



# **CP2-LTE**

**2 Channel HD Recorder**



**Version 1.0**

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# CP2-NA-LTE

## 2 Channel HD Recorder



## Installation Guide

### MODEL: CP2-NA-LTE

### Version: 1.0

### Warning

SmartWitness installations should be performed by a qualified individual or installation professional only. Working with a vehicle's power system can be dangerous to both you and your vehicle. This installation is intended only to be a guide since vehicle designs and power/input sources can vary significantly from vehicle to vehicle.

If you need to schedule a professional installation service in the USA for your SmartWitness device(s), please visit [smartwitness.com/scheduleinstall](https://smartwitness.com/scheduleinstall) and submit the online form.

**All cellular-enabled CP2 devices must use the installation wizard for proper onboarding and activation,** please visit [install.smartwitness.com](https://install.smartwitness.com) to register, login, and use the SmartInstall wizard.

## Safety Alert

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### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



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

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



### Caution

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



### 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

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.



### Warning

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

## Introduction

The SmartWitness CP2-LTE is the world's most advanced incident camera with powerful LTE video transmission, built-in GPS tracking and drive data. CP2-LTE will record exactly what happened before, during and after an incident. It does this by recording the following information: Drivers view of the road, Vehicle Location, Impact Force of Accident, Audio, and Driving Style (speed, acceleration, braking, and steering). This evidence can protect a driver from many of the issues faced on the roads today: Insurance fraud, Staged Accidents, False/Exaggerated Whiplash Claims, Conflicting Reports of Actual Events, Driving Offence Allegations (speeding, traffic signal violations, swerving, etc.).

When a SIM card is inserted, CP2-LTE is able to send video and driving data via a cellular network (T-Mobile or AT&T in USA, Bell or Rogers in Canada). North American customers can use the CP2-LTE to transmit safety critical video directly to a server (SmartWitness server software required), or integrate with Telematics Software (Please contact us for a list of compatible telematics software). CP2-LTE can also be used as a stand-alone system utilizing only the SD cards to review video and data with SmartWitness' free PC analysis software.










## Recording

- View 170° Wide Angle Lens
- Record Full HD 1920x1080 (720p and VGA also supported)
- Record 30 frames per second (FPS is adjustable)
- Record dual mode (Continuous + Event)
- Connect directly to vehicle ignition power, automated operation
- Tamper-Resistant Design, secure cover encloses SD card and SIM card
- Built-in G-Shock Sensor and Gyro (adjustable sensitivity)
- Built-in temperature monitor and intelligence in high-temp environments
- Delay power shutdown feature enables recording for up to 24 hours after ignition off
- Integrated LTE/3G Cellular Modem (2FF SIM size)

## Playback and Analysis

- Mac & PC Analysis Software Included
- Compatible with **SmartMail**, **SmartView**, and **SmartGuard** Solutions
- Compatible with SmartWitness **SmartAPI** for AVL/Telematics Integration (RESTful/JSON API)
- Real-time notification of events and images during road incidents
- Live tracking location and live streaming video available
- Google maps integration for route tracking
- Filter data search by time/date, event, vehicle speed, G-Force level, save/print event reports
- MP4 conversion tool and data is watermarked
- Privacy masking feature for blurring out faces or license plate numbers.
- Advanced driver behavior analysis and reporting software
- OTA software & firmware updates.

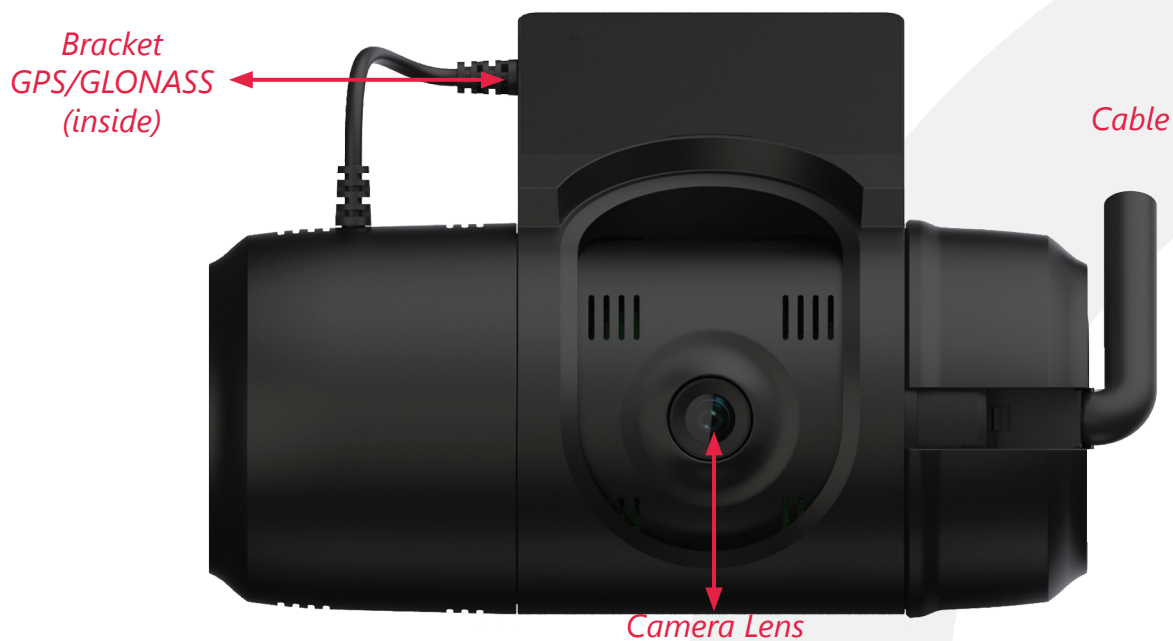
## Package Contents

Product Name	Image
<p><b>CP2-LTE Vehicle Recorder</b> SD and SIM cards pre-inserted (If applicable)</p>	
<p><b>Power Adapter</b></p>	
<p><b>Locking SD/SIM Cover (x1)</b></p>	
<p><b>Keys (x2)</b></p>	
<p><b>3M VHB Pads (x2)</b> (Double sided adhesive for Windshield mounting)</p>	
<p><b>Alcohol Prep Pads (2)</b></p>	
<p><b>Wiring Harness</b></p>	
<p><b>Power Cable</b></p>	
<p><b>Cord Zip Ties</b></p>	

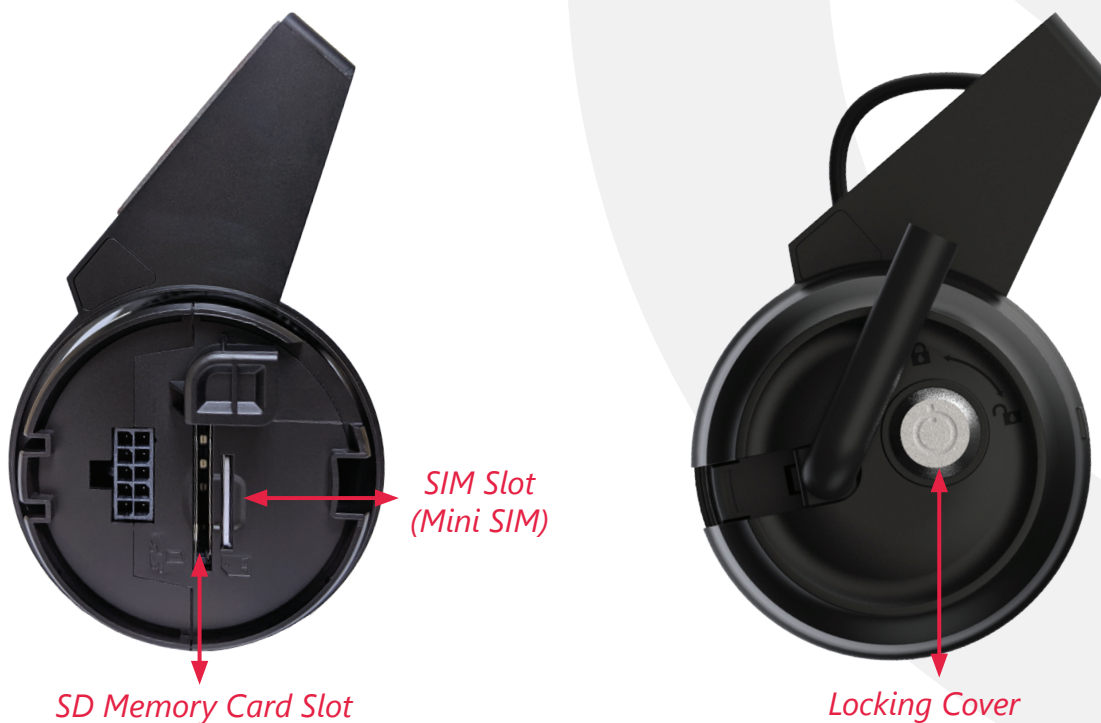
## Hardware Overview

Watch the SmartWitness CP2-LTE - 360° Hardware Overview [here](#).

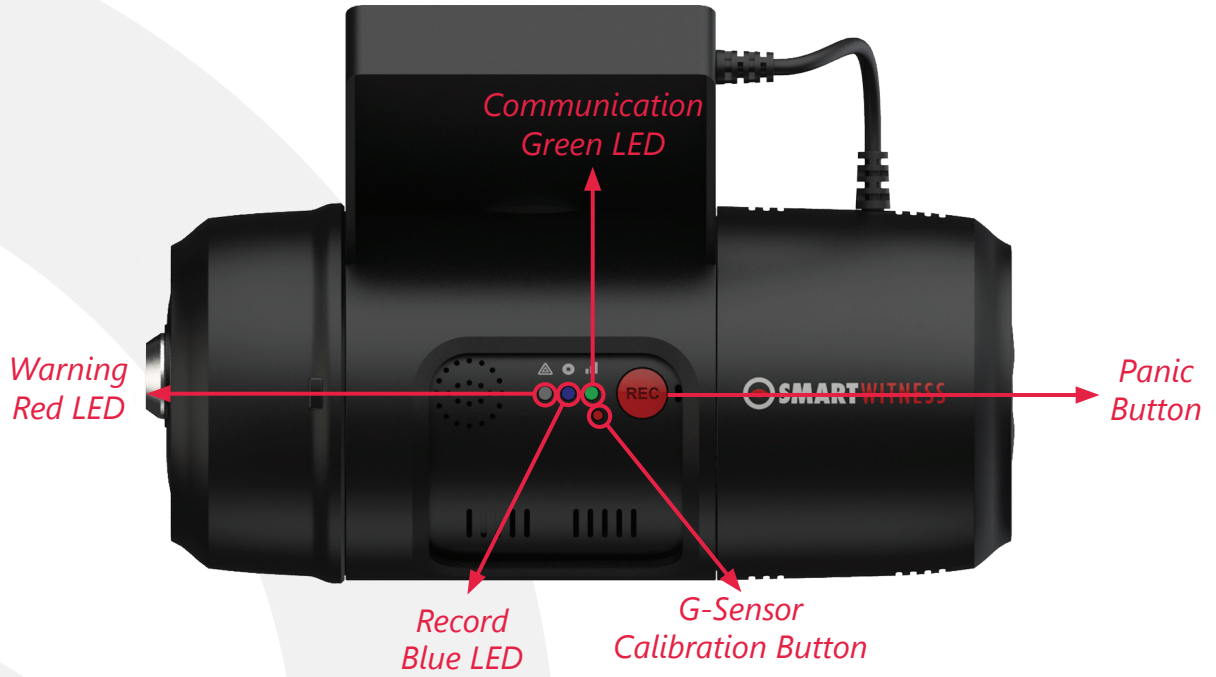
### Front View



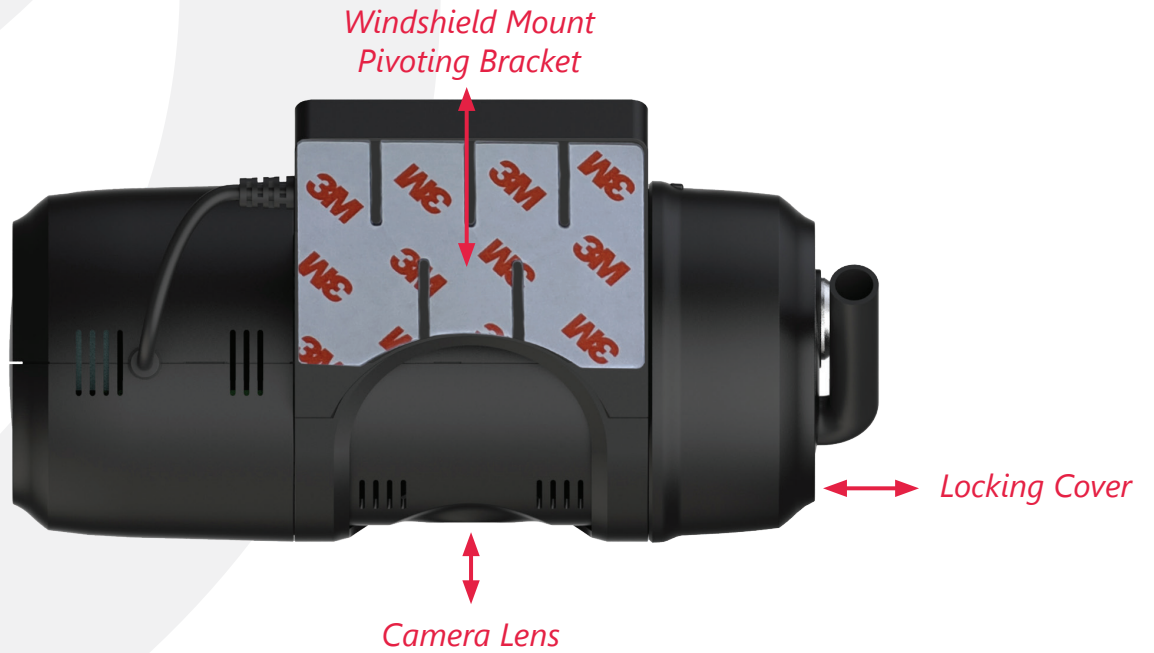
### Left Side View



### Driver-Facing View



### Top View





# Installation

## First Steps

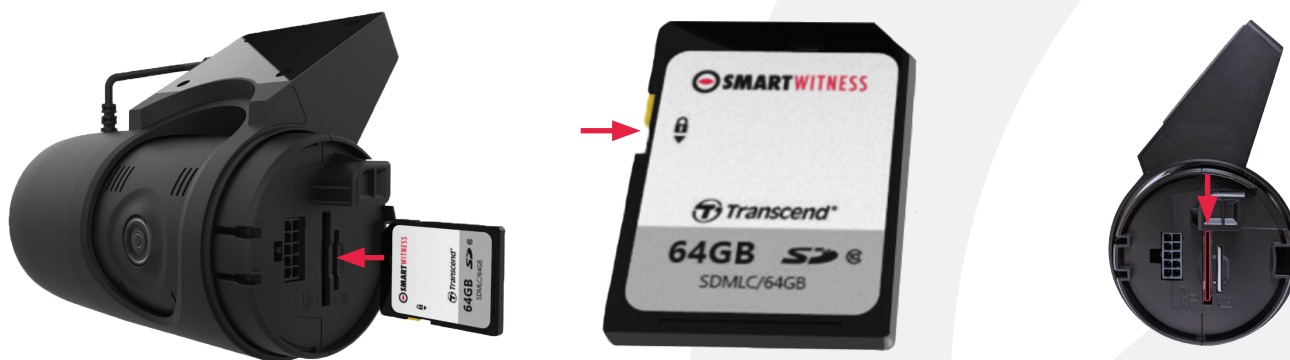


Note: Step 1 and 2 is applicable only if customer did not order the SIM and SD from SmartWitness

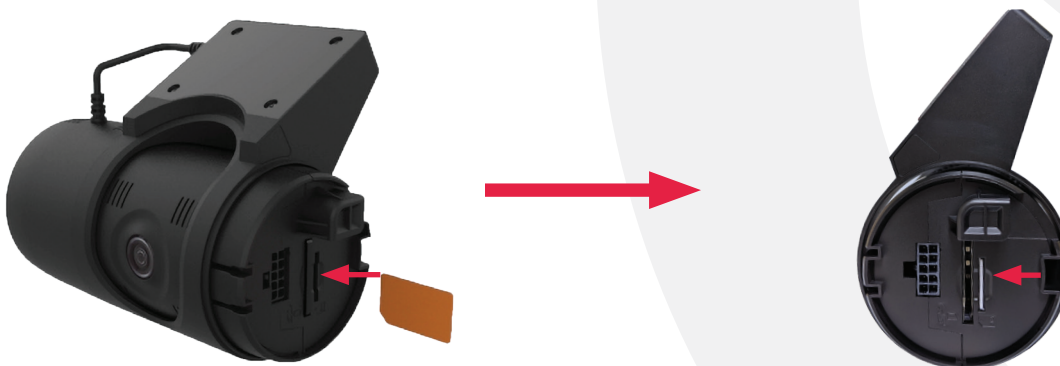


**IMPORTANT:** The unit's power must be OFF to insert and/or remove SD and SIM cards. Failure to turn the power off will result in damaging the cards.

1. The SD card and SIM is usually pre-inserted. If it's not, turn power to the unit off. Then insert card(s) in the unit, as shown below. Make sure the yellow SD lock is set in the "unlocked position"



2. Then insert the provided SIM card into the second, smaller slot as seen below



3. After inserting the SD & SIM cards, attach the side cover plate as seen below. Use the key provided to secure the side cover plate to the CP2-LTE:





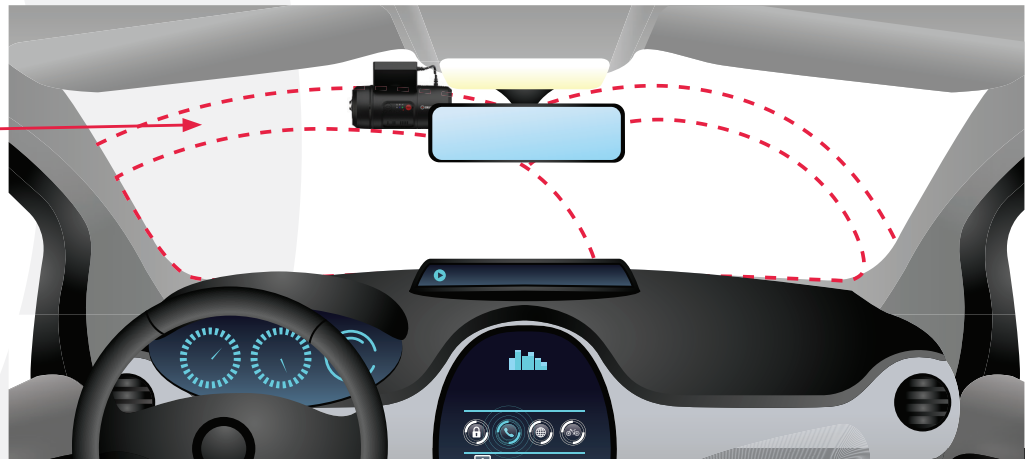
*Note: Make sure that the glass is clean and dry before attaching. The glass temperature should not be too hot or cold. Please install in moderate temperature (recommended between 50°F ~ 80°F). To learn more about proper camera installation and application guidelines, click [here](#).*

4. Peel the cover paper from the 3M adhesive on the CP2-LTE top. Mount the fully assembled unit to the windshield. Holding the camera in position with firm pressure for 30 seconds.

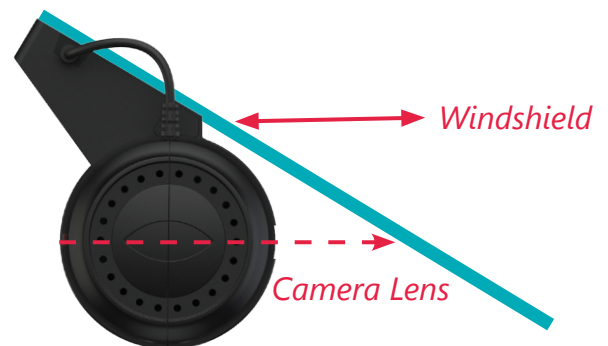


5. Secure the CP2-LTE to the windscreen behind the rear view mirror, below the AS1 line. The camera lens should be as high on the windshield as possible, but still within the windshield wiper zone. If installing CP2-LTE into a truck, FMCSA mandates that the camera portion of the device should reside in the top 2 inches of the vehicle wiper sweep.

*The camera lens should be in the top 2" of windshield wiper zone for optimal placement.*



6. To adjust the camera angle, you can use the key to unlock and remove the cover plate. Pull or slide the camera unit to the right of the bracket and rotate to the desired angle. The SmartWitness logo is parallel to the camera lens. It can be used to rotate the camera lens into proper position as shown below.





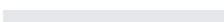




- When the angle is set, slide the unit to the left, locking the angle of the camera to the windshield bracket. Connect the power cable before replacing the cover (see "Power Adapter and Wiring").

## Power Adapter and Wiring

- To connect the CP2-LTE lead cable to the power adapter (INT1-T), lining up the arrows on the silver cable connectors and then push together. The power adapter switch can be turned to the "ON" position.



- After connecting the power cable to the CP2-LTE power lead, lay out the power cable roughly where it will run once hidden behind the vehicle's interior panels. This gives you an idea of where to route the cable and how much slack to leave on the way down to the vehicle's power source.
- Secure the power cable extension into the headliner and down the A-Pillar. Route the power cable around the side and behind the rest of the interior panels down towards the fuse box / power source. Make sure the vehicle is off. Connect the 3 required wires from the wire harness to the vehicle, shown below in the diagram.

Red		Power (BAT+)
Black		Ground (BAT-)
White		Ignition (IGN+)
Orange		Alarm In, (V)
Green		Alarm In, NC/NO(+)
Yellow		Alarm Out 1
Black		Alarm In , NC/NO(-)

Required  
Optional

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

**OPTIONAL:** Remote switch installation (your CP2-LTE may not include this accessory).

Alarm In NC/NO (+)



Alarm In, NC/NO (-)



Model: SW-PB

SW-PB Power

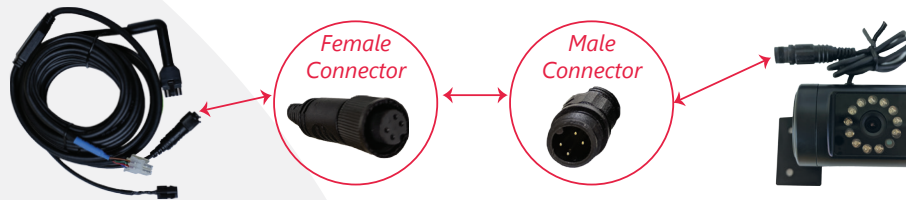


SW-PB Ground



## Secondary Camera Connection

A optional secondary camera can also be added to the CP2-LTE via Channel 2 input. The CP2-LTE is equipped with a simple plug & play connection. Simply connect the male end connector of the into the female end input on the CP2-LTE and mount the camera to the customer-specified location in the vehicle. The most common installation of the secondary camera is inside the main cabin and facing the driver.



## Completion & Power-up

After installation of the CP2-LTE and accessories into the vehicle you can turn on the ignition and CP2-LTE recorder will power on.

1. There will be a sequence of **red**, **blue** & **green** LED lights during the boot-up process.
2. Once boot-up is complete, there will be a solid **blue** light. This means proper operation and recording. Shortly after, the **green** light should become steady, indicating connectivity. If **blue** and **green** LEDs are not both solid after 5 minutes, there is an error, please see "LED Status" on page 14 or contact your supplier or visit [support.smartwitness.com](http://support.smartwitness.com) to create a support ticket.
3. After the camera has been booted completely, press the G-Sensor calibration button once (small red button to the left of the panic button). The vehicle should be parked and on a flat surface when pressing the G-Sensor Calibrate button.
4. There will be a beep and the CP2-LTE LED light will blink briefly to indicate the G-Sensor calibration has registered.
5. All cellular-enabled SmartWitness recorders must use the installation wizard for proper onboarding and activation. Please visit [install.smartwitness.com](http://install.smartwitness.com) to login to launch the **SmartInstall** wizard in order to validate and generate the installation report. For installation support please email [install@smartwitness.net](mailto:install@smartwitness.net)



*G-Sensor Calibration*



**NOTE:** You must first go through mandatory training with SmartWitness to access [install.smartwitness.com](http://install.smartwitness.com). Once you complete the training (about a 30-minute webinar), you will be provided login credentials. To schedule training, please complete the [online form](http://smartwitness.com/become-installer) at ([smartwitness.com/become-installer](http://smartwitness.com/become-installer))

6. Give the provided keys, extra parts and a copy of the installation report to the fleet owner/administrator. Also forward the email you received from the **SmartInstall** wizard to the customer.

# Troubleshooting

## 1. The CP2-LTE has a solid **red** light on as well as solid **green** and **blue**.

- Solid **red** LED indicates that the 2<sup>nd</sup> camera is not receiving video signal.
  - » Please check the camera's connection.

## 2. The CP2-LTE **blue** light is solid but the **green** LED is blinking or off.

- Remove, swipe clean, re-insert the SIM card and verify the SIM is inserted correctly.
- If CP2-LTE **green** LED is still blinking, it may be a camera configuration issue or server issue. Please contact SmartWitness.



## 3. The CP2-LTE **red** LED is blinking

- There is an SD card error/corruption. Please replace/repair the SD card after contacting SmartWitness Support for instructions at [support.smartwitness.com](http://support.smartwitness.com).

## 4. The CP2-LTE **red** LED is solid

- There may not be enough voltage/amperage. Check the power source or the ground connection may be bad.

## LED Status

Status / Step		LED			Sound		
		Warning	Record	Network			
		<b>Red</b>	<b>Blue</b>	<b>Green</b>			
							
Startup	Bootling step1	On	Off	Off			
	Bootling step 2	On	On and Off	Off			
	Bootling step 3	On	On	On and Off			
	Bootling finished	On	On	On	Beep No. 2		
Power Off	During power off	Off	Fast Simultaneous On and Off				
	Power off finished	Off	Off	Off			
Record	Continuous Record	Recording	On				
	Event Record	Stand By	On				
		Recording		Fast On and Off			
	Dual Record	Continuous Recording		On			
		Event Recording		Fast On and Off			
No Record	Not Recorded		Off				
Communication	3G Network Device Ready			On			
	Communication			On			
Function	SD Initialize (format)		Off	Sequence On and Off		Continuous Beep No. 2	
	G-Sensor Calibration					Beep No. 2	
	FW Upgrade			Double Sequence On and Off			
Warning	System Warning	SD card full	Flashing (blink rate: fast)	Off		Beep No. 3	
		Video loss	On				
Error	Record Error	SD error, No SD, Write Fail	Slow On and Off	Off		Beep No.3	
	Communication Error	3G Network device error, SIM error			Off		
		Data Network connection error				Slow On and Off	
		DMS communicate error				Slow On and Off	
Event Trigger	G-Sensor, Panic Button, Alarm-In					Beep No. 1	
	Over Speed					Beep No. 4 (2 times)	





SmartWitness is a world leading designer, manufacturer, and supplier of in-vehicle cameras, recorders, and software. Our lineup of IOT dash cameras and accompanying REST API have allowed SmartWitness' video and data to be seamlessly integrated with GPS tracking, telematics and fleet management software, ushering in the new era of Video Telematics. Our industry-leading safety technology has produced exceptional results for our clients and solutions which undeniably redefine the way vehicle risk is analyzed.



### **Video Evidence Capture**

High-Resolution cameras capture images of the road, inside and outside the vehicles' sides and rear views.



### **GPS Location Recorded**

Built-in GPS/Glonass provides precise event location, route, vehicle speed and direction.



### **Network Connected**

Cellular connectivity provides real-time images, live-location, and on-demand HD video upload.



### **Events & Driver Analyzed**

Detailed telemetry data enables accurate scoring for the purpose of driver coaching and reducing claims.

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