SMARTWITNESS

CP2-NA-LTE
Video Telematics Camera

USER GUIDE
v1.0

WARNING: SmartWitness installations should be performed by a qualified indivi dual 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/request-install and submit the online form.

INDEX

SAFETY ADVICE

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

**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.

⚠ 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
**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.**

GPS RECEPTION

1. Activate the product in an area without large buildings to improve GPS reception.

The commercial purpose GPS has the average range error of more than 15 meters and the range error could be more than 100 meters due to environmental conditions like buildings, roadside trees etc.

2. The temperature range for optimum operation of the GPS receiver in your car is -10 ~ 50°C.

3. 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.

It may take between five and thirty minutes to get GPS reception.

GPS reception may be impaired under the following circumstances

1) If there is an object at the end of the GPS antenna

2) If your vehicle has metallic elements on the windshields

3) If equipment generating electromagnetic waves that interfere with the GPS signal is installed in the vehicle e.g.: Other GPS devices such as a certain type of wireless activated alarms, MP3 and CD players and camera alarms using GPS.

4) If you are using a receiver connected by cable, electric interference can be avoided by simply changing the location of the receiver (antenna).

5) On heavily overcast or cloudy days, if the vehicle is in a covered location such as under a bridge or raised roadway, in a tunnel, an underground roadway or parking area, inside a building or surrounded by high-rise buildings.

6) 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.
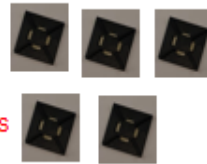
CONTENTS

CP2
Vehicle Recorder

Sticker for Windscreen mounting
(One adhered to bracket, one extra pc)

Power Cable

Alcohol Prep pad (x2)
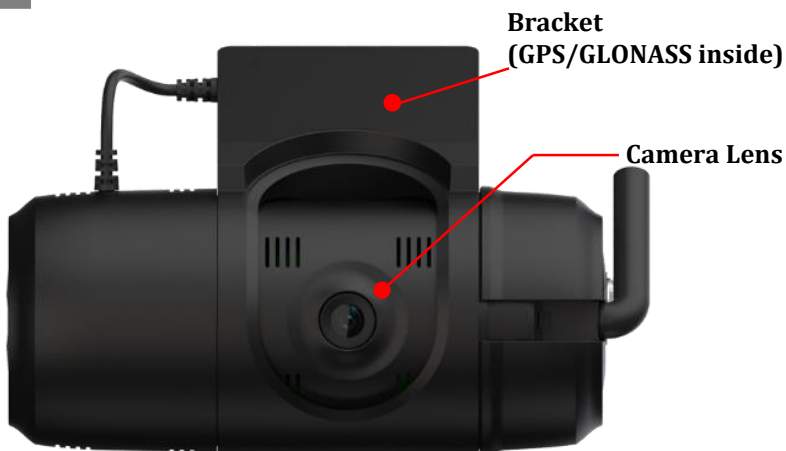
5pcs

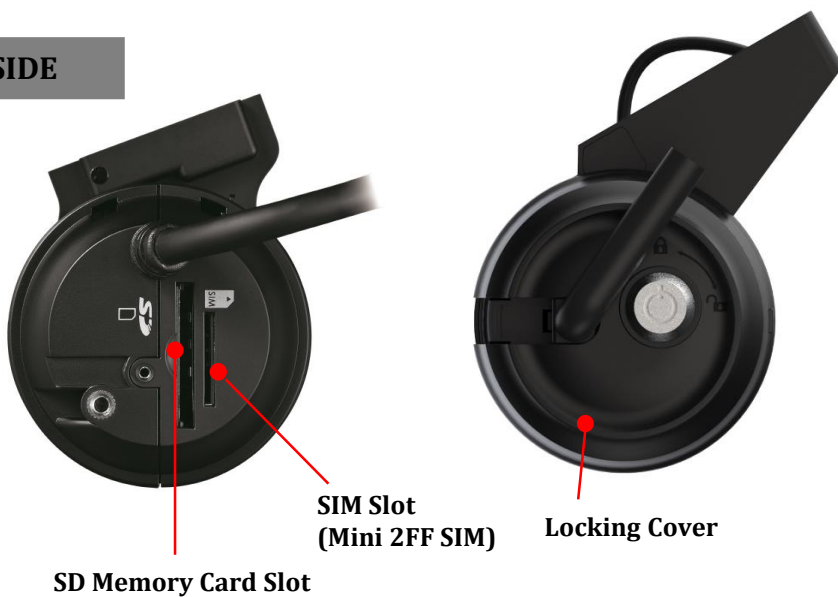**Square cable adhesives (x5)**
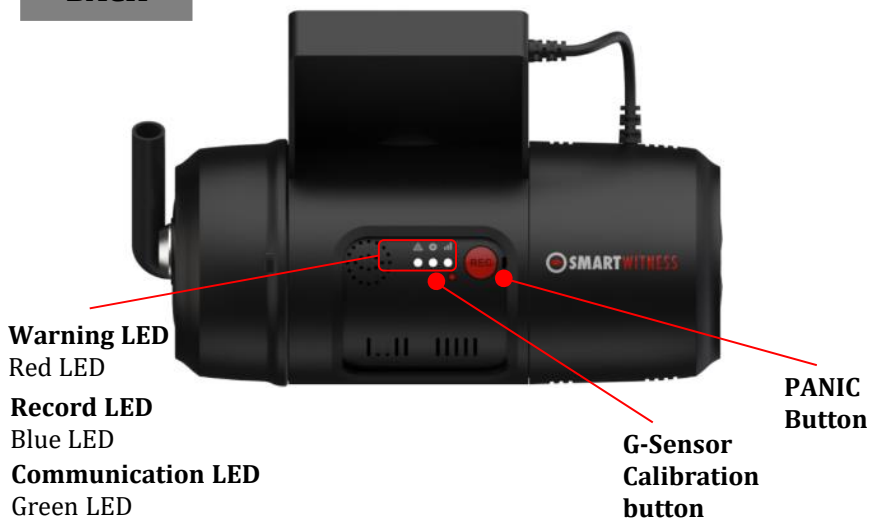
5pcs

Black zip ties (x5)

Keys (x1)

INTRODUCTION

FRONT

Bracket
(GPS/GLONASS inside)

Camera Lens

SIDE

SIM Slot
(Mini 2FF SIM)

Locking Cover

SD Memory Card Slot

INTRODUCTION

BACK

Warning LED
Red LED

Record LED
Blue LED

Communication LED
Green LED

G-Sensor Calibration button

PANIC Button

INTRODUCTION

POWER ADAPTOR

POWER CABLE

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

— **Black (Ground)**

— **Red (Power Battery +)**

— **White (Power IGN +)**

— **Green (Alarm In, NC/NO), (External panic button+)**

— **Black (Ground), (External panic button-)**

— **Orange (Alarm In, Voltage on/off (3~70V))**

— **Yellow (Alarm out), Low(0V) to High (5V)**

External Panic Button (optional Item)

Cable length: 2m90cm
Button Case Size: 18 x39x10 mm

FUNCTIONS

Automatic Booting

Once the CP2 has been wired to your car power source the CP2 will be boot up, this will take around 1 minute for the unit to be ready to record.

The default setting for record is the continuous recording at 10fps, 720P resolution. On this setting the SD card storage may be used up quicker and depending on the settings, overwrite or stop recording when full. To avoid losing valuable data, back up data to a separate storage or PC device after any incidents.

NOTE: The unit will not start recording immediately after power on. It takes around 1 minute for the built-in power backup system to charge. Thereafter, the internal flash memory will be ready to record.

Continuous Record (When Record mode set as "Continuous")

This is the default mode for recording. In this setting the unit will begin recording after boot up and record the entire time the unit is powered.
The resolution and frame rates can be set as per your requirements. You can change the configuration of the recording using the CP2 Software. To do this, please see the 'Settings' section on page 16.

Event Record (When Record mode set as "Event")

The unit will record when triggered by either an impact or a push of the 'PANIC' button. Each event file contains up to 20 seconds prior & up to 20 seconds post event. And the event file can be extended by 2nd trigger during event record.
When events are triggered continuously, for every event, 20 seconds post-recording from the time of the event will be added to the event data file with a maximum recording time of 3 minutes. When this 3 minutes is reached, the file will be split and a new file will be created but the data will be continuous.

Dual Record (Continuous & Event Record)

The continuous record fps is 1fps and the file will be stored on the "Normal" folder. Event record will work according to the Fps setting for example 30frames per second recording and the file will be stored on the "Event" folder

Drive Data (DRV file)

The DRV (Drive Data) file will be recorded during driving even if there are no events or video. The DRV file consists of GPS and G-sensor data and it helps to find specific data or driving behaviors. The DRV file overwrites the oldest data. The DVR files will be made every 10 minutes.

FUNCTIONS

G-Sensor Calibration

G-Sensor Calibration is needed after installing the CP2.

1.   Install the unit and park the vehicle on a flat surface .
2.   Turn on the unit and press the small red button three seconds.
3.   Then calibration will be done with "beep" sound.

Built-in power backup (Super Capacitor)

When power to the unit is interrupted, CP2 creates the last
file using the internal Super Capacitor.

Time and Date

There are no time and date settings as the CP2 get's this information from the GPS
satellite's.

SD Memory Card Format

Please format [initialize] the SD card using the "Configuration Tool CP2" software.

Safely Removing the SD Card

Power off vehicle and take out SD memory card

 Turn off the power and then check the BLUE LED light. Once the LED light
 is OFF, you can safely remove the SD memory card.

RED LED (Warning), BLUE LED (Record), GREEN LED (Communication)

Status/Step			Warning (Red) ⚠	Record (Blue) ○	Communication (Green) ▮	Sound
Start-up & Power off	Booting step1		On	Off	Off	
	Booting step2		On	On and Off	Off	
	Booting step3		On	On	On and Off	
	Booting finished		On	On	On	Beep No.2
	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	No recording		Off		
Communication	3G Network Device Ready				On	
	Communication				On	
Function	SD Format		Off	Sequence On and Off		Continuously Beep No. 2
	G-Sensor Calibration					Beep No. 2
	FW Upgrade			Double Sequence On and Off		
Warning	System Warning	SD Card Full	Fast On and Off	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 Communication error			Slow On and Off	
Event Trigger	G-Sensor, Panic button, Alarm-In					Beep No. 1
	Over Speed					Beep No.4 (2times)

INSTALLATION

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If you need to schedule a professional installation service in the North America, please smartwitness.com/request-install and submit the online form.

**Installation Guides can be viewed/downloaded at:
install.smartwitness.com**

CONFIGURATION TOOL USER GUIDE

Configuration Tool CP2 Software

PC SYSTEM REQUIREMENT

Recommended PC specifications for Configuration Tool Software

OS	Windows 7/8/8.1/10
CPU	Core 2 Duo 2.5GHz or Higher
RAM	2GB or Higher
Interface	SD Memory Card Reader
HDD Free space	Install : 55MB or Higher Backup : 4GB or Higher
Display	1024 x 768 pixel/True Color or higher

If the PC does not meet the minimum system requirement, the Configuration Tool Software may not function properly.

SOFTWARE INSTALLATION

The CP2 Configuration Tool Software is on the provided SD card. (Also available on our website: support.smartwitness.com)

1. Connect the SD card into your PC (if your computer does not have and SD card slot use the USB SD card reader) and open the "My Computer"

2. Right-click the "FHDRM" drive and select [Open]

3. Double click [configtool.EXE] in the [pcsw] folder.

4. Select the language and then follow the dialog box prompts.
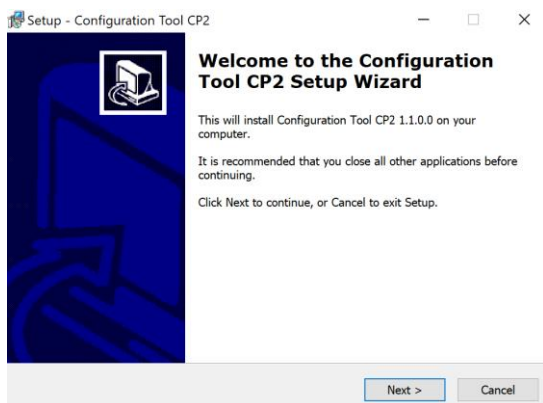
5. The CP2 Config Tool icon will be displayed on your desktop.
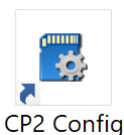
CP2 Config

NOTE: To Un-install the CP2 Configuration Tool Software
Make sure the program is not running and open the 'Control Panel'
Select 'Remove Program' and remove the CP2 Configuration Tool Software.

INITIALIZE SD CARD

Initialize SD Card

This icon is located at the bottom of the configuration tool software.

To initialize the SD card quickly, click on the above icon and you will be presented with the following screen to choose the SD card to initialize. Click 'OK' when selected.

Browse for Files or Folders

Select SD Card Drive

F:\

- Network
- Libraries
- Hank-US
- Image Catalog
- Computer
  - Local Disk (C:)
  - Recovery (D:)
  - BD-ROM Drive (E:)
  - FHDRM (F:)
- Apps

OK   Cancel

On the following screen, check the 'Quick Format' button and check options and Click 'Start' to begin initialization.

Initialize SD Card

Drive : E

File System : FAT32

☑ Quick Format

☑ Keep current configuration files
☐ Do not copy configuration files
☐ Copy the PCViewer setup file

Start   Cancel   Close
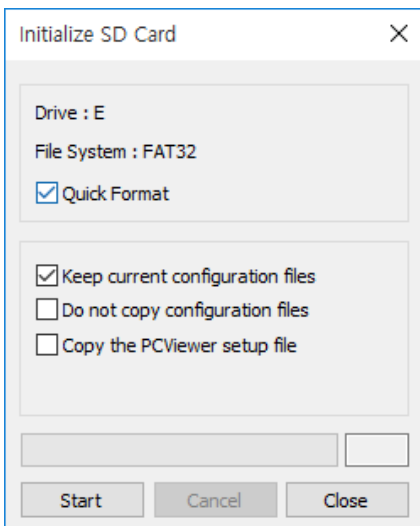
Options
- Keep current configuration files
  (Use setting.ini file from SD after Initialize SD card)
- Do not copy configuration files
  (There is no setting.ini file at config folder after Initialize SD card)
- Copy the PCViewer setup file
  (copy setup.exe file into software folder)

DEVICE SETTINGS
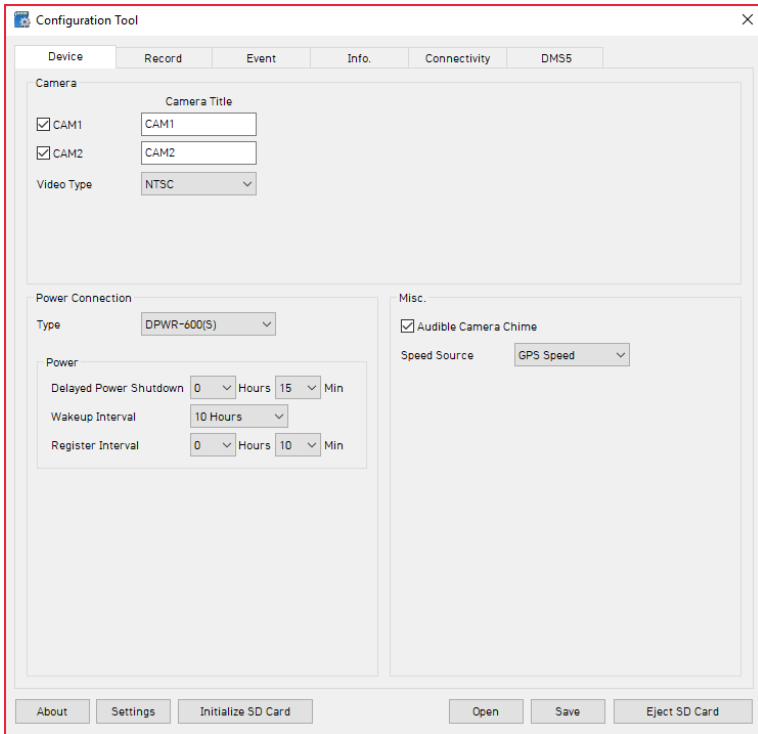
Camera check box
Check all the cameras you wish to use.
Video Type: Set the video type for 2nd camera and external monitor "NTSC or PAL"
Cam Title
Use the alphabet and numbers to rename (max 10 digits) the cameras. The new names will be displayed on the live screen and all recordings.
Connection Type : Set the power supply type. Default power supply is DPWR-600.
Delayed Power Shutdown: Set delayed power shutdown time.
Audible Camera Chime: Turn the Chime on or off
Speed Source: Set a speed when you use Junction box as a power supply.

RECORD SETTINGS

Device	Record	Event	System	Network	DMS5

Channel

	Resolution	NTSC FPS	Quality
CH1	HD	10	Standard
CH2	D1	10	Standard

Resolution
CH1: VGA (640x480), HD (1280x720), FHD (1920x1080)
CH2: NTSC D1 (720x480), PAL D1 (720x576)
Frame Rate
CH1 only: Adjust the frame rate from 30fps, 15fps, 10fps, 5~1fps
When you use 2 Channel (NTSC)
> CH1: FHD 15fps, 10fps, 5~1fps
> HD 30fps, 15fps, 10fps, 5~1fps
> VGA 30fps, 15fps, 10fps, 5~1fps
> CH2: 30fps, 15fps, 10fps, 5~1fps

When you use 2 Channel (PAL)
> CH1: FHD 15fps, 10fps, 5~1fps
> HD 30fps, 15fps, 10fps, 5~1fps
> VGA 30fps, 15fps, 10fps, 5~1fps
> CH2: 25fps, 12fps, 10fps, 5~1fps
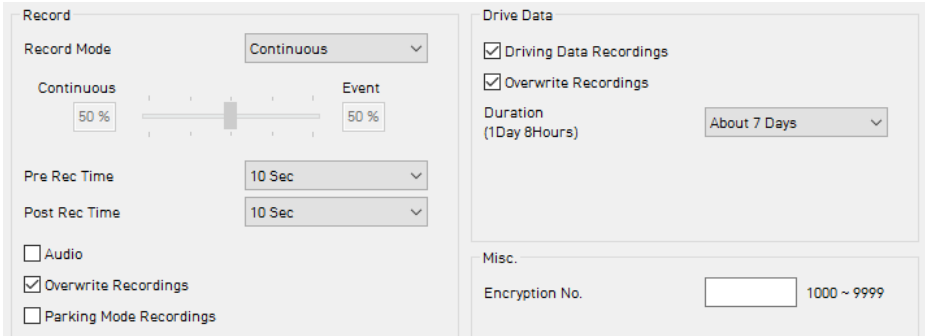
Quality
Adjust the picture quality from Standard, High, Super

Maximum bitrate (Video Quality)

Resolution	FPS	Bitrates (bit/sec)		
		Super	High	Standard
Full HD	30	6Mbps	5Mbps	4Mbps
HD	30	3Mbps	2.5Mbps	2Mbps
D1	30	2Mbps	1.5Mbps	1Mbps

RECORD SETTINGS

Record Mode
- Continuous (Always recording when powered by DC 12/24V.)
- Event (Automatically starts recording by G-sensor or Panic button or Alarm In.)
- Dual (The continuous record fps is 1fps and Event record will work according to the Fps setting.)
- Do not record

Pre Rec Time / Post Rec Time
Adjust the Pre/Post Event time from 5 seconds to 20seconds

Audio: Check it for record audio

Overwrite Recordings
This function allows the unit to overwrite old files on the SD Card automatically.
You can overwrite the continuous, panic or G-Sensor recorded files.

Parking Mode Recordings
If your vehicle is parked for more than 5 minutes, recording FPS will be at 1fps.
When the vehicle starts moving again, the recording FPS will return to its original setting.

Drive Data
GPS data & G-Sensor data will be recorded with videos and at the same time, GPS data & G-Sensor data will be recorded separately, we call it as 'Drive data (DRV file)'. Check 'Driving Data Recordings' for this feature.
Adjust Drive Data duration from "8 Hours" to "240 Hours".

Encryption No. (Stream password)
An Additional password can be set for the recorded data using a 4 digit password from 1000~9999. If a password is set, keep a record in a safe place, Without the password, you will not be able to view the recorded video.

EVENT SETTINGS

Event settings
You can set the unit to record when triggered by the G-Sensor, Panic Button and GPS Speed Limit and Alarm Inputs.
And you can set the Alarm out duration per each event.
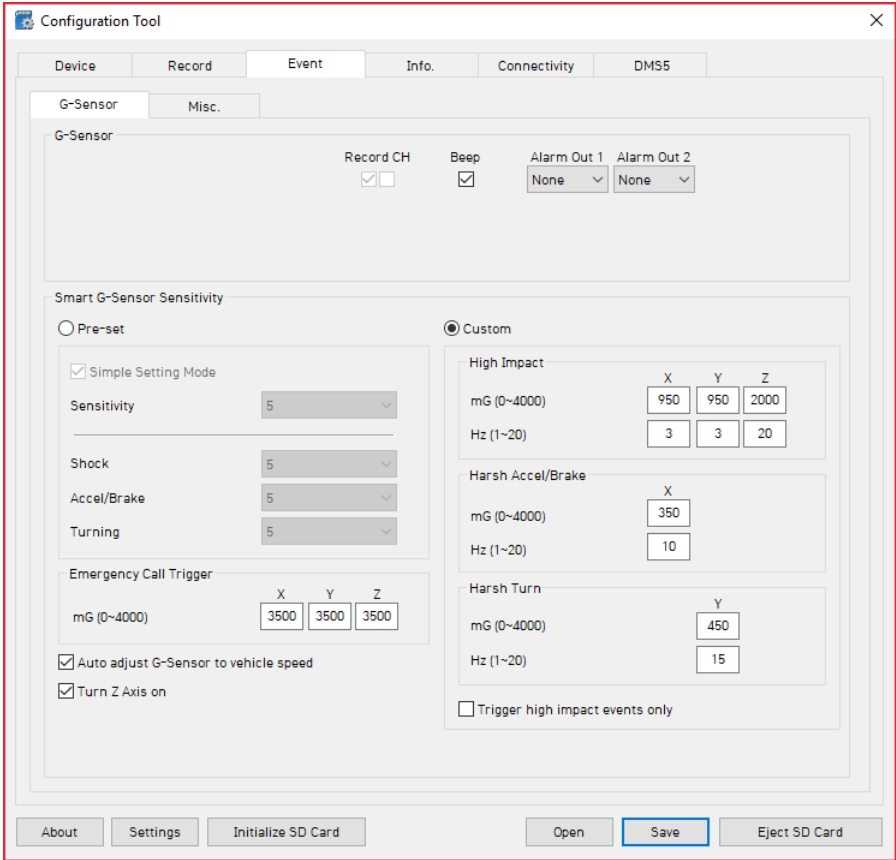
G-Sensor Sensitivity: The shock sensor sensitivity can be set to 'Simple setting Mode' or 'Custom'. Set to easy allows you to set the sensitivity to 9 (High), 5 (Medium) or 1 (Low).
In custom set, you can set 3 different shock sensor values individually.
Auto adjust G-Sensor to vehicle speed
Once it checked, CP2 will automatically decrease the G-Sensor sensitivity at higher vehicle speeds to compensate for the naturally added G-forces that are experienced due to velocity.

EVENT SETTINGS

Select record channel

Channel1 (Camera1)

Channel2(Camera2)

Record CH

Over Speed: When the vehicle speed over the speed limit more than 5seconds.

System Warning: SD card error, Video loss, Video Standard error

SYSTEM SETTINGS

This option allows you to adjust the Time Zone, GPS Time synchronization, set your Vehicle No and also the Driver ID.

Device	Record	Event	System	Network	DMS5

Date / Time

Time Zone	UTC		Retrieve time settings from my PC
GPS Time Sync	On Boot		

☐ Daylight Saving Time

Start	Jan.	1st	Sunday	0 o'clock
End	Jan.	1st	Sunday	0 o'clock

☐ Manual Time Setting

2017-07-11   오후 3:22:10

Service

☑ SD Card Auto Format Feature

User Management

Vehicle No	
Driver ID	

SD Card Auto Format Feature: When the SD card has an error and cannot record, the card will be formatted and all data will be erased.

NETWORK SETTINGS

Check 'Enable' to use cellular connection.

Adjust the settings like Dial No., APN, password, User ID, Authentication etc.

Please refer to the cellular service provider for these settings.

Support 10 x AP (Access Point)
SSID: The SSID of any wireless adapters must match the SSID you configure in here. If they do not match, you will not get a wireless connection.
Password: add AP password.
*AP must have a password and must be secure WPA/WPA2

Support only 3G or only Wi-Fi

CP2 doesn't have 3G/Wi-Fi switching function yet.

You must select either Wi-Fi or cellular for networking.

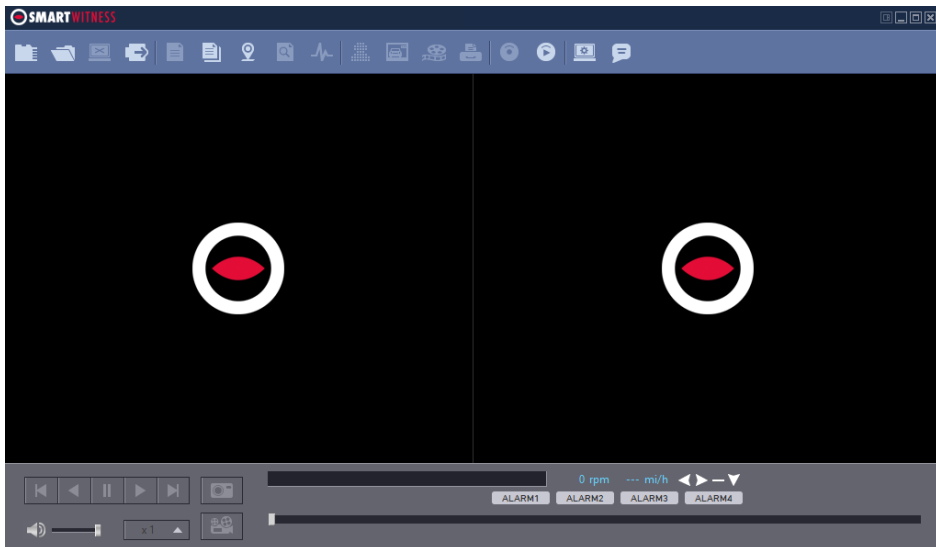# DMS5 SETTINGS

Set Domain/Static IP and Port number

And check the options

- Transmit Live Tracking Data
- Transmit Telematics Data (DRV)
- Transmit Event Data.

And then select events

Please contact your distributor for the correct server settings on this tab.

SOFTWARE USER GUIDE

PC Viewer Software

PC SYSTEM REQUIREMENTS

Recommended PC specifications for PC Viewer Software

OS	Windows 7/8/8.1/10
CPU	Core 2 Duo 2.5GHz or Higher
RAM	2GB or Higher
Interface	SD Memory Card Reader
HDD Free space	Install : 55MB or Higher Backup : 4GB or Higher
Display	1024 x 768 pixel/True Color or higher

If the PC does not meet the minimum system requirement, the PC Viewer Software may not function properly.

SOFTWARE INSTALLATION

The PC Viewer Software is on the provided SD card. (Also available on our website.)

1. Connect the SD card into your PC (if your computer does not have and SD card slot use the USB SD card reader) and open the "My Computer"

2. Right-click the "FHDRM" drive and select [Open]

3. Double click [setup.exe] in the [pcsw] folder.

4. Select the language and then follow the dialog box prompts.
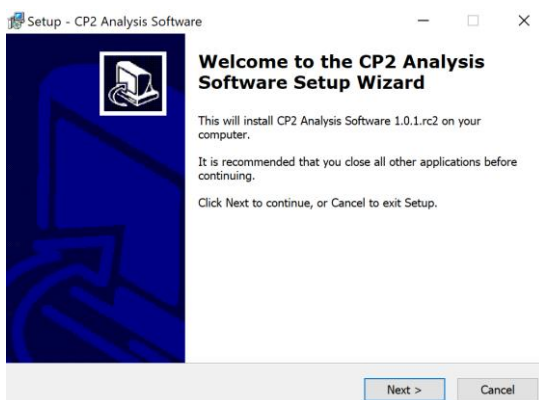
5. The CP2 PC Viewer icon will be displayed on your desktop.

CP2

NOTE: To Un-install the PC Viewer Software
Make sure the program is not running and open the 'Control Panel'
Select 'Remove Program' and remove the PC Viewer Software.

PC VIEWER SOFTWARE SETTINGS

Viewing settings

This setting is for the PC Viewer Software itself. To set the Recorder, refer to page 16.

Click the 'Password' button. Password for the PC Viewer Software can be set with any number between 1000-9999.

The 'speed' & 'date' formats will be set automatically according to the PC Windows setting. However it can be changed with this software setting menu.

Display time: Select time to see. Recorded time by CP2 or your PC local time

Last Layout: The program will launch with the same layout as it was when it was closed.

Default Layout: The program will launch with the Default Layout
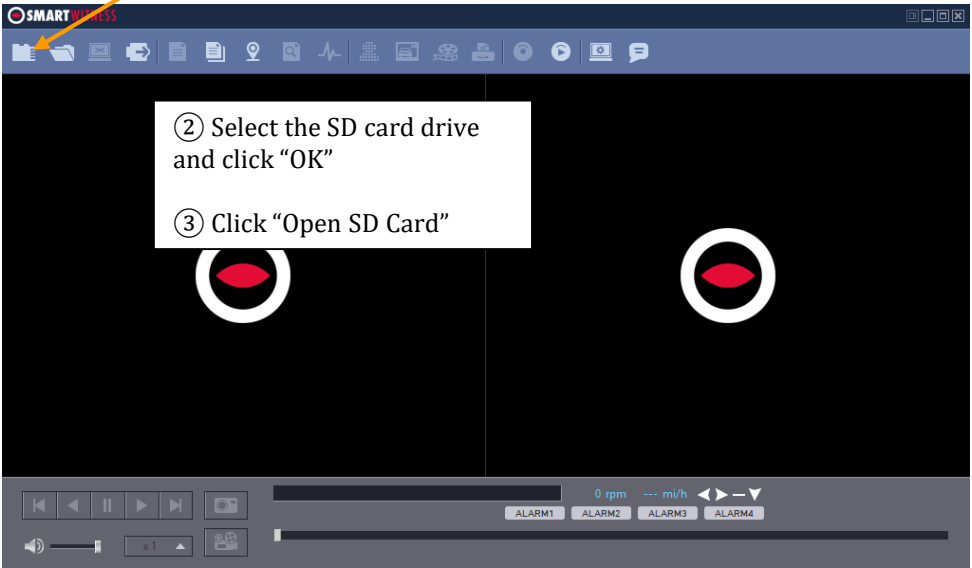
Drive Data Settings

The graph scales for the Drive Data Window will be modified according to the Settings.

OPEN THE SD CARD

Insert the SD card into your PC

① Click "Select SD Card" icon

② Select the SD card drive and click "OK"

③ Click "Open SD Card"

The playback file list and "Continuous" and "Event" tap is displayed on the right side of the screen.

You can hide the playback list by clicking the close icon.

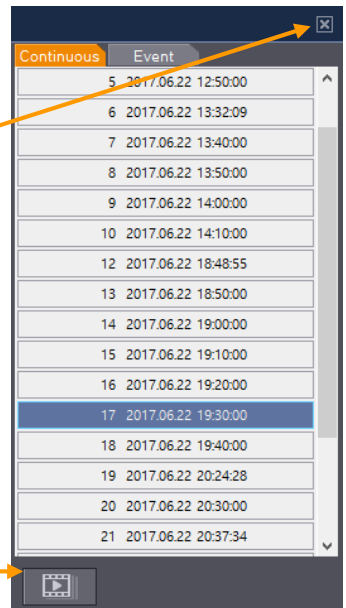The playback list can be displayed on the screen again by clicking the "File List" icon.

"Select SD Card" icon

You can end the video playback by clicking the "Close files" icon.

"Close files" icon

Continuous Play next file.

Continuous	Event
5	2017.06.22 12:50:00
6	2017.06.22 13:32:09
7	2017.06.22 13:40:00
8	2017.06.22 13:50:00
9	2017.06.22 14:00:00
10	2017.06.22 14:10:00
12	2017.06.22 18:48:55
13	2017.06.22 18:50:00
14	2017.06.22 19:00:00
15	2017.06.22 19:10:00
16	2017.06.22 19:20:00
17	2017.06.22 19:30:00
18	2017.06.22 19:40:00
19	2017.06.22 20:24:28
20	2017.06.22 20:30:00
21	2017.06.22 20:37:34

OPEN FILES

If you want to play a specific file that has been backed up on the PC or SD Card, Click the "Open files" icon

"Open files" icon
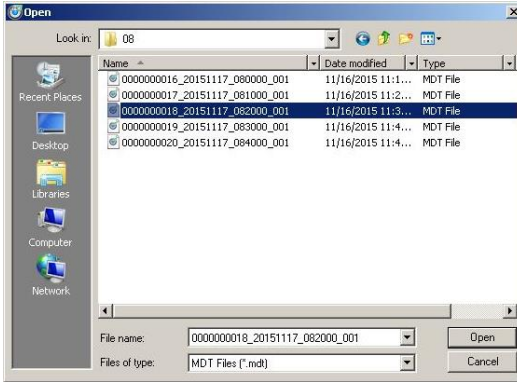
Select the MDT file you want to play and click "Open".
The image of the selected file will then be displayed and you can click the "Play" button to play the file.

"Eject SD Card" icon

When finished, click "Eject SD Card" icon and remove the SD card from your PC.

Or please use "Safely Remove Hardware and Eject Media" button in your PC.

PLAYBACK

Camera title - Resolution

Record Mode

G-Sensor value
Time

GPS Speed
Display Frame / Total frames number

Vehicle No & Driver ID

PLAYBACK

Previous
Image
Reverse
Pause
Play
Next
Image

Capture Screen

Record Video

Volume

Playback Speed Control
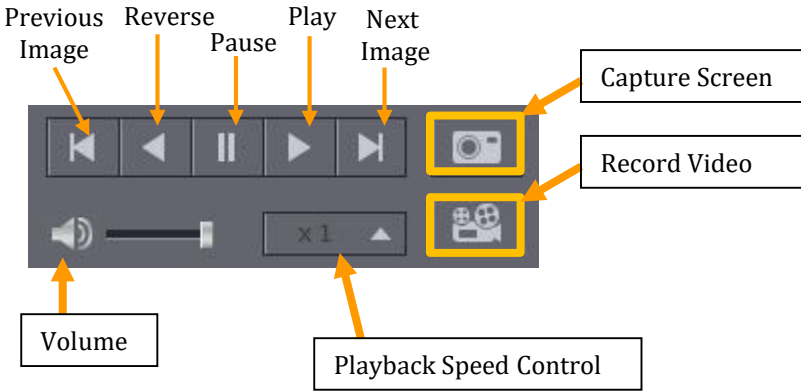
Alarm Indicator

ALARM1   ALARM2   ALARM3

Playback control bar

19:30:00 (00:00)   19:31:14 (01:14)   19:39:59 (09:59)

DRIVE DATA

📄 "Drive Data" icon

The default setting only displays the G-sensor graphs but other information may be added by checking the boxes in the upper part of the screen.
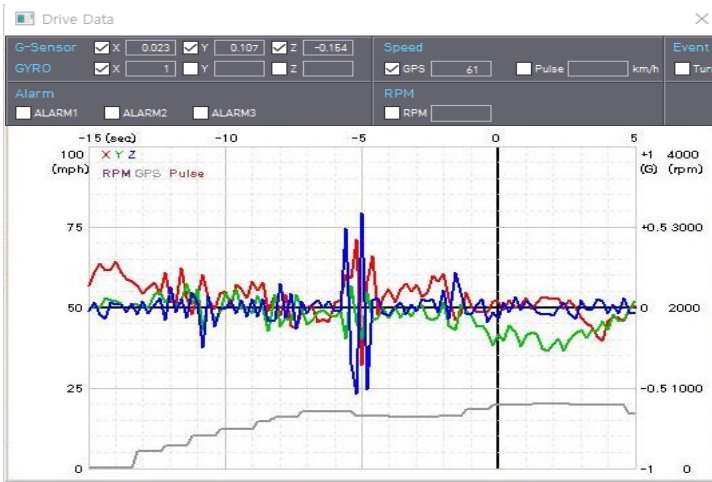
G-Sensor: (X axis: red, Y axis: green, Z axis: blue, based on the positioning of the main unit) is shown with the data reference point zero-point calibrated and positive shocks as (+) and negative shocks as (-).

    G sensor X value: Front & Back (like Quick brake or Quick Start)
    G sensor Y value: Left & Right (like Quick Turn)
    G sensor Z value: Up & Down (like prominence and depression)

GYRO: display the gyro value
Speed: GPS measured speed is displayed in grey. .
RPM: The RPM is displayed in purple.
ALARM: The alarms are displayed on the bottom of the screen with the grey bar meaning the trigger is activated.
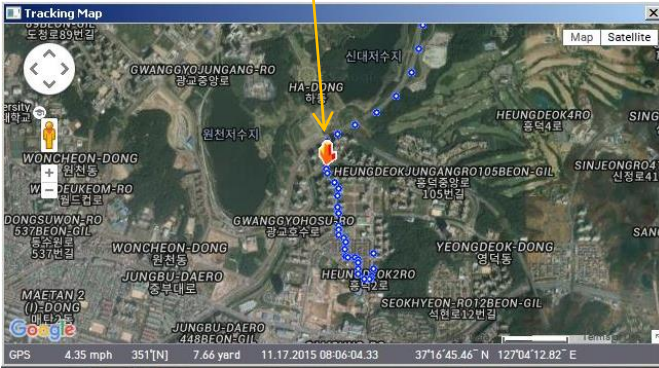
TRACKING MAP

 "Tracking Map" icon

The route taken will be displayed on the Google map.

The playback position will be shown on the map with the orange arrow.

The blue markings show the route taken.

To see the route and position on the Google map, the GPS data should be recorded with video.

To see the map, the PC should be connected to the internet.

EVENT SEARCH

   "Event Search" icon

The "Event Search" help to find a specific data quickly.

Select "Search Range" and select "Search Conditions"
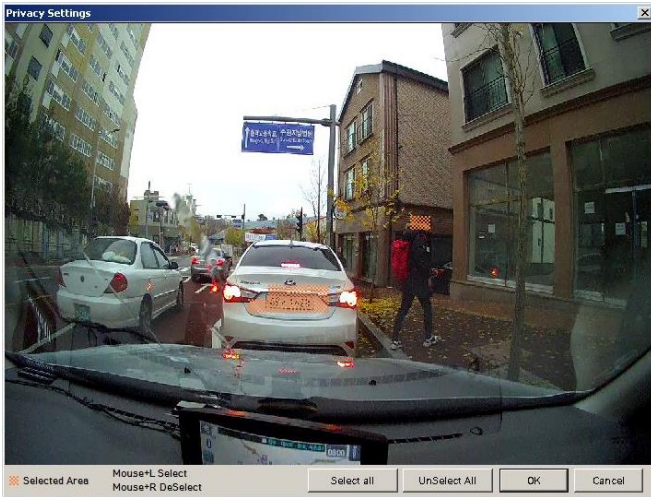
And then click Search button.

Choose an event from the searched list and click "Go to Video" to see the video.

PRIVACY SETTINGS

 "Privacy Settings" icon

Set the mosaic area on the video for privacy protection.

When backing up the data as a JPG or AVI format and playing in the Viewer software, you are able to make a mosaic processing on the area you have set.

To do this, put the pause the video and click the 'Privacy settings' button. The privacy setting screen will pop up.

Blur out the area you wish to protect by left-clicking on the sections. You can select multiple areas.
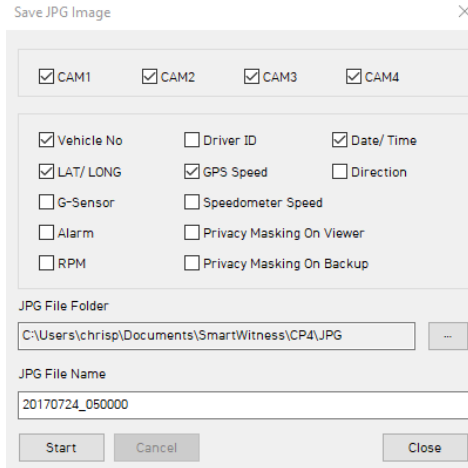You can also unselect, selected areas by right-clicking the blurred areas.
To select all or clear all, click on the 'Select all' or 'UnSelect All' buttons on the bottom, respectively.

SAVE JPEG AND MP4 FILE

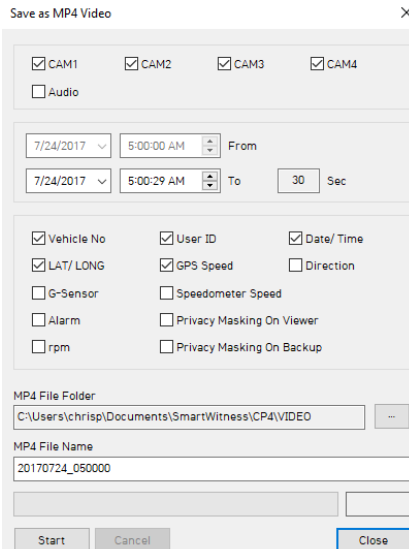Pause the playback and click "Save JPG" icon to make JPG images.

 "Save JPG" icon

Pause the playback and click "Save MP4 Video" icon to make a MP4 file.

 "Save MP4 Video" icon

PRINT IMAGE

Pause the playback and click "Print Image" icon.

   "Print Image" icon

Type Subject and Comments1 and Comments 2
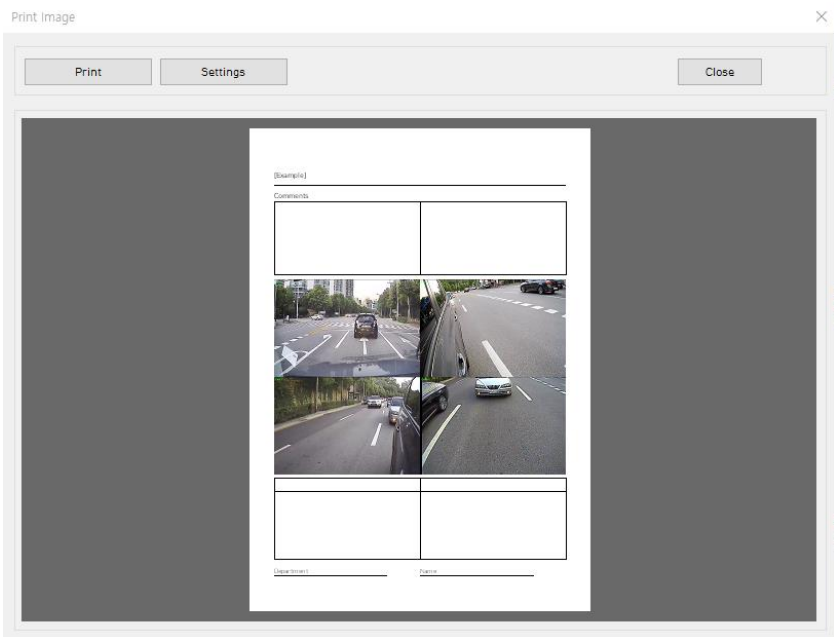
Alter the printer settings to change paper size/orientation etc.
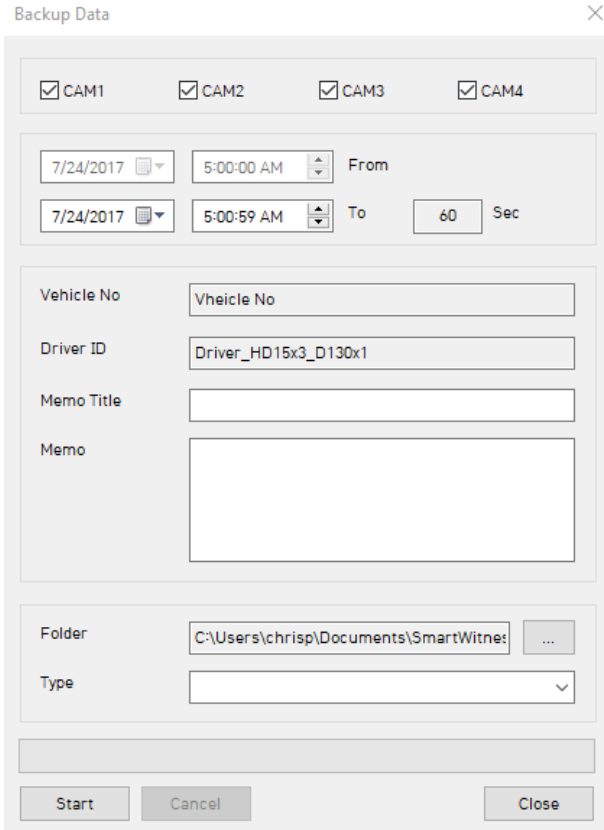
BACKING UP FILES

Back up the recorded data on your PC.
There is an option to store data by type to easy management of data.

 "Backup Data" icon

The start time is when the video was paused and cannot be changed once you start this process.
Set the time you wish to backup and input Title and Memo.
And input Type and then click [Start].
The maximum amount of time you can back up is one hour.

BACKUP DATA LIST AND EXPORT

You can use the data backup list to play data files easier that have been backed up.

 "Backup Data List and Export" icon

Backup Data List and Export				×
Type	accident ∨		Export	Delete

No.	Date/ Time	Vehicle No	Driver ID	Memo Title
☐ 0001	0006.22.2017 19:20:00	Vehicle_...	Driver_HD15x3_...	

Folder: C:\Users\hyun\Documents\   ...

OK   Cancel
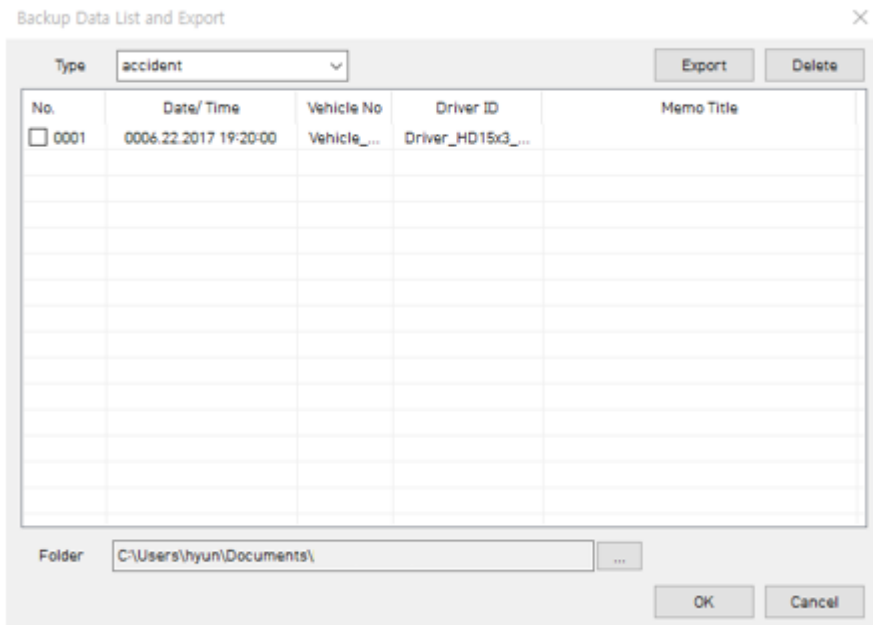
Choose the folder where the backup files are at the bottom of the screen.
(It will automatically show the last folder that was accessed.)
Then, select the type by scrolling down the options.
The files are listed showing the "Date/Time, Vehicle No, Driver ID, Memo Title".
Check the box next to the file you wish to play back and click 'OK'.

TECHNICAL SPECIFICATIONS

Image sensor	**2 Megapixel CMOS Sensor**
Angle of View	**150° (H : 121.1°, V : 62.4° ±5%)**
Wireless	**LTE CAT1** B2(1900),B4(AWS),B5(850),B12(700AC),B3(700C); [3G] B2(1900),B5(850) **WiFi** (802.11 b/g/n) and **Bluetooth** (4.2)
Max Data Rate	**UL:5.76Mbps, DL : 7.2Mbps**
Video resolution	**1080p(1920x1080), 720p(1280x720), VGA(640x480)** **2nd camera: D1(720x480)**
Recording Speed	**CH1: FHD (30fps)** **CH1 + CH2: FHD (15fps) +D1 (30fps)**
Recording Mode	**Continuous , Event, Dual Mode**
Memory	**Supports SD Cards up to 128GB (FAT32)**
GPS/GLONASS	**Internal GPS /GLONASS**
G-Sensor	**Internal 3-axis G-sensor**
Gyro	**3Axis(X,Y,Z), output rate:100 Hz,**
RTC	**Internal super capacitors**
Speaker	**Recording start, error**
Audio	**Internal Microphone**
Alarm In/Out	**2 x Alarm In, 1 x Alarm Out**
LED	**3(Red, Blue, Green LED)**
Super Capacitor	**Enables recording of last file & safe shut down**
PC software	**Included**
Power input	**12V to 24V DC permanent wiring kit** **Input Voltage: DC 5V, 3A**
Delayed Power Shutdown	**Supports Delayed Power Shutdown**
Power consumption	**15W**
Size / Weight	**164mm x 64Ø , 180g (w/o cable)**
Operation Temp.	**-10℃~85℃**

APPENDIX: Recording time table

Channel1 Resolution	Channel2 Resolution	Quality	CH1 FPS	CH2 FPS	128GB	64GB	32GB
1080p HD	D1	Standard	10	0	124 hours	62 hours	30 hours
1080p HD	D1	Standard	10	15	94 hours	47 hours	23 hours
1080p HD	D1	High	10	0	101 hours	50 hours	25 hours
1080p HD	D1	High	10	15	73 hours	36 hours	18 hours
1080p HD	D1	Super	10	0	85 hours	42 hours	21 hours
1080p HD	D1	Super	10	15	60 hours	30 hours	15 hours
720p HD	D1	Standard	10	0	167 hours	114 hours	56 hours
720p HD	D1	Standard	10	15	145 hours	72 hours	35 hours
720p HD	D1	High	10	0	167 hours	94 hours	46 hours
720p HD	D1	High	10	15	111 hours	55 hours	27 hours
720p HD	D1	Super	10	0	161 hours	80 hours	39 hours
720p HD	D1	Super	10	15	90 hours	44 hours	22 hours
VGA	D1	Standard	10	0	167 hours	161 hours	79 hours
VGA	D1	Standard	10	15	167 hours	88 hours	44 hours
VGA	D1	High	10	0	167 hours	116 hours	57 hours
VGA	D1	High	10	15	125 hours	62 hours	30 hours
VGA	D1	Super	10	0	167 hours	90 hours	44 hours
VGA	D1	Super	10	15	96 hours	48 hours	23 hours

This table is a guideline only.
Actual results may vary depending on a variety of factors on the road.

CP2 Firmware Update Instructions via SD card

NOTE: If you're using CP2 with a SIM and connected service, please consult your telematics provider or SmartWitness before attempting to update you r device firmware. In this case, the firmware update can be much more easil y applied to your device using Smart API over-the-air update service.

1. Prepare Firmware

Create a folder called [program] on the SD root as shown below,

Save the "XXXXXX_x.x.x.img" file to the SD card inside the [program] folder.

2. Upgrading CP2

Insert the prepared SD card to CP2 unit and turn on the power.

The Blue & Red LED will blink while the unit is upgrading. It will also 'beep' continuously. Upgrading the unit usually takes about 30 seconds.

Warning: Do not turn off the power during upgrading. If the upgrade fails, the CP2 unit should be returned to your distributor.

Once the upgrading is finished, the unit will automatically reboot and power up as normal.

Technical Support & Warranty

TECHNICAL SUPPORT

For Technical Support, please contact your local distributor or visit support.smartwitness.com.

LIMITED WARRANTY

This product is supplied with 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.

Optional Item

Model	Description
SVA033-D	1/3" Sony Exmor CMOS Sensor Resolution: 600TV lines, Angle of View: 120° Min. Illumination: 0.1 lux// IR LED On 0 lux Weather-proof Housing (IP68) Operating Temperature: -10℃ ~ 55℃ Input Voltage: DC 12V, 12pcs LEDs 63.5mm(W) x 57.7mm(D) x 56.00mm(H)
SVA040-D	1/3" CMOS Sensor, DC 5V Camera, 9pcs LEDs Angle of View: 145˚ Min. Illumination: 0.1 lux / IR LED On 0 lux Operating Temperature: -20℃ ~ 60℃ Input Voltage: DC 5V 80.5mm(W) x 50.5mm(D) x 61.0mm(H) Connector: 300mm 2Ø Mini Stereo
DDC-200	Dual-lens Driver Distraction Camera. **CMOS Video Recording Lens**: 1/3" WDR Sony CMOS sensor, 160° Viewing Angle, 12 IR LEDs, 600TVL **Facial Recognition Lens**: Recognizes facial patterns and alerts drivers who are fatigued or distracted to help avoid accidents, Alarm I/O to trigger recording of the Video Lens on the SmartWitness recorder.
RFRD-1000	Driver ID card reader (RFID) Periodically(every 10 seconds) reads the card ID for easy driver identification. Uses CP2 Serial port (RS-232C, 5V) 6meter Cable
ELM327	OBD2 ELM327 Serial port Records Speed, RPM, and signal information from vehicle OBDII port.
SW-PB	External Panic button Cable length: 2m90cm Button Case Size: 18 x39x10 mm

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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.