



KP2 Video Telematics Camera

USER GUIDE

V1.0.0



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/request-install and submit the online form.

smartwitness.com

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CE & UKCA & FCC

CE & UKCA

Hereby, SmartWitness USA LLC declares that the radio equipment type KP2-GB is in compliance with Directive 2014/53/EU and with the relevant UK statutory requirements. The full text of the EU and UKCA declaration of conformity is available at the following internet address : <https://www.smartwitness.com/>

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.

SAFETY ADVICE



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



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



**KP2
Vehicle Recorder**



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



Bracket & Wiring Harness



Alcohol Prep pad (x2)



Micro SD Card



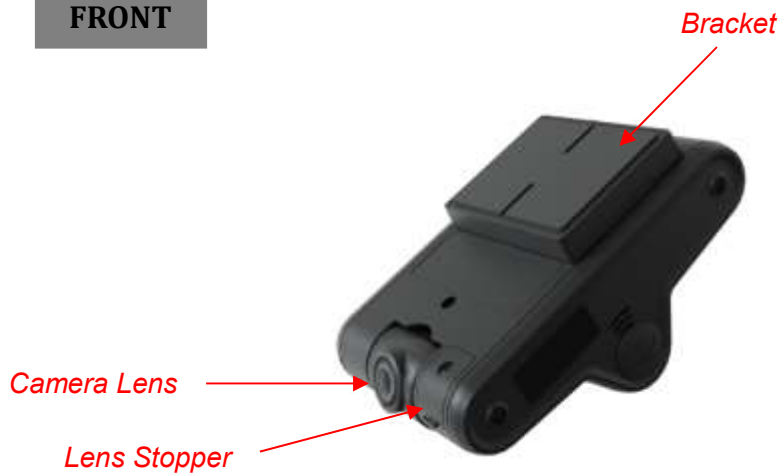
Zip ties & adhesive tie-downs (x5)



Torx Screwdriver

INTRODUCTION

FRONT



SIDE



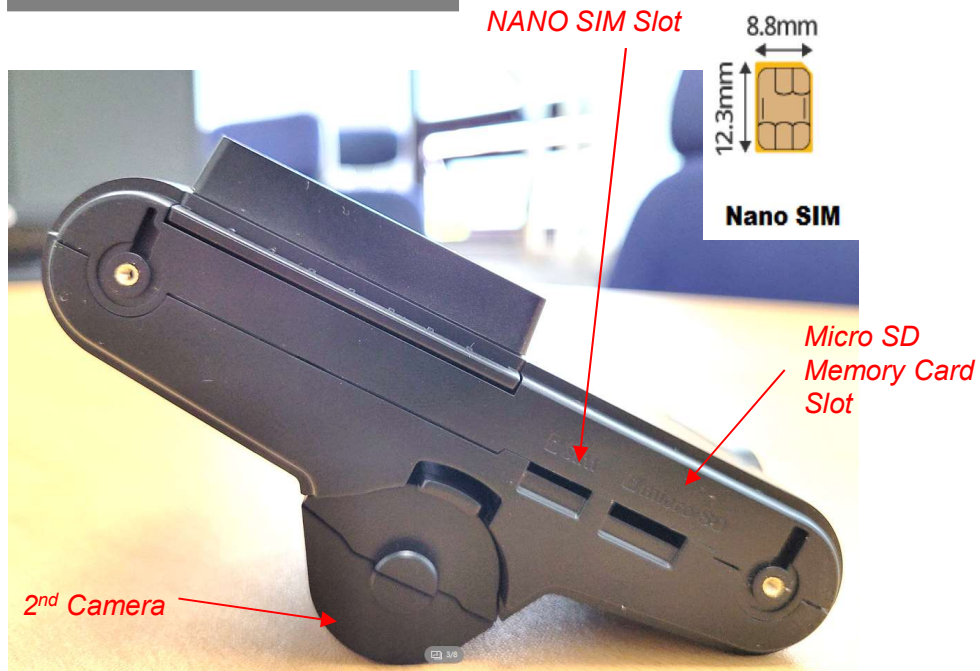
Need to unscrew to remove the whole unit from the bracket or change the IR camera angle or insert/remove SIM/SD.



*No need to unscrew
Applied screws for design purpose only.*

INTRODUCTION

After the side cover open








BACK



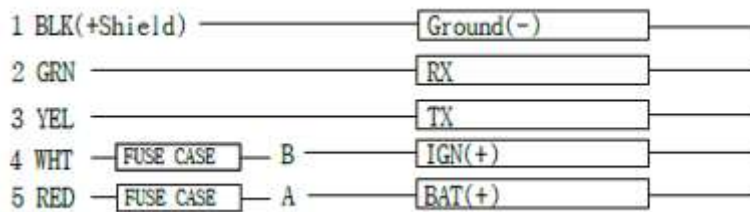
INTRODUCTION

POWER CABLE

| | |
|---|-----------------------|
|  | Black (Ground (-)) |
|  | Red (Power Battery +) |
|  | White (Power IGN +) |
|  | Green (RX) |
|  | Yellow (TX) |

Power Specifications

Input: DC 12/24V, 1.5A



2A Automotive Blade Fuse inside

External Panic Button (optional Item)



| | |
|---------------------|---------------------------------------|
| Line-of-sight range | up to 200m* |
| Indoor Range | up to 50m* |
| Battery Life | up to 3+ years |
| Customizable | Custom Printing Removable Stickers |
| Connectivity | All compatible apps |
| LED | Green, Yellow, Red |
| Surface Material | Soft Touch |
| Clip-on | Rigid metal clip |
| Size | h: 8.5mm d: 30mm |
| Chip | Bluetooth 5 LE Long Range |

FUNCTIONS

Automatic Booting

Once the KP2 has been wired to your car power source the KP2 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 KP2 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 KP2.

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, KP2 creates the last file using the internal Super Capacitor.

Time and Date

There are no time and date settings as the KP2 get's this information from the GPS satellite's.

SD Memory Card Format

Please format [initialize] the SD card using the “Configuration Tool KP2” 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.

Bluetooth Panic button

Pairing

NOTE: Please contact your supplier to buy a Flic Bluetooth Panic Button for KP2.

1. Press BT button one time.
2. Then Record(Blue) LED and Warning(RED)LED will blinking. (Pairing mode)
3. Press the Flic Bluetooth Panic button and wait a second.
4. The Flic Bluetooth Panic button GREEN LED will blinking after pairing.
5. Then Record(Blue) LED and Warning(RED)LED will change to previous mode.

Pairing Mode

To entering the pairing mode, Please set the Bluetooth panic as Flic in advance.
Pairing mode lasts up to 20 seconds; if not paired in time, pairing mode is canceled.

BT Button is ignored if Bluetooth panic is not set as Flic.

Ecall button

Press less than 2 seconds and release

1. When you are not on a call => Call / Receive / Cancel Call
2. When you are on a call => Hanging Up

Press more than 2 seconds and release

1. Decline incoming call

[Call to the Outgoing number]

1. You have to set the outgoing number in advance using the config tool.
2. Press ECALL button

[Cancel Call]

1. Press ECALL button when refuses to answer the phone or reach to a voice mail or hang up.

Receive Call from the receive number

1. You have to set the receive number in advance using the config tool.
2. Press ECALL button when you hear the incoming call sound.

To avoid any voice spam

The only receive number that preset can make a call to the KP2.

Wi-Fi

STA Mode (Station Mode)

Get the KP2 connected to a Wi-Fi network established by an access point.

AP Mode (for Wi-Fi Hotspot)

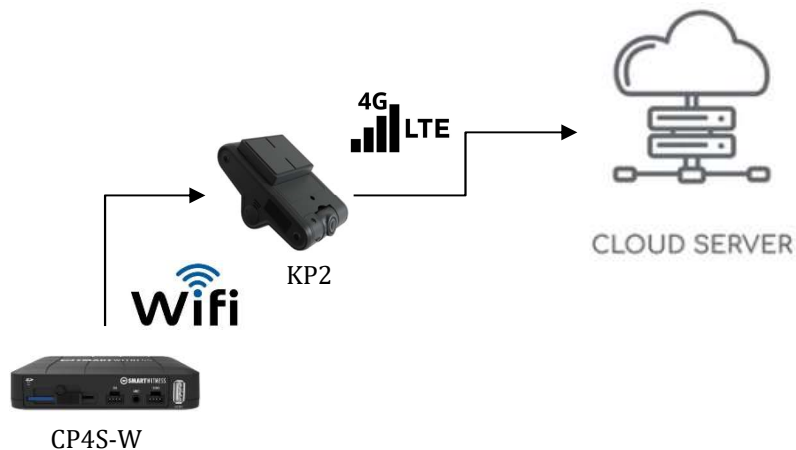
Support the AP Mode to allow Internet access to other devices via Wi-Fi.

AP Mode setting using the config tool

The screenshot shows a configuration window titled "Wi-Fi". It has two radio buttons: "STA Mode" (unselected) and "AP Mode" (selected). Below these are two text input fields labeled "SSID" and "Password". A note at the bottom states "Passwords must be at least eight characters."

1. Select AP Mode.
2. Set SSID and Password

NOTE: CP4S-W can be connected to the server using the KP2 Wi-Fi Hotspot. The KP2 Wi-Fi SSID and Password should be set to the CP4S-W Wi-Fi setting.



BATTERY PROTECT

Power off voltage

Automatically cut off the battery power when battery voltage dropped below the power off voltage.

Power on voltage

Turn on the KP2 when the battery voltage is higher than the power on voltage.

When it use at 12V vehicle

Battery Protect

☒ Use

Power Off Voltage (10000 ~ 50000) mV

Power On Voltage (12000 ~ 15100) mV

The Off voltage range should be between 11.6V(11600mV) to 12.4V(12000mV)
The On voltage range should be between 12.6V(12600mV) to 13.4V(13400mV)

When it use at 24V vehicle

Battery Protect

☒ Use




Power Off Voltage (10000 ~ 50000) mV

Power On Voltage (23600 ~ 26700) mV

The Off voltage range should be between 23.6V(23600mV) to 24.2V(24200mV)
The On voltage range should be between 24.6V(24600mV) to 25.2V(25200mV)

LEDS & BUZZER SPECIFICATION

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

| Status/Step | | | LED | | | Sound |
|----------------------|----------------------------------|--------------------------------------|---|---|--|-------------------------|
| | | | Warning | Record | Communication | |
| | | | (Red) | (Blue) | (Green) | |
| | | |  |  |  | |
| 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 | | |
| | | Stand by | | On | | |
| | Event Record | Recording | | Fast On and Off | | |
| | | Continuous Recording | | On | | |
| | Dual Record | Event Recording | | Fast On and Off | | |
| | | 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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Installation Guides can be viewed/downloaded at:
install.smartwitness.com

CONFIGURATION TOOL USER GUIDE

Configuration Tool KP2 Software



PC SYSTEM REQUIREMENT

Recommended PC specifications for Configuration Tool Software

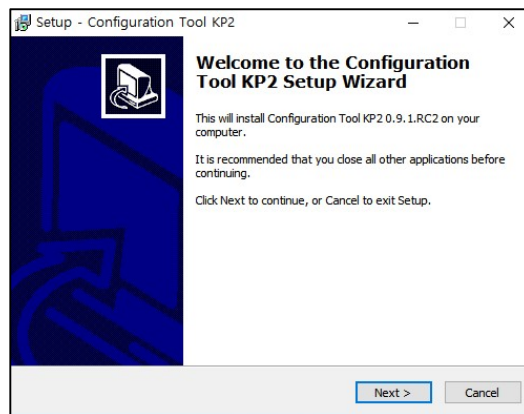
| | |
|-------------------|--|
| OS | Windows 7/8/8.1/10 |
| CPU | Core 2 Duo 2.5GHz or Higher |
| RAM | 2GB or Higher |
| Interface | SD Memory Card Reader |
| HDD Free space | Install : 55MB or Higher Backup : 4GB or Higher |
| Display | 1024 x 768 pixel/True Color or higher |

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

SOFTWARE INSTALLATION

The KP2 Configuration Tool Software is available on our website:
support.smartwitness.com

1. Double click [setup.exe].
2. Select the language and then follow the dialog box prompts.



3. The KP2 Config Tool icon will be displayed on your desktop.



NOTE: To Un-install the KP2 Configuration Tool Software

Make sure the program is not running and open the 'Control Panel'
Select 'Remove Program' and remove the KP2 Configuration Tool Software.

INITIALIZE SD CARD

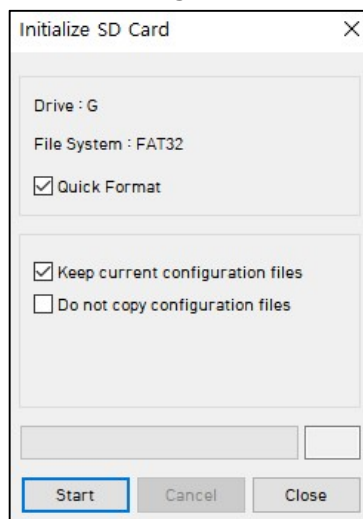
Initialize SD Card

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.



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



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)

DEVICE SETTINGS

The screenshot shows the 'Configuration Tool' window with the 'Device' tab selected. The window is divided into several sections:

- Camera:** Contains two checkboxes, 'CAM1' and 'CAM2', both of which are checked. To the right of these checkboxes is a 'Camera Title' section with two text input fields, one containing 'CAM1' and the other 'CAM2'.
- Power ON/OFF:** Contains three settings: 'Delayed Power Shutdown' set to '00' and '01', 'Wake-up Interval' set to 'Off', and 'Register Interval' set to '00' and '00'.
- Driver ID Device:** A dropdown menu set to 'SD Card'.
- EXT-Device:** Contains a 'Port' dropdown set to 'None', a 'Type' dropdown set to 'DNMEA', and three checkboxes: 'GPS', 'RPM', and 'Signal', all of which are unchecked. There is also a 'Record Text' checkbox which is unchecked.
- Send Health Info:** A checkbox which is unchecked.
- DSM Event:** Contains three checkboxes: 'Sleeping', 'Smoking', and 'Calling', all of which are checked. There is also a 'Facial Departure' checkbox which is checked.
- Other Device:** Contains a section for 'RF-Reader' with a 'Port' dropdown set to 'None', a 'Type' dropdown set to 'Insertion', and a 'Warning Time' dropdown set to '00'.

At the bottom of the window, there are several buttons: 'About', 'Settings', 'Initialize SD Card' (which is highlighted with a blue border), 'Open', 'Save', and 'Eject SD Card'.

Camera check box

Check all the cameras you wish to use.

Camera 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.

Delayed Power Shutdown: Set delayed power shutdown time.

RECORD SETTINGS

| Device | Record | Event | Info. |
|---------|------------|-------|---------|
| Channel | | | |
| | Resolution | FPS | Quality |
| CH1 | 1080p ▾ | 30 ▾ | High ▾ |
| CH2 | 1080p ▾ | 30 ▾ | High ▾ |

Resolution

CH1: HD (1280x720), FHD (1920x1080)

CH2: HD (1280x720), FHD (1920x1080)

Frame Rate

CH1: Adjust the frame rate from 30fps, 15fps, 10fps, 5~1fps

CH2: Adjust the frame rate from 30fps, 15fps, 10fps, 5~1fps

Quality

Adjust the picture quality from Normal, High, Super

| Maximum bitrate (Video Quality) | | | | |
|---------------------------------|-----|--------------------|---------|--------|
| Resolution | FPS | Bitrates (bit/sec) | | |
| | | Super | High | Normal |
| Full HD | 30 | 6Mbps | 5Mbps | 4Mbps |
| HD | 30 | 3Mbps | 2.5Mbps | 2Mbps |

RECORD SETTINGS

Video Data

Record Mode: Continuous

Encryption No.: 1000 ~ 9999

Continuous: 50 % | Event: 50 %

Pre-Event: 10 Sec

Post-Event: 10 Sec

☒ Parking Mode (Continuous Mode Only)

☐ Record Audio

Telematics Data

☐ Automatically remove data

0 Days | 2 Hours

Record Mode

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

Pre Rec Time / Post Rec Time

Adjust the Pre/Post Event time from 1 seconds to 20seconds

Record Audio: Check it for record audio

Parking Mode (Continuous Mode Only)

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.

Telematics 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.

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 Overspeed.

The screenshot shows the 'Event' tab in a settings application. The 'G-Sensor' sub-tab is active. At the top, there are tabs for 'Device', 'Record', 'Event', 'Info.', 'Connectivity', and 'Server'. Below these, there are sub-tabs for 'G-Sensor', 'Misc.', and 'Geofence'. The 'G-Sensor' section contains several checkboxes: 'Record CH' (checked), 'Speaker' (unchecked), 'Mask CH' (unchecked), 'Mask Audio' (unchecked), and 'Wake-up' (unchecked). Below these is a checkbox for 'Auto adjust G-Sensor to vehicle speed' which is checked. The 'Smart G-Sensor Sensitivity' section has two radio buttons: 'Pre-set' (unchecked) and 'Custom' (checked). Under 'Pre-set', there is a checkbox for 'Simple Setting Mode' which is checked, and four dropdown menus for 'Sensitivity', 'Shock', 'Accel/Brake', and 'Turning', all set to '5'. Under 'Custom', there is a checkbox for 'Turn Z Axis on' which is unchecked. The 'Custom' section is divided into three sub-sections: 'High Impact' with a table for X, Y, and Z axes (mG and Hz values), 'Harsh Accel/Brake' with a table for X axis (mG and Hz values), and 'Harsh Turn' with a table for Y axis (mG and Hz values). At the bottom, there is a checkbox for 'Trigger high impact events only' which is unchecked.

| | X | Y | Z |
|-------------|-----|-----|------|
| mG (0~4000) | 950 | 950 | 2000 |
| Hz (1~20) | 3 | 3 | 20 |

| | X |
|-------------|-----|
| mG (0~4000) | 450 |
| Hz (1~20) | 10 |

| | Y |
|-------------|-----|
| mG (0~4000) | 350 |
| Hz (1~20) | 15 |

Auto adjust G-Sensor to vehicle speed

Once it checked, KP2 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.

Smart 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.

EVENT SETTINGS

Select record channel

Channel1
(Camera1)

Record CH
☒ ☐

Channel2(Camera2)

| Device | Record | Event | Info. | Connectivity | Server |
|--|--------|-------|-------|--------------|--------|
| G-Sensor Misc. Geofence | | | | | |
| Panic Button | | | | | |
| Record CH Speaker Mask CH Mask Audio | | | | | |
| <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | | |
| Overspeed | | | | | |
| Speed Limit Record CH Speaker Mask CH Mask Audio | | | | | |
| <input type="text" value="125"/> km/h Over <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | | |

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

GEOFENCE

DeviceRecordEventInfoConnectivityServer

G-SensorMiscGeofence

Geofence

Use

Type

Record CH

Speaker

Mask CH

Mask Audio

☐

In

☐☐

☐

☐☐

☐

Zone Selection

Zone Selection: Add Geofence zone after click this button

INFO.

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

Device | Record | Event | **Info.** | Connectivity | Server

Date/Time | Service

Time Zone: UTC Retrieve time settings from my PC

☐ Daylight Saving Time

Start: Jan. 1st Sunday 0 o'clock

End: Jan. 1st Sunday 0 o'clock

☒ Time Sync

Device | Record | Event | **Info.** | Connectivity | Server

Date/Time | **Service**

System

Speed Unit: km/h

Speaker Volume: Middle

Bluetooth Panic: Flic

☐ Auto Format Feature

Battery Protect

☐ Use

Power Off Voltage (10000 ~ 50000): 0 mV

Power On Voltage (10000 ~ 13100): 0 mV

User Management

☐ Vehicle No:

Driver ID:

System Warning

☒ Use

Source:

☒ SD Card ☐ Temperature

☐ Video Loss ☐ AUX

☐ EMMC

Event

☒ Speaker

☒ Alarm LED

Auto Format Feature: When the KP2 recognize a new SD, the SD card will be formatted.

Connectivity

| Device | Record | Event | Info. | Connectivity | Server |
|--|--------------------------------|-------|-------|--------------|--------|
| <input checked="" type="checkbox"/> Enable | | | | | |
| Mobile Network | | | | | |
| Dial No. | <input type="text"/> | | | | |
| APN | <input type="text"/> | | | | |
| User ID | <input type="text"/> | | | | |
| Password | <input type="text"/> | | | | |
| Wi-Fi | | | | | |
| <input checked="" type="radio"/> STA Mode | <input type="radio"/> AP Mode | | | | |
| AP | <input type="text" value="1"/> | | | | |
| SSID | <input type="text"/> | | | | |
| Password | <input type="text"/> | | | | |
| Passwords must be at least eight characters. | | | | | |
| Voice Call | | | | | |
| Outgoing Number | <input type="text"/> | | | | |
| Receive Number | <input type="text"/> | | | | |

Check 'Enable' to use LTE connection.

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

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

Outgoing Number

- Add a phone number to receive an emergency call from the KP2.

Receive Number

- Add a phone number to call to the KP2.
- KP2 only can receive a call from this receive number.

SERVER

| Device | Record | Event | Info. | Connectivity | Server |
|---|--------|--|--|--|--------|
| Domain/Static IP and Port # <input type="text"/> ex) http://DomainName:5000 | | | | | |
| License Key <input type="text"/> | | | | | |
| Transmit | | | | | |
| Tracking Data | | | Telematics Data (DRV) | | |
| <input type="checkbox"/> Transmit Live Tracking Data | | | <input type="checkbox"/> Transmit Telematics Data (DRV) | | |
| Live Tracking Data Type <input type="text" value="LiveTrack2"/> | | | G-Sensor/Gyro Data <input type="text" value="None"/> | | |
| | | | Data Type <input type="text" value="Default"/> | | |
| Event Data | | | | | |
| <input type="checkbox"/> Transmit Event Data | | | | | |
| <input type="checkbox"/> Include G-Sensor/Gyro Data | | | | | |
| Emergency Call | | | | | |
| <input checked="" type="checkbox"/> Transmit Emergency Call Notification | | | | | |
| Event Images | | | | | |
| <input checked="" type="checkbox"/> CAM1 <input checked="" type="checkbox"/> CAM2 | | | | | |
| Pre-Event <input type="text" value="5 Sec"/> | | | Event/Snapshot Quality <input type="text" value="Normal"/> | | |
| Post-Event <input type="text" value="5 Sec"/> | | | | | |
| Event Triggered by | | | | | |
| <input checked="" type="checkbox"/> G-Sensor | | <input checked="" type="checkbox"/> Emergency Call | | <input checked="" type="checkbox"/> Panic Button | |
| <input checked="" type="checkbox"/> Transmit Image | | <input checked="" type="checkbox"/> Transmit Image | | <input checked="" type="checkbox"/> Transmit Image | |
| <input type="checkbox"/> Geofence | | <input type="checkbox"/> Ignition | | <input type="checkbox"/> Overspeed | |
| <input type="checkbox"/> Transmit Image | | <input checked="" type="checkbox"/> Transmit Image | | <input type="checkbox"/> Transmit Image | |

Set Domain/Static IP and Port number

And check the options

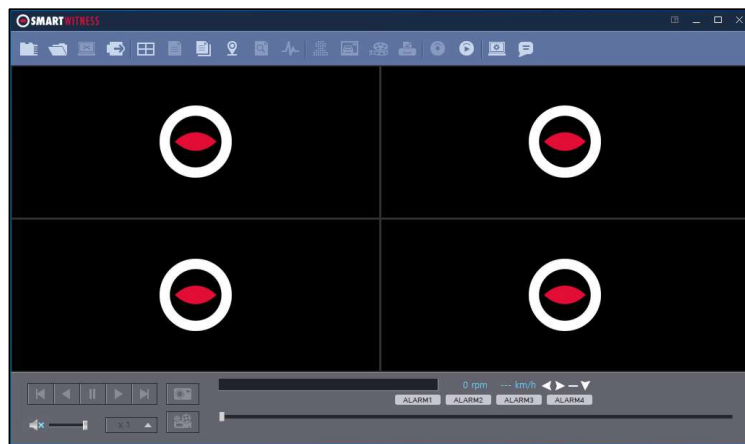
- Transmit Live Tracking Data
- Transmit Telematics Data (DRV)
- Transmit Event Data.

And then select events

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

SOFTWARE USER GUIDE

SD Viewer Software



PC SYSTEM REQUIREMENTS

Recommended PC specifications for PC Viewer Software

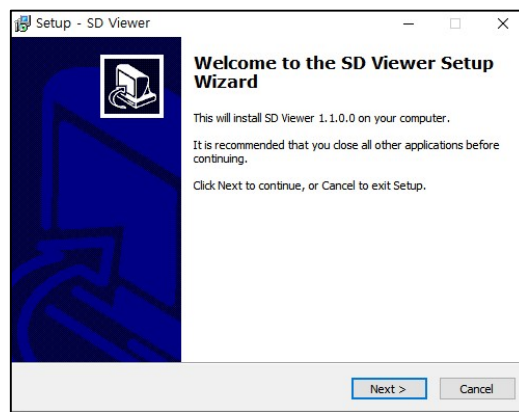
| | |
|-------------------|--|
| OS | Windows 7/8/8.1/10 |
| CPU | Core 2 Duo 2.5GHz or Higher |
| RAM | 2GB or Higher |
| Interface | SD Memory Card Reader |
| HDD Free space | Install : 55MB or Higher Backup : 4GB or Higher |
| Display | 1024 x 768 pixel/True Color or higher |

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

SOFTWARE INSTALLATION

The SD Viewer Software is available on our website.

1. Double click [setup.exe].
2. Select the language and then follow the dialog box prompts.



3. The SD Viewer icon will be displayed on your desktop.



NOTE: To Un-install the SD Viewer Software

Make sure the program is not running and open the 'Control Panel'
Select 'Remove Program' and remove the SD 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.

The screenshot shows the 'Settings' dialog box with the following sections and options:

- Login Password:** A text field labeled 'Password (1000~9999)' and a 'Set Password' button.
- Viewer Settings:** A group of dropdown menus for:
 - Language: English
 - Speed Format: km/h
 - Speed Type(Play Info Bar): GPS
 - Time Format: 24HR
 - Date Format: YYYY/MM/DD
 - Deinterlace: Auto
 - Display Time: From Camera
- Layout:** A 'Save Layout' button and a 'Last Layout' dropdown menu.
- Drive Data Settings:** A group of input fields and dropdown menus for:
 - Max Speed: 100
 - Max G-Sensor: +-1G
 - Max RPM: 4000
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

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 KP2 or your PC local time

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

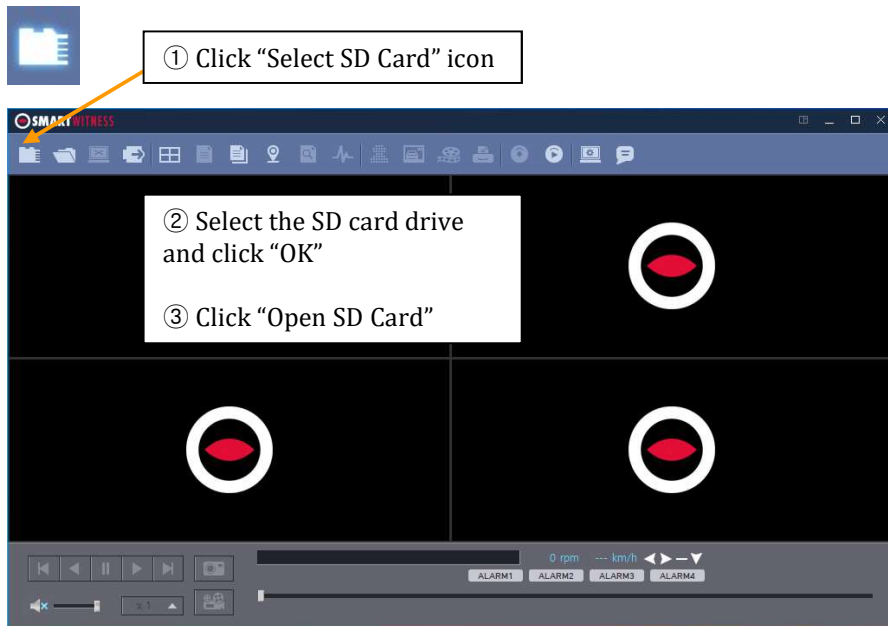
Default Layout: The program will launch with the Default Layout

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



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.

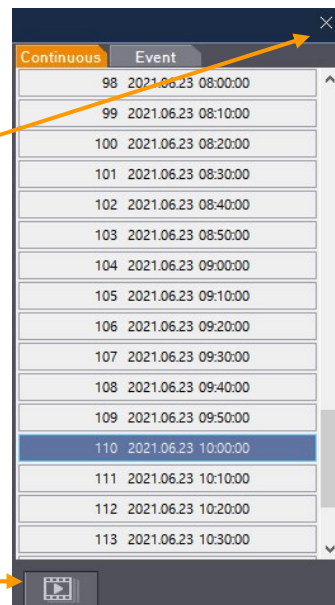
The playback list can be displayed on the screen again by clicking the "File List" icon.



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



Continuous Play next file.

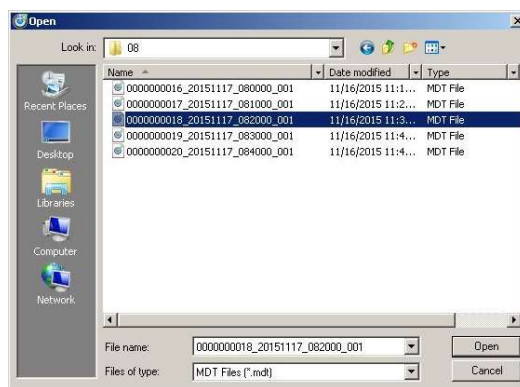


OPEN FILES

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

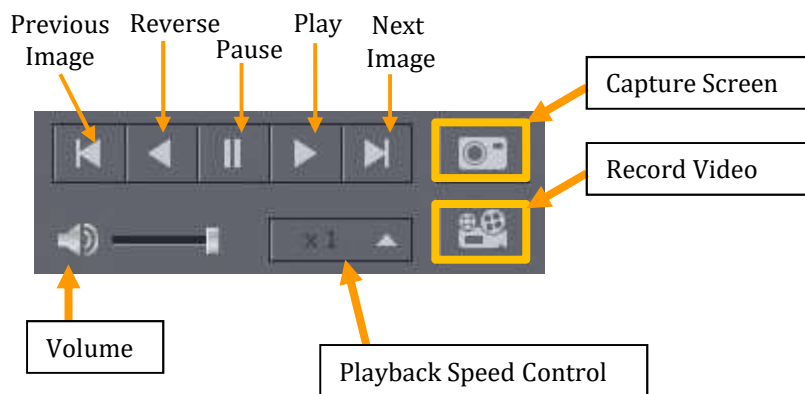
The screenshot displays the SMARTWITNESS playback interface. At the top, a toolbar contains various icons for file management and playback controls. Below the toolbar, two camera feeds are shown side-by-side. The left feed, labeled 'CAM1 [1920 x 1080]', shows a street scene. The right feed, labeled 'CAM2 [1920 x 1080]', shows a person in a car. Below the feeds, a status bar displays various data points. On the left, a box contains G-sensor values (X, Y, Z) and a timestamp. In the center, a box contains vehicle speed (55 km/h) and a timestamp. On the right, a box contains frame numbers (15545 / 17992) and a timestamp. At the bottom, a timeline shows the playback progress from 08:00:00 to 09:09:59. Arrows point from labels to specific elements: 'Camera title - Resolution' points to the camera titles, 'Record Mode' points to the 'NOR' button, 'G-Sensor value' points to the G-sensor data box, 'Time' points to the timestamp, 'Vehicle No & Driver ID' points to the vehicle speed and timestamp, and 'GPS Speed' points to the speed data.

G-Sensor value
Time

Vehicle No & Driver ID

GPS Speed
Display Frame / Total frames number

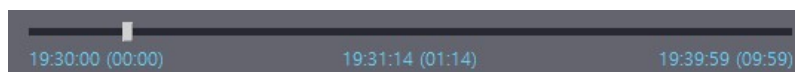
PLAYBACK



Alarm Indicator



Playback control bar

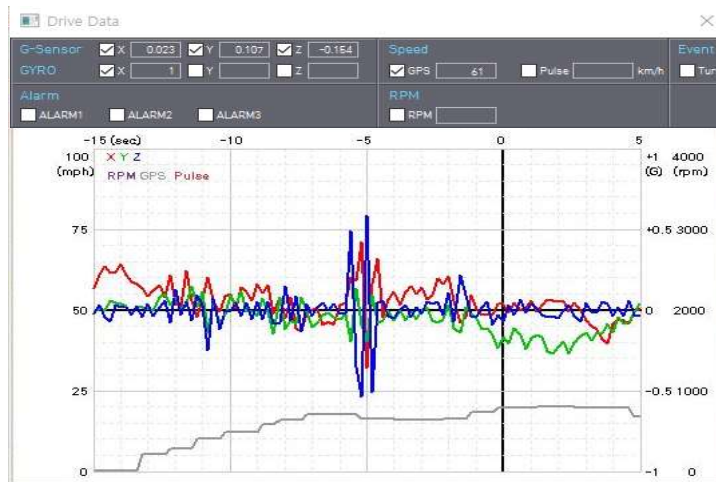


DRIVE DATA



“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.

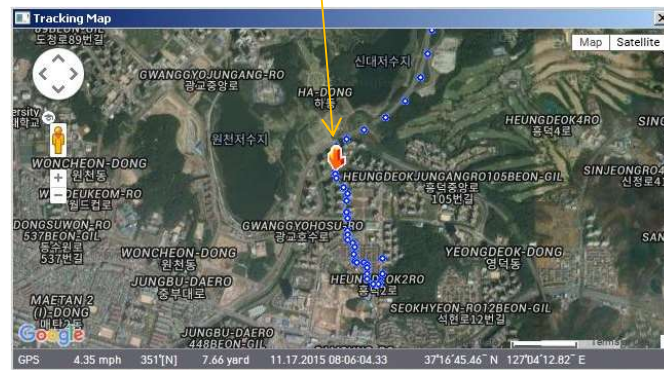
TRACKING MAP



“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.

Event Search

Search Range

2017-06-22

오후 12:32:55

~

2017-07-11

오후 4:13:25

G-Sensor

☒ Turn

☒ Accel

☒ Brake

☒ Shock

Record

☐ Panic Button

☐ Parking Mode

Speed

50

km/h

☒ GPS

☐ Speedometer

☐ Sudden Accel/Stop

±0.4G

Alarm

☐ ALARM1

☐ ALARM2

☐ ALARM3

| No. | Date/ Time | G-Sensor | Panic Button | Alarm | Speed | Sudden Accel/Stop | |
|-----|---------------------|-------------|--------------|-------|-------|-------------------|---|
| 13 | 2017.06.22 13:59:55 | | | | 53/0 | 0.0000 | C |
| 14 | 2017.06.22 14:00:05 | | | | 52/0 | 0.0000 | C |
| 15 | 2017.06.22 14:03:42 | | | | 50/0 | 0.0000 | C |
| 16 | 2017.06.22 14:04:02 | | | | 50/0 | 0.0000 | C |
| 17 | 2017.06.22 14:04:09 | Accel,Shock | | | 66/0 | 0.0000 | C |
| 18 | 2017.06.22 14:09:52 | | | | 50/0 | 0.0000 | C |
| 19 | 2017.06.22 14:12:10 | | | | 50/0 | 0.0000 | C |
| 20 | 2017.06.22 18:53:14 | | | | 50/0 | 0.0000 | C |
| 21 | 2017.06.22 18:53:21 | | | | 50/0 | 0.0000 | C |
| 22 | 2017.06.22 18:57:11 | | | | 52/0 | 0.0000 | C |
| 23 | 2017.06.22 19:06:00 | | | | 50/0 | 0.0000 | C |
| 24 | 2017.06.22 19:09:20 | | | | 52/0 | 0.0000 | C |
| 25 | 2017.06.22 19:12:11 | | | | 51/0 | 0.0000 | C |
| 26 | 2017.06.22 19:13:33 | | | | 50/0 | 0.0000 | C |

Search

Go to Video

Close

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

The 'Save JPG Image' dialog box contains the following elements:

- Four checked checkboxes for CAM1, CAM2, CAM3, and CAM4.
- Metadata selection area with checkboxes for:
 - Vehicle No (checked), Driver ID (unchecked), Date/ Time (checked)
 - LAT/ LONG (checked), GPS Speed (checked), Direction (unchecked)
 - G-Sensor (unchecked), Speedometer Speed (unchecked)
 - Alarm (unchecked), Privacy Masking On Viewer (unchecked)
 - RPM (unchecked), Privacy Masking On Backup (unchecked)
- JPG File Folder: A text field containing 'C:\Users\chrisp\Documents\SmartWitness\CP4\JPG' and a browse button.
- JPG File Name: A text field containing '20170724_050000'.
- Buttons: Start, Cancel, and Close.

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



“Save MP4 Video” icon

The 'Save as MP4 Video' dialog box contains the following elements:

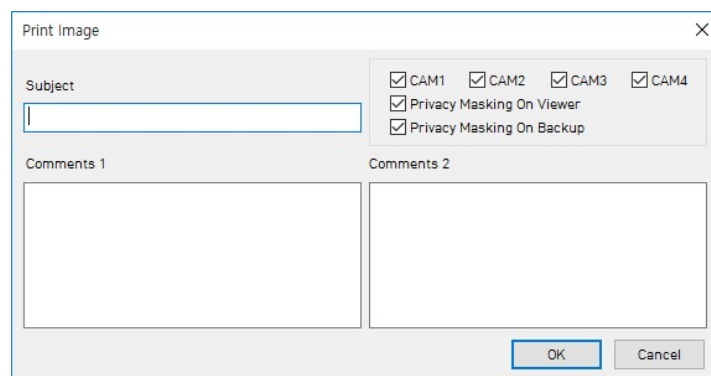
- Four checked checkboxes for CAM1, CAM2, CAM3, and CAM4, and an unchecked checkbox for Audio.
- Time range selection area with:
 - From: 7/24/2017 5:00:00 AM
 - To: 7/24/2017 5:00:29 AM
 - Duration: 30 Sec
- Metadata selection area with checkboxes for:
 - Vehicle No (checked), User ID (checked), Date/ Time (checked)
 - LAT/ LONG (checked), GPS Speed (checked), Direction (unchecked)
 - G-Sensor (unchecked), Speedometer Speed (unchecked)
 - Alarm (unchecked), Privacy Masking On Viewer (unchecked)
 - rpm (unchecked), Privacy Masking On Backup (unchecked)
- MP4 File Folder: A text field containing 'C:\Users\chrisp\Documents\SmartWitness\CP4\VIDEO' and a browse button.
- MP4 File Name: A text field containing '20170724_050000'.
- Buttons: Start, Cancel, and Close.

PRINT IMAGE

Pause the playback and click “Print Image” icon.



“Print Image” icon

A dialog box titled "Print Image" with a close button (X) in the top right corner. It contains a "Subject" text field, two "Comments" text areas labeled "Comments 1" and "Comments 2", and a group of checkboxes: CAM1, CAM2, CAM3, CAM4, Privacy Masking On Viewer, and Privacy Masking On Backup. At the bottom right are "OK" and "Cancel" buttons.

Print Image

Subject

Comments 1

Comments 2

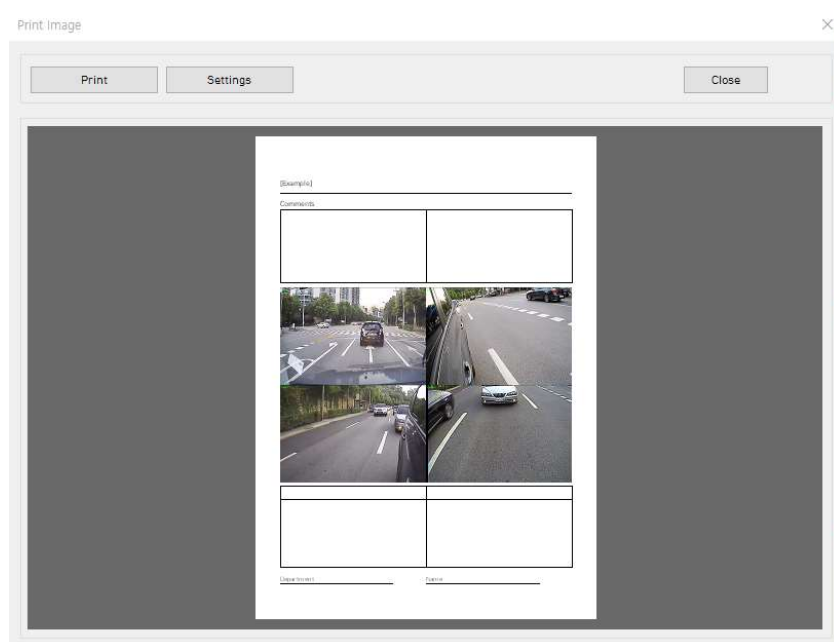
☒ CAM1 ☒ CAM2 ☒ CAM3 ☒ CAM4

☒ Privacy Masking On Viewer

☒ Privacy Masking On Backup

OK Cancel

Type Subject and Comments1 and Comments 2



Alter the printer settings to change paper size/orientation etc.

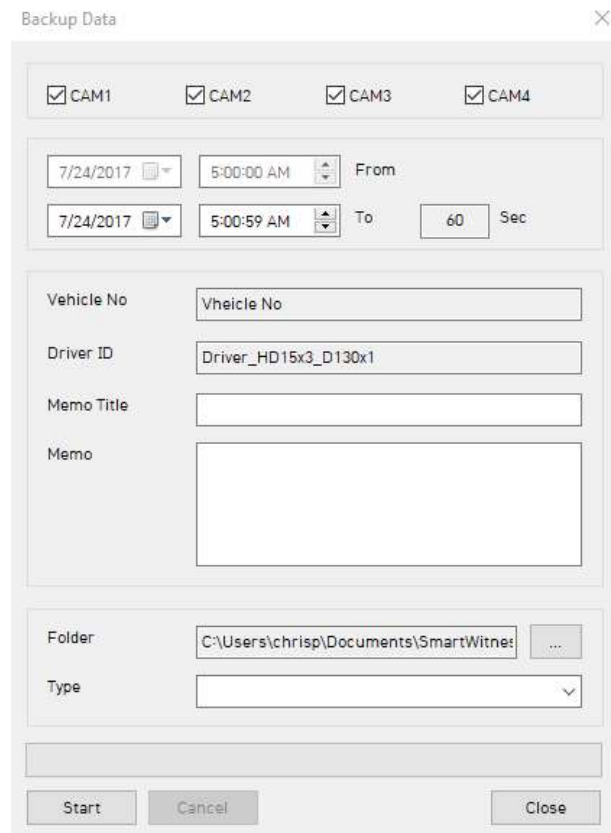
BACKING UP FILES

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

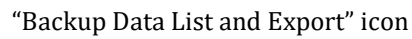


The start time is when the video was paused and cannot be changed once you start this process.

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.



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 | Main camera: 140° (115°(H), 60°(V)) 2 nd camera: 130° (104°(H) x 56°(V)) |
| Wireless | LTE CAT6 (KP2-NA): B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B41/B66/B71 LTE CAT6 (KP2-GB): B1/B3/B5/B7/B8/B20/B28/B38/B40 WiFi : 2.4G, 802.11 b/g/n, Bluetooth: BT2.1 + EDR/3.0/4.1 LE/ 4.2 BLE |
| Max Data Rate | UL:50Mbps, DL: 300Mbps |
| Video resolution | Main camera: 1080p(1920x1080), 720p(1280x720) 2nd camera: 1080p(1920x1080), 720p(1280x720) |
| Recording Speed | CH1 + CH2: FHD (30fps) +FHD (30fps) |
| Recording Mode | Continuous , Event, Dual Mode |
| Memory | Supports SD Cards up to 256GB (FAT32) |
| GPS/GLONASS | Internal GPS/GLONASS/BeiDou |
| G-Sensor | Internal 3-axis G-sensor |
| Gyro | 3Axis(X,Y,Z), output rate:100 Hz, |
| RTC | Internal super capacitors |
| Speaker | Recording start, error, Ecall |
| Audio | Internal Microphone |
| Serial port | RS232 RX/TX |
| LED | 3(Red, Blue, Green LED) |
| Super Capacitor | Enables recording of last file & safe shut down |
| PC software | Included |
| Power input | Input Voltage: DC 12V/24V, 1.5A |
| Delayed Power Shutdown | Supports Delayed Power Shutdown |
| Power consumption | 4W |
| Size / Weight | 126 x 82 x 64 mm/ 232.4g (Include 2nd Camera, exclude power cable) |
| Operational Temp. | -10°C ~ 55°C |
| Storage Temp | -20°C ~ 70°C |

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 |
| | | | 10 | 15 | 94 hours | 47 hours | 23 hours |
| 1080p HD | D1 | High | 10 | 0 | 101 hours | 50 hours | 25 hours |
| | | | 10 | 15 | 73 hours | 36 hours | 18 hours |
| 1080p HD | D1 | Super | 10 | 0 | 85 hours | 42 hours | 21 hours |
| | | | 10 | 15 | 60 hours | 30 hours | 15 hours |
| 720p HD | D1 | Standard | 10 | 0 | 167 hours | 114 hours | 56 hours |
| | | | 10 | 15 | 145 hours | 72 hours | 35 hours |
| 720p HD | D1 | High | 10 | 0 | 167 hours | 94 hours | 46 hours |
| | | | 10 | 15 | 111 hours | 55 hours | 27 hours |
| 720p HD | D1 | Super | 10 | 0 | 161 hours | 80 hours | 39 hours |
| | | | 10 | 15 | 90 hours | 44 hours | 22 hours |
| VGA | D1 | Standard | 10 | 0 | 167 hours | 161 hours | 79 hours |
| | | | 10 | 15 | 167 hours | 88 hours | 44 hours |
| VGA | D1 | High | 10 | 0 | 167 hours | 116 hours | 57 hours |
| | | | 10 | 15 | 125 hours | 62 hours | 30 hours |
| VGA | D1 | Super | 10 | 0 | 167 hours | 90 hours | 44 hours |
| | | | 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.

KP2 Firmware Update Instructions via SD card

NOTE: If you're using KP2 with a SIM and connected service, please consult your telematics provider or SmartWitness before attempting to update your device firmware. In this case, the firmware update can be much more easily 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 KP2

Insert the prepared SD card to KP2 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 KP2 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.

Manufacturer

D-TEG Security Co., Ltd
3F, Jungmin Bldg, 53 Maewha-ro, Bundang-gu, Seongnam, Gyeonggi-do 13505,
Korea



smartwitness.com