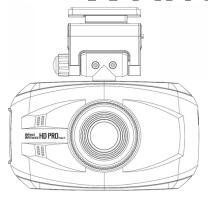


Wheel Witness



WheelWitness HD PRO Mark II

Dual HD Dash Camera

User Manual

The information in this manual is subject to change without notice.

Safety Information

To prevent injury to yourself or others, or damage to your device, read all safety information before using.



Failure to comply with safety warnings and regulations can result in serious injury or death.

WheelWitness Dash Cam is not intended to be touched, modified, or calibrated while operating a vehicle.

WheelWitness is NOT responsible for any damages resulting from the user's misuse of the camera.

Do NOT use damaged power cords or plugs, or loose electrical sockets. Faulty connections can cause electric shock or fire.

Do NOT touch the power cord with wet hands or disconnect the power plug by pulling the cord. Doing so may result in electrocution.

Do NOT use a bent or damaged power cord. Doing so may cause electric shock or fire.

Do NOT short-circuit the power cord or the device. Doing so may cause electric shock or fire, or cause the battery to malfunction or explode.

Use only manufacturer-approved power cable, accessories, and supplies.

Using generic power cable may shorten the life of your device or cause the device to malfunction.

Use only the manufacturer-approved power cable specifically designed for your device. Using an incompatible cable can cause serious personal injury or damage to your device.

WheelWitness cannot be responsible for the user's safety when using accessories or supplies that are not approved by WheelWitness.

Never crush or puncture the device.

Never dispose of the device in a fire.

Never place the device in or on heating devices, such as microwave ovens, stoves, or radiators. The device may explode if overheated. Follow all local regulations when disposing of a used device.

Avoid exposing the device to high external pressure, which can lead to an internal short circuit and overheating.

Protect the device and power cable from damage. Avoid exposing your device to excessive cold or heat.

Extreme temperatures can damage the device.

Do not allow children or animals to bite or chew the device. Doing so can result in fire or explosion, and small parts can be a choking hazard. If children use the device, make sure they use the device properly.

Never use a damaged power cord.

FCC STATEMENT:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and

This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limit s are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. How ever, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

RF warning statement:

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.

FCC ID: 2AZOF-HDPRO



Caution

Failure to comply with safety precautions and regulations can result in property damage, serious injury or death.

Do not expose the device to heavy smoke or fumes. Doing so may damage the outside of the device or cause it to malfunction.

If you notice strange smells or sounds coming from your device, or if you see smoke or liquid leaking from the device, stop using the device immediately and contact a WheelWitness authorized repair center. Failure to do so may result in fire or explosion.

For your own safety, do not operate the controls of this product while driving. The window mount is needed when using the dash camera in a car.

Make sure that you place the recorder in a location where it will not obstruct the driver's view.

Always keep the camera lens clean, and ensure that the lens is not blocked by any object or placed near any reflective material. If the car's windshield is tinted with a dark coating, recording quality may be affected.

Do not store your device in excessively hot, cold, damp or dry locations. Doing so may cause the screen to malfunction, result in damage to the device. Your device is recommended for use within a temperature range of -10 $^{\circ}$ C to 70 $^{\circ}$ C, and a humidity range of 10% to 80%.

If your device becomes overheated, allow it to cool down before use. Prolonged exposure of skin to an overheated device

may cause low-temperature burn symptoms, such as red spots or areas of darker pigmentation.

Install mobile devices and equipment with caution. Ensure that any mobile devices or related equipment installed inyour vehicle are securely mounted.

Avoid placing your device and accessories in or near an airbag deployment area. Improperly installed wired equipment can cause serious injury in a situation where airbags inflate rapidly.

Do not drop your device or subject your device to impact. If the device is bent, deformed or damaged, malfunction may occur.

Do not attempt to disassemble, repair, or modify your device.

Any changes or modifications to your device can void your manufacturer's warranty.

Clean your device and charger by wiping with a towel or eraser. Do not use chemicals or detergents. Doing so can discolor or corrode the outside of the device, and may result in electric shock or fire.

Do not distribute copyright-protected material. Doing so without the permission of the content owners may violate copyrightlaws. The manufacturer is not responsible or liable for any legal issues that result from the user's illegal use of copyrighted material.

Table of Contents

About HD PRO Mark II Camera	9
HD PRO Mark II Layout	10
Setting Up for First Time Use	11
SD Card Requirements	
Stealth Hardwiring	14
Display Icons (Record Mode)	15
Event Triggering	17
Snapshot	17
Menu Operation	18
Video Menu - Page 1	19
Resolution	19
Loop Recording	20
Wide Dynamic Range	20
EV Exposure	21
Video Menu – Page 2	21
Motion Detector	
Record Audio	22
Date Stamp	23
G – Sensor	23
Video Menu – Page 3	24
Video Codec	
Setup Menu - Page 1	25

26
26
27
27 28
28
29
29
30 30
31
31
32
33
35
35
36
38
38
39
39

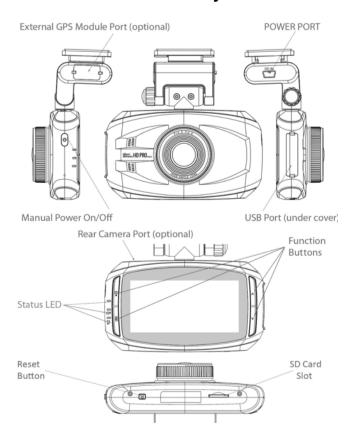
About HD PRO Mark II Camera

The HD Pro Mark II is designed to automatically turn ON when it receives power to the DC IN port. It also automatically shuts down and records for a second when the power is shut off (to avoid any sudden power cuts and possibly corrupting data). Under default settings the camera always cycles or "loops" the memory card so you will always be recording and never run out of space.

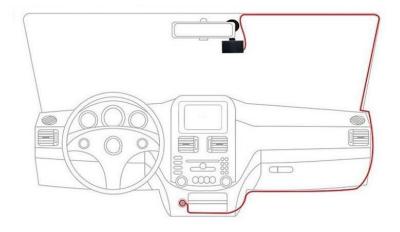
Motion Sensor function should remain OFF under normal operating conditions. It is intended to be used ONLY when the vehicle is stationary and would interfere with normal camera operation while driving. Please only change the settings as required! The G sensor function can be used to protect files in the event of an incident, however if you have too many false- positives, or the camera freezes, please make sure to turn it off!

If you have any questions, please contact us!

HD PRO Mark II Layout



Setting Up for First Time Use



Optimal installation location and wire routing.

Card Requirements

Resolution and bit rate of video files required a good quality SD card. The camera requires a <u>minimum Class 10 SD Card</u>. We recommend using a "high endurance micro sd card".

Regular SD cards (such as Sandisk Ultra are NOT supported, and may cause issues).

1.

Install memory Card into the card slot.

(If you have trouble use a penny to push it in.)

Memory card not included.



2.

Remove the protection tape from the Fixed Plate and install the Plate on the Windshield Glass. (We recommend cleaning the installation area with rubbing alcohol).





- 3. Slide the camera to the fixed plate and adjust the vertical and horizontal positions.
- 4. Connect the power cord to the DC IN. Camera power socket.



5. Connect the power cord into the cigarette lighter. Socket in your car.

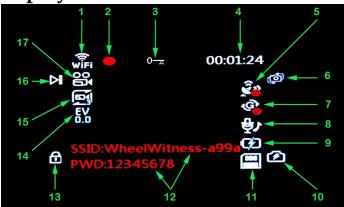


Stealth Hardwiring

If you would like a stealth install that you never have to worry about, we sell a hardwire kit. You can use it to tap into your "Accessory" wire and the camera turns on and off with the vehicle. You never have to remember to turn it on. Using a hardwire kit requires some basic technical skills. Depending on your vehicle, you can route the wires to the back of your cigarette lighter or fuse panel. If wiring to a fuse panel, please use a multi---meter or a test light to find a fuse that is ON when vehicle is in Accessory/Ignition and is off when vehicle is off.

Search on Amazon: WheelWitness Hardwire Installation Kit

Display Icons (Record Mode)



- 1. Wi-Fi Status.
- 2. Recording.
- 3. Video file lock ("Event" function), icon will be active when Event is triggered.
- Recording time
- 5. GPS Status (turns green with optional GPS Module only)
- Function button. Display switch Front/Rear, Front only, Rear only. (Without optional rear camera rear display mode – black screen). UP in stop mode.
- 7. G-Sensor Status (recommended mode OFF as shown on the picture).
- 8. Microphone Status (On/Off).

- 9. External Power Status.
- 10. Function button. Snapshot. Down in Stop mode.
- 11. Memory Card (x-no card, or defective card).
- 12. SSID name and Password.
 - 13. Function button. Save current file (Event). Menu in Stop mode.
- 14. Exposure Value, "+" brighter, "-"dimmer.
- 15. Length of Video File 1/3/5 minutes each file.
- 16. Function Button. Record ON/OFF. Enter in Stop mode.
- 17. Unit Mode: Video, Photo, Playback.

Event Triggering

In case of emergency or for some other reason when you want to save the recorded moment, simply press the "MENU" button (#1) while camera is recording. The camera displays a KEY symbol on the LCD Display and it will save the previous 10 seconds before the press and 20 seconds after. You will find this file in a separate folder in the SD card. You can also turn the G sensor to ON while driving. If there is an "event" that it senses, it will automatically save that file accordingly as well. Please keep in mind, if the camera has too many false- positive or it starts to freeze, set the G sensor to OFF.

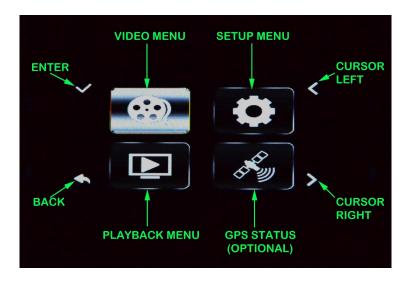
WARNING: FORMATTING THE Memory CARD WILL ERASE ALL THE INFORMATION INCLUDING "READ ONLY" FILES.

Snapshot

You have the ability to take a "Snapshot" while the camera is recording without interruption.

During the recording briefly press the "DOWN" button for taking photo. (You will see a photo icon popup on the screen briefly to confirm photo was taken.) Photos will be stored in the folder "PHOTO" on the memory card.

Menu Operation



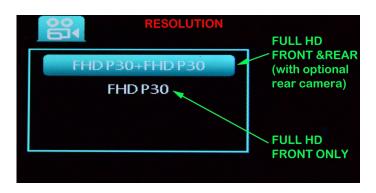
Press "MENU" function button in STOP position](no RED Recording symbol on the display) to activate the Main/menu. Use "CURSOR LEFT" and "CURSOR RIGHT" function buttons to highlight the desired symbol and press "ENTER" function button to open desired menu.

Use "UP" and "DOWN" Cursor function buttons to highlight desired line and press "ENTER" function button.

Video Menu - Page 1



Resolution



Loop Recording



The camera splits the recordings into segmented files for easy transfer/use.

Wide Dynamic Range



Improves image quality under high-contrast lighting conditions.

EV Exposure



Exposure Compensation Value (set between +2.0 to -2.0).

Video Menu – Page 2



Motion Detector



Detect Motion in view (set to OFF when moving).

Record Audio



Turns the Microphone On/Off.

Date Stamp



The current date and time will be "stamped" into the video.

G – Sensor



Detect sudden change in XYZ axis which will trigger EVENT SAVE.(Iftoomany false alarms while driving, please set to OFF)

Video Menu – Page 3

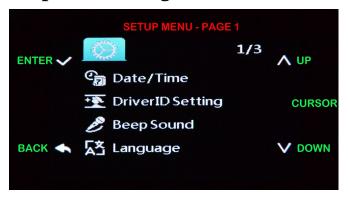


Video Codec

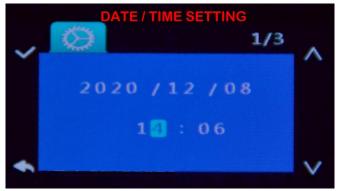


A video codec is a software that compresses and decompresses digital video. We recommend H264 for best compatibility.

Setup Menu - Page 1



Date / Time

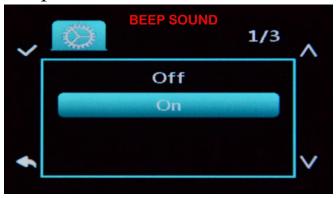


Driver ID Setting (License Plate)



You can provide your license plate number or Driver ID here. This number will be stamped into the video at the bottom right corner along with the time and date.

Beep Sound



Beep Confirmation Sound.

Language



Select menu Language

Setup Menu – Page 2



Time Zone (for GPS optional)



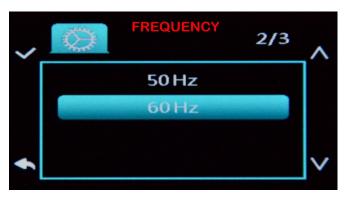
Set the correct Time Zone (important for GPS accuracy).

Speed Setting



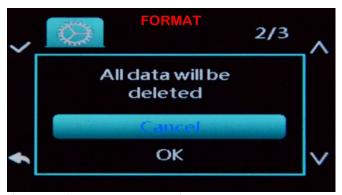
[unit: M/H] / [unit: KM/H]

Frequency (60HZ – USA)



Light Frequency (anti flickering). 60Hz (USA Standard) 50Hz (European).

Format



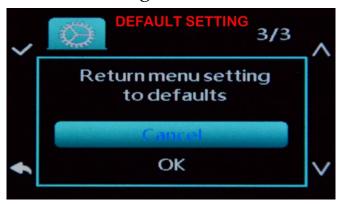
Delete ALL data on memory card!

Protected files will also be deleted

Setup Menu – Page 3

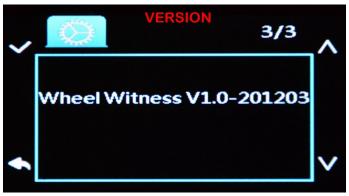


Default Setting



Restore Camera to Default Settings.

FW Version



Current Firmware Version

Screen Save

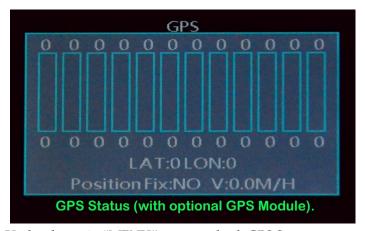


LCD Shutoff after X time.

GPS (optional)



Please allow the camera some time, at least a few blocks to catch the GPS signal. GPS data is embedded into the metadata of the file.



Under the main "MENU" you can check GPS Status.

Rear / Backup Camera (optional)

Connect Rear Camera to the front Camera using rear camera hardwire kit.



If you don't need to automatically switch camera display to rear when reversing, just then you do not need to connect the red (+) and black (-) wires.

Backup Camera Function

If you have the optional rear camera you can use it as a back up camera when reversing . All you need to do is connect it to the REVERSE lamp in your vehicle.

REAR CAMERA HARDWIRE KIT (CAME WITH OPTIONAL REAR CAMERA)





Use these connector when connecting the rear camera to the front camera.

PLAYBACK

Computer Playback

Recommended Media Players: QuickTime Media Player / VLC / Windows Media Player.

Using an SD card adapter

Insert your Micro SD card into an SD card adapter, then insert the SD card adapter into your computer or card reader to access your card storage.

Your videos will be stored under

"\CARDV\MOVIE 1" - videos from the front camera and "\CARDV\MOVIE 2" from the rear camera (optional).

Using a USB cable

Connect your camera to your computer using the provided USB cable and select "Mass Storage" to access your card storage.

Your videos will be stored under "\CARDV\MOVIE 1" and "\CARDV\MOVIE 2"

GPS Playback (optional, with optional GPS Module)

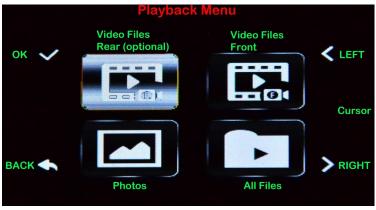
The camera GPS, is not a navigation system nor a tracking device. The camera will embed the GPS coordinates into metadata of the video file, so you can see the map alongside the video of where you have driven.

You can then use **www.wheelwitness.com/viewer** or **www.dashcamviewer.com** to play it back alongside the map.

Camera Playback Mode

To play back recordings on your device:

- 1. Switch Camera to Stop Mode (no RED Recording symbol on the display).
- 2. Press "Down" function button to deactivate Wi-Fi (no SSID and PWD on the screen).
- 3. Press "Menu" function button to open general menu.
- 4. Scroll to playback and press "Enter" function button to activate playback menu.

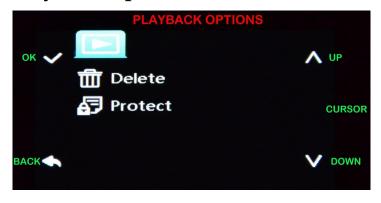


Use functions button to choose file for playback.

Playback



Playback Options



Wi-Fi Playback Mode

Please browse to http://www.wheelwitness.com/app to find more information about how to playback and control this camera from your smartphone.

Troubleshooting (Common Issues)

Issue	Solution
Suction Cup Does not Stick to windshield	Make sure to clean the glass with rubbing alcohol, mount it on a clean (non-dotted) surface, and put a few drops of water before mounting.
Camera does not turn on when car is running	Check to make sure the car charger is plugged in correctly and firmly and that is receives power. Camera turns ON, only when it receives power to the DC IN port. It shuts off when power is cut.
Camera Freezes/ Not always recording	Check to make sure your SD card is compatible. Must be Class 10. Format SD card and Reset camera to default settings in the menu. Sandisk Ultra cards NOT supported.
GPS Not Working	Please allow the camera some time, at least a few blocks to catch the GPS signal. GPS data is embedded into the metadata of the file.
Problems with playback on PC/Mac	Please use VLC Player (available for Free at www.videolan.org or Registrator Viewer on our website; www.wheelwitness.com/viewer)
Playback video is choppy / slow	Most likely this is due to the hardware you are using or missing codecs. The HD video requires high resources for playback. Please try it on different computer/device.

Warranty

We provide free warranty service for parts and labor within ONE YEAR from the date of purchase.

The warranty does not cover:

- Damage caused by accident, misuse, tampering with or failure to follow the care
- Water damage
- Damage and/or scratches to the finish of the case, lens, or LCD display
- Broken bracket and damaged power cable
- Memory card
- Damage caused by repairs or alterations by anyone other than our Service Center

Contact Us

If you have any questions or comments, please feel free to contact us! www.wheelwitness.com/support

Please Drive Safely!

- WheelWitness Inc.