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## VIOFO A229 Pro

# VIOFO A229 Pro 4K HDR Dash Cam & HK4 Hardwire Kit User Manual

Model: A229 Pro | Brand: VIOFO

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your VIOFO A229 Pro 4K HDR Dash Cam and HK4 Hardwire Kit. The A229 Pro is a dual-channel dash cam system featuring pioneering Sony STARVIS 2 image sensors (IMX678 and IMX675) for superior 4K front and 2K rear recording, enhanced by HDR technology for optimal clarity day and night. It also includes advanced features such as 5GHz Wi-Fi, GPS, and voice control for a comprehensive driving security solution.



Image: The VIOFO A229 Pro dash camera, rear camera, and HK4 hardwire kit components.

## 2. PRODUCT COMPONENTS

The VIOFO A229 Pro bundle includes the following items:

- VIOFO A229 Pro Dash Camera (Front)
- Rear Camera
- HK4 Hardwire Kit
- Rear Camera Cable (6 meters / 19.7 feet)
- Car Charger (Dual Port)
- Type-C Data Cable
- Trim Removal Tool
- Windshield Static Stickers (x2)
- Circular Polarizing Lens (CPL)
- User Manual
- Spare Mount Sticky Pads

# 4K@30fps + 2K@30fps Recording

With Sony's latest STARVIS 2 technology, the A229 Pro establishes a new industry standard with its exceptional 4K front and upgraded 2K rear recording capabilities. It delivers superb video quality, ensuring the capture of every detail, day and night.

**4K+2K**

2 Channels Recording



Dual Sony STARVIS 2

**HDR**

Front and Rear



Image: A visual representation of all components included in the VIOFO A229 Pro package.

# Automatic Parking Mode

Supports Parking Recording with ACC Detection HK4 Hardwire Kits provides constant dash cam parking recording. With ACC detection, the dash cam will switch to parking mode automatically if the vehicle engine is shut off. The dashcam will switch into normal recording when the vehicle engine is on.

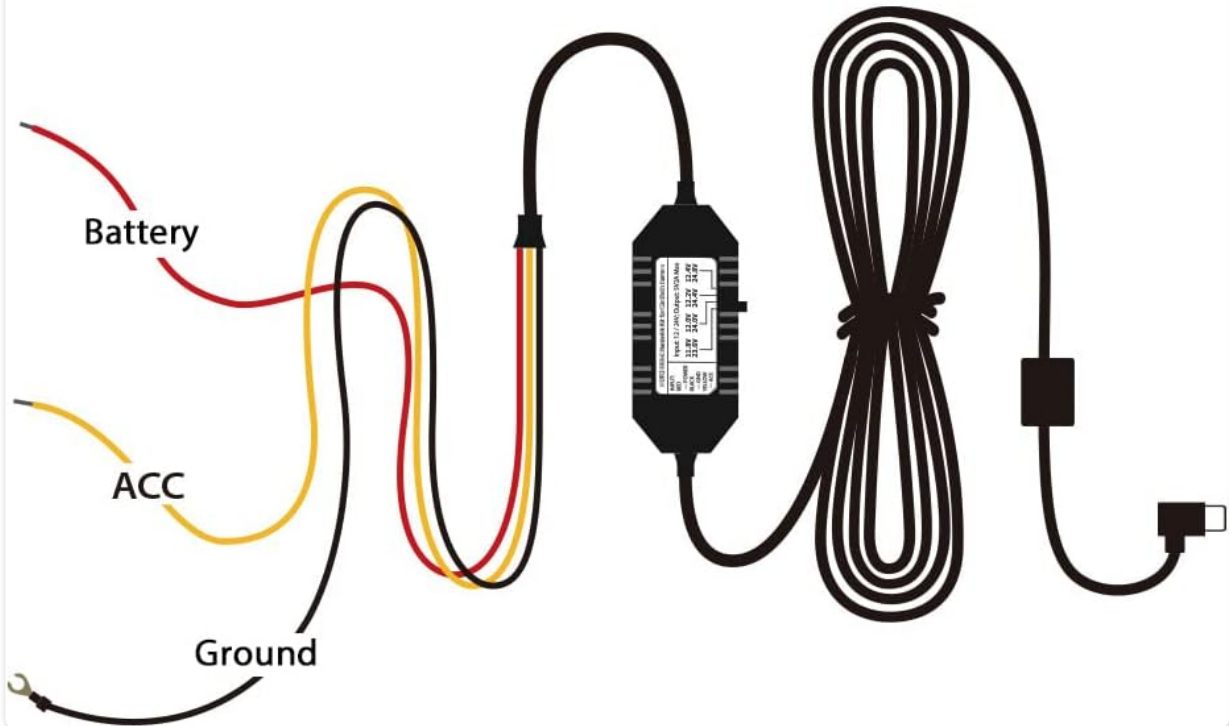


Image: Detailed view of the HK4 Hardwire Kit, including the main unit and fuse taps.

## 3. SETUP AND INSTALLATION


### 3.1 Dash Cam Installation

1. Clean the windshield area where the dash cam will be mounted.
2. Apply the static windshield sticker to the desired location on the windshield.
3. Attach the dash cam mount with the pre-applied 3M adhesive to the static sticker. Ensure the lens has a clear view of the road.
4. Connect the rear camera to the main dash cam unit using the provided rear camera cable.
5. Route the cables neatly along the windshield and interior trim, using the trim removal tool if necessary.
6. Connect the car charger to the dash cam and plug it into your vehicle's 12V power outlet.

# Dual Flagship Sony STARVIS 2 Sensors

A229 Pro - the industry's pioneering dashcam, employing two flagship Sony STARVIS 2 image sensors - IMX678 for the front and IMX675 for the rear. Delivering a wider dynamic range and higher light sensitivity, bringing less noise and motion blur.

**68%**   
Image sensor  
size

**90%**   
Photosensitive  
area

**100%**   
Low light  
performance

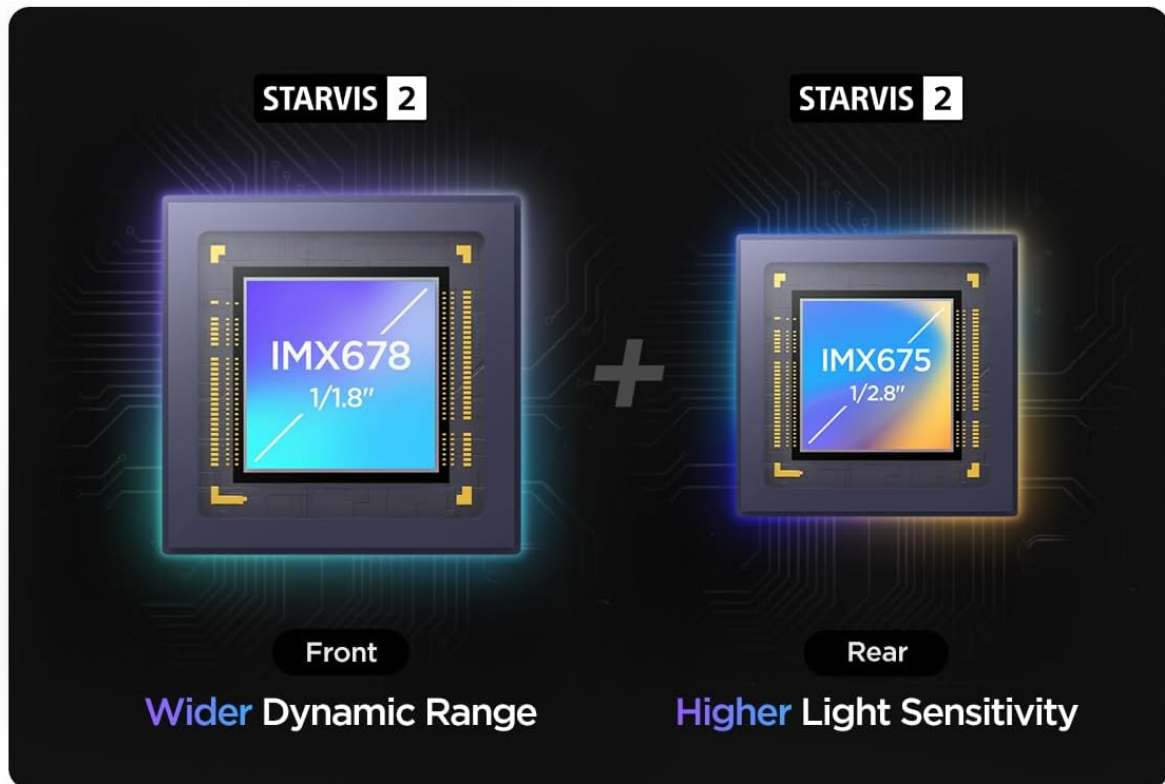


Image: Illustration of the front and rear dash camera placement in a vehicle.

Image: Diagram showing how to connect the rear camera cable and car charger to the dash cam.

## 3.2 HK4 Hardwire Kit Installation (for Parking Modes)

The HK4 Hardwire Kit is required to enable the dash cam's parking surveillance modes. It provides continuous power to the dash cam even when the vehicle is turned off, while protecting against battery discharge.

1. Identify your vehicle's fuse box location (refer to your vehicle's owner's manual).
2. Connect the red wire of the HK4 kit to a constant fuse slot (always on).

3. Connect the yellow wire of the HK4 kit to an ACC fuse slot (powers on with ignition).
4. Connect the black wire of the HK4 kit to a metal ground wire or bolt on the vehicle chassis.
5. Connect the Type-C end of the HK4 kit to the dash cam's power input.

### Circular Polarizing Lens (Included)

A CPL (Circular Polarizing Lens) filter can be used to reduce reflections and glare off glass and road surfaces, bringing significantly improved image clarity and contrast.



### Bluetooth Remote Control (Optional)

The Bluetooth Control can be positioned in a convenient location for safe and easy use while driving. Pressing the button will instantly protect current video clip and image. Control Distance: 5 meters.

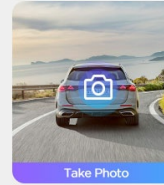


Image: Detailed wiring diagram for the HK4 Hardwire Kit, showing connections to battery, ACC, and ground, along with battery discharge prevention information.

## 4. OPERATION

### 4.1 Basic Recording

Once powered on, the A229 Pro will automatically begin recording. The front camera records in 4K (2160P) and the rear camera in 2K (1440P) simultaneously. The dash cam supports continuous loop recording, overwriting the oldest files when the memory card is full.



4K HDR



Dual STARVIS 2 Sensors



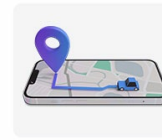
HDR - Front and Rear



Smart Voice Control & Notification



Faster 5GHz Wi-Fi



Quad-Mode GPS



CPL Included

Image: Visual comparison of 4K front and 2K rear recording quality, highlighting clarity.

## Higher-Precision GPS

The A229 Pro incorporates an advanced Quad-Mode GPS, compatible with four satellite positioning systems: GPS, BEIDOU, GALILEO, and GLONASS.

This enhances accuracy and stability in positioning. It furnishes comprehensive vehicle location, speed, and timestamp data when reviewing videos on the VIOFO App or a computer.

\* With GPS enabled, download the video to your device. The map screen is displayed only during video playback.

Image: Illustration of loop recording functionality and how the G-sensor automatically locks important video segments during incidents.

## 4.2 Smart Voice Control

The A229 Pro supports hands-free voice commands for convenient operation. You can issue commands such as:

- "Take photo"
- "Lock the video"
- "Turn on Wi-Fi" / "Turn off Wi-Fi"
- "Turn on audio" / "Turn off audio"
- "Show front camera" / "Show rear camera"

The dash cam also provides clear voice notifications for settings adjustments and memory card issues.

**Never missing the back**

## Standout 2K Rear Recording

The rear camera records in enhanced 2K resolution using a Sony STARVIS 2 5MP image sensor, significantly improving rear recording quality. This sensor offers a 2.5 times wider dynamic range than STARVIS pixels of the same size, resulting in clear and sharp videos both day and night.

STARVIS 2  
Sony Sensor

HDR

F1.9

1080P → 2K 1440P

Image: Depiction of a driver using voice commands to control the dash cam, such as taking a photo or locking video.

## 4.3 5GHz Wi-Fi & App Control

Connect your A229 Pro to the VIOFO app on your mobile device via the faster 5GHz Wi-Fi connection. This allows for:

- Effortless configuration and settings adjustments.
- Live preview of recordings.
- Convenient video downloading and sharing.

Stunning footage at all hours

## HDR Dual-Channel Recording

Supported with front 4K HDR and rear 2K HDR technology, A229 Pro can balance extremely bright and dark areas to accurately restore 4K & 2K details recorded at night, even captures accurate license details in fast move from both front and rear recording.



Image: Illustration showing the dash cam connecting to a smartphone via 5GHz Wi-Fi for app control and video management.

### 4.4 Parking Modes

With the HK4 Hardwire Kit installed, the A229 Pro offers three parking surveillance modes:

- **Auto Event Detection (Buffered):** The camera records 15 seconds before and 30 seconds after detecting a moving object or impact.
- **Low Bitrate Recording:** Records continuously at a lower bitrate to save storage space while maintaining video quality.
- **Time Lapse Recording:** Records continuously at a low frame rate (e.g., 1/2/3/5/10/15 fps) to compress long periods into short videos.

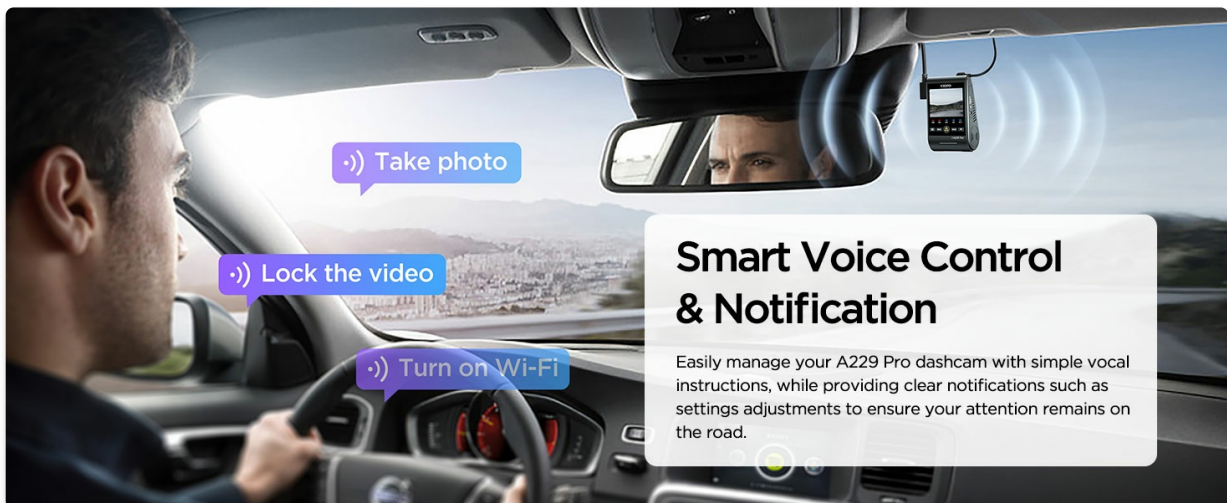


Image: Visual explanation of the three parking modes: Auto Event Detection, Low Bitrate Recording, and Time Lapse Recording.

## 5. KEY FEATURES AND TECHNOLOGIES

### 5.1 Dual STARVIS 2 Sensors & HDR

The A229 Pro is equipped with dual Sony STARVIS 2 image sensors (IMX678 for the front and IMX675 for the rear). These sensors, combined with cutting-edge HDR (High Dynamic Range) technology, provide:

- Exceptional 4K front and 2K rear video quality.

- Wider dynamic range and higher light sensitivity.
- Reduced noise and motion blur, especially in low-light conditions.
- Accurate license plate recognition even in challenging lighting or high-speed scenarios.

### 4K Front Ultra 2160P Recording

The front cam equips with **STARVIS 2** IMX678 sensor that providing an ultra 4K 3840\*2160P resolution.



### 2K Rear Upgraded 1440P Recording

The rear cam uses a **STARVIS 2** IMX675 sensor, recording in 2K 2560\*1440P resolution, obviously improving rear video quality.



Image: Diagram illustrating the dual STARVIS 2 sensors (IMX678 and IMX675) and their benefits for image quality.

Bring out crisp details

### Supreme 4K Front Recording

The front camera records in impressive 4K resolution using a Sony STARVIS 2 8MP image sensor, offering greater clarity and detail. This sensor provides the A229 Pro a wider dynamic range and supports 4K HDR technology, reducing noise, motion blur, and revealing more details.



Image: Side-by-side comparison demonstrating the improved clarity and detail with HDR enabled versus disabled, especially for license plates at night.

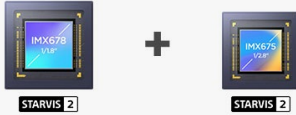
## 5.2 Higher-Precision GPS

The A229 Pro incorporates an advanced Quad-Mode GPS, compatible with four satellite positioning systems: GPS, BEIDOU, GALILEO, and GLONASS. This enhances accuracy and stability in positioning, providing detailed vehicle location, speed, and timestamp data to the video files. When reviewing videos on the VIOFO App or a computer, the map screen is displayed during video playback.

### Bigger Sensor, Better Shots

## Dual Flagship Sony STARVIS 2 Sensors

The first dashcam using two Sony STARVIS 2 sensors IMX678 & IMX675 for front and rear cameras, offers a wider dynamic range and higher light sensitivity, bringing much less noise and motion blur during day & night recording.



### less motion blur



### less noise

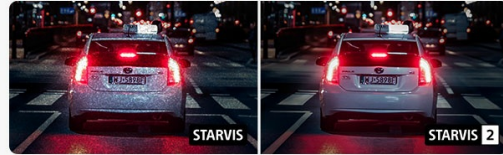


Image: Illustration of the dash cam's multi-satellite GPS system providing accurate location and speed data.

## 5.3 Circular Polarizing Lens (CPL)

A CPL filter is included to reduce reflections and glare off glass and road surfaces, significantly improving image clarity and contrast, especially in bright conditions.

### Catching Important Moments

## Loop Recording & Auto Emergency Lock

The A229 Pro offers continuous loop recording, replacing older videos with newer ones. Equipped with a built-in G-sensor, this dashcam automatically locks footage in the event of a collision or crash, providing a detailed record of the incident.



Image: Comparison showing the effect of the CPL filter on reducing reflections, alongside an illustration of the optional Bluetooth remote control.

## 5.4 Optional Bluetooth Remote Control

An optional Bluetooth remote control can be positioned in a convenient location for safe and easy use while driving. Pressing the button will instantly protect the current video clip and image. Control distance is up to 5 meters.

## 6. MAINTENANCE

### 6.1 MicroSD Card Requirements

The dash cam does not include a microSD card. A high-speed U1/U3 microSD card is required for operation. The A229 Pro supports up to 512GB microSD cards. It is recommended to use VIOFO industrial high endurance microSD cards for optimal performance and longevity.



\*Rear camera cable: the standard length is 6 meters. If you need a longer rear cable, you can find it on the VIOFO official website.

Image: Information on supported microSD card capacities and types, highlighting VIOFO's recommended high endurance cards.

## 6.2 Formatting the Memory Card

Regularly format the microSD card within the dash cam's settings menu to ensure stable recording performance and prevent data corruption. This can be done through the dash cam's user interface.

### Ultra Fast Transfers

## 5GHz Wi-Fi & APP Control

An upgraded 5GHz Wi-Fi connection module is built into A229 Pro to provide much faster Wi-Fi data transfer, ensuring smooth video previewing, downloading and sharing on VIOFO App.

- Easy WiFi Configuration
- Live Preview
- Play, Download Videos



Image: Screenshots of the dash cam's user interface, including options for video settings, loop recording, and memory card formatting.

## 6.3 Firmware Updates

Firmware updates can improve performance and add new features. Check the official VIOFO website for the latest firmware versions and instructions on how to update your dash cam.

## 6.4 Cleaning

Gently clean the dash cam lens with a soft, lint-free cloth to ensure clear recordings. Avoid using abrasive cleaners or solvents.

## 7. TROUBLESHOOTING

If you encounter issues with your VIOFO A229 Pro, consider the following common solutions:

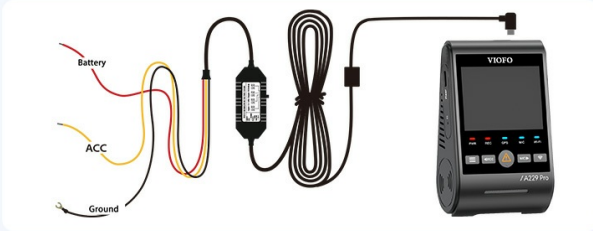
- **Dash cam not powering on:** Ensure the power cable is securely connected to both the dash cam

and the power source (car charger or hardwire kit). Verify the vehicle's 12V outlet or fuse box connection. Use only the original car charger or hardwire kit.

- **Recording issues (e.g., freezing, errors):** Format the microSD card regularly. Ensure you are using a high-speed (U1/U3) and high-endurance microSD card from a reputable brand. Try a different microSD card to rule out card issues.
- **Poor night vision clarity:** While the A229 Pro features advanced night vision, extreme low-light conditions can still affect clarity. Ensure the windshield is clean and the lens is free of smudges.
- **GPS signal loss:** Ensure the dash cam has a clear view of the sky. Avoid mounting it in areas obstructed by metallic tints or other electronic devices that might interfere with the signal.
- **Wi-Fi connection issues:** Ensure the dash cam's Wi-Fi is enabled. Try restarting both the dash cam and your mobile device.


For further usage guidance and detailed troubleshooting, check the FAQ section on the official VIOFO website.

### Correct Hardwire Kit Wiring for Parking Modes



**How to Install the Hardwire Kit**

Red wire (to constant fuse slot)  
Yellow wire (to an ACC fuse slot)  
Black wire (to a metal ground wire)



**Battery Discharge Prevention**

The VIOFO HK4 ACC Hardwire Kit offers 4 voltage cut-off levels to automatically stop power when your car battery drops, protecting it from discharge.

Image: Important tips covering charging instructions, microSD card requirements, rear camera cable usage, screen saver settings, and GPS logger information.

## 8. SPECIFICATIONS

Feature	Specification
Model Name	A229 Pro
Video Capture Resolution	Front: 4K 2160P; Rear: 2K 1440P
Image Sensors	Dual Sony STARVIS 2 (IMX678 & IMX675)
Special Feature	Voice Control, HDR, Parking Modes
Connectivity Technology	5GHz Wi-Fi, GPS
Field Of View	135 Degrees
Mounting Type	3M Sticker & Static Windshield Stickers
Included Components	Dash Cam, Rear Cam, HK4 Hardwire Kit, Cables, CPL, User Manual

Feature	Specification
Color	Black
Manufacturer	VIOFO

### Type-C to Type-C connection

## Superfast Direct Data Transfer

Through the USB 2.0 Type-C to Type-C cable, photos and video files in the dash cam memory card can be transferred swiftly to your smartphones. The download speed is up to 20MB/s on iPhone 15. You can also easily download and install the latest firmware this way.



Image: Visual representation of the dash cam's 2.4-inch HD screen, rotatable lens, and overall product dimensions.

## 9. WARRANTY AND SUPPORT

VIOFO is committed to providing reliable customer service for its products:

- **30-Day Return Policy:** Refer to your purchase platform's return policy for details.
- **24/7 Dedicated Customer Support:** Assistance is available around the clock for any inquiries or issues.
- **24-Month Free Repair Coverage:** The product is covered by a 24-month warranty for free repairs.

For support, please visit the official VIOFO website or contact their customer service team directly.

### Optional

## Supports Up-To 512GB microSD Cards

VIOFO industrial high endurance microSD cards, greatly elevating, A229 Pro supports up to 512GB U1/U3 speed microSD card.



Image: Overview of VIOFO's customer service commitments, including return policy, support availability, and repair coverage.

