Fi often.*
 - If you are using your G-Sensor, overtime your memory will fill up with locked files. This will prevent overwriting.
-

UPDATING THE FIRMWARE

To get the latest firmware for your DEFENDR+ visit the support page of the DEFENDR+. Stay updated by signing up for our newsletter.

For the latest firmware visit grdian.com/defendr-plus-grd-a55-product-support

FOLLOW THE STEPS EXACTLY TO PREVENT DAMAGE TO YOUR DEVICE.

1. Using a formatted memory card, download the firmware and extract it to your memory card. You should only have the .bin file in your memory card.
2. With the DEFENDR+ unplugged, insert your memory card.
3. Plug the DEFENDR+ into a power source. **DO NOT PLUG THE DEFENDR+ INTO THE COMPUTER.**
4. Once powered on, the device will blink rapidly. Please wait until the device completely shutdown. **DO NOT INTERRUPT THE UPDATING PROCESS.**
5. Once the device is completely shutdown, unplug the DEFENDR+. Remove the memory card and format it on your computer.
6. **DO NOT INSERT YOUR MEMORY CARD YET.** Plug the DEFENDR+ back into a power source. Wait for the DEFENDR+ to shutdown and reboot.
7. Once it has rebooted, you can resume using the DEFENDR+ as usual.



LINKINEYES (iOS & ANDROID)

USING THE LINKINEYES APP

1. Download and install the FnMultiCam APP from the Google Play Store
2. Open the Wi-Fi settings of your device to connect to the DEFENDR+.
3. Locate **AMBA_XXXXXX** and enter the password **1234567890**.



TIP: To edit settings, view or download footage you have to **PAUSE** recording first.

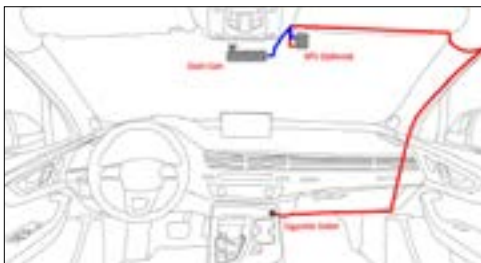


INSTALLING YOUR DASH CAM

This installation guide does not require hardwiring. This guide will utilize the car charger.

1. Position and mount your dash cam where it will not obstruct the driver's view. We recommend installing behind the rear view mirror.
2. Locate your cigarette outlet. Note: Make sure that your cigarette outlet isn't constantly running power even if you turn off your vehicle. You want to plug the car charger into a cigarette outlet that turns off when you leave your car.
3. Route your wire like illustrated below. First run the cable along the headliner and then inside the A-pillar. You may need to remove the A-pillar trim with a trim removal tool.
4. Run the cable down the weather strip.
5. Once you have run the cable all the way down, you can either hide your wires under the floor mat or find crevices along the side or under and tuck the cables in.

For more detailed instructions and installation video visit gudian.com/blog/dash-cam-installation-without-hardwiring

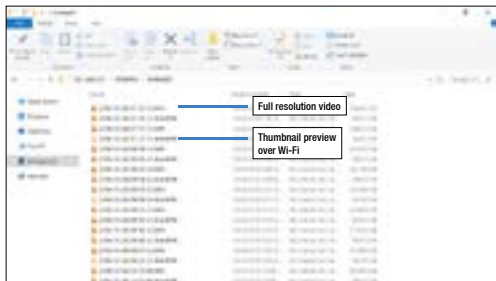
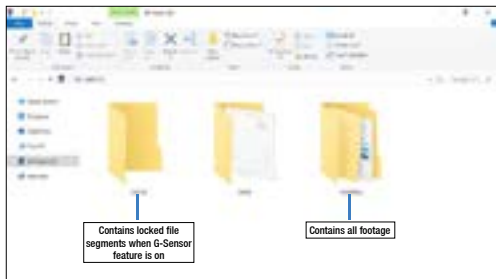


PLAYING-BACK ON THE COMPUTER

To access the footage captured with your DEFENDR+ remove the microSD from the DEFENDR+ or use the supplied USB cable to connect to your computer. Below is the file structure you will see.

For more detailed instructions visit

gudian.com/blog/playing-back-your-dash-cam-footage



DASHCAM VIEWER & OPTIONAL GPS

The optional GPS adapter can be purchased separately. The GPS Adapter will record various information such as speed, location, coordinates, and more.

To playback the information recorded with your GPS adapter, download the Dashcam Viewer. Available for both MACs and PC.



For more information visit grdian.com/blog/how-to-playback-dashcam-footage-with-gps-using-the-dashcam-viewer



PRODUCT SPECIFICATIONS

Model	DEFENDR+
Dimensions	89 x 38 x 44mm (3.5 x 1.5 x 1.7in)
Processor	Ambarella A7LA55
Image Sensor	Omnivision 4689
Lens	160° wide angle view
Audio	Built-in mic
Wi-Fi	Built-in
G-Sensor	Built-in 3-axis acceleration sensor
GPS	Optional GPS Adapater available for purchase
Memory	microSD up to 128GB, refer to recommended memory cards list
Battery	Supercapacitor
Video Format	H.264/MP4
Video Resolutions	Super HD (2560 x 1080) @30 fps Super HD (2304 x 1296) @30fps Full HD (1920 x 1080) @45fps Full HD (1920 x 1080) @30fps Full HD (1920 x 1080) @30fps HDR HD (1280 x 720) @60fps HD (1280 x 720) @30fps
Operatin Temp.	-10°C to 60°C (14°F-140°F)
Compatible Apps	iOS & Android
Compatible Software	Dashcam Viewer



TROUBLESHOOT

The App won't connect to my device

If you are having trouble accessing the app, force quit the app and open it again. Please check for compatibility (Android 4.0.3 or later & iOS 8.0 or later)

Unable to loop record/issues with the memory card

Because of the constant writing of data onto the card, dash cams use specific memory cards. Click [here](#) for a list of recommended memory cards.

Unable to record

If your G-Sensor is on, files that are triggered by the G-Sensor will be locked. Overtime these files will accumulate and fill the memory card. Format the card when needed.

The adhesive or suction cup mount is not staying on

Clean your window, a clean surface allows for maximum adhesion.

I am unable to change my settings.

To change the camera settings, pause recording first.

I am unable to playback the footage.

To playback your footage, pause recording first.

I am unable to load my footage with the app.

For optimal performance, we recommend using memory cards up to 64gb. A 128gb will work with your device but may not load videos correctly with the app, due to the size of data it will be loading.

Cant find the answer to your question? Contact us at support@grdian.com





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