

CP2-NA

3G ENABLED VEHICLE RECORDER

USER GUIDE



D-TEG Security Co., Ltd.

- Thank you for purchasing the CP2-NA Vehicle Recorder.
Please ensure that you read and understand this USER GUIDE and use it before connecting and installing this Recorder.
- Please store the USER GUIDE in an easily accessible location.

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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.

REMARK

Operating frequency :

WLAN

2412MHz ~ 2462MHz, 2422MHz ~ 2452MHz(40MHz)

WCDMA

Band2 : 1850MHz ~ 1910MHz for TX, 1930MHz ~ 1990MHz for RX

Band4 : 1710MHz ~ 1755MHz for TX, 2110MHz ~ 2155MHz for RX

Band5 : 824MHz ~ 849MHz for TX, 869MHz ~ 894MHz for RX

GPS, GLONASS

1599 MHz ~ 1610 MHz

WCDMA and WLAN are not simultaneous transmitter.

Unique Identifier : CP2-NA

Responsible Party

Corporation: SmartWitness USA, LLC

Address: 1108 Lunt Avenue Schaumburg, IL 60193

Telephone number: +1(312) 981-8774

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-NA
Vehicle Recorder**



**Sticker for Windscreen mounting
(double sided tape x2)**



Power Cable



**Additional Angle Stopper (x1)
And screw(x1)**



Cord clips (x2)



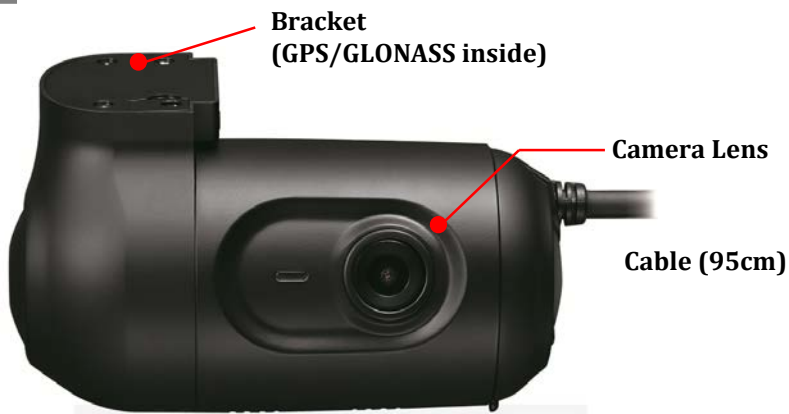
Torx screw (x1)



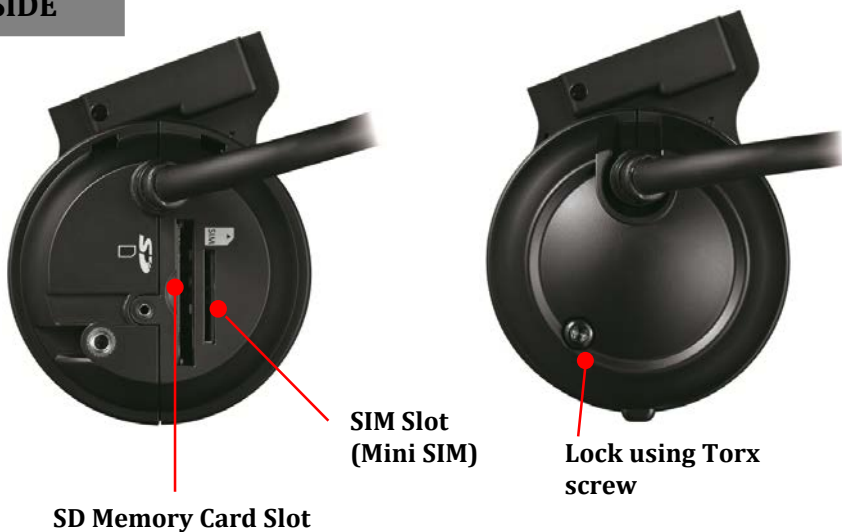
SD Cover (x1)

INTRODUCTION

FRONT

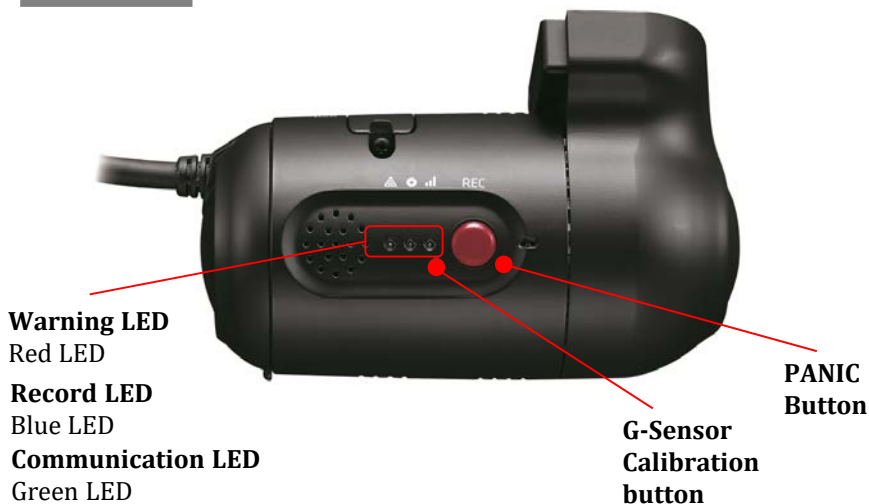


SIDE



INTRODUCTION

BACK



POWER CABLE










INTRODUCTION

POWER ADAPTOR



POWER CABLE

-  Black (Ground)
-  Red (Power Battery +)
-  White (Power ACC +)
-  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-NA has been wired to your car power source the CP2-NA 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-NA 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-NA.

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-NA creates the last file using the internal Super Capacitor.

Time and Date

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

SD Memory Card Format

Please format [initialize] the SD card using the “Configuration Tool CP2-NA” software.




Safely Removal 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 not on, you can now safely remove the SD memory card.

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		
	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
Event Trigger	G-Sensor, Panic button, Alarm-In					Beep No. 1
	Over Speed					Beep No.4 (2times)

INSTALLATION

Park your vehicle on a flat level surface.
Turn off the engine before installing the CP2-NA.

Attach the CP2-NA using the provided double sided 3M tape.
The surface must be clean and dry before you install. We recommended to install the product behind the rear view mirror on the front windshield.

NOTE: The 3M adhesive tape will not stick well with dust or oil, etc.
Please make sure the surface is clean before applying.

Adjust camera view. Make sure the lens has an unobstructed view. Check from outside the vehicle to check the camera angle, you can adjust the angle via the bracket teeth.

Arrange the power cord neatly alongside of the windshield and door pillar trim.

The CP2-NA requires a continuous 12/24volt power source from the vehicle.

The cable supplied will allow you to hard wire the CP2-NA unit to the fuse box of your vehicle.

Connect the “red cable (+)” to a fuse (see picture below). It should be connected to a fuse that has power when you start the engine.



The ground cable should be contacted at the car body or battery negative.

Start on the car after installation.

CONFIGURATION TOOL USER GUIDE

Configuration Tool CP2-NA Software



PC SYSTEM REQUIREMENT

Recommended PC specifications for Configuration Tool Software

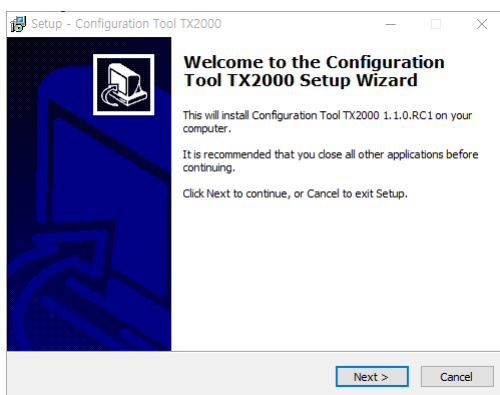
OS	Windows Vista. Windows 7, Windows 8/8.1
CPU	Core 2 Duo 2.5GHz or Higher
RAM	2GB or Higher
Interface	SD Memory Card Reader
HDD Free space	Install : 55MB or Higher Backup : 4GB or Higher
Display	1024 x 768 pixel/True Color or higher

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

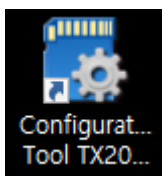
SOFTWARE INSTALLATION

The Configuration Tool TX2000 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 an 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(FW1.0.0_PC1.0.0.0_V1).EXE] in the [pcsw] folder.
4. Select the language and then follow the dialog box prompts.



5. The “Configuration Tool TX2000” icon will be displayed on your desktop.



NOTE: To Un-install the Configuration Tool TX2000 Software

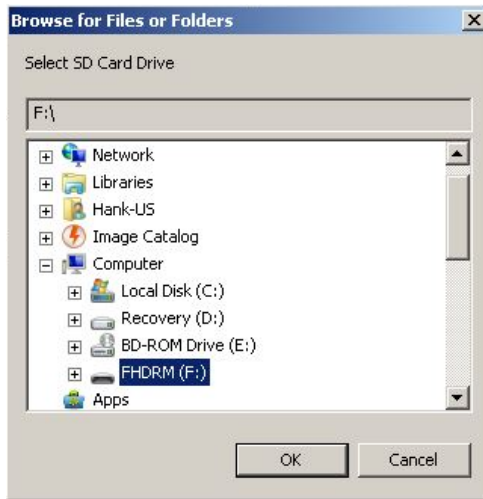
Make sure the program is not running and open the ‘Control Panel’
Select ‘Remove Program’ and remove the Configuration Tool TX2000 Software.

INITIALIZE SD CARD

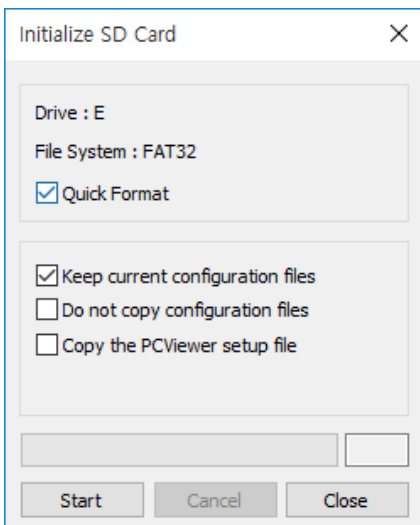
Initialize SD Card

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.



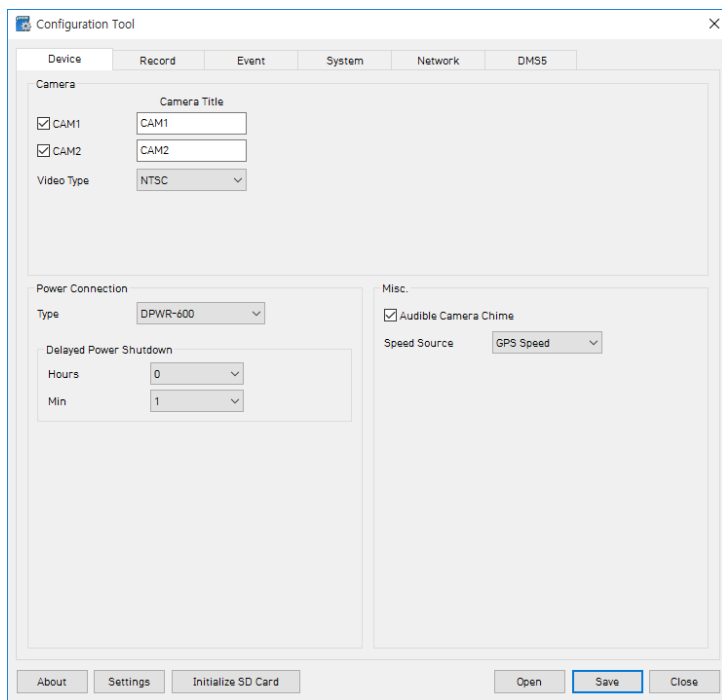
On the following screen, check the 'Quick Format' button and check options and Click 'Start' to begin initialization.



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)
- 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

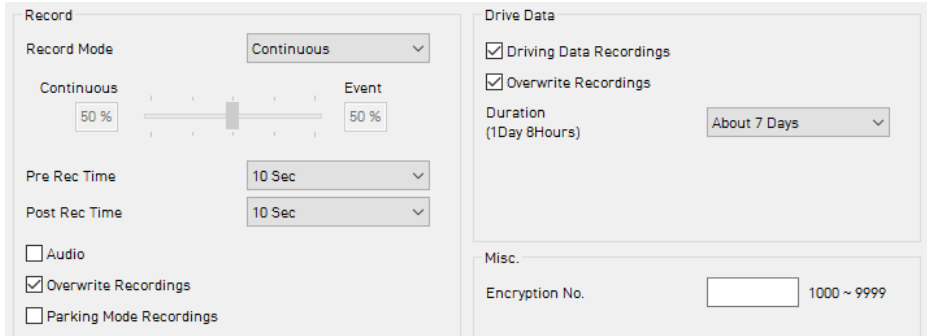
Quality

Adjust the picture quality from Standard, High, Super

Maximum bitrates (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



The screenshot shows a settings interface for recording. On the left, under 'Record', there is a 'Record Mode' dropdown set to 'Continuous'. Below it is a slider with 'Continuous' at 50% and 'Event' at 50%. Further down are 'Pre Rec Time' and 'Post Rec Time' dropdowns, both set to '10 Sec'. At the bottom of this section are three checkboxes: 'Audio' (unchecked), 'Overwrite Recordings' (checked), and 'Parking Mode Recordings' (unchecked). On the right, under 'Drive Data', there are two checked checkboxes: 'Driving Data Recordings' and 'Overwrite Recordings'. Below them is a 'Duration' dropdown set to 'About 7 Days'. At the bottom right is a 'Misc.' section with an 'Encryption No.' field containing '1000 ~ 9999'.

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 "about 1 day" to "about 30 days".

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 for each event.

The screenshot shows the 'Event' tab in the Configuration Tool. The 'G-Sensor' sub-tab is active. The 'Record CH' checkbox is checked, 'Beep' is checked, and 'Alarm Out 1' is set to 'None'. Under 'G-Sensor Sensitivity', 'Pre-set' is selected. 'Simple Setting Mode' is checked, and Sensitivity is set to 5. Impact, Accel/Brake, and Turning are also set to 5. The 'eCall Trigger' section has X, Y, and Z values set to 0, 0, and 0 respectively. 'Auto adjust G-Sensor to vehicle speed' and 'Turn Z Axis on' are checked. The 'Custom' section is unselected. Under 'High Impact', mG (0~4000) is set to 600 for X, Y, and Z, and Hz (1~20) is set to 4, 7, and 10. Under 'Harsh Accel/Brake', mG (0~4000) is set to 190 for X, and Hz (1~20) is set to 10. Under 'Harsh Turn', mG (0~4000) is set to 190 for Y, and Hz (1~20) is set to 15. The 'Trigger high impact events only' checkbox is unchecked. At the bottom, there are buttons for 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Close'.

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-NA 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)

The screenshot shows the 'Event' tab in the configuration interface. It contains several event categories with their respective settings:

- Panic Button:** Record CH (checked for Channel 1, unchecked for Channel 2), Beep (checked), Alarm Out 1 (None).
- Overspeed:** Speed Limit (100 km/h Over), Record CH (unchecked for both channels), Beep (checked), Alarm Out 1 (None).
- System Warning:** Alarm Out 1 (None).
- Alarm In:** A table with columns for Use, Title, Type, Record CH, Beep, and Alarm Out 1.

Use	Title	Type	Record CH	Beep	Alarm Out 1
<input type="checkbox"/>	ALARM1	V-Off	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None
<input type="checkbox"/>	ALARM2	N-O	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None

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		▼					
<input type="checkbox"/> Daylight Saving Time								
Start	Jan.	▼	1st	▼	Sunday	▼	0 o'clock	▼
End	Jan.	▼	1st	▼	Sunday	▼	0 o'clock	▼
<input type="checkbox"/> Manual Time Setting								
2017-07-11		▼	오후 3:22:10		▼			
Service								
<input checked="" type="checkbox"/> SD Card Auto Format Feature								
User Management								
Vehicle No	<input type="text"/>							
Driver ID	<input type="text"/>							

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

Device Record Event System **Network** DMS5

Network

Enable

Mobile Network

Dial No.

APN

User ID

Password

Authentication **None** ▾

SMS Center Number

Check Enable to use 3G connection.

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

Please refer to the Sim Card supplier website for these settings.

Wi-Fi

Enable

AP **1** ▾

SSID

Password

Passwords must be at least eight characters.

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.

Support only 3G or only Wi-Fi

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

Please select one of way for networking from 3G and Wi-Fi.

DMS5 SETTINGS

Device	Record	Event	System	Network	DMS5
DMS5					
<input checked="" type="checkbox"/> Enable					
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"/>		
Event Data			eCall		
<input type="checkbox"/> Transmit Event Data			<input type="checkbox"/> Transmit ECall Notification		
<input type="checkbox"/> Include G-Sensor/Gyro Data					
Event Images					
<input checked="" type="checkbox"/> CAM1		<input type="checkbox"/> CAM2			
Pre-Event		<input type="text" value="5 Sec"/>		Event/Snapshot Quality	
Post-Event		<input type="text" value="5 Sec"/>		<input type="text" value="High"/>	
Event Triggered by					
<input type="checkbox"/> G-Sensor		<input type="checkbox"/> eCall		<input type="checkbox"/> Alarm1	
<input type="checkbox"/> Panic Button		<input type="checkbox"/> Alarm2			
<input checked="" type="checkbox"/> Transmit Image		<input checked="" type="checkbox"/> Transmit Image		<input checked="" type="checkbox"/> Transmit Image	
<input checked="" type="checkbox"/> Transmit Image		<input checked="" type="checkbox"/> Transmit Image		<input checked="" type="checkbox"/> Transmit Image	
<input checked="" type="checkbox"/> Transmit Image		<input type="checkbox"/> Transmit Image			

Set Domain/Static IP and Port number

Default License Key is “DASKEY_001”

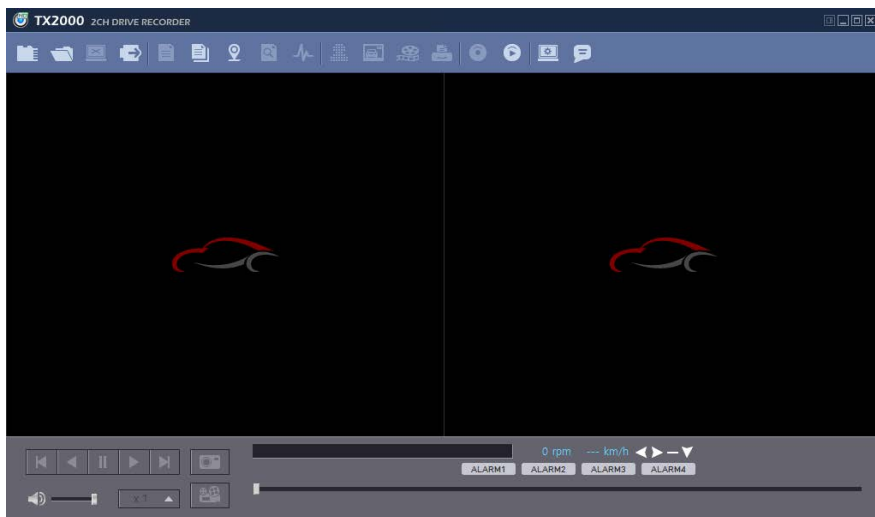
And check the options

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

And then select events

Please contact your distributor to set DMS5 setting it's related with server.

PC Viewer Software



PC SYSTEM REQUIREMENT

Recommended PC specifications for PC Viewer Software

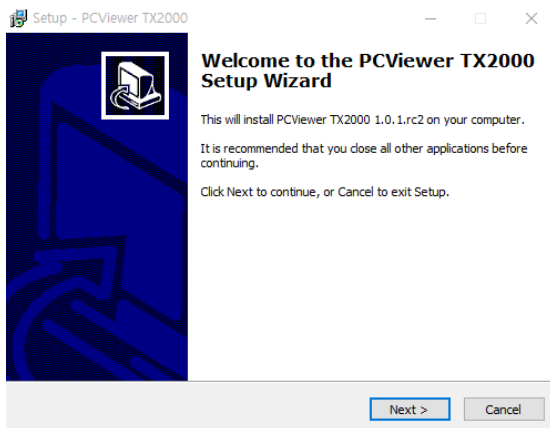
OS	Windows Vista. Windows 7, Windows 8/8.1
CPU	Core 2 Duo 2.5GHz or Higher
RAM	2GB or Higher
Interface	SD Memory Card Reader
HDD Free space	Install : 55MB or Higher Backup : 4GB or Higher
Display	1024 x 768 pixel/True Color or higher

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

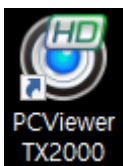
SOFTWARE INSTALLATION

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 an 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 “PC Viewer TX2000” icon will be displayed on your desktop.



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.

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:
 - 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:
 - 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 CP2-NA 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.

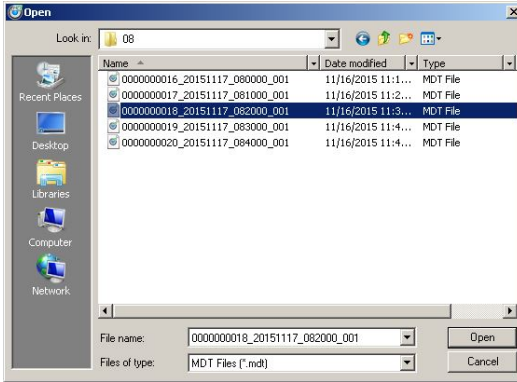
Continuous	Event
5	2017.06.22 12:50:00
6	2017.06.22 13:32:09
7	2017.06.22 13:40:00
8	2017.06.22 13:50:00
9	2017.06.22 14:00:00
10	2017.06.22 14:10:00
12	2017.06.22 18:48:55
13	2017.06.22 18:50:00
14	2017.06.22 19:00:00
15	2017.06.22 19:10:00
16	2017.06.22 19:20:00
17	2017.06.22 19:30:00
18	2017.06.22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

X2000 2CH DRIVE RECORDER

CAM1 - FHD NOR CAM2 - D1 NOR

X: -0.024
Y: -0.046
Z: -0.062
2017.04.05 09:40:00.020

36 km/h
1 / 9000

X: -0.024
Y: -0.046
Z: -0.062
2017.04.05 09:40:00.005

36 km/h
1 / 18000

1234AB Hank 0 rpm 36 km/h

ALARM1 ALARM2 ALARM3 ALARM4

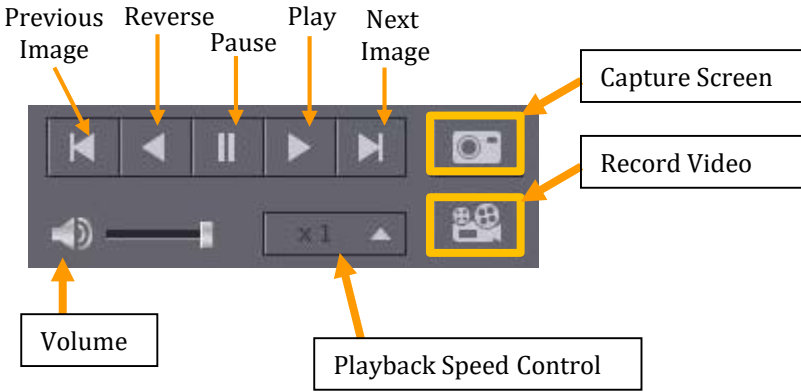
09:40:00 (00:00) 09:40:00 (00:00) 09:40:59 (09:59)

G-Sensor value
Time

GPS Speed
Display Frame / Total frames number

Vehicle No & Driver ID

PLAYBACK



Alarm Indicator

ALARM1

ALARM2

ALARM3

Playback control bar

19:30:00 (00:00)

19:31:14 (01:14)

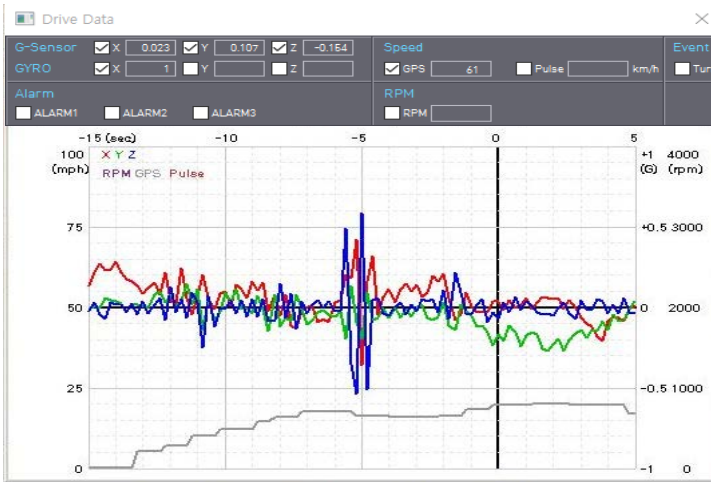
19:39:59 (09:59)

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.

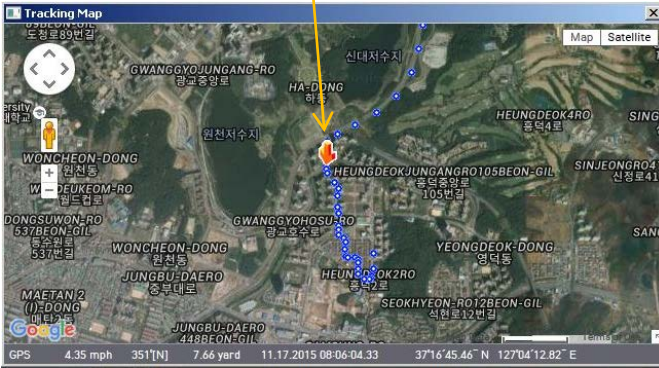
TRACKING MAP



“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.

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.

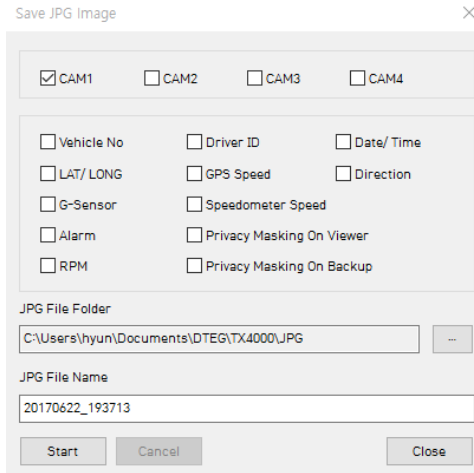
To select all or clear all, click on the ‘Select all’ or ‘UnSelect All’ buttons on the bottom, respectively.

SAVE JPEG AND MP4 FILE

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



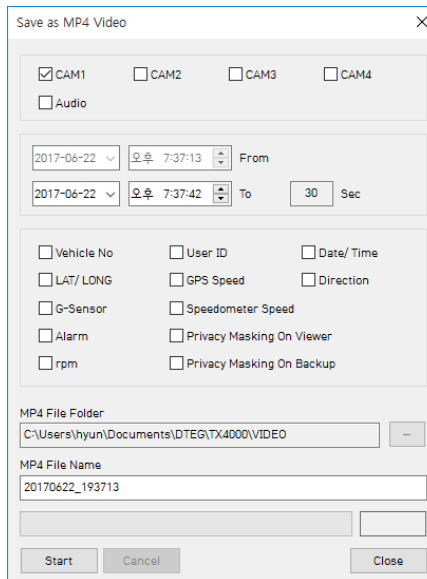
“Save JPG” icon

A dialog box titled "Save JPG Image" with a close button (X) in the top right corner. It contains several sections: a row of checkboxes for CAM1 (checked), CAM2, CAM3, and CAM4; a grid of checkboxes for Vehicle No, Driver ID, Date/Time, LAT/ LONG, GPS Speed, Direction, G-Sensor, Speedometer Speed, Alarm, Privacy Masking On Viewer, RPM, and Privacy Masking On Backup; a text field for "JPG File Folder" containing "C:\Users\hyun\Documents\DTEG\TX4000\JPG" and a browse button (...); a text field for "JPG File Name" containing "20170622_193713"; and three buttons at the bottom: "Start", "Cancel", and "Close".

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



“Save MP4 Video” icon

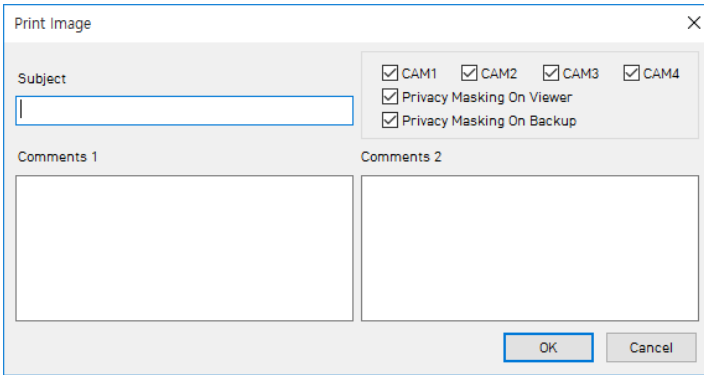
A dialog box titled "Save as MP4 Video" with a close button (X) in the top right corner. It contains several sections: a row of checkboxes for CAM1 (checked), CAM2, CAM3, and CAM4; a checkbox for "Audio"; a "From" section with date and time pickers (2017-06-22 and 7:37:13 AM) and a "To" section with date and time pickers (2017-06-22 and 7:37:42 AM) and a "30 Sec" duration field; a grid of checkboxes for Vehicle No, User ID, Date/Time, LAT/ LONG, GPS Speed, Direction, G-Sensor, Speedometer Speed, Alarm, Privacy Masking On Viewer, rpm, and Privacy Masking On Backup; a text field for "MP4 File Folder" containing "C:\Users\hyun\Documents\DTEG\TX4000\VIDEO" and a browse button (...); a text field for "MP4 File Name" containing "20170622_193713"; and three buttons at the bottom: "Start", "Cancel", and "Close".

PRINT IMAGE

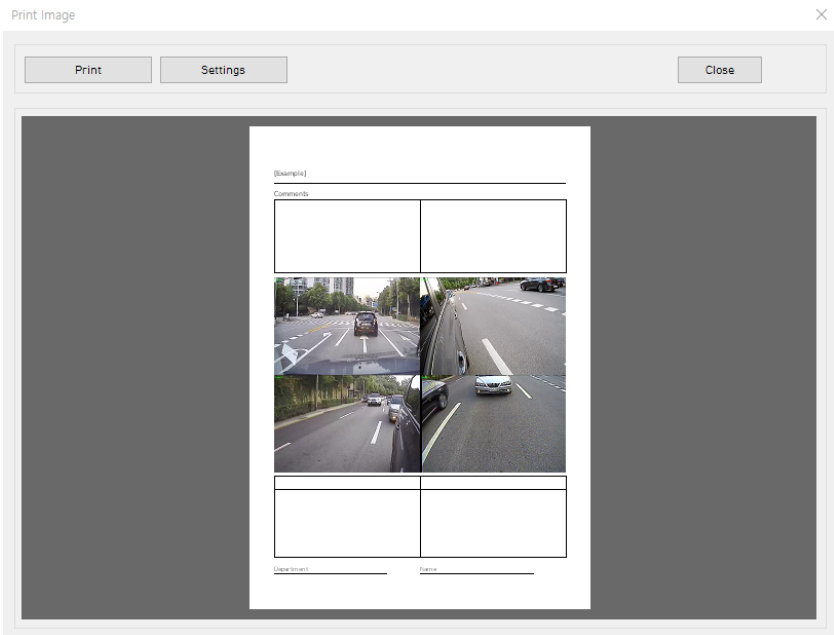
Pause the playback and click “Print Image” icon.



“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, a "Comments 1" text area, and a "Comments 2" text area. On the right side, there are four checked checkboxes: CAM1, CAM2, CAM3, and CAM4, and two more checked checkboxes: Privacy Masking On Viewer and Privacy Masking On Backup. At the bottom right, there are "OK" and "Cancel" buttons.

Type Subject and Comments1 and Comments 2



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

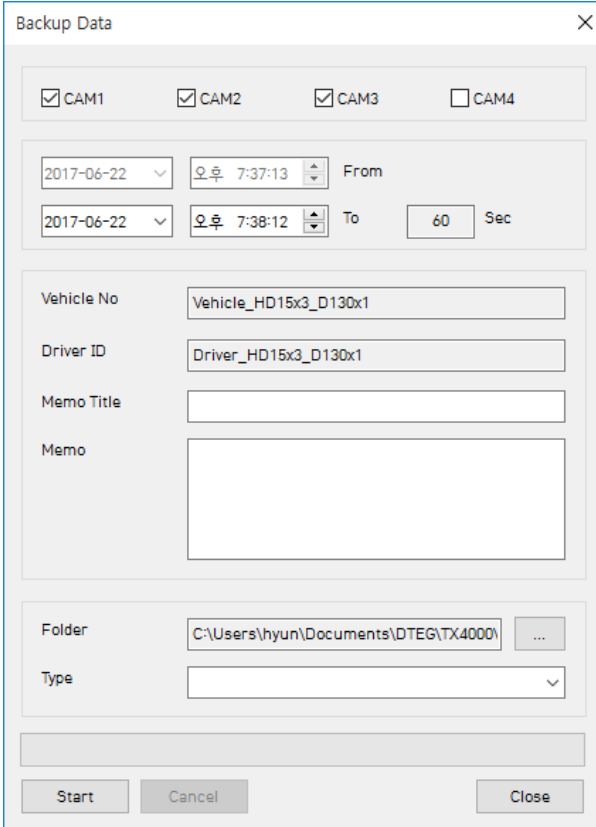
BACKING UP FILES

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

A screenshot of a 'Backup Data' dialog box. The window title is 'Backup Data' with a close button (X) in the top right corner. The dialog contains several sections: 1. Camera selection: Four checkboxes labeled 'CAM1', 'CAM2', 'CAM3', and 'CAM4'. 'CAM1', 'CAM2', and 'CAM3' are checked, while 'CAM4' is unchecked. 2. Time range: Two date pickers both set to '2017-06-22'. The first is followed by a time picker set to '오후 7:37:13' and the word 'From'. The second is followed by a time picker set to '오후 7:38:12' and the word 'To'. To the right of the 'To' time is a text box containing '60' and the label 'Sec'. 3. Identification fields: 'Vehicle No' with text 'Vehicle_HD15x3_D130x1', 'Driver ID' with text 'Driver_HD15x3_D130x1', 'Memo Title' (empty), and 'Memo' (empty text area). 4. Folder and Type: 'Folder' with text 'C:\Users\hyun\Documents\DTEG\TX4000\...' and a browse button (...). 'Type' with a dropdown menu. 5. Action buttons: 'Start', 'Cancel', and 'Close' buttons at the bottom.

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
<input type="checkbox"/> 0001	0006.22.2017 19:20:00	Vehicle_...	Driver_HD15x3_...	

Folder: C:\Users\hyun\Documents\DTEG\TX4000\BACKUP ... 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’.

SPECIFICATION

Image sensor	2 Megapixel CMOS Sensor
Angle of View	150° (H : 121.1°, V : 62.4° ±5%)
Band support	WCDMA Band1(2,100MHz)/ Band8 (900MHz)
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 Cards of up to 64GB (FAT32)
GPS/GLONASS	Internal GPS /GLONASS
G-Sensor	Internal 3-axis G-sensor
Gyro	3Axis(X,Y,Z), output rate:100 Hz,
RTC	Internal battery
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	Enable recording of last file and shut down
PC software	Supplied
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	113mm x 56Ø (w/o bracket), 172g (w/o cable)
Operation Temp.	-10 °C~55 °C

APPENDIX Recording time table

TX2000 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

Max number of recording file : 1000

Max time of recording : 166hours (1000 * 10mins/60 = 166.7)

This table is a guideline only.

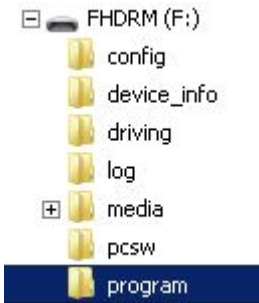
Actual results may vary depending on a variety of factors on the road.

APPENDIX (Upgrade)

NOTE: To get the upgrade firmware, please contact your local distributor.

1. Prepare Firmware

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



Copy “XXXXXX_x.x.x.img” file to the SD card [program] folder.

2. Upgrade CP2-NA

Insert the prepared SD card to CP2-NA 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-NA unit should be returned
to your local distributor.**

Once the upgrading is finished, the unit will automatically turn off and on the power.

Technical Support & Warranty

TECHNICAL SUPPORT

For Technical Support, please contact your local distributor.

LIMITED WARRANTY

This product is supplied with 1 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.

FCC Statements

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Optional Item

Model	Descriptions
<p>DTR-100</p> 	<p>1/3" CMOS Sensor, DC 5V Camera Angle of View: 160° Min. Illumination: 0.2 lux Operating Temperature: -20°C ~ 60°C Input Voltage: DC 5V 30mm x 35mm x 25mm, 50g, Connector: 300mm 2Ø Mini Stereo</p>
<p>STR-950IR-5V</p> 	<p>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°C ~ 60°C Input Voltage: DC 5V 80.5mm(W) x 50.5mm(D) x 61.0mm(H) Connector: 300mm 2Ø Mini Stereo</p>
<p>STR-700-5V</p> 	<p>1/3" CMOS Sensor, DC 5V camera, Waterproof Angle of view: 120° Min. Illumination: 1 lux Operating Temperature: -20°C ~ 60°C Input Voltage: DC 5V 32.7mm x 40.4mm x 30.7mm Connector: 300mm 2Ø Mini Stereo</p>
<p>RFRD-1000</p> 	<p>Driver ID card reader Periodically(every 10 seconds) read the card ID Use Serial port (RS-232C, 5V), 6meter Cable</p>
<p>ELM327 COM</p> 	<p>OBD2 ELM327 Serial port To have speed and RPM and Signal information from vehicle</p>
<p>D-PB</p> 	<p>External Panic button Cable length: 2m90cm Button Case Size: 18 x39x10 mm</p>

D-TEG Security Co., Ltd.

<http://www.d-teg.com>