

VT4000

3G ENABLED VEHICLE RECORDER USER GUIDE



- Thank you for purchasing the VT4000 Vehicle Recorder.

Model: VT4000GE (with 3G module for WCDMA Band1(2,100MHz)/Band8 (900MHz))

Model: VT4000B (without 3G module)

- 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.**

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



VT4000
Vehicle Recorder



Power Cable



Audio/Video out cable



Remote Controller
(with double sided tape)



Camera input cable



GPS Antenna module



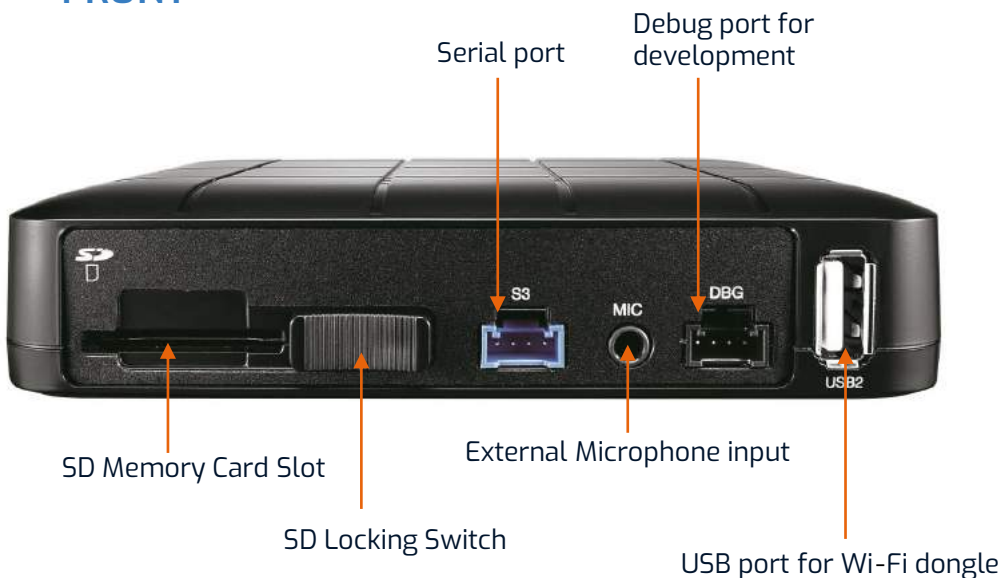
3G Antenna (only for VT4000GE)



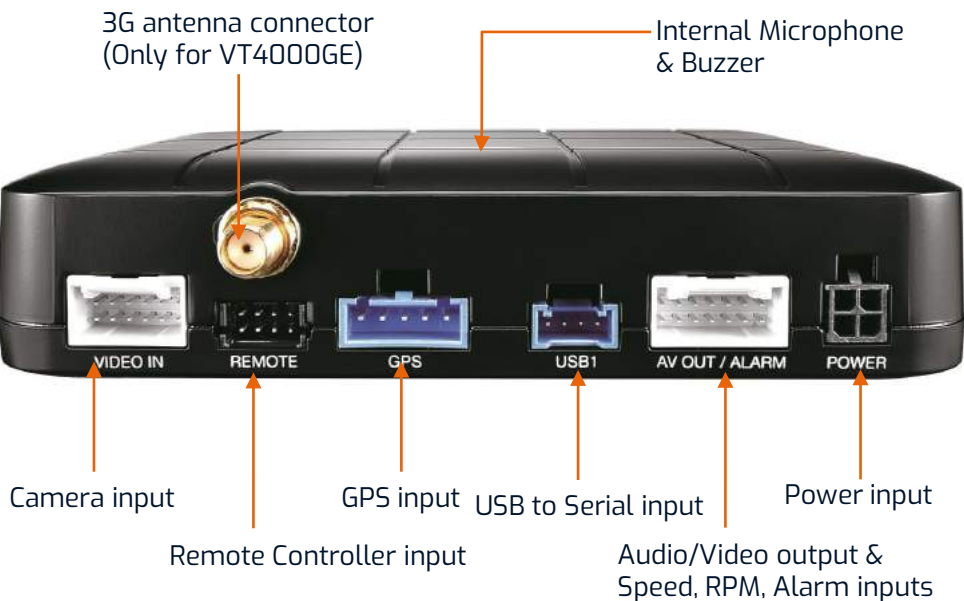
Wire Splice clip and Velcro Sticker

INTRODUCTION

FRONT



REAR



INTRODUCTION






REMOTE CONTROLLER



POWER CABLE

	Black (Ground)
	Red (Power Battery +)
	White (Power ACC +)

ALARM IN/OUT CABLE

	White (Alarm In1 , Voltage on/off (3~70V))
	Purple (Alarm In2, Voltage on/off (3~70V))
	Green (Alarm In3, Voltage on/off (3~70V))
	Gray (RPM)
	Blue (Speed)
	Orange (Alarm out1), Low(0V) to High (5V)
	Brown (Alarm out2), Low(0V) to High (5V)
	3 x Black (Ground)

FUNCTIONS

Automatic Booting

Make sure the main unit and all components are properly connected. Once the VT4000 has been wired to your car power source the VT4000 will boot up, this will take around 30 seconds for the unit to be ready to record.

NOTE: The unit will not start recording immediately after power on. It takes around 30 seconds for the built-in power backup system to charge. Thereafter, the SD card 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 VT4000 configuration Tool. To do this, please see the 'Settings' section on page 21.

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

The unit will record when triggered by an impact(G-Sensor) or a push of the 'PANIC' button or Over speed or Alarm In1~3. 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.

DO NOT RECORD

The DRV (Drive Data) file will be recorded during driving at "Do Not Record" mode. And the unit can send limited API like live track to Server.

NOTE: 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 VT4000

1. Set G-Sensor Axis using the configuration tool.
2. "selfadj.ini" should be in the config folder of the SD card.
3. Install the unit and park the vehicle on a flat surface.
4. Turn on the unit and wait until it starts recording.
5. Press and hold the "M1" button more than 2 seconds.
6. You will hear "beep" when you press the "M1" button and then you will hear another "beep" after 2 seconds. Then release the "M1" button.
7. Then calibration will be done within 2 seconds.

Built-in power backup (Super Capacitor)

When power to the unit is interrupted, VT4000 creates the last file using the internal Super Capacitor.

Time and Date

Set your time zone using the configuration tool then VT4000 get's the time from the GPS satellite's.

SD Memory CardFormat

Please format [initialize] the SD card using the "Configuration Tool VT4000" software.

SAFELY REMOVE SDCARD

Power off the 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.

FUNCTIONS

Parking Mode Recording

With parking mode activated and on normal recording mode, the VT4000 will change to parking mode when the vehicle is not moving for more than 5 minutes, recording at 1fps.

Live Screening

With an external monitor attached, the VT4000 offers the option to screen video live.

Delayed Power Shutdown




Control the duration of time using the configuration tool. VT4000 stays powered and recording/networking after shutdown.

PRECAUTIONS FOR SD CARDS

To optimize use and prolong life of your SD cards please follow the below instructions.

1. Use only compatibly tested SD cards.
2. Only use dry and clean SD cards.
3. Format SD cards at least once every month or when the SD card seems corrupted. This will wipe all data, images, and file names on the card reducing recording errors.
4. Insert or remove SD cards only when the device is completely powered off. Wait until the blue LED is completed off before removing SD card.
5. SD cards used for continuously recording equipment such as a drive recorder typically lasts only 6-12 months. Change SD cards periodically.

LEDS & BUZZER SPECIFICATION

Status/Step		LED			Buzzer	Voice	
		Warning	Record	Network			
		(Red)	(Blue)	(Green)			
							
Start-up	Bootting step1 (0~20)		On	Off	Off		
	Bootting step2 (20~30)		On	On and Off	Off		
	Bootting Finished (30, 1second)		On	On	On	[Beep] (1000Hz, 200msec)	「Beep」(1time)
	Power off	During Power off		Off	Simultaneous Flashing(Blink rate: fast)		
Power off finished		Off	Off	Off	[Beep] [Beep] (500Hz, 150msec)		
Record	Continuous Record	Recording	On				
	Event record	Stand by	On				
		Recording	Flashing(Blink rate: fast)				
	Dual record	Continuous recording	On				
		Event recording	Flashing(Blink rate: fast)				
No record	Not record	Off					
Network	3G Network Device Ready				On		
	Communication				On		
Function	SD Initialize (Format)		Off	On and Off	Off and On	(Beep, 1time) continuously	
	G-Sensor Calibration					「Beep→」(after 2 seconds) Beep、 Beep、	
	FW Upgrade			On and On and Off and Off	Off and Off and On and On		
	Button Press					[Beep] (2000Hz, 200msec)	「Beep」
Warning	System Warning	SD Card Full	Flashing(Blink rate: fast)	Off		「Beep x 4」(3times)	
		Video loss Video STD error	On				
Error	Record Error	SD error, No SD, Write fail	Flashing(Blink rate: Slow)	Off		「Beep x4」(3times)	
	Network Error	3G Network Device error SIM error			Off		
		Data Network connection error			Flashing(Blink rate: Slow)		
		DMS communication error			Flashing(Blink rate: Slow)		
Event Trigger	G-Sensor, Panic Button, Alarm-In					「dingdong x2」(1time)	
	Over Speed					「beep, beep x2」(1time)	

INSTALLATION

Park your vehicle on a flat level surface.
Turn off the engine before installing the VT4000.

- 1) Find installation location for VT4000 like in the glove box, under dash or trunk.
- 2) Use provided velcro adhesive to secure VT4000 recorder. Velcro can be attached and detached freely.

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

- 3) Install the cameras (sold separately) with double side tape to the windshield or other flat surfaces as been below. Adjust camera view. Make sure the lens has an unobstructed view.



- 4) Install the remote controller onto dash within reach of the driver using provided double side tape.
- 5) Arrange the power cable neatly alongside of the windshield and door pillar trim. The VT4000 requires a continuous 12/24volt power source from the vehicle.

Connect the "Red cable (Battery+)" to a fuse. It should be connected to a fuse that has power all the time from car battery. And the "White cable(AC-C+)" 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.

OPERATION – ON SCREEN DISPLAY

The following displays can only be seen when a monitor is connected.

The default display is 2x2 with all cameras shown, to change, press (M2) button to select which camera to view. Each press will change the camera on display with the last option being all camera views.



4CAMERAS(2x2)



CAMERA1



CAMERA2



CAMERA3



CAMERA4

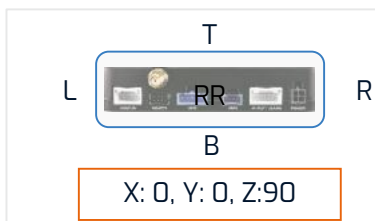
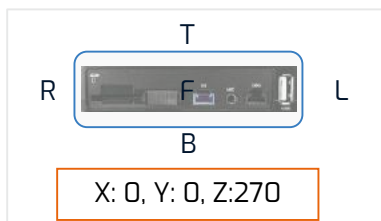
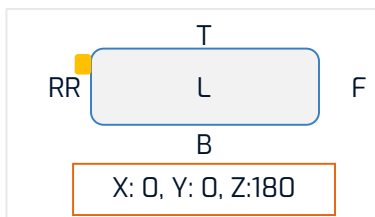
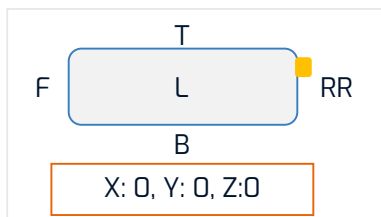
AXIS ADJUSTMENTS BY DEVICE POSITIONS

Driving Direction

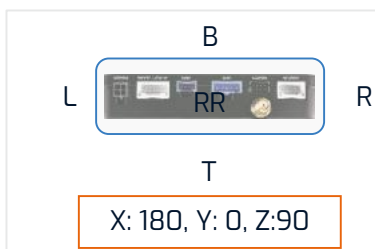
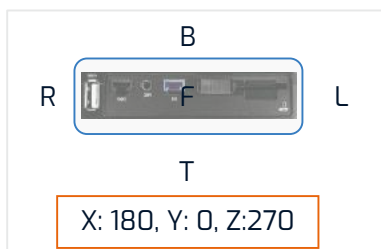
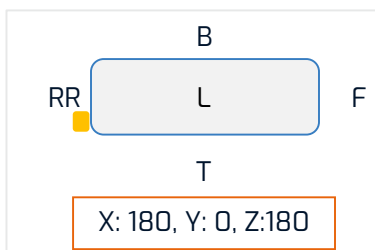
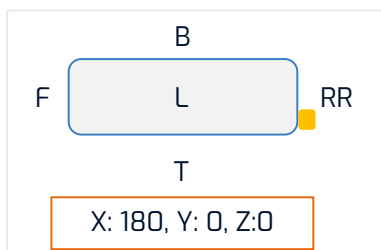


F: Front	RR: Rear	T: Top
B: Bottom	R: Right-side	L: Leftside

1) When device is in an upright position

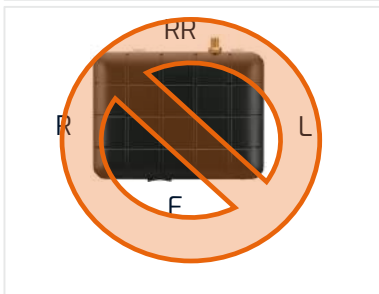


2) When device is in an upside down position

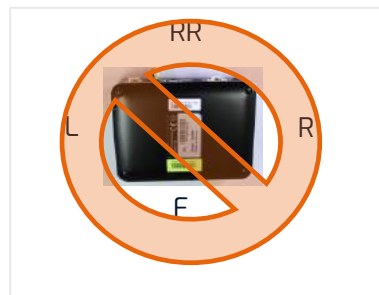


AXIS ADJUSTMENTS BY DEVICE POSITIONS

3) When device is in a sideways position with the TOP to the left

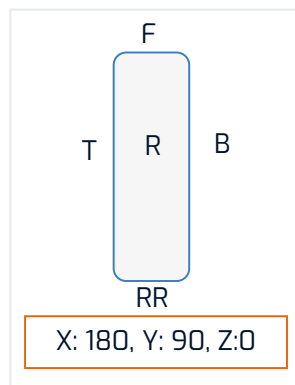
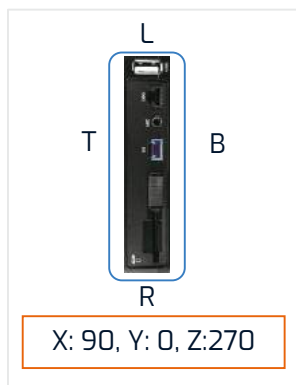


4) When device is in a sideways position with the TOP to the right

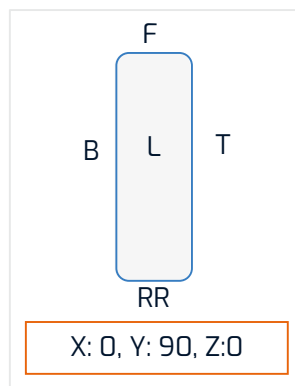
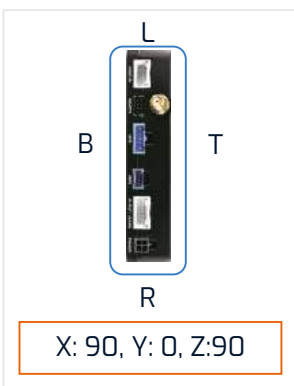


AXIS ADJUSTMENTS BY DEVICE POSITIONS

5) When device is in a sideways position with the TOP facing front



6) When device is in a sideways position with the TOP facing rear



REMARK: Do not install the device with the Front facing down position.

CONFIGURATION TOOL USER GUIDE

Configuration Tool VT4000 Software



PC SYSTEM REQUIREMENT

Recommended PC specifications for Configuration Tool Software

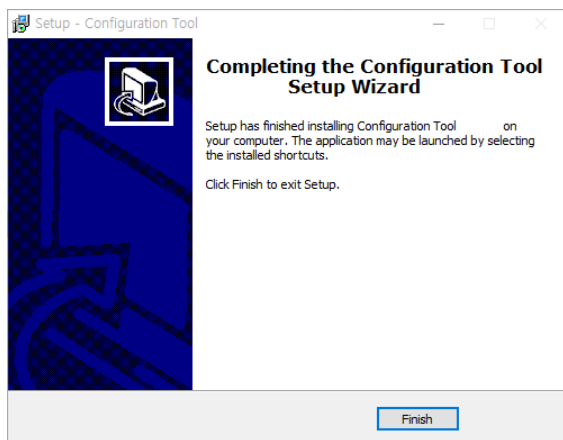
OS	Windows Vista, Windows 7, Windows 8/8.1
CPU	Core 2 Duo 2.5GHz or Higher
RAM	2GB or Higher
Interface	SD Memory Card Reader
HDD Free space	Install : 55MB or Higher Backup : 4GB or Higher
Display	1024 x 768 pixel/True Color or higher

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

SOFTWARE INSTALLATION

Please ask the Configuration Tool VT4000 Software to your distributor.

1. Double click [setup.exe]
2. Select the language
3. Select destination location
4. Select Start Menu Folder then follow the dialog box prompts.



5. The "Configuration Tool VT4000" icon will be displayed on your desktop.



NOTE: To Un-install the Configuration Tool VT4000 Software

Make sure the program is not running and open the 'Control Panel' Select 'Remove Program' and remove the Configuration Tool VT4000 Software.

INITIALIZE SD CARD

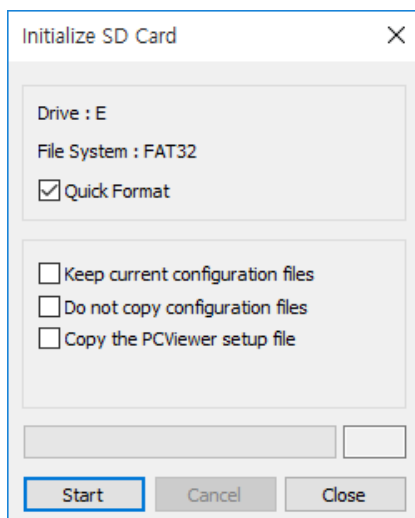
Initialize SD Card

Click!

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 uncheck the 'Keep current configuration files' and Click 'Start' to begin initialization.



DEVICE SETTINGS

The screenshot shows the 'Configuration Tool' window with the following settings:

- Device:** Record, Event, System, Network, DM55
- Camera:**
 - CAM1: CAM1
 - CAM2: CAM2
 - CAM3: CAM3
 - CAM4: CAM4
 - Video Type: NTSC
- Signal:**
 - Car Pulse:
 - Type: 8
 - Standard: JIS 4W (637)
 - RPM:
 - Type: 4
 - G-Sensor Axis:
 - Axis X: 0°
 - Axis Y: 0°
 - Axis Z: 0°
- Misc.:**
 - TV Out
 - Audible Camera Chime
 - Buzzer On
 - Speed Source: GPS Speed
 - Delayed Power Shutdown:
 - Hours: 0
 - Min: 1

Buttons at the bottom: About, Settings, Initialize SD Card, Open, Save, Close.

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 all recordings.

VIDEO TYPE: Set the video type "NTSC or PAL"

CAR PULSE TYPE: Select the vehicle's car pulse type.

CAR PULSE STANDARD: Select the vehicle's car pulse standard.

RPM TYPE: Select the vehicle's RPM type.

G-SENSOR AXIS: Refer to page 14 in this manual and set Axis.

TV OUT: Check it to see live screen.

AUDIBLE CAMERA CHIME: Turn the Chime on or off

BUZZER ON: Turn the Buzzer on or off

SPEED SOURCE: Choose the speed source "GPS or Pulse" to use it on the unit.

DELAYED POWER SHUTDOWN: Set delayed power shutdown time.

RECORD SETTINGS

Device	Record	Event	System	Network	DMS5
Channel					
	Resolution	NTSC FPS	Quality		
CH1	FHD	10	Standard		
CH2	HD	10	Standard		
CH3	HD	10	Standard		
CH4	D1	10	Standard		

RESOLUTION

NTSC: D1 (720x480), HD (1280x720), FHD (1920x1080).

PAL: D1 (720x576), HD (1280x720), FHD (1920x1080).

FPS (Frame Rate)

Adjust the frame rate from

NTSC: 30fps, 15fps, 10fps, 5~1fps

PAL: 25fps, 12fps, 10fps, 5~1fps

QUALITY

Adjust the picture quality from Standard, High, Super

RECORD FRAME RATE (FPS) RULES & BITRATES

1. FHD: 2Channels total max 30fps (NTSC) or max 25fps (PAL)
2. HD: 3Channels total max 60fps (NTSC) or max 50fps (PAL)
3. D1: 4Channels total max 120fps (NTSC) or max 100fps (PAL)
4. Channel 3 (Camera No.3): Support HD or D1 camera
5. Channel 4 (Camera No.4): only support D1 camera.
6. Total FPS calculation
 NTSC: $(\text{FHD total fps} \times 4) + (\text{HD total fps} \times 2) + (\text{D1 total fps}) \leq 120\text{fps}$
 PAL: $(\text{FHD total fps} \times 4) + (\text{HD total fps} \times 2) + (\text{D1 total fps}) \leq 100\text{fps}$

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

Record

Record Mode: Continuous

Continuous: 50% | Event: 50%

Pre Rec Time: 10 Sec

Post Rec Time: 10 Sec

Audio

Overwrite Recordings

Parking Mode Recordings

Drive Data

Driving Data Recordings

Overwrite Recordings

Duration (1Day 8Hours): About 7 Days

Misc.

Encryption No. [] 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

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.

Device	Record	Event	System	Network	DMS5
G-Sensor	Misc.				
G-Sensor					
Record CH			Beep	Alarm Out 1	Alarm Out 2
☑☑☑☑			☑	None	None
G-Sensor Sensitivity					
<input checked="" type="radio"/> Pre-set			<input type="radio"/> Custom		
<input checked="" type="checkbox"/> Simple Setting Mode					
Sensitivity		5			
Impact		5			
Accel/Brake		5			
Turning		5			
eCall Trigger					
mG (0~4000)		X	Y	Z	
		0	0	0	
<input checked="" type="checkbox"/> Auto adjust G-Sensor to vehicle speed					
<input checked="" type="checkbox"/> Turn Z Axis on					
High Impact					
		X	Y	Z	
mG (0~4000)		600	600	700	
Hz (1~20)		4	7	10	
Harsh Accel/Brake					
		X			
mG (0~4000)		190			
Hz (1~20)		10			
Harsh Turn					
			Y		
mG (0~4000)			190		
Hz (1~20)			15		
<input type="checkbox"/> Trigger high impact events only					

G-SENSOR SENSITIVITY

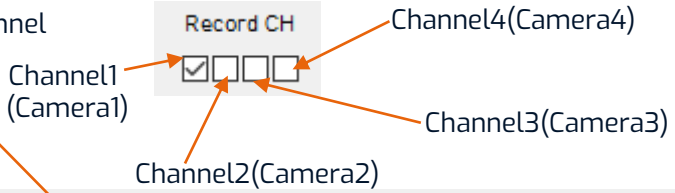
The shock sensor sensitivity can be set to 'Simple setting Mode' or 'Custom'. Set to easy allows you to set the sensitivity to 9 (High), 5 (Medium) or 1 (Low). In custom set, you can set 3 different shock sensor values individually.

AUTO ADJUST G-SENSOR TO VEHICLE SPEED

Once it checked, VT4000 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



Device	Record	Event	System	Network	DMS5	
G-Sensor						
Misc.						
Panic Button						
		Record CH	Beep	Alarm Out 1	Alarm Out 2	
		<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None	
Overspeed						
Speed Limit		Record CH	Beep	Alarm Out 1	Alarm Out 2	
<input type="text" value="100"/> km/h Over		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None	
Alarm In						
Use	Title	Type	Record CH	Beep	Alarm Out 1	Alarm Out 2
<input type="checkbox"/>	Alarm1	V-Off	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None
<input type="checkbox"/>	Alarm2	V-Off	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None
<input type="checkbox"/>	Alarm3	V-Off	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None
System Warning						
				Alarm Out 1	Alarm Out 2	
				None	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					
<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"/>				
Authentication	None <input type="button" value="v"/>				
SMS Center Number	<input type="text"/>				

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.

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		LiveTrack2 <input type="text"/>			
<input type="checkbox"/> Transmit Event Data			G-Sensor/Gyro Data <input type="text"/>		
<input type="checkbox"/> Transmit ECall Notification					
Event Images					
<input checked="" type="checkbox"/> CAM1 <input type="checkbox"/> CAM2 <input type="checkbox"/> CAM3 <input type="checkbox"/> CAM4					
Pre-Event		5 Sec <input type="text"/>		Event/Snapshot Quality <input type="text"/>	
Post-Event		5 Sec <input type="text"/>		High <input type="text"/>	
Event Triggered by					
<input type="checkbox"/> G-Sensor <input type="checkbox"/> Alarm1					
<input type="checkbox"/> Panic Button <input type="checkbox"/> Alarm2					
<input type="checkbox"/> Overspeed <input type="checkbox"/> Alarm3					

Set Domain/Static IP and Port number

Default License Key is "DASKEY_001"

And check the options

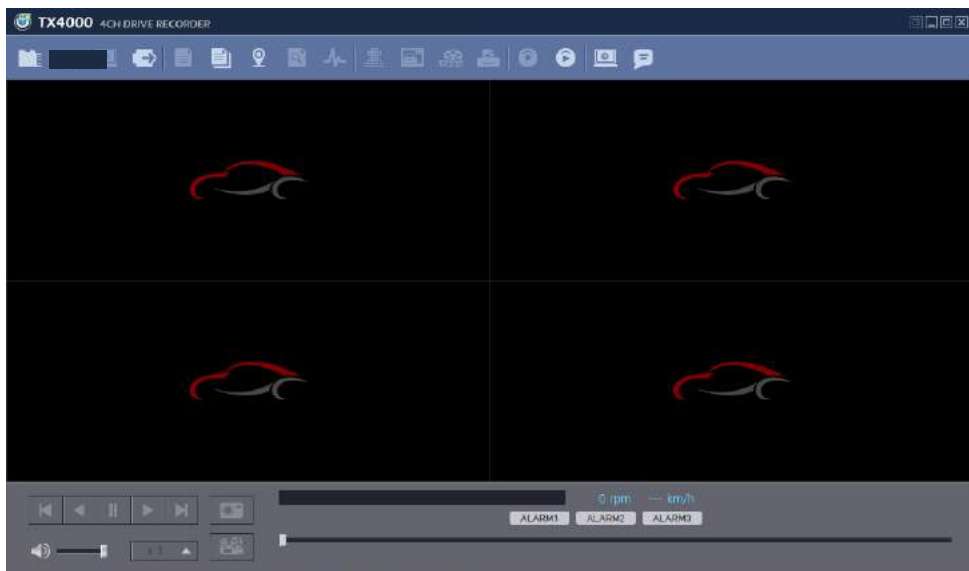
- Transmit Live Tracking Data
- Transmit Telematics Data (DRV)
- Transmit Event Data.

And then select events

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

SOFTWARE USER GUIDE

PC VIEWER SOFTWARE



PC SYSTEM REQUIREMENT

Recommended PC specifications for PC Viewer Software

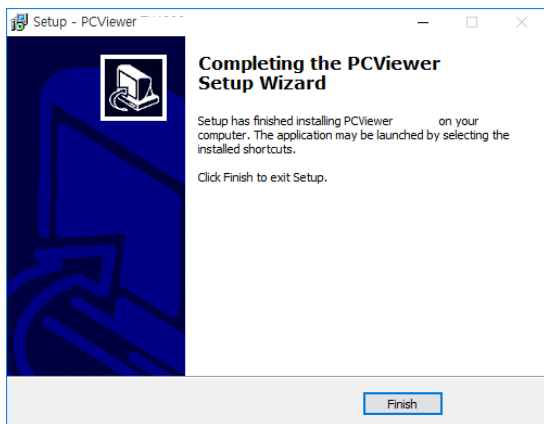
OS	Windows Vista, Windows 7, Windows 8/8.1
CPU	Core 2 Duo 2.5GHz or Higher
RAM	2GB or Higher
Interface	SD Memory Card Reader
HDD Free space	Install : 55MB or Higher Backup : 4GB or Higher
Display	1024 x 768 pixel/True Color or higher

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 VT4000" 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.

SOFTWARE INSTALLATION



Viewing settings

This setting is for the PC Viewer Software itself. To set the Recorder, refer to page 17.

A screenshot of the 'Settings' window for PC Viewer Software. The window has a title bar with 'Settings' and a close button. It is divided into several sections: 'Login Password' with a 'Set Password' button; 'Viewer Settings' with 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), and Display Time (From Camera); a 'Save Layout' button and a 'Last Layout' dropdown; and 'Drive Data Settings' with input fields for Max Speed (100), Max G-Sensor (+-1G), and Max RPM (4000). At the bottom are 'OK' and 'Cancel' buttons.

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 VT4000 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"

4CH DRIVE RECORDER

Select SD card

SD Card List

- E: - FHDRM (30.14GB/30.15GB)
-
-
-

Open SD Card

Data Folder

Select Folder

0 rpm --- km/h

ALARM1 ALARM2 ALARM3

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.

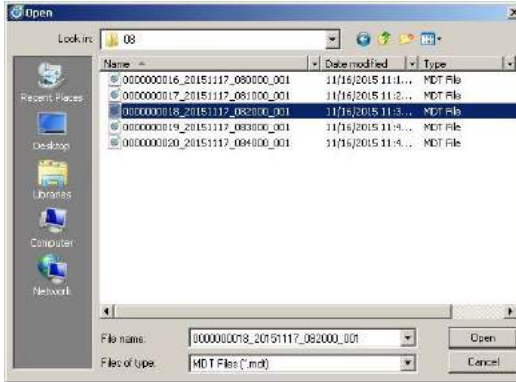
Continuous	Event
5	2017.06.22 12:50:00
6	2017.06.22 13:32:09
7	2017.06.22 13:40:00
8	2017.06.22 13:50:00
9	2017.06.22 14:00:00
10	2017.06.22 14:10:00
12	2017.06.22 18:48:55
13	2017.06.22 18:50:00
14	2017.06.22 19:00:00
15	2017.06.22 19:10:00
16	2017.06.22 19:20:00
17	2017.06.22 19:30:00
18	2017.06.22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



“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

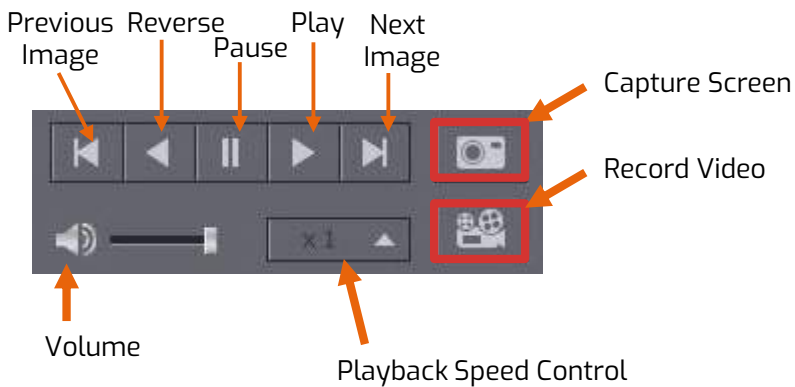
The screenshot displays the playback interface for an X4000 4CH DRIVE RECORDER. It features four camera views: CAM1 (720p), CAM2 (720p), CAM3 (720p), and CAM4 (960p). Each view shows a different perspective of a road with traffic. The interface includes a top toolbar with various icons, a bottom control panel with playback buttons and a timeline, and several data overlays. Red boxes highlight specific elements: 'CAM1 - 720p' and 'NOR' in the top corners; G-sensor values (X, Y, Z) and timestamps in the bottom-left of each camera view; and speed information (0 km/h) and frame counts (2219 / 17983) in the bottom-right of the CAM4 view. The bottom control panel shows 'Vehicle_HD15' and 'Driver_HD15x' with a progress bar and time markers.

G-Sensor value
Time

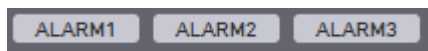
GPS Speed
Display Frame / Total frames number

Vehicle No & Driver ID

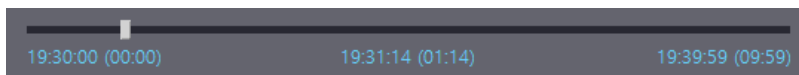
PLAYBACK



ALARM INDICATOR



PLAYBACK CONTROL BAR

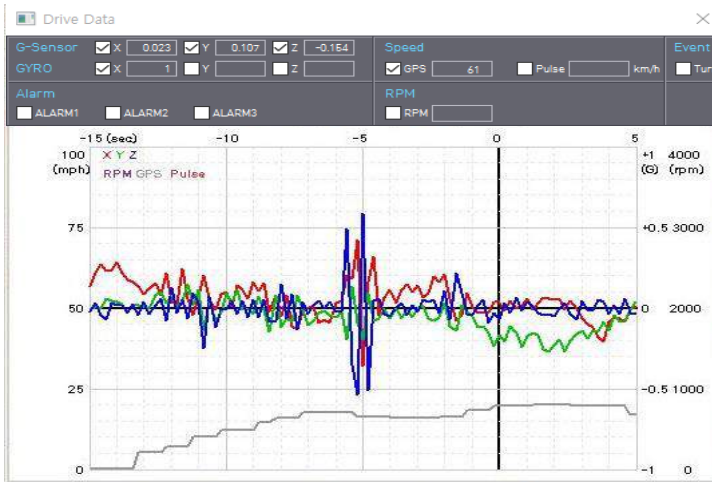


DRIVE DATA



"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.



TH 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.

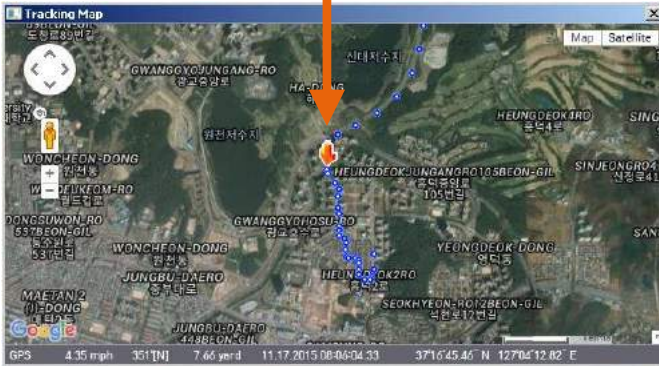
TRACKING MAP



"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

Alarm: ALARM1 ALARM2 ALARM3

Sudden Accel/Stop +0.4G

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.

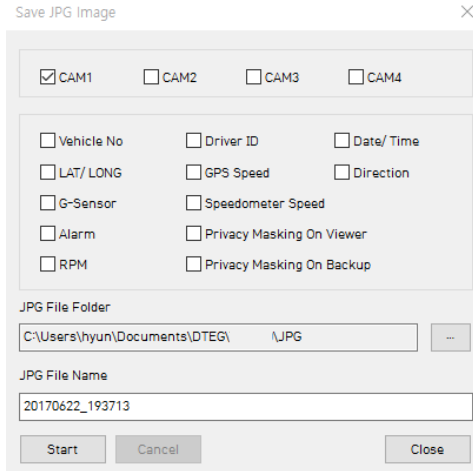
To select all or clear all, click on the 'Select all' or 'UnSelect All' buttons on the bottom, respectively.

SAVE JPEG AND MP4 FILE

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



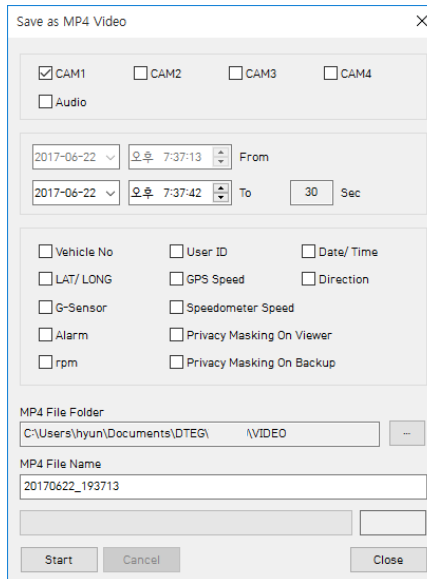
"Save JPG" icon

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 various data fields including 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 "JPG File Folder" section with a text box containing "C:\Users\hyun\Documents\DTEG\ \JPG" and a browse button (...); a "JPG File Name" section with a text box containing "20170622_193713"; and a row of three buttons: "Start", "Cancel", and "Close".

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



"Save MP4 Video" icon

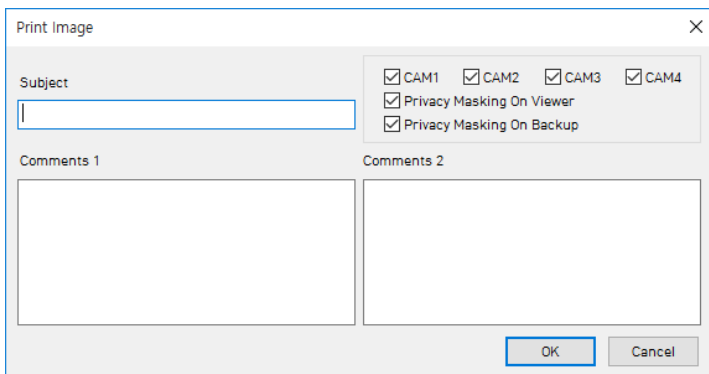
A dialog box titled "Save as MP4 Video" with a close button (X) in the top right corner. It contains several sections: a row of checkboxes for CAM1 (checked), CAM2, CAM3, and CAM4; a checkbox for "Audio"; a "From" section with a date dropdown (2017-06-22), a time dropdown (오후 7:37:13), and a "From" label; a "To" section with a date dropdown (2017-06-22), a time dropdown (오후 7:37:42), a "To" label, and a "30" value next to a "Sec" label; a grid of checkboxes for various data fields including 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; an "MP4 File Folder" section with a text box containing "C:\Users\hyun\Documents\DTEG\ \VIDEO" and a browse button (...); an "MP4 File Name" section with a text box containing "20170622_193713"; and a row of three buttons: "Start", "Cancel", and "Close".

PRINT IMAGE

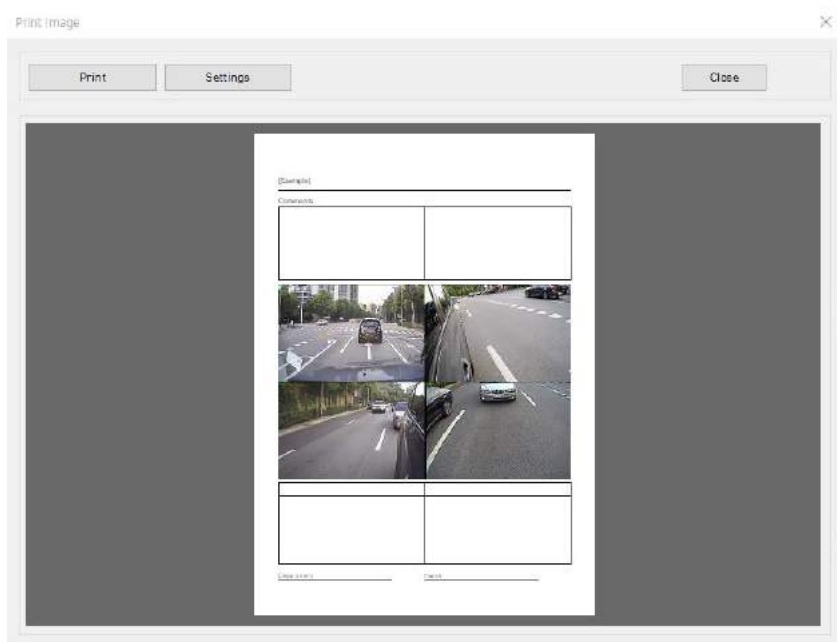
Pause the playback and click "Print Image" icon.



"Print Image" icon

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

Type Subject and Comments 1 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 the 'Backup Data' dialog box. The window has a title bar with 'Backup Data' and a close button. It contains several sections: 1. Camera selection: Four checkboxes for CAM1, CAM2, CAM3, and CAM4, all of which are checked. 2. Time range: Two date pickers both set to '2017-06-22'. The first time is '오 후 7:37:13' (PM 7:37:13) with a 'From' label, and the second is '오 후 7:38:12' (PM 7:38:12) with a 'To' label. A '60 Sec' field is next to the 'To' time. 3. Identification: Text boxes for 'Vehicle No' (Vehicle_HD15x3_D130x1) and 'Driver ID' (Driver_HD15x3_D130x1). 4. Notes: Text boxes for 'Memo Title' and a larger text area for 'Memo'. 5. Location and Type: A 'Folder' field with 'C:\Users\hyun\Documents\DTEG\' and a browse button (...). A 'Type' dropdown menu. 6. 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

No.	Date/ Time	Vehicle No	Driver ID	Memo Title
<input type="checkbox"/> 0001	0006.22.2017 19:20:00	Vehicle_...	Driver_HD15x3_...	

Folder ...

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

Video In	CH1, CH2: 5V 1080P or 720P AHD camera in CH3: 5V 720P AHD camera in CH4: 5V D1 camera in
Audio In	1CH (Internal or External Microphone)
AV Out	1 Video out, 1 Audio out
Band support	WCDMA Band1(2,100MHz)/ Band8 (900MHz)
Max Data Rate	UL:5.76Mbps, DL : 7.2Mbps
Video resolution	1080p HD (1920x1080), 720P (1280x720), D1(NTSC:720x480, PAL 720x576)
Recording Speed	Full HD: 30fps(25fps), HD: 60fps(50fps) D1: Up to 120 fps (NTSC) or 100fps(PAL)
Recording Mode	Continuous , Event, Dual Mode
Memory	Support 32GB, 64GB(FAT32), 128GB(FAT32)
GPS/GLONASS	External GPS /GLONASS
G-Sensor	Internal 3-axis G-sensor
Gyro	3Axis(X,Y,Z), output rate:100 Hz,
RTC	Internal battery
Alarm In/Out	3 x Alarm In, 2 x Alarm Out
Remote controller	3x LED, Panic button, M1 & M2 button
LED	Green LED (Network), Blue LED (Record), Network (Red LED)
Super Capacitor	Enable recording of last file and shut down
Power input	DC 12V/24V 3A
Delayed Power Shutdown	Supports Delayed Power Shutdown
Power consumption	Max. 36W
Size / Weight	120mm X 28mm X 90mm / 166g
Operation Temp.	-10°C ~55°C

APPENDIX RECORDING TIME TABLE

DRV File Size		Reserved space for overwriting	Space for Video/ Audio (MB)				
Hours	Size		16GB	32GB	64GB	128GB	256GB
24	106.8MB	300 MB	15,593	31,593	63,593	127,593	255,593
168	748 MB		14,952	30,952	62,952	126,952	254,952
240	1068 MB		14,632	30,632	62,632	126,632	254,632
336	1200 MB		14,500	30,500	62,500	126,500	254,500

Resolution	Quality	fps	16GB	32GB	64GB	128GB
FHD(1080P) 1920x1080	Super	30	5hours	10hours	19hours	39hours
		1	21hours	44hours	90hours	167hours
	High	30	6hours	11hours	23hours	47hours
		1	25hours	52hours	106hours	167hours
	Standard	30	7hours	14hours	29hours	58hours
		1	31hours	63hours	129hours	167hours
HD(720P) 12 80x720	Super	30	9hours	19hours	38hours	76hours
		1	39hours	80hours	163hours	167hours
	High	30	11hours	22hours	45hours	90hours
		1	45hours	93hours	167hours	167hours
	Standard	30	13hours	27hours	55hours	111hours
		1	53hours	110hours	167hours	167hours
D1 720x480	Super	30	13hours	27hours	55hours	111hours
		1	53hours	110hours	167hours	167hours
	High	30	17hours	35hours	71hours	144hours
		1	66hours	136hours	167hours	167hours
	Standard	30	24hours	50hours	101hours	167hours
		1	85hours	167hours	167hours	167hours

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 VT4000

Insert the prepared SD card to VT4000 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 VT4000 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.

