



Please read this entire guide before installation and use.



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PACKAGE CONTENTS



5-Pin Micro USB Port

Power Specifications Input: OBDII DC 10~32V, 2A Output: DC 5V, 3A

FUNCTIONS

Automatic Booting

Once the AP1 has been wired to your OBDII port or vehicle power source, the AP1 will boot up automatically. It will take around 55 seconds for the unit to be ready to operate.

1. VIDEO RECORDING

Continuous Record

This is the default mode for recording. In this setting, the unit will begin recording after booting up and record the entire time the unit is powered on. The resolution and frame rates can be set as per your requirements.

Event Record

The unit will record when triggered by impact, an ADAS Forward Collision Warning Setting, a Speeding Threshold Limit Exceed Event or a push of the "Panic" (Rec) button. You can set the record time during the calibration setting mode.

Dual Record, Continuous + Event

The continuous record file will be stored on the "Normal" folder and the event record will be stored on the "Event" folder on the SD card.

Drive Data

The DRV file will be recorded while driving even if there are no events or video. The DRV file consists of GPS and G-sensor data. The DRV file overwrites the oldest data. The DRV files will be made every 1 to 10 minutes.

Time and Date

This information will be provided by GPS satellites automatically.

2. WI-FI

To connect to the device via Wi-Fi, please press the "multi-function" button and hold for 5 seconds (long press), wait 3 seconds and then connect directly to the AP1 via Wi-Fi using your mobile device.

3. VOLUME CONTROL

Please press the volume button to control. The volume level is 1 to 5.

ADAS FUNCTIONALITY



Forward Proximity Warning

Something is in the forward proximity, and an imminent collision with your vehicle is possible (at low speeds).



Forward Collision Warning Your vehicle is likely to collide with something in front of your vehicle.



Forward Vehicle Start Alert

The vehicle in front of you begins to move forward while your vehicle remains stopped.



Lane Departure Warning Your vehicle crosses a solid lane line on either side of the road.

Caution

ADAS functionality is not a substitute for an alert, trained and engaged driver. ADAS functionality will be impaired by many things, including but not limited to device malfunction, obstruction of the device's image sensor, intense weather conditions that reduce the visibility afforded to the device's image sensor, and poor and/or faded road and lane striping/markings.

DRIVER SAFETY WARNINGS

WARNING

To reduce the potential danger of injuries, the driver and front passenger must always be correctly seated with seat belts correctly fastened when operating the vehicle.

DISCLAIMER

The AP1 is not a substitute for a safe, conscientious driver. The AP1 cannot compensate for a driver who is distracted, inattentive or impaired by fatigue, drugs or alcohol. Whether or not the AP1 is in use, it is always the responsibility of the driver to take appropriate corrective action. It does not eliminate or decrease the need for a driver to stay alert and to obey all traffic laws while operating a vehicle. Never wait for the device to provide a warning before taking measures to avoid an accident. Failure to do so can result in serious personal injury or death or severe property damage.

Always, it is the driver's responsibility to:

- Use safe driving techniques
- Exercise proper judgment
- Maintain a safe speed and distance between vehicles
- Take measures to avoid an accident
- Comply with all applicable laws and regulations

WARNING

In certain conditions, including inclement weather, low visibility and certain road conditions (including poor lane markings, construction zones, dirt roads, heavy or complicated traffic, and curvy and winding roads), the AP1 may have limited to no functionality. The AP1 may not detect certain objects such as motorcyclists, bicyclists or pedestrians even in the most ideal conditions. Always keep the lens and view of the AP1 unobstructed and properly calibrated so as not to inhibit function. Driving in certain conditions or any interference with the AP1 can result in false, few or no warnings. The driver must always monitor traffic and surroundings and take measures to avoid an accident; failure to do so can result in serious personal injury or death or severe property damage.

WARNING

If the AP1 is not functioning properly at any time, please contact your distributor or visit **support.smartwitness.com** and have the device inspected immediately to correct the issue. Whether or not the AP1 is functioning, it is the driver's responsibility to maintain vehicle control; failure to do so can result in serious personal injury or death or severe property damage.

CAUTION

While cleaning the device or the vehicle cab, do not apply compressed air or cleaning solutions (such as Windex) to the AP1 device. Usage of these products may cause damage to the device.

GPS RECEPTION

When satellites don't have line of sight, cellular towers help triangulate a vehicle's location.

- Activate the product in an area without large buildings to improve GPS reception.
- The temperature range for optimum operation of the GPS receiver in your vehicle is -10°C ~ 50°C.
- When using the product for the first time or after a long period (more than three days), it may take a little longer to recognize your current location.
- 4. This product supports Assisted GPS.

GPS reception may be impaired under the following circumstances:

- 1. If your vehicle has metallic elements on the windshields.
- If equipment generating electromagnetic waves that interfere with the GPS signal is installed in the vehicle, e.g., other GPS devices, such as certain types of wireless activated alarms and MP3 and CD players and camera alarms using GPS.
- 3. On heavily overcast or cloudy days or if the vehicle is in a covered location, such as under a bridge or raised roadway, in a tunnel, on an underground roadway, in an underground parking area, inside a building or surrounded by high-rise buildings.

If GPS signal reception is poor, it may take longer to locate your current position when the vehicle is moving than when it is stationary.

LEDs & BUZZER SPECIFICATIONS

			LED			
Status/Stap		1	2	3	SOLIND	
status/step			3 COLORS	GREEN	BLUE	SCOND
Startup/ On & Off	Booting Step 1	Before Troubleshooting	Flashing (Orange)	Off	Off	
	Booting Step 2	Troubleshooting	Flashing (Orange)	Flashing	Off	
	Booting Step 3	Initializing Modem	Flashing (Orange)	Flashing	Flashing	
	Booting	Finished	On	On	On	
	Powe	er On	Normal: On (Green)	Off	Off	
	Power Of	f/Finished	Off	Off	Off	
Recording	Continuous Record	Recording	-	On	-	
		G-Sensor Recording	-	On	-	
	Event Record	FCW Recording	-	On	-	
		User Recording	-	On	-	
	Record Error	SD Error, No SD, Write Fail	-	3 Times Fast Flashing Every 10 Secs.	-	
	No Record	Recording Off	-	Off	-	
	SD Fc	ormat	-	Fast Flashing Until the Process Finished	-	
ADAS	Forward Collision Warning (FCW)		-	-	-	Warning Sounds
	Forward Proximit	ty Warning (FPW)	-	-	-	Warning Sounds
	Forward Vehicle Start Alert (FVSA)					Warning Sounds
	Lane Departure Warning (LDW)		-	-	-	Warning Sounds
Communication	3G/4G Network D	Device Connected	-	-	On	
	3G/4G Network De	vice Error, SIM Error	-	-	3 Times Fast Flashing Every 10 Secs.	
	Data Network C	onnection Error	-	-	3 Times Slow Flashing Every 10 Secs.	
Status	Setting Mode (ADAS, Recording, Etc.) Firmware Upgrade GPS Error		Red/Green LED Cross-Flashing Until the Setting Mode Finished	-	-	Setting Sounds
			Fast Flashing Until the Firmware Update Finished (Green)	-	-	
			3 Times Fast Flashing Every 10 Secs. (Orange)	-	-	
	Camera Error		On (Red)	-	-	
	CAN Error Wi-Fi Mode		3 Times Fast Flashing Every 10 Secs. (Green)	-	-	
			1 Color Is Flashing (Orange)	On	On	

TECHNICAL SPECIFICATIONS Sample DRV Data File (RECORDED AT 1Hz)

NAME	VALUE
Speed	Km/h
RPM	0~10,000
Forward Vehicle Start Alarm (FVSA)	0x00 – None 0x02 – FVSA event 0x03 – Function disabled
Forward Proximity Warning (FPW)	0x00 – None 0x02 – FPW event 0x03 – Function disabled
Forward Collision Warning (FCW)	0x00 – None 0x02 – FCW event 0x03 – Function disabled
FCW TTC	TTC time, Data/10 0 ~ 25.5 sec Ex) 125 => 12.5 sec
Ahead Distance	0~150m
Record	0x00 – None 0x01 – Recording (Mic off) 0x02 – Recording (Mic on)

NAME	VALUE
GPS Active	0x00 – None 0x01 – Active with A-GPS 0x02 – Active with Standard GPS
GPS Signal	The number of satellites locked
Latitude	0.3452335435425
Longitude	5.4320940394
Heading	20.4
Altitude	10.7
Time Info	UTC
Time msec	0 ~ 999
G-Sensor Event	0: None 1: Event
Panic Button Event	0: None 1: Event

NAME	VALUE
G-Sensor X	-4000 ~ 4000, mG
G-Sensor Y	-4000 ~ 4000, mG
G-Sensor Z	-4000 ~ 4000, mG
Error Code	Bitflag (0: None, 1: Active) Obit – Camera Fail 1bit – GPS Fail 2bit – CAN Fail 3bit – Modem Fail 4bit – Server Fail 5bit – Camera Blocked 6~7bit: Reserved
Ignition Status	0: Off 1: On
Engine Load	0.00%
MAF Air Flow	0.00
Throttle/ Accel Position	11.766
Odometer	1,000 km
Engine Coolant Temperature	70°C
Oil Temperature	70°C
Reserved	

TECHNICAL SPECIFICATIONS (CONT.)

	4	AP1 Technical Specifications
Input	OBDII DC 10 ~ 32V, 2A	
Output	DC 5V, 3A	
Micro SD	Up to 128GB	
SIM	Nano SIM (4FF)	
Network	At launch, the AP1 will work on AT&T and T-Mobile Networks (NA):	
	US: N/S America LTE bands:	B2 / B4 / B5 / B7 / B12 / B13 / B25 / B26
	EMEA: EMEA LTE bands:	B1 / B2 / B3 / B5 / B7 / B8 / B20 / B28A
	AP: Asia-Pacific countries:	TBD
AP	ARM Cortex A7 Quad-core@1.1GHz(MSM8909)	
GPU	Adreno 304	
eMMC	8GB	
SDRAM	1GB LPDDR3	
Bluetooth	BT4.2 (BR/EDR+BLE)	
Wi-Fi	IEEE 802.11 a/b/g/n	
GNSS	GPS/GLONASS/BeiDou, support A-GPS	
Antenna	LTE main, LTE DRX, GNSS, Wi-Fi/BT	
Image Sensor	1/2.9 inch CMOS image sensor, 1080p@30fps	
G-Sensor	Digital, tri-axial acceleration sensor	
Micro USB		
Audio Amp	D-class, 879mW, 4.2V/8 ohm	
Speaker	23 pi, 8 ohm, 88dB	
Mic	MEMS, -42dBV, 59dBA SNR	
Super Capacitor	2.7V/7F	

INSTALLATION

The AP1 is a self-install device for a vehicle's OBDII connection. Please reference the AP1 install material and find access to the AP1 Mobile App on https://smartwitness.com/ap1-setup.

If you need to schedule a fee-based professional installation service, please contact **smartwitness.com/request-install** and submit the online form.



Download the Calibration App.







MOBILE APPLICATION USER GUIDE

The AP1 Mobile Application has been designed to allow customization of all AP1 settings. AP1 settings may be made via the SmartWitness Mobile App "AP1 Tool" for Apple or Android devices. The "AP1 Tool" is available from the app store of your chosen mobile device platform.

Complete instructions on the use of the "AP1 Tool" Mobile App is available from https://smartwitness.com/ap1-setup.



STEP 1

STEP 4

Turn your vehicle on, and wait for the AP1 to boot up. You will see LED lights sequence as follows: blinking red; red and green; green, green and blue. Then all 3 solid = ready.



STEP 2

Press and hold the Menu button for 5 seconds, wait 3 seconds, to enable Wi-Fi. The orange LED light will start blinking.



STEP 3

From your mobile device, select the AP1 Wi-Fi name. It will start with AP1****. The Wi-Fi password is the last 8 digits of your IMEI#.



MOBILE APPLICATION USER GUIDE (CONT.)

STEP 5

Tap the Adjust Settings/Preferences button to open the Settings page. Make setting adjustments as needed.



STEP 6

When you are finished adjusting the settings, navigate back to the Main Menu and tap the Upload Settings to Camera button. When prompted, confirm by tapping the YES button. If the upload was successful, you'll see a prompt that confirms the upload. Tap the OK button. The camera will apply the new settings and then reboot.



TECHNICAL SUPPORT AND WARRANTY

TECHNICAL SUPPORT

For technical support, please contact your local distributor or visit **support.smartwitness.com**.

LIMITED WARRANTY

This product is supplied with a 2-year warranty. The warranty excludes products that have been misused (including accidental damage) and damage caused by normal wear and tear. In the unlikely event that you encounter a problem with this product, it should be returned to the place of purchase.

SAFETY ADVICE & FCC

FCC Part 15.19

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Part 15.21

Any changes or modifications (including the antennas) to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF Radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



Please make sure you follow the safety advice/instructions given in the user guide.

Please make sure you follow the safety advice/instructions given in the user guide.

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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CAUTION: Install the product where it does not block driver's visibility and where there is no airbag installed. This could cause an accident or might injure passengers in case of accident.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS. Battery for RTC (Real Time Clock) inside.

CAUTION: Damages due to production malfunction, loss of data, or other damages occurring while using this product shall not be the responsibility of the manufacturer. Although the product is a device used for recording videos, the product may not save all videos in the case of a malfunction. In the case of an accident, the sensor may not recognize the shock when the impact is light and as a result it may not begin recording automatically.



