



# VISION

1080p High Performance Forward Facing In-Car Camera

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## Introduction

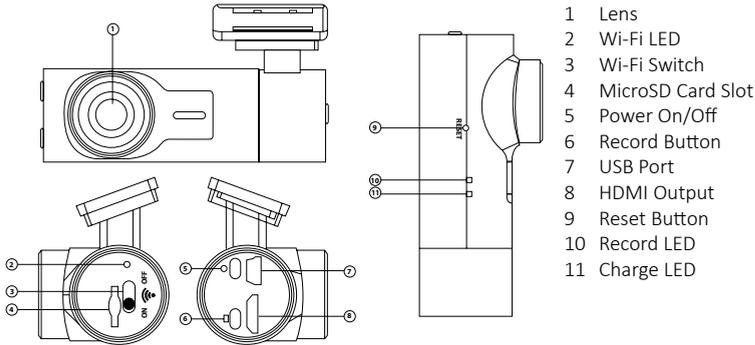
Thank you for purchasing the RoadHawk Vision in-vehicle camera system. The RoadHawk Vision is designed to be mounted to the windscreen of your vehicle and to record video and audio on a constant loop. As soon as the RoadHawk Vision camera is powered up, it will begin recording automatically.

The RoadHawk Vision camera has been designed with the best available technology. It provides superior video and audio quality and excels in low light conditions.

The RoadHawk Vision is a Wi-Fi enabled camera. The RoadHawk Vision App allows you to preview the image from the camera, download recorded videos and also change the camera's basic settings. The RoadHawk Vision App is available for smartphones and tablets that run on Android or iOS.

Please search the Apple App Store or Google Play Store for "RoadHawk Vision" to install the app for this camera.

## RoadHawk Vision Camera



## Specifications

### Camera

1080p and 2304x1296p 30fps Super HD mode very high quality video  
120 degree wide-angle F2.0 Lens  
5 megapixel sensor  
Advanced low light sensor  
Up to 128GB MicroSD card  
G-Force Sensor (no GPS)  
Internal Wi-Fi module  
Window mount included (suction mount optional accessory)  
USB powered with car accessory socket included  
8GB MicroSD card included

### Resolution / Frame Rate options:

2560x1080p 30p 21:9  
2304x1296 30p 16:9  
1920x1080 30p 16:9  
HDR 1920x1080 30p 16:9  
1280x720 60p 16:9  
1280x720 30p 16:9  
HDR 1280x720 30p 16:9  
1920x1080 45p 16:9

### RoadHawk Vision App:

iPhone and Android  
Live view from camera  
Change settings on camera  
Stream recorded video from camera  
Download high quality video from camera

### What's in the box?

1 x RoadHawk (Vision) Camera  
1 x 8GB MicroSD card (in camera)  
1 x 4m Car Accessory socket power cable  
1 x Adhesive windscreen mount  
1 x Quick Start Guide  
1 x USB cable (for connecting camera to PC)  
(camera acts as card reader when connected)

## CAUTION

- Do not drop the product as this could cause damage or malfunction and is not covered by warranty.
- Do not place near magnets as this could cause the device to malfunction or operate erratically.
- Sudden changes of brightness such as entering or exiting a tunnel may cause a temporary loss in video quality.
- Camera lens should be kept clean. An unclean lens could negatively affect video quality.
- Attach the product in the recommended place. Installing in an obscure place could cause the image to become skewed.
- Do not disassemble, repair or attempt to modify the camera as this could cause malfunction or injury and any damage will not be covered under warranty.
- Do not place near the effective range of an air bag as this may cause malfunction of the airbag.
- Keep the power socket clean of dust as this could result in a poor connection and a malfunction.
- **WARNING:** Under no circumstances should a mobile phone or device (and therefore any app) be used by the driver of a vehicle whilst the vehicle is in motion or under power. To do so is a criminal offence and could result in death or injury.
- Do not pull on the power cable. Remove by holding the plug and pulling gently.
- Never use a damaged cable.
- Do not clean exterior with alcohol, volatile or oily solvents as this could cause deformation of the surface and a malfunction.
- Attach the product on the front window firmly. Before fixing, ensure that your windscreen is cleaned as the mount could become detached due to temperature, humidity, dust, shock.
- **IMPORTANT:** We do not take responsibility for data loss or damage caused by the malfunction of MicroSD cards.
- Please use authentic MicroSD cards as the manufacturers of the camera do not take responsibility for data loss.
- Do not put foreign substances into the MicroSD card slot as this could cause a malfunction or problems inserting the MicroSD card in future.
- Do not touch the MicroSD card with wet or oily hands as this may cause malfunction due to card damage.
- Ensure the card is the correct way up before inserting. If the MicroSD card is not fully inserted then the camera cannot record data.
- Push the MicroSD card in fully. Do not force the MicroSD card into the slot.
- Before removing the MicroSD card, please check the 'power off' status. If you pull the MicroSD card out during 'power on' status, it may cause malfunction or data loss. The camera will chime after the power is removed to let you know it is safe to remove the MicroSD Card.
- MicroSD cards are consumables. MicroSD cards do not last forever and should be checked regularly. MicroSD cards are not covered by our 2 year warranty.
- Use a secure case for storing MicroSD cards as data may be damaged by static while storing or moving.
- In case of important data, please make sure you back up your MicroSD Card as data may be lost after long term usage.
- Please check and backup the data stored on your MicroSD card. We recommend formatting the MicroSD card regularly.
- Do not disassemble, modify or drop your MicroSD card as this may cause serious damage and result in a loss of data.
- This product supports up to 128GB MicroSD XC memory cards. We recommend using class 10 memory cards, at least.
- Do not buy cheap memory cards. Substandard MicroSD cards are the most common cause of camera malfunction.
- The camera may become warm during normal operation. This is perfectly normal.
- Do not leave the camera in a very hot car during the daytime.
- It is advisable to remove the camera from the vehicle when not in use to deter thieves.

## Installing the RoadHawk Vision camera:

Note: Experiment with the camera position before using the adhesive. You can ensure the camera is pointing at the correct angle by using the RoadHawk Vision App to see a live preview from the camera.

Install the camera at the top of your windscreen. Make sure the lens is not obstructed by any materials on the windscreen. Install the camera so that it is not in view from the driving position. This is to ensure that the RoadHawk Vision's super wide-angled lens can capture as much of what is in front of it as possible.

### 10 Easy Install Steps...



Step 3



Step 4

- 1: Choose an area towards the top of the windscreen and behind the rear view mirror for the camera to sit.
- 2: Clean the screen with glass cleaner and allow drying time.
- 3: Peel the adhesive backing away from the camera mount and place firmly on the screen.
- 4: Leave the mount to bond for a few minutes.
- 5: Route the power cable neatly around the windscreen. In some vehicles you might be able to hide the cable completely by pushing it into the gap between the rubber and the screen.
- 6: Run the cable around the side of the dashboard and underneath towards the cigarette lighter socket. Use the cable ties to hide any remaining cable behind the dash.



Step 5



Step 6



Step 7



Step 9

7: Attach the camera to the mount and face it forwards. Keep the camera as level as possible. (in a Truck or Bus, aim the camera slightly down)

8: Plug the power cable into the camera.

9: Plug the cable into the vehicle's accessory socket.

10: You are ready to start driving in the knowledge that you are protected by RoadHawk Vision's complete video and data protection.

Now you have the RoadHawk Vision camera installed, you can use the RoadHawk Vision app to see a live image from the camera. Gently twist the camera until you get a level, forward facing image.

**NOTE:** It is possible for the RoadHawk Vision camera to be hardwired to your vehicle. RoadHawk supply an optional "Hard Wiring Kit" to allow for this. It is recommended to have an authorised vehicle electrician carry out this work.

We recommend connecting the camera to an ignition LIVE circuit so the camera only operates when the vehicle is running. Connecting to a permanent 'live' will make the camera run 24/7 and this will reduce the life expectancy of the MicroSD Card.

Some vehicles have "always on" accessory sockets. We recommend unplugging the camera from these sockets when not in use.



### **Inserting the MicroSD Memory Card:**

The RoadHawk Vision camera is supplied with an 8GB MicroSD card. You will find this card is already inserted into the side of the camera so it is ready to use out of the box. You can remove the MicroSD card from the camera to view files on a computer using a suitable card reader. It is also possible to connect the camera to your computer using the supplied USB cable. The camera will then act as a memory card reader.

You can use MicroSD cards up to 128GB capacity if you want to store more video. Always choose high quality MicroSD cards. Memory cards do not last forever and eventually they will break down when in constant use. Remember to check your MicroSD card on a regular basis. Formatting the card every month will help to keep the file structure on the card in good order. You can format the MicroSD card using the RoadHawk Vision app from your mobile device.

When inserting the MicroSD card into the camera, make sure the “pins” on the card are facing the back of the camera. Gently insert the card until it clicks into position. Do not force the card into the camera.

**NEVER remove or insert a card into the camera whilst it is powered on.**

### **Video playback (computer)**

The RoadHawk Vision makes standard .mp4 video files that can be viewed on most modern computers without using any extra software. Simply insert the MicroSD card into your computer, locate the file you wish to play and double click to open it. You can also connect the camera to your computer and the camera will behave like a card reader.

### **How the system works:**

When the camera receives power from your vehicle it starts operating within a few seconds.

The camera records until the MicroSD card becomes full and then starts to overwrite the earliest files on a constant loop. The total record time will depend on the capacity of the MicroSD card used in the camera and the quality settings of the video window.

The RoadHawk Vision camera can also hold 50 ‘event’ files. After 50 ‘event’ files have been created, the camera will start to erase the earliest ‘event’ files to make room for more.

An ‘event’ is triggered when the camera detects a sudden change in G-Force. This may be the result of a road traffic accident or from driving on an uneven road surface. Depending on the vehicle the camera is being used in.

An ‘event’ file will be a 30 second video clip, 10 seconds before and 20 seconds after the actual event occurs. These files will be stored on the MicroSD card in the ‘event’ folder for easy access.

If your camera is creating a lot of ‘event’ files on normal journeys, please lower the G-Force sensitivity by using the RoadHawk Vision App.

## How to use the RoadHawk Vision App

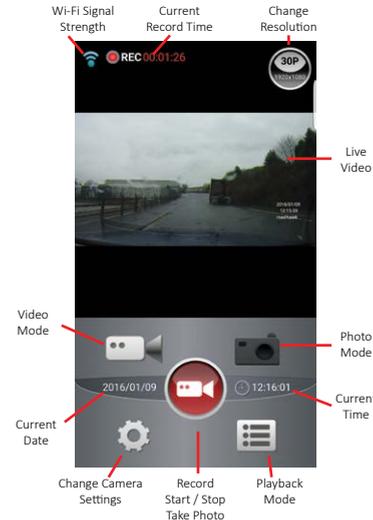
- 1: Download and install the RoadHawk Vision app by going to the App Store or Google Play store on your device and searching for "RoadHawk Vision".
- 2: Make sure the Wi-Fi switch on the side of the camera is in the 'on' position. (A green LED next to the switch will show you the status of the Wi-Fi).
- 3: Go to the Wi-Fi settings on your mobile device and look for a network called "RH\_Vision".
- 4: Connect to the network and enter the password (default password is 12345678 or 1234567890).
- 5: Open the RoadHawk Vision App and wait for the camera to start communicating with your mobile device.

The RoadHawk Vision App has multiple functions. You can use the app to stream a live image from the camera to your mobile device. This is useful for setting up the camera and ensuring you have the camera pointing in the right direction. You can also stream videos and photos previously recorded by the camera. If you want to see a high quality version of the file then you can download it to your device. Once the file is on your device, you can share it in the same way you can share any video or photo from your phone or tablet. The RoadHawk Vision App also allows you to change the settings of the camera.

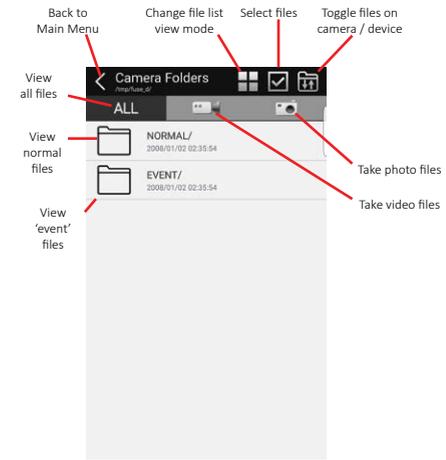
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The RoadHawk Vision App also allows you to change the settings of the camera.

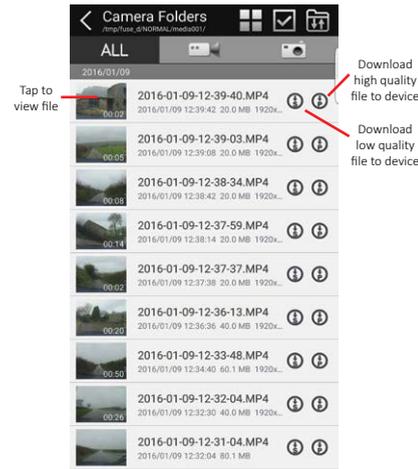
## Main App Screen



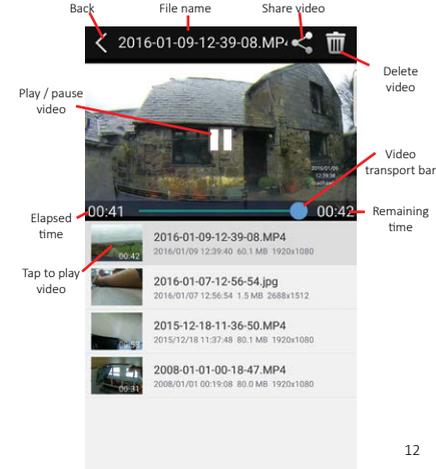
## Playback Menu



## File Menu



## Video Playback Screen



## Explanation of the settings menu:

To change the settings on the RoadHawk Vision camera, connect the camera to your mobile device and open the RoadHawk Vision App.

Press the “Change camera settings”  button in the app to bring up the settings menu. Please note: You need to stop the camera from recording before you can make changes to the settings.

### Settings Menu:

<b>Streaming Cache</b>	The caching value determines the quality of the live video stream from the camera. The lower value will give a lower quality live preview with less delay. A higher value will give a higher quality video stream but with more of a delay in the video stream. This setting does not change the quality of the video recorded on to the camera’s MicroSD card.
<b>Video Resolution</b>	This setting changes the resolution of the video being recorded by the camera. The higher resolution will give higher quality video but you will not be able to store as much video on the MicroSD card as the files will be larger.
<b>Video Quality</b>	Enables the quality of the recording to be adjusted. Normal is the lowest quality setting which will allow you to store more video on your MicroSD card. Super Fine is the highest quality setting but the files will take up more space on the MicroSD card.
<b>Date stamp for video</b>	When the Date stamp for video is turned on, the date will be overlaid in the video being recorded. The Date can be set in the Time/Date setting in the main menu.
<b>Time stamp for video</b>	When the Time stamp for video is turned on, the time will be overlaid in the video being recorded. The Time can be set in the Time/Date setting in the main menu.
<b>Driver ID stamp for video</b>	When the Driver ID stamp for video is turned on, the Driver ID will be overlaid in the video being recorded.
<b>Video Loop Length</b>	This setting determines the length of the video file before a new file is started. The video length can be set from 1 to 5 minutes long.

<b>Photo Resolution</b>	Changes the resolution of the photos taken by the camera. Higher resolution settings give higher quality photos but the files will be larger.
<b>Photo Quality</b>	Higher quality photos will take up more of the space on the MicroSD card.
<b>Date stamp for Photo</b>	When the Date stamp for photo is turned on, the date will be overlaid in the photos taken by the camera. The Date can be set in the Time/Date setting in the main menu.
<b>Time stamp for Photo</b>	When the Time stamp for Photo is turned on, the time will be overlaid in the photos taken by the camera. The time can be set in the Time/Date setting in the main menu.
<b>Driver ID stamp for Photo</b>	When the Driver ID for Photo is turned on, the Driver ID will be overlaid in the photos taken by the camera. The Driver ID can be set using the Driver ID setting in the main menu.
<b>Microphone Sound</b>	The microphone sound setting can be used to enable or disable audio recording in your vehicle.
<b>G-Sensor</b>	Changes the sensitivity of the camera’s G-Force Sensor. If your camera is creating a lot of ‘event’ files then you can lower the sensitivity of the G-Force sensor. If the sensitivity of the G-Sensor is too low then the camera may not create an ‘event’ file if you are involved in a light accident. Choosing the correct setting will depend on your vehicle and condition of the road surface.
<b>Language</b>	Changes the user interface menu language.
<b>Driver ID</b>	Allows you to enter up to 9 characters to be overlaid into photos or videos made by the camera. You may enter car registration numbers or driver’s name etc. Please ensure you set the Driver ID video stamp and/or Driver ID photo stamp to on in the main menu.
<b>Set Time/Date</b>	Allows you to set the time and date setting of the camera. It is important to set the correct time and date so the recorded videos and photos can be labelled correctly. To display an overlay of the Time and/or Date in the recorded videos and photos, please turn the Video/Date stamp settings to on in the main menu.

<b>Reset Camera Setting</b>	This allows you to reset the camera to factory default settings.
<b>Format Camera</b>	This function allows you to format the MicroSD card in the camera. Formatting the MicroSD card will erase all photos and videos you have previously recorded. Please ensure you have backed up any files you wish to keep before using this format option. Please see our notes on formatting MicroSD cards in the troubleshooting guide.
<b>File Sorting</b>	The file sorting option determines how you will see the recorded video and photo files listed in the playback menu.
<b>Storage space</b>	Displays the total and used space available on your MicroSD card.

### Troubleshooting/FAQs:

If you encounter any problems with your camera, please format your MicroSD card first, as this resolves 90% of all issues. To format the MicroSD card, connect your mobile device to the camera using Wi-Fi. Open the RoadHawk Vision App and open the settings menu. Choose the “Format Camera” option. Doing this will erase any data you have on the card so make sure to back-up any files before doing this.

#### Hardware:

<b>Camera is warm</b>	It is normal for the camera to become warm to the touch when in operation.
<b>Camera will not turn on</b>	Ensure the power cable is connected correctly. Blue ring will illuminate. If the power plug does not reach the bottom, remove the rubber sleeve on the plug.
<b>Camera makes a chiming / beeping sound</b>	This is the camera’s fail safe alarm which is there to warn you that there is a problem with either the camera or most probably the MicroSD card. Formatting your MicroSD card could solve this issue.

<b>Camera makes lots of ‘event’ files</b>	If the camera sensitivity is set high then the camera will make an ‘event’ when driving on an uneven road surface. The camera will overwrite these ‘event’ files once the MicroSD card is full. You can lower the sensitivity setting of the camera but setting it too low you run the risk of the camera not creating an ‘event’ if an impact occurs. For camera settings [G Sensor] please refer to the app section of this manual.
<b>There are gaps in the video, portions of your journey are missing</b>	This is very unlikely to happen. The misconception of portions of your journey missing from the MicroSD card can be summarised in two ways. 1. If the camera detects an ‘event’ it will save a 30 second portion of video to the ‘events’ folder on the MicroSD card. Clicking in the normal folder in the app will only display your normal driving and will not show ‘event’ files. 2. The MicroSD card can only hold a limited amount of video before it starts to overwrite itself. ‘events’ stay on the MicroSD card longer than NORMAL driving video files. When viewing files with the app, if you notice breaks in the journey, check the ‘event’ folder.
<b>The camera did not create an ‘event’ even though I was involved in an accident.</b>	There are two reasons for this to happen. 1. The accident did not create enough G-Force to trigger the camera (the G-Force sensitivity is too low or off / The accident did not transmit enough force for the camera to trigger). 2. The camera triggered an ‘event’ but later recorded over the ‘event’. This can happen if the driver continues to drive after an accident and many more ‘events’ are created on the journey. The RoadHawk Vision holds a maximum of 50 ‘event’ files. Potholes and rough terrain can easily cause the camera to create many ‘event’'s, especially if the G-Force sensitivity is set too high.

It is advisable to take precautions after an ‘event’ takes place in order for the camera to not Erase this important data. The best way to do this is to unplug the camera, wait for the camera to chime and remove the MicroSD card. A spare/ backup MicroSD card can be used if you need to continue to drive.

<p><b>The MicroSD card is only holding a few ‘events’ and not much of my journey.</b></p>	<p>Using the highest quality settings available the RoadHawk Vision can use up to 6GB of data per hour of recording. Using a MicroSD card with a small capacity coupled with a high quality setting will seriously limit how much video you can store on your MicroSD card.</p> <p>You can either lower the video quality settings using the software settings menu or it is advised to use a MicroSD card with a greater capacity. The RoadHawk Vision can use SDHC and SDXC high capacity MicroSD cards.</p>
<p><b>My MicroSD card has failed / no longer works in the camera.</b></p>	<p>MicroSD cards only have a limited number of read/write cycles. Eventually, even high quality SD cards can “wear out”. You should only use high quality MicroSD cards in this camera. Choose a well-known brand and make sure it is at least rated Class 10 or better. If you wire the camera to operate 24/7 then the MicroSD card’s life will be drastically reduced.</p> <p>The life of the MicroSD card will depend on the quality of the card, the Class of the card and how much driving you do.</p>
<p><b>I can’t read number plates on other vehicles.</b></p>	<p>Although the RoadHawk Vision uses some of the most advanced image processing available at the time of being designed, it also uses a wide angled camera lens. This is to capture as much of the road ahead as possible. A side effect of using such a wide angled lens is the appearance of vehicles seeming further away than they actually are. This makes reading of number plates harder for the camera to capture.</p> <p>The camera’s ability to read number plates will depend on the weather conditions, the amount of available light, the distance of the vehicle from the camera and the clean condition of your windscreen. Using the camera in higher resolution modes will enhance the ability of the camera to capture number plates.</p>

**LIMITED WARRANTY STATEMENT:**

This Limited Warranty shall apply to the RoadHawk product including all accessories as contained within the original RoadHawk box “the Product”. RoadHawk warrants the product will meet the applicable product specifications and be free from all defects in material and workmanship for an applicable period herein “Limited Warranty”. This Limited Warranty is subjected to the following terms and conditions:

1. This Limited Warranty is given only to the original purchaser of the Product “Customer” it shall neither exclude nor limit a) any statutory rights of the Customer or b) any of the Customer’s rights against the sellers of the Product.
2. The Limited Warranty shall be restricted to the country/region of Product purchase this is to avoid excessive import or exportation of the Product throughout the supported countries.
3. This Limited Warranty is only valid and enforceable in countries where the Product is sold. Outside of the country of purchase, any repairs performed by RoadHawk’s Authorized Service Centre are subject to charge to the purchaser at normal repair rates.
4. The Limited Warranty entitles the Customer to a Product replacement or a full refund of the purchase price for any defects relating to the performance and / or functioning of the Product which result from normal use of the Product, provided that such a defect arises within ten (10) days of the original date of purchase of the Product and cannot be otherwise repaired. RoadHawk will provide a replacement or repair of the Product at RoadHawk’s own expense for any such defect arising after ten (10) days but within two (2) years of the original date of purchase.
5. This Limited Warranty shall last for two (2) years from the date of original purchase “Warranty Period”. A valid original invoice “Proof of Purchase” is required.
6. This Limited Warranty covers expenses for inspecting and repairing the product

during the term of the Limited Warranty. Customer shall deliver the defective Product to the RoadHawk- designated premises together with the proof of purchase, and proof of identity of the Customer. Products shipped by the Customer missing any one of these documents may render this Limited Warranty invalid. If the defect was the result of the Customer's own mishandling of the Product, force majeure, or the result of a repair by an unauthorized service provider, the Customer shall bear all expenses relating to shipping such a defective product.

7. RoadHawk will return the repaired Product or replacement Product to the Customer in good working condition. All replaced faulty Products or components thereof will become the property of RoadHawk.
8. This Limited Warranty applies only to the original hardware components of the Product and does not apply to any software or other equipment.
9. If RoadHawk repairs or replaces the Product, the repaired or replaced Product shall continue to be warranted for the remaining term of the Limited Warranty period or for three (3) months from the date of repair or replacement, whichever is longer.
10. Before returning any units for service, the Customer is solely responsible for backing up data and removing any confidential, proprietary, or personal information from the Product. RoadHawk is not responsible for damage to or loss of any programs, data, or removal storage media.
11. This Warranty does not cover recovery from any software updates, installation and removal of the application software, or any loss of data storage.
12. RoadHawk reserves the right to add, delete or amend the terms and conditions of this Limited Liability and any such change will be made available to the purchasers of the Product either RoadHawk's Web site ([www.roadhawk.co.uk](http://www.roadhawk.co.uk)) or by other means.
13. THIS LIMITED WARRANTY SHALL NOT APPLY IF THE DEFECT WAS CAUSED

THROUGH ANY OF THE FOLLOWING:

- (a) The Product serial number, the accessory date code has been removed, erased, defaced, altered or is illegible; or
  - (b) The defect is resulting from the use of the product in a manner other than the normal and customary manner, e.g, in excess of the minimum specification of operating instructions, or malfunction or failure resulting from use of uncalibrated voltages; or
  - (c) Deterioration of the Product due to normal wear and tear. All plastic surfaces and other natural wear of externally exposed parts of the product are scratched or damaged under normal usage; or
  - (d) The defect is arising from improper installation, unauthorized repair, alteration or modification to the Product by third parties; or
  - (e) The defect is arising from operating with components or accessories (ancillary or peripheral equipment) not officially authorized or provided by RoadHawk or used in other than its intended use; or
  - (f) The defect or damage are arising from unauthorized modification: or
  - (g) The defect or damage is arising from misuse, mishandling, accidental loss, abuse, accident, negligence and damage caused directly or indirectly by the Customer, including but not limited to improper testing, installation, alteration or modification or any kind, or spillage of food or liquid, or build up of dirt or dust, or mains supply problem, thunderstorm activities, or infestation by insects or vermin, or exposure to abnormally corrosive conditions, or operation with extreme heat or humidity.
14. WHERE A DEFECT WAS UNDETECTABLE BY THEN-AVAILABLE TECHNOLOGY OR WAS THE RESULT OF COMPLYING WITH THE APPLICABLE REGULATORY STANDARDS OF WHERE THE DEFECT WAS THE RESULT OF THE CHANGE IN THE DESIGN OF THE PRODUCT COMPONENTS SUPPLIED BY A THIRD PARTY, ROADHAWK WILL NOT BE LIABLE FOR ANY LOSSES OR DAMAGES OF ANY NATURE, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR COMMERCIAL LOSS OF THE CUSTOMER.
15. This Limited Warranty does not affect the Customer's statutory rights in law





## VISION

Download the free app now



### **RoadHawk**

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