3RD EYE®

9" LCD MONITOR with SD DVR

USER MANUAL

www.3rdeyecam.com

3rd Eye Customer Care:
866-804-2984

Environmental Solutions Group
201 W. Main Street, Ste 300
Chattanooga, TN 37408

Thank you for purchasing our product.

Please read this user's guide before using the product.

Subject to change without notice.

SAFETY PRECAUTIONS

⚡	**CAUTION**	⚠
	RISK OF ELECTRIC SHOCK	

CAUTION :
To reduce the risk of electric shock, do not expose this apparatus to rain or moisture. Only operate this apparatus from the type of power source indicated on the label. The company shall not be liable for any damages arising out of any improper use, Even if we have been advised of the possibility of such damages.

Graphic Symbol Explanation

⚡ The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user of the presence of insulated dangerous voltage within the product's enclosure that may be sufficient magnitude to constitute risk of electrical shock to persons.

⚠ This exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

RoHS conform — All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.

🗑 The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

> WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE UNITS NOT SPECIFICALLY DESIGNED FOR OUTDOOR USE TO RAIN OR MOISTURE.

Attention: installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

FCC STATEMENT

WARNING

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received including interference that may cause undesired operation."

WARNING

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.

⚐ You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

PACKAGE CONTENTS

Description	Picture
9 inch LCD monitor	
Power cable + trigger cable	
G mouse (GPS receiver)	
Audio-Video I/O	
FLAG and JUMP Button (Optional)	

Description	Picture
Base bracket and monitor bracket	
Sun shield cover for monitor	
Screw to attach monitor to its bracket 6mm x 4mm x 8 pcs	
Screw to mount the base bracket in the vehicle 4 mm x 15 mm x 5 pcs	
Side screw for monitor x 4	
Hex allen key for sd card cover	
CD (MRPlayer)	
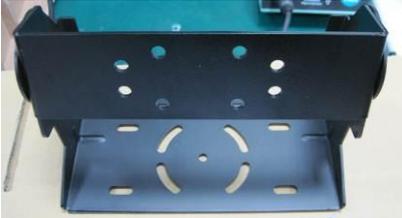
PRODUCT OVERVIEW

● **Product**

- Front
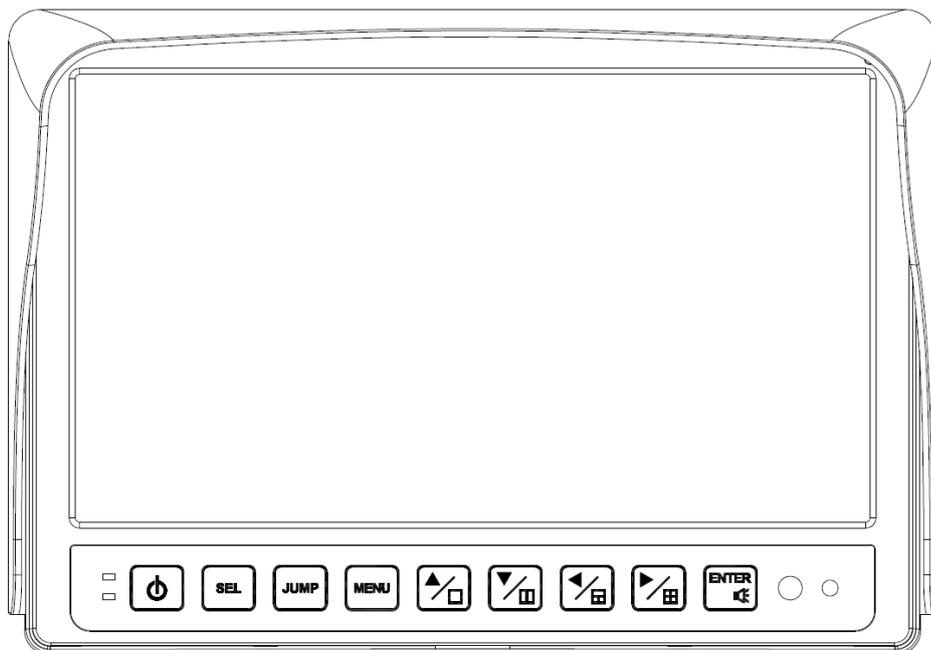
- Back
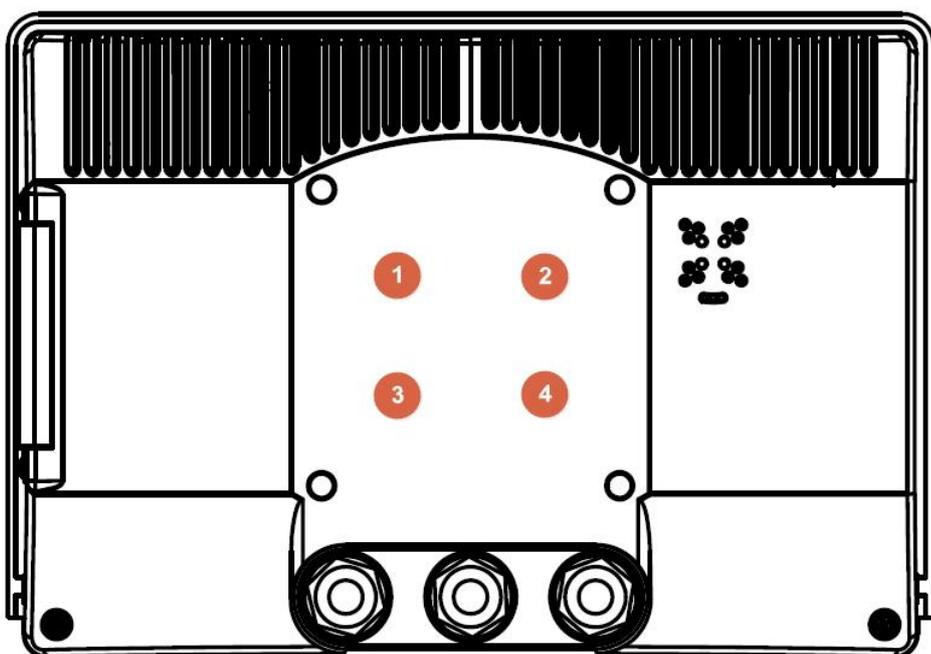
①②③④: Hole used for fixing the device to support

- Right side

SD card slot
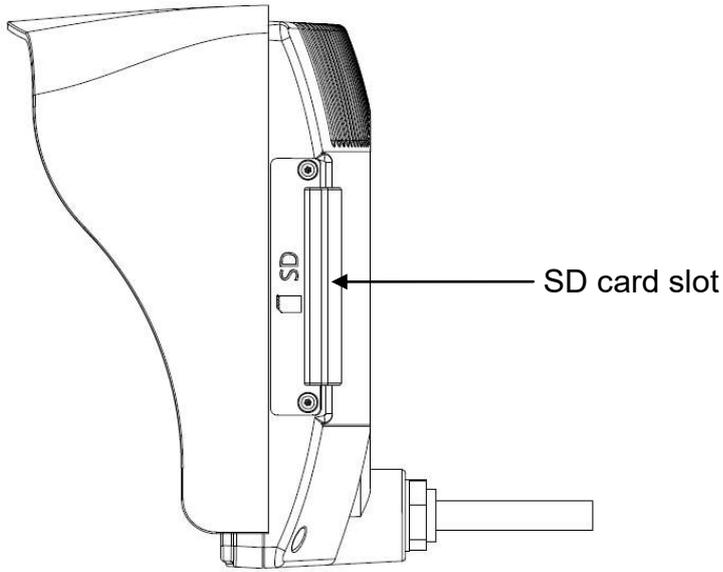
*Notice : After you insert the SD card, please make sure to format SD card before starting the system

● **Mini Din Pin Assignment**
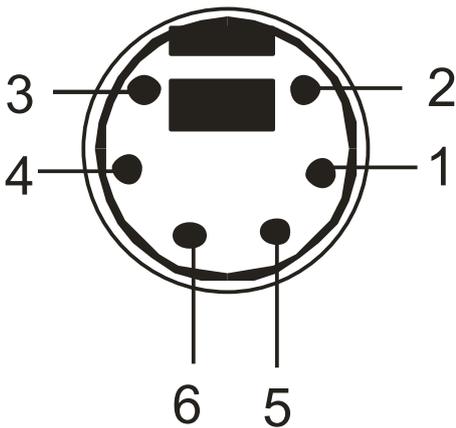
Pin	Function
1	Video
2	-------
3	Audio
4	+12V
5	GND
6	-------

● Cable description -- Power and trigger cable

START
ON
ACC
OFF
IGNITION
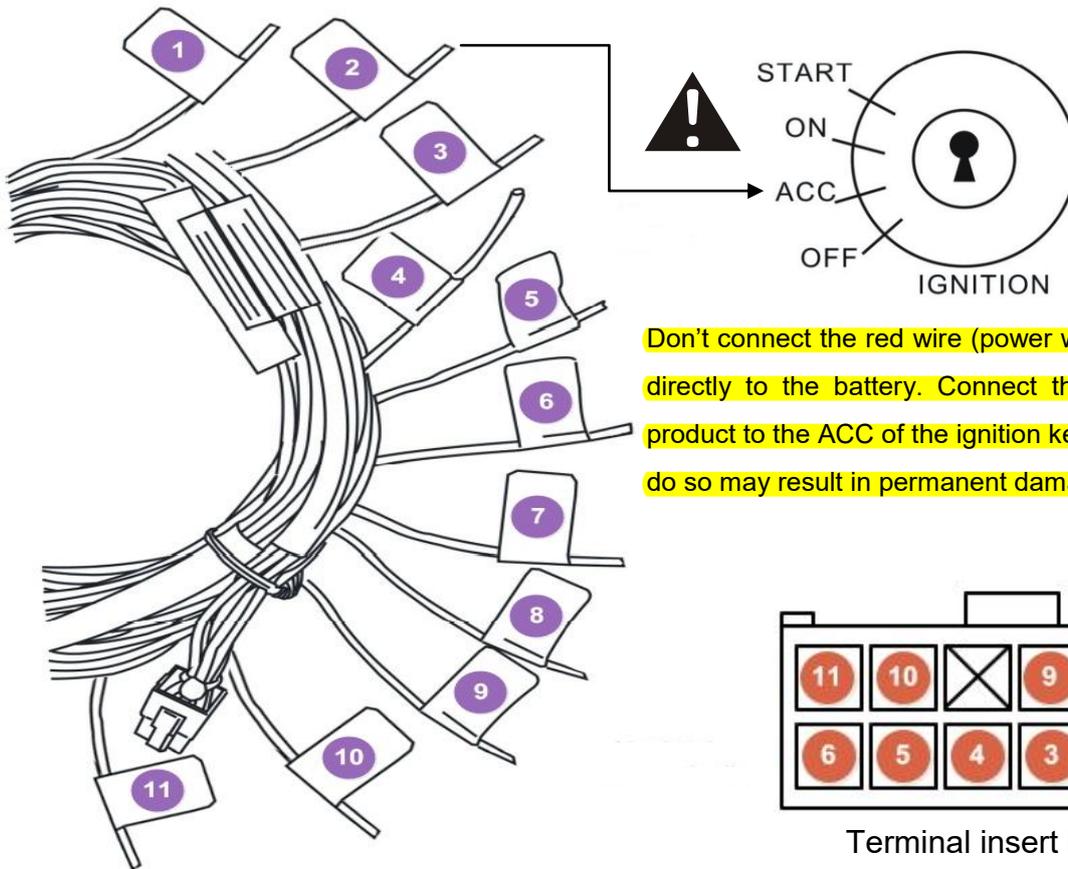
Don't connect the red wire (power wire) of this product directly to the battery. Connect the red wire of this product to the ACC of the ignition key switch. Failure to do so may result in permanent damage of the product.

Terminal insert interface

No.	Wire color	Description
1	Black	GND
2	Red	Battery POWER
3	Brown	TRG_5
4	Orange	TRG_B
5	Purple	TRG_A
6	Blue+Black	TRG_6
7	Green	TRG_C
8	Blue	TRG_R
9	Gray	TRG_8
10	Yellow	ACC
11	Blue+White	TRG_7

● Multiple Video/audio cable
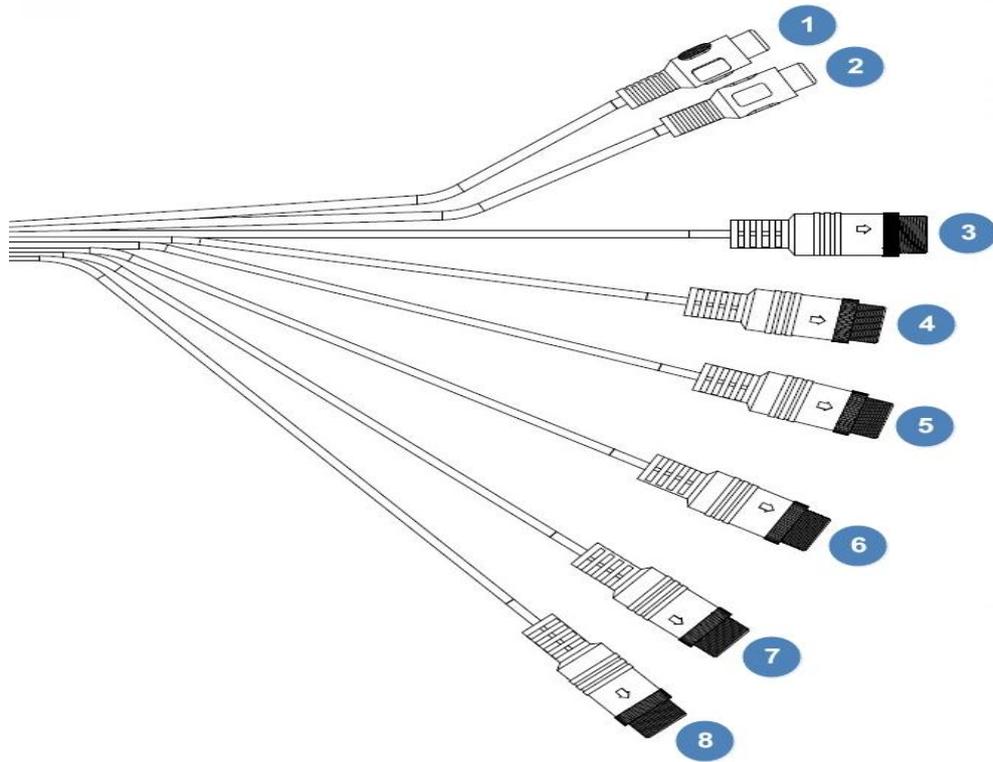
No.	Wire color	Type	Description	Remark
1	Yellow	RCA	Live video out	On screen video loop out (for recording, second monitor or other device)
2	Red	RCA	Live audio out	On screen audio loop out (for recording, second monitor or other device)
3	Black	Mini-din	Camera R (Rear)	For first camera connection
4	Black	Mini-din	Camera A (Left)	For second camera connection
5	Black	Mini-din	Camera B (Right)	For third camera connection
6	Black	Mini-din	Camera C	For fourth camera connection
7	Black	Mini-din	Camera 5	For fifth camera connection
8	Black	Mini-din	Camera 6	For sixth camera connection
9	Black	Mini-din	Camera 7	For seventh camera connection
10	Black	Mini-din	Camera 8	For eighth camera connection

● **Power Setup**

Cable type	Meaning
....	Ground-
– – – – – – –	Power +
– · – · – · – · ·	ACC power

※ **Power : DC9.6V~36V**

GND   POWER   Connect to acc of your car   ACC POWER

CAR BATTERY

DVR
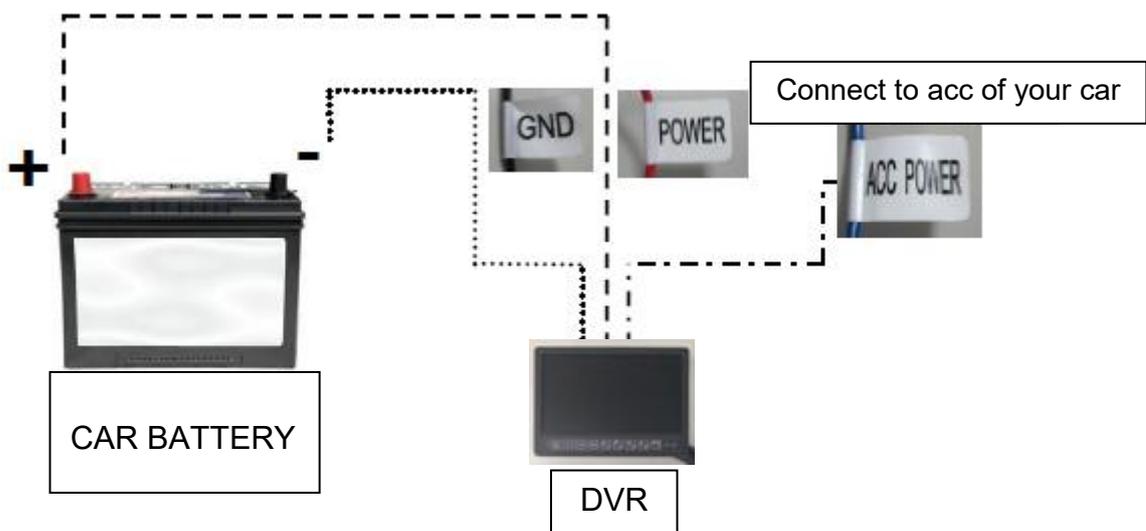
※ For your information ground and power + cable are protected with a 7.5A fuse.

※ Note that, do not pull the power connector when the DVR is recording to avoid the SD card be damaged.

※ There are two ways to stop recording. One is turn off the ACC, the other is remove the cover of SD card.

CONNECTION

- **Power cable**

Connect the 10 pin power connector to the power cable
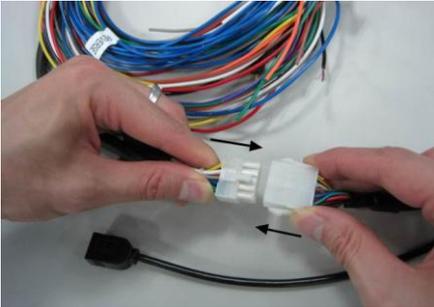
After connected it should look like this
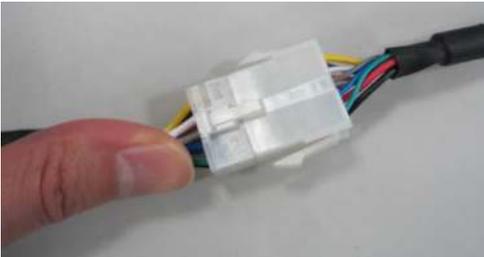
G mouse (or called GPS receiver)

Connect the G mouse to the mini din female connector.

Please connect in the direction of the arrow.
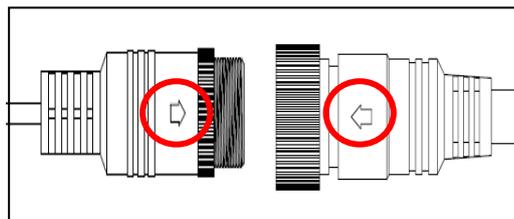
It should be locked tightly clockwise.

● **Multiple Video/audio cable**

Connect the D-sub 44 pin male to female cable

Flag button

Connector from monitor for flag and jump

Please connect in the direction of the arrow.
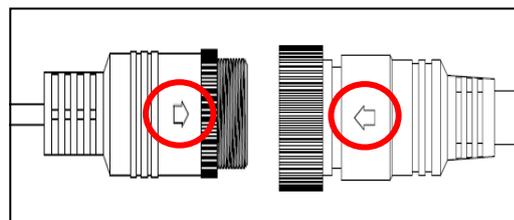
It should be locked tightly clockwise.
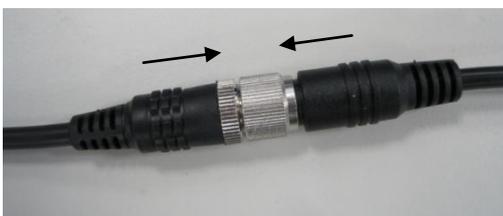
USER INTERFACE

- ● **Keypad**
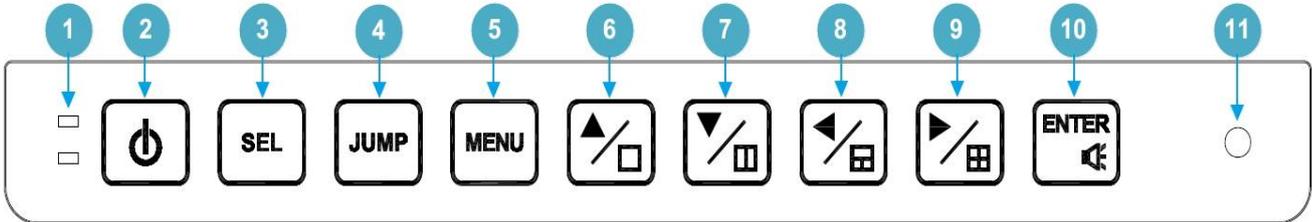
When you press the button, the button function show as below :

	Simple Mode (ON)	Simple Mode (OFF)
1	LED indicatior :	

LED	Description	ON	OFF	Blinking
Green	Power	Power on	Power off	LCD monitor standby
Red	Record	DVR recording	DVR no recording	Video loss, no recording

2	Power switch	
3	Display switch : HD INPUT or (grid)	Multi-image switch : A B C D 5 6 7 8 (layout icons) HD INPUT
4	It can switch image style to what you set in menu.	
5	Pop up OSD menu / Leave from menu.	
6	Single image switch	Direction button : UP and DOWN (MENU)
7	Dual image switch (6 mode) A B A C A R B C B R C R	

	Simple Mode (ON)	Simple Mode (OFF)
8	Triple image switch (4 mode) `[A|B / C]` `[A|B / R]` `[A|C / R]` `[B|C / R]`	1. SEL direction button (MENU) 2. Adjust volume
9	Quad image switch (1 mode) `[A|B / C|R]`	
10	Volume mode and press ◀ ▶ to adjust volume	Enter
11	Light sensor	

● **On screen icon**

Icon	Description
	GPS is detected and positioned successfully
	G-Sensor trigger
	Emergency trigger
	Overspeed
	SD card is abnormal or unformatted. ※ If SD card is damaged causing can not be detect, it will not show the icon.
	SD card × 1

Icon	Description
	SD card × 2
	Recording (Blue)
	Event recording (Red)
	SD card abnormal(Red flashing)

※ SD card capacity: 0-19% (Blue), 20-39% (Green), 40-64% (Yellow), 65-89% (Orange), 90-100% (Red).

※ SD card is FAT32 format, every 5 mins has the video file.

※ Please format it every month. Otherwise, it will show a reminder as below :

> Please backup important record files and format SD card encore write/read speeds in a good condition.

※ SD card has write life, so we recommend to replace the SD card regularly :

Item	Period of use
TLC SD card	About 1000 times
MLC SD card	About 3000 times

SYSTEM FUNCTION

- It will stop recording when playback.

- Emergency recording is forced to put in Event folder and this folder cannot be rewritten.

- It doesn't detect video lost without recording.

- If event folder's storage is over 80%, it will show a reminder as below :

> The storage is over 80% on Event folder. (It's a non-rewritable folder)
> Please backup important record file and format the SD card.

OSD MENU

Notice: " 【XXX】 " means 【default value】

1.Record Setting	Channel	CH A、CH B、CH C、CH R、CH 5、CH 6、CH 7、CH 8 【CHA】	
		Enable	ON/OFF 【ON】
		Audio	ON/OFF 【ON】
		Frame Rate	5,10,15,20,30 FPS【25/30 FPS】
		Resolution	D1/960H,720p(AHD) ,720p(TVI) ,1080p(AHD) ,720p(TVI)
		Quality	Low、Normal、High 【High】
	IGN.OFF	OFF、30sec、5min、10min、15min、20min、25min、30min、35min、40min、45min、50min、55min、1hour 【OFF】	
2. Camera Setting	Channel	CH A、CH B、CH C、CH R、CH 5、CH 6、CH 7、CH 8 【CHA】	
		Brightness	0-10【5】
		Contrast	0-10【5】
		Saturation	0-10【5】
		HUE	0-10【5】
		Mirror	ON/OFF【OFF】
		Flip	ON/OFF【OFF】
	DisplayTitle	ON/OFF 【ON】	
	Distance Gauge	Confirm	
	Auxiliary Line	ON/OFF【ON】	
3. System Setting	Language	English、Traditional Chinese、Simplified Chinese【English】	
	Storage Size	SD1/SD2	
	Format	SD1/SD2	
	Overwrite	ON/OFF 【ON】	
	Video Mode	NTSC/PAL【NTSC】	
	Video Out	92%、94%、96%、98%、100%【94%】	

	Date	yyyy/mm/dd	
	Time	hr / min / sec	
		Display	dd-mm-yyyy,yyyy-mm-dd,mm-dd-yyyy 【dd-mm-yyyy】
		Time zone	UTC -12:00、…、UTC+08:00、…、UTC+13:00 【UTC+08:00】
		Hour Mode	24-hour clock、12-hour clock
		DST	ON/OFF【ON】
	Speed unit	Km / Mile【Km】	
	Company		
	Car ID		
	Max Channels	4 channels / 8 channels	
	Factory Default	ON/OFF【OFF】	
	Simple Mode	ON/OFF【ON】	
4. Event Setting	Trigger A	A、A+B、A+C、A+R、A+BC、A+BR、A+CR、BC+A、BR+A、CR+A、ABCR 【A】	
	Trigger B	B、B+A、B+C、B+R、B+CR、B+CA、B+RA、CR+B、CA+B、RA+B、ABCR 【B】	
	Trigger C	C、C+A、C+B、C+R、C+RA、C+RB、C+AB、RA+C、RB+C、AB+C、ABCR 【C】	
	Trigger R	R、R+A、R+B、R+C、R+AB、R+AC、R+BC、AB+R、AC+R、BC+R、ABCR 【R】	
	Trigger 5	ON/OFF【OFF】	
	Trigger 6	ON/OFF【OFF】	
	Trigger 7	ON/OFF【OFF】	
	Trigger 8	ON/OFF【OFF】	
	Jump Style	A、B、C、R、5、6、7、8、2 image switch、3 image switch、4 image switch、5 image switch、6 image switch、8 image switch、9 image switch、HD INPUT 【4 image switch】	
	Over Speed	ON 【ON】	Threshold　XXX Mile / h【100 Km/h】

		OFF	
	G Sensor	Threshold	2G、2.5G、3G、4G、5G【3G】
		Lock	ON/OFF【OFF】
	Post-Record	5sec、30sec、1min、3min【1min】	
5. LCD Setting	Brightness	0-50【25】	
	Contrast	0-50【25】	
	Saturation	0-50【25】	
	HUE	0-10【5】	
	Sharpness	0-10【5】	
	Volume	0-10【5】	
	Auto/ Day /Night	Auto、Day、Night【Day】	
6. Playback			
7. Logs List	Search	Starting Time	YYYY/MM/DD　hh:mm:ss
		End Time	YYYY/MM/DD　hh:mm:ss
		Type	All、System、Event、Error、Operate
		Start Search	Confirm
	Export All		
8. Menu Lock	User Name	【admin】	
	Password	【1111】	
	Pwd Confirm		
	Enable	ON/OFF【OFF】	
9. Information	Firmware Ver.		
	U-Boot Ver.		
	MCU Ver.		
	LCD Ver.		
	Kernel No.		
	GPS Info.	Latitude	
		Longitude	
		Height	
		Speed	

MENU DESCRIPTION

1.   Record Setting
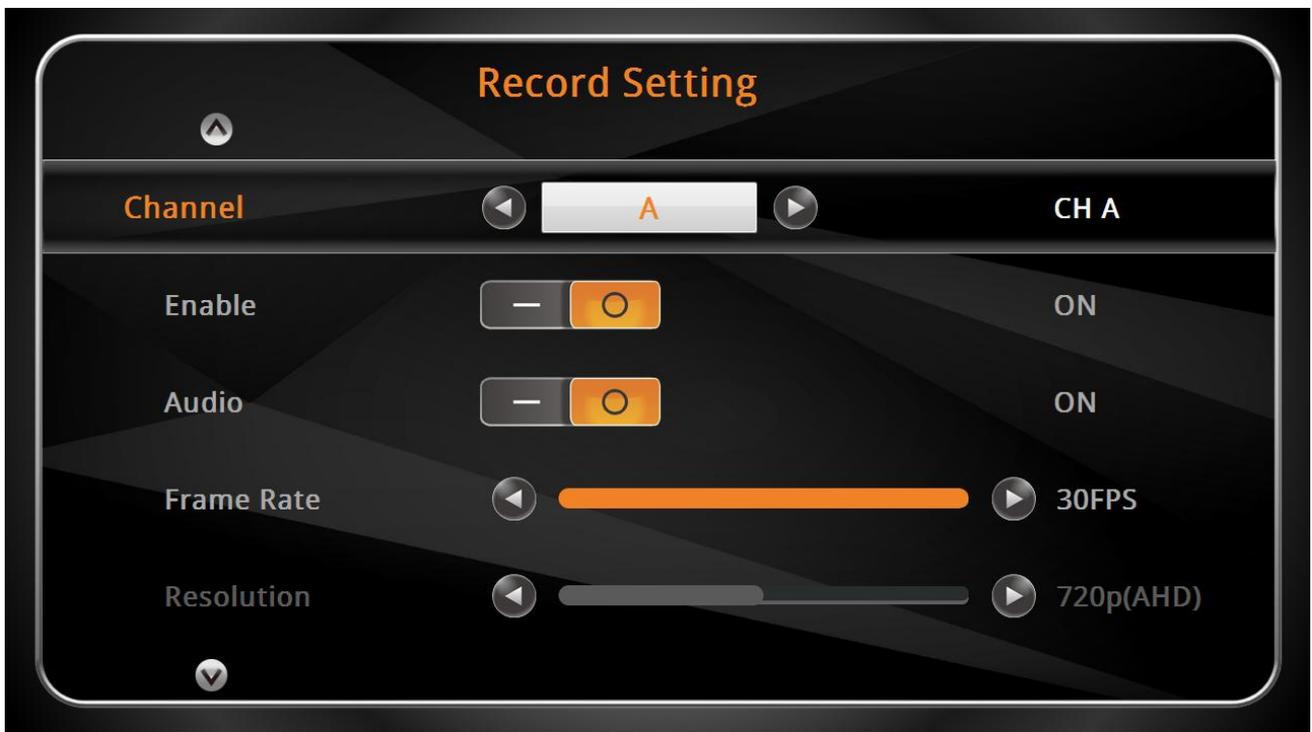
Item	Description
Channel	Select one channel to record setting.
Enable	Click [— O] to enable record.
Audio	Click [— O] to enable audio.
Frame Rate	Frame rate of record.
Resolution	Record resolution.
Quality	Quality of record.
IGN.OFF	DVR continues to record after the car stalled.

2. Camera Setting

Item	Description
Channel	Choose one channel to setting.
Brightness	Provide adjustment for shade and brightness level of the display.
Contrast	Provide adjustment for the light and dark level of the display.
Saturation	Provide adjustment for the color saturation of the display.
Hue	Provide adjustment for the color phase of the display.
Mirror	Click [— O] to enable mirror.
Flip	Click [— O] to enable flip.
Display Title	Click [— O] to enable display title.
Distance Gauge	Adjust auxiliary line
Auxiliary Line	Enable auxiliary line when R channel is triggered.

3. System Setting
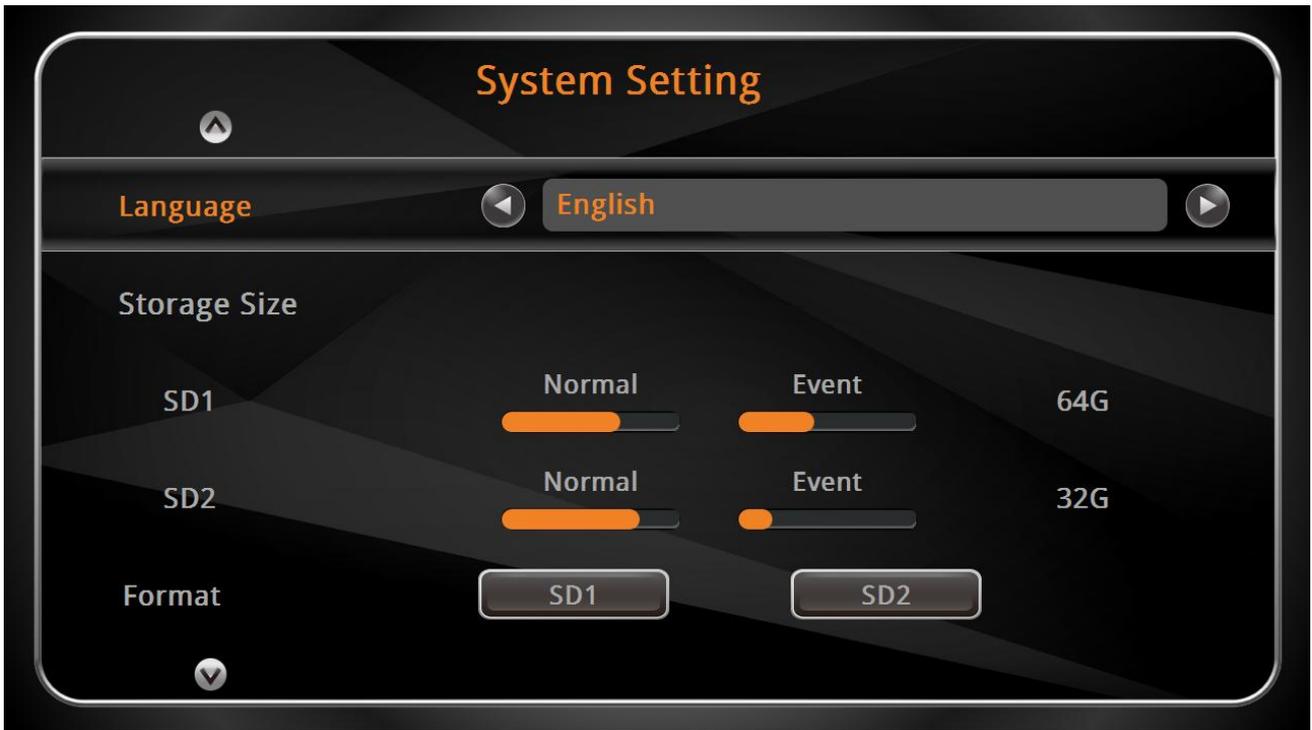
Item	Description
Item	Description
Language	Choose language to display.
Storage Size	Display SD card capacity.
Format	Format SD card.
Overwrite	Click to enable overwrite SD card.
Video mode	Select NTSC or PAL.
Video out	Select video output ratio.
Date	Display date information.
Time	Select time display, time zone, hour mode and DST.
Speed unit	Select speed unit.
Company	Edit company name.
Car ID	Edit car ID.
Max Channels	Select max channels to display.
Factory Default	Click to enable factory default.
Simple Mode	Click to enable simple mode.

4. Event Setting

Item	Description
Trigger A	Assign the combination of the triggered pictures on the screen. As shown below: 	A		A	B		A	C		A	R		A over B | C		A over B | R	 	A over C | R		B | C over A		B | R over A		C | R over A		A | B over C | R	
Trigger B	Assign the combination of the triggered pictures on the screen. As shown below: 	B		B	A		B	C		B	R		B over C | R		B over C | A	 	B over R | A		C | R over B		C | A over B		R | A over B		A | B over C | R	
Trigger C	Assign the combination of the triggered pictures on the screen. As shown below: 	C		C	A		C	B		C	R		C over R | A		C over R | B	 	C over A | B		R | A over C		R | B over C		A | B over C		A | B over C | R	

Item	Description
Trigger R	Assign the combination of the triggered pictures on the screen. As shown below: R R A R B R C R / A B R / A C R / B C A B / R A C / R B C / R A B / C R
Trigger 5	Click 🔳 to enable trigger 5 (When selecting 8 channels as max channels, you can turn on this trigger.)
Trigger 6	Click 🔳 to enable trigger 6 (When selecting 8 channels as max channels, you can turn on this trigger.)
Trigger 7	Click 🔳 to enable trigger 7 (When selecting 8 channels as max channels, you can turn on this trigger.)
Trigger 8	Click 🔳 to enable trigger 8 (When selecting 8 channels as max channels, you can turn on this trigger.)
Jump style	The driver will be able to obtain the image selected under this setting. ①When selecting 4 channels as max channels, you can select below settings. A B C R [ ] [⊟] [⊞] ②When selecting 8 channels as max channels, you can select below settings. A B C R 5 6 7 8 [ ] [⊟] [⊞] [⊞] [⊞] [⊞] [⊞] ※ You can select the channel to the combination of the settings.
Over speed	Select "ON" : it shows warning icon when car is overspeed.
G Sensor	It shows warning icon when exceeding the preset value. Click 🔳 to enable lock function. If the lock function is enabled, you can place the G Sensor trigger record in the event file.
Post-record	Post-recording time for bookmark function.
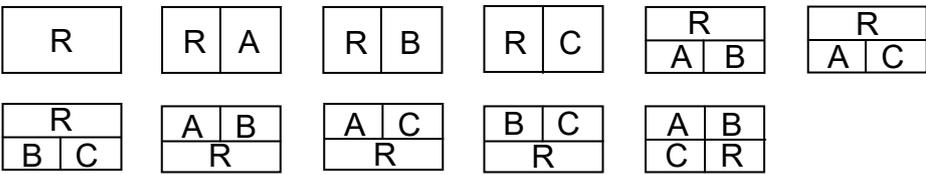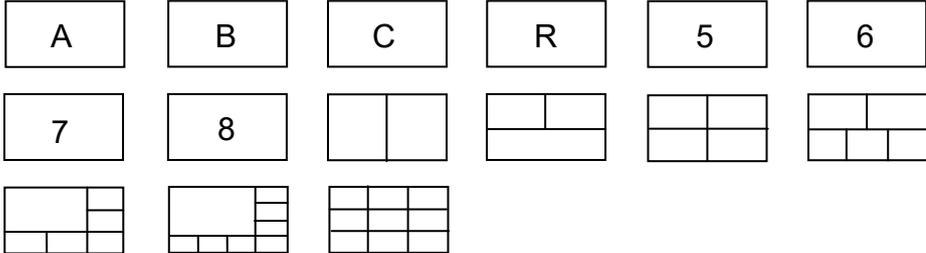
5. LCD setting

Item	Description
Brightness	Provide adjustment for shade and brightness level of the display.
Contrast	Provide adjustment for the light and dark level of the display.
Saturation	Provide adjustment for the color saturation of the display.
Hue	Provide adjustment for the color phase of the display.
Sharpness	Provide adjustment for the edge contrast (acutance) level of the display.
Volume	Adjust volume.
Auto / Day / Night	Select "AUTO" to activate the auto day & night function or "DAY" to activate the maximum luminance of panel or "NIGHT" to activate the luminance around 5% of the maximum luminance.

6. Playback

Play (Audio B)

1>>
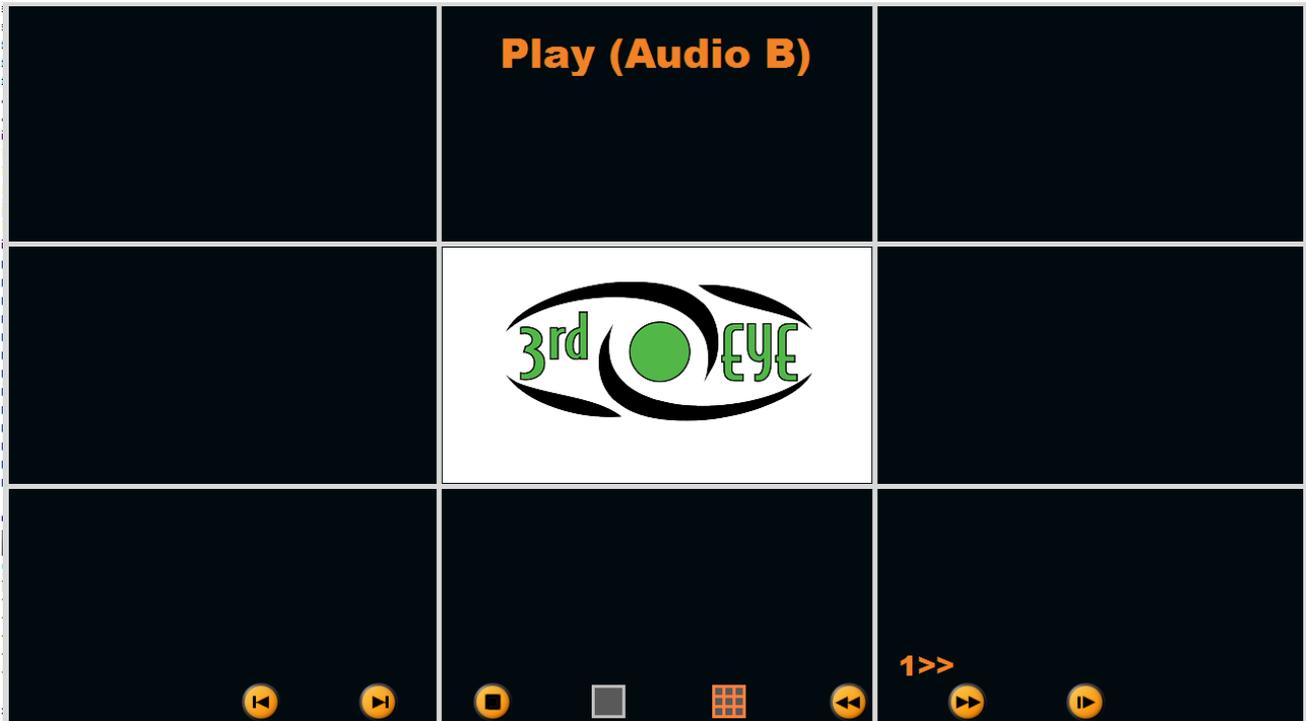
Icon	Description
	Previous Section
	Next Section
	Stop
	Single image display
	Nine segments display
	Rewind
	Fast Forward
	Play

7. Logs List

Logs List - Search Setting

Starting Time	⊟ 2017 / 05 / 16 10 : 22 : 46 ⊞
End Time	⊟ 2017 / 06 / 15 10 : 22 : 46 ⊞
Type	◄ All ►
Start Search	Confirm

Item	Description
Search	Select time and type to search the event list.
Export all	Export the file.

8. Menu Lock

Item	Description
User name	Key in user name.
Password	Key in password.
Pwd confirm	Confirm password again.
Enable	Click [toggle] to enable menu lock.

9. Information
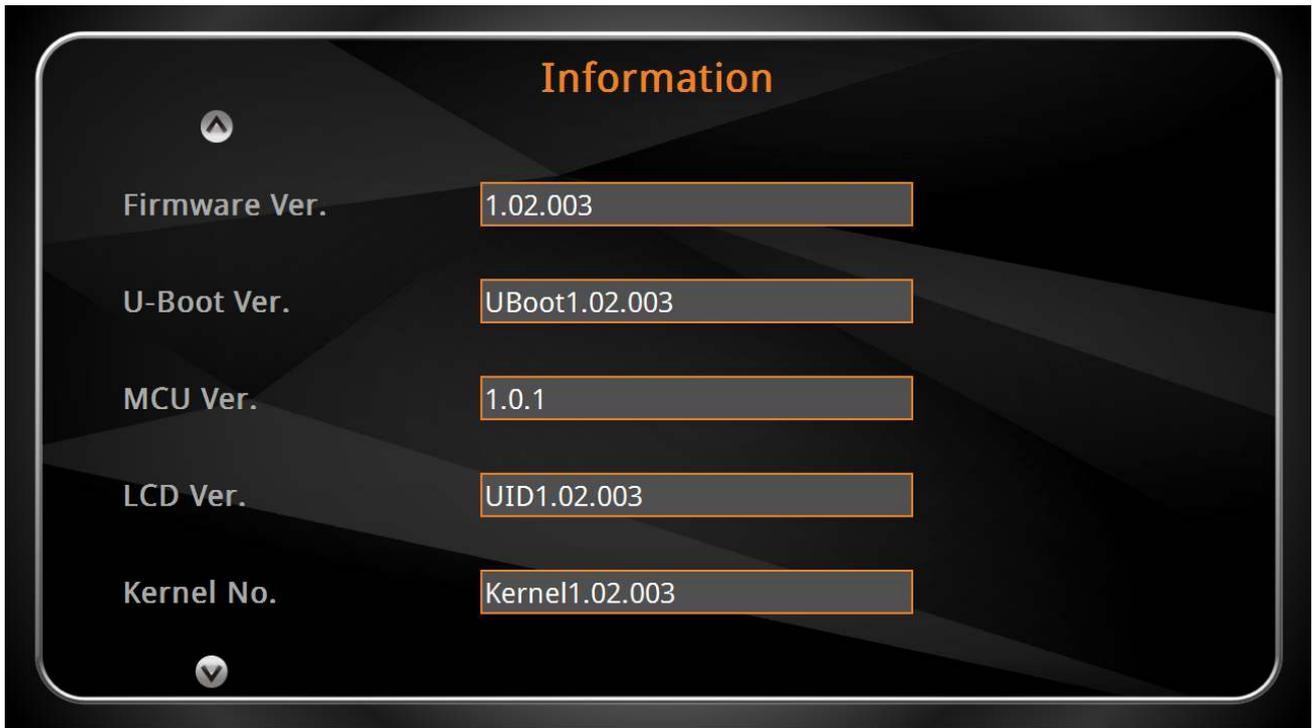
Item	Description
Firmware ver.	Show Firmware version.
U-Boot ver.	Show U-Boot version.
MCU ver.	Show MCU version.
LCD ver.	Show LCD version.
Kernel ver.	Show Kernel version.
GPS Info	Show latitude/longitude/height/speed.

WIZARD SETUP

When you start the system for the first time or reset factory defaults, please refer to the following steps :

1. Please select language

2. Select time zone

2. Select time and date
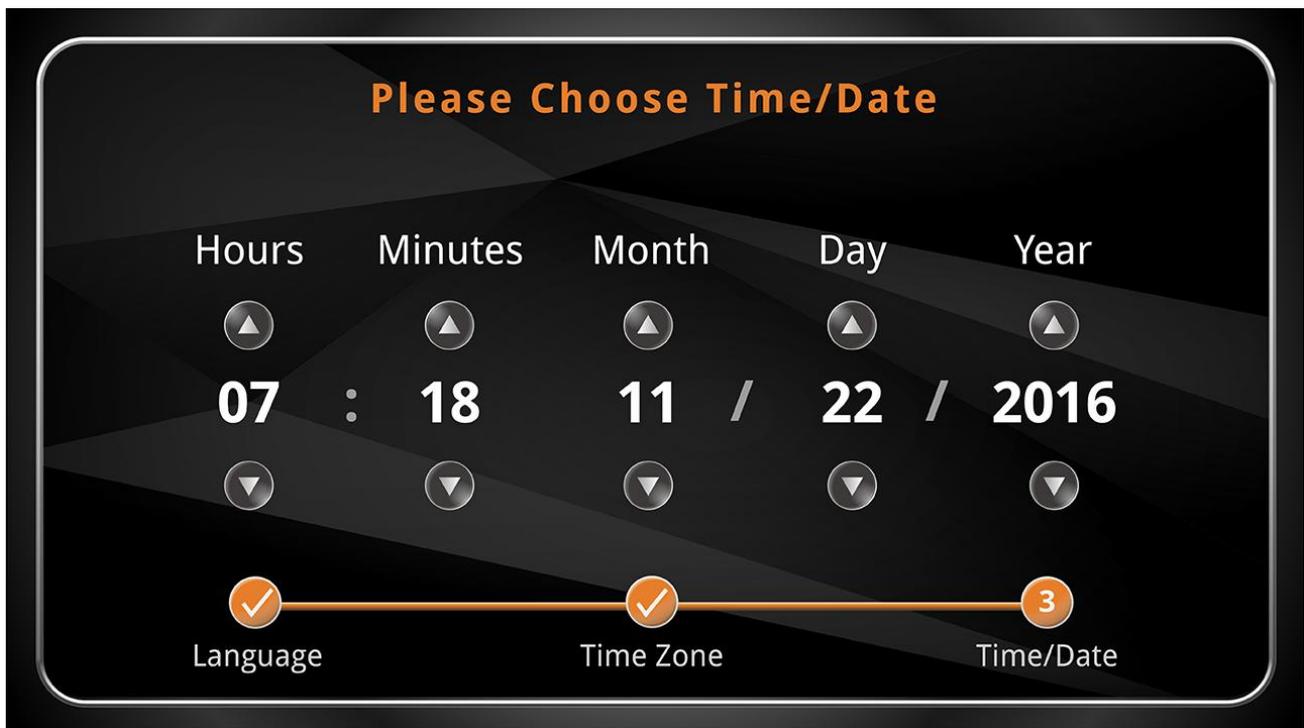
※ If the unformatted SD card is detected in boot, SD card will be formatted automatically.

※ In the general condition, the system will record automatically after starting.

FIRMWARE UPDATE PROCEDURE

1. Prepare an SD card (SD card should be formatted by FAT32 and capacity is under 32GB)

2. Insert the SD card into PC and copy firmware files to root folder. Refer the figure as below.
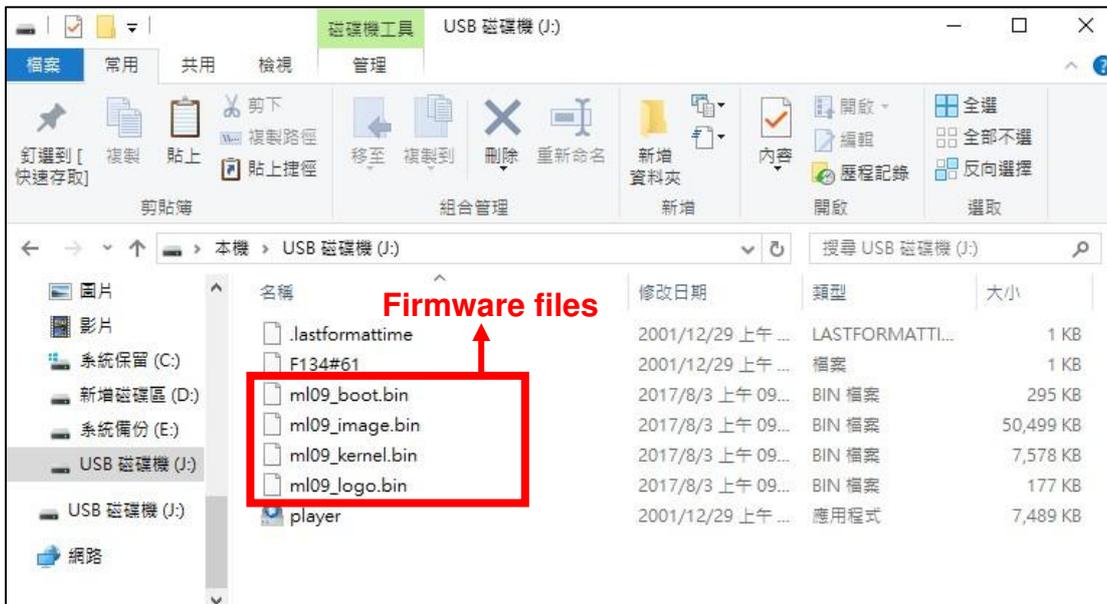
3. Insert SD card to the front panel of SD1 slot and start up.
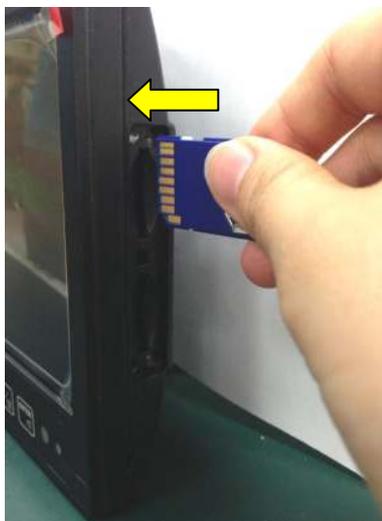
4. Start to firmware update and LED will light on at the same time.
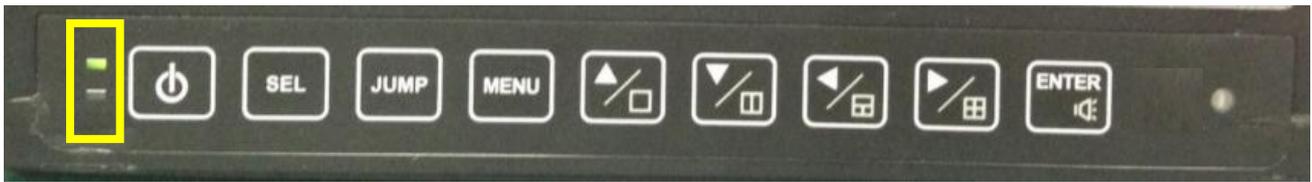
5. When firmware update is completed and it will show start-up image.
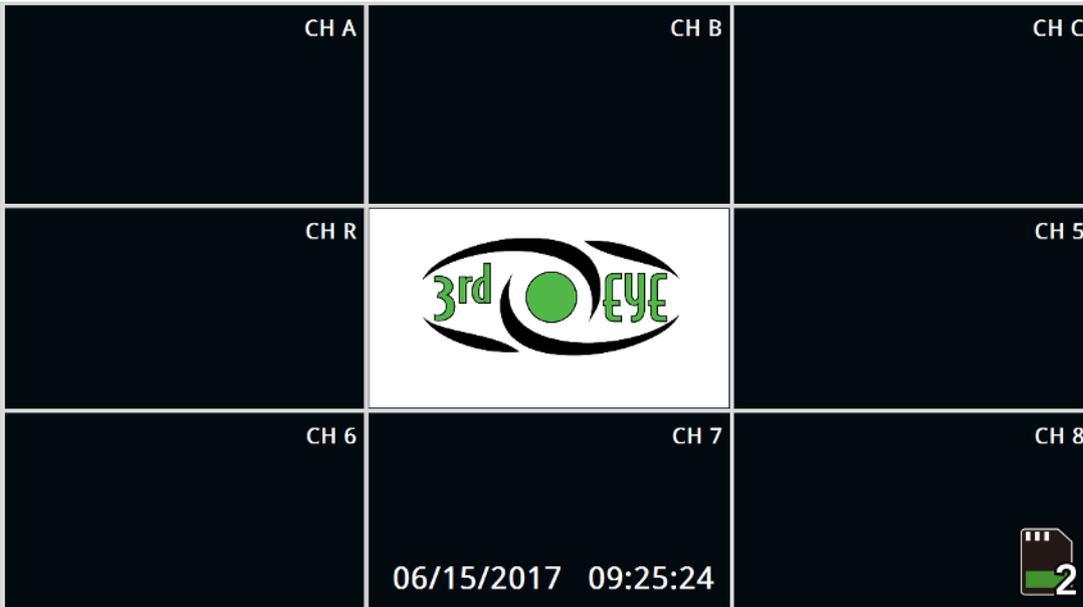
6. Go to OSD menu > select Information > check firmware version
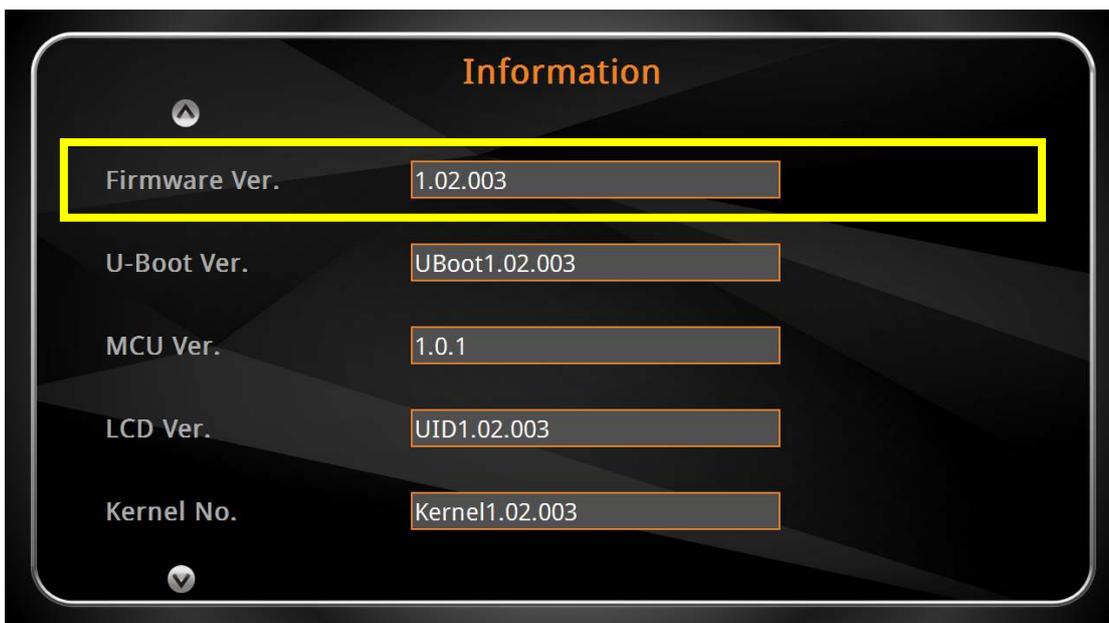
NOTICE

1. When tidying up, G-Mouse wire should not be folded as the below left photo.

2. Power+ should not be connected to ACC directly to prevent hard disk from power input.

3. Do not remove SD card when updating ; otherwise, the system may not start because of data missing.

4. When moving out hard disk, operator should wait until the power light completely shut down before loosening bolts, or the last data may be missed.

5. Do not cut off the monitor power off directly.

6. SIM / SD card should be inserted before DVR system starting and withdrawn after completely shutting down.

7. To avoid damages of camera / DVR, please make sure the pin assignment of cable before connecting.

8. SD card should be formatted by monitor system. In addition, the format of SD card shall be FAT32.

9. GPS-APP / related equipment can be used to detect GPS signals to find the installation point
   EX: U-center
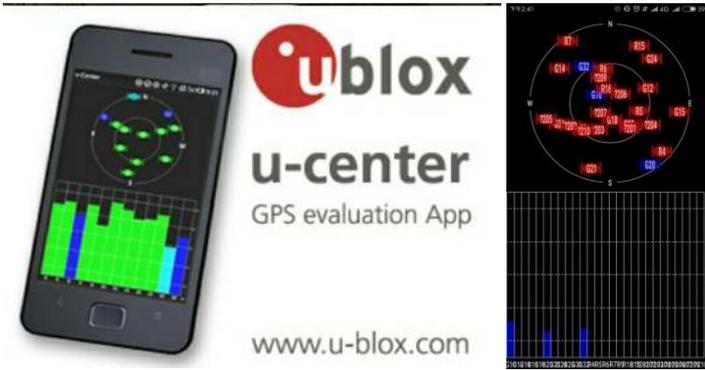
10. In order to avoid compatibility problems, please use the following recommended SD card.

Brand/Model/Series	Capacity	Level		Max Speed
SanDisk (Ultra)	32G	CLASS 10	UHS-I	48MB/s
PATRiOT (LX Serie PSF32GSDHC 10-PC)	32G	CLASS 10	UHS-I U1	
SanDisk (Ultra)	64G	CLASS 10	UHS-I	48MB/s
Transced (9181AA)	64G	CLASS 10	UHS-I	30MB/s (200x)
ADAT (Premier)	64G	CLASS 10	UHS-I U1	50MB/s
Innodisk (Industrial)	64G	CLASS 10		
SanDisk (Extreme)	128G	CLASS 10	UHS-I U3	90MB/s
Transced (9173BA)	128G	CLASS 10	UHS-I U3	R 95MB/s W 60MB/s
SanDisk (Extreme)	256G	CLASS 10	UHS-I U3	90MB/s

PLAYBACK VIDEO FILE

There are 3 ways to playback the data.

1) Remove the SD card from the device and connect to your computer

Open explorer and navigate into the folder ranked by date then click on the file you want to watch by using Windows Media Player.

※ **For SD CARD, we recommend you to buy SD CLASS 10 4G above.**

2) You can also use *MRPlayer Lite* to playback.

3) You can also use the CD software and install the dedicated player called *MRPlayer*

MEDIA PLAYER

1. MRPlayer

Follow procedure to install the software.

On the start menu or desktop double click on the application

Login ID by default is **admin**

Password by default is **1111**

Program interface
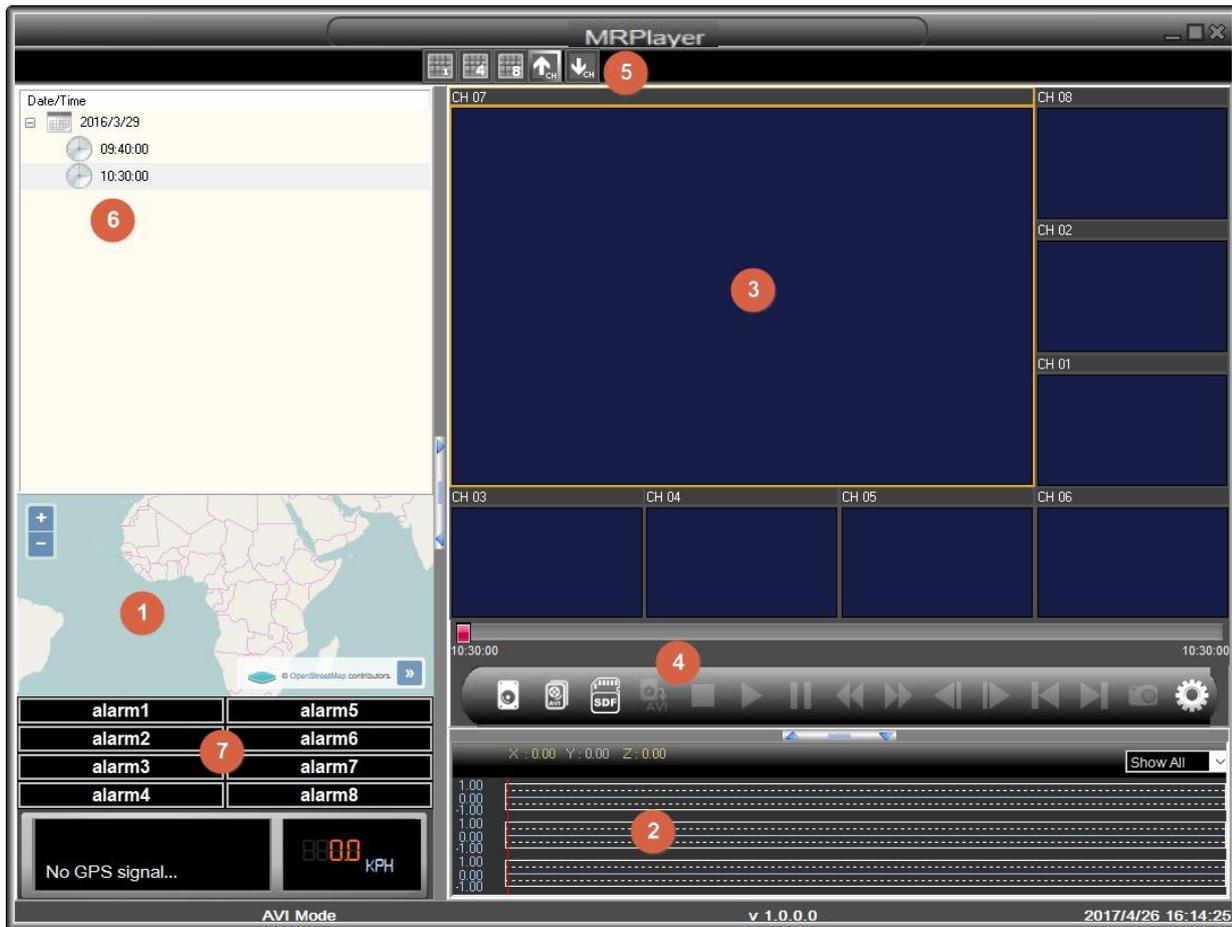
Item	Description
①	Position of the vehicle according to Google Map.
②	G-Sensor information and current speed.
③	Display video.
④	Playback bar.
⑤	Video display mode.
⑥	Display video by date.
⑦	Sensor trigger status.

Control bar description

Icon	Description
	Open SSD containing the video
	Open a avi file in a folder
	Open SD card containing the video
	Convert a period from the SSD into AVI format
	Stop the playback
	Playback
	Pause
	Fast Rewind
	Fast Forward
	Step Backward
	Step Forward
	Playback previous file
	Playback next file
	Take snapshot of current video
	System setting

2. MRPlayer Lite

When you enter OSD menu to format SD card, Player will be added in SD card.
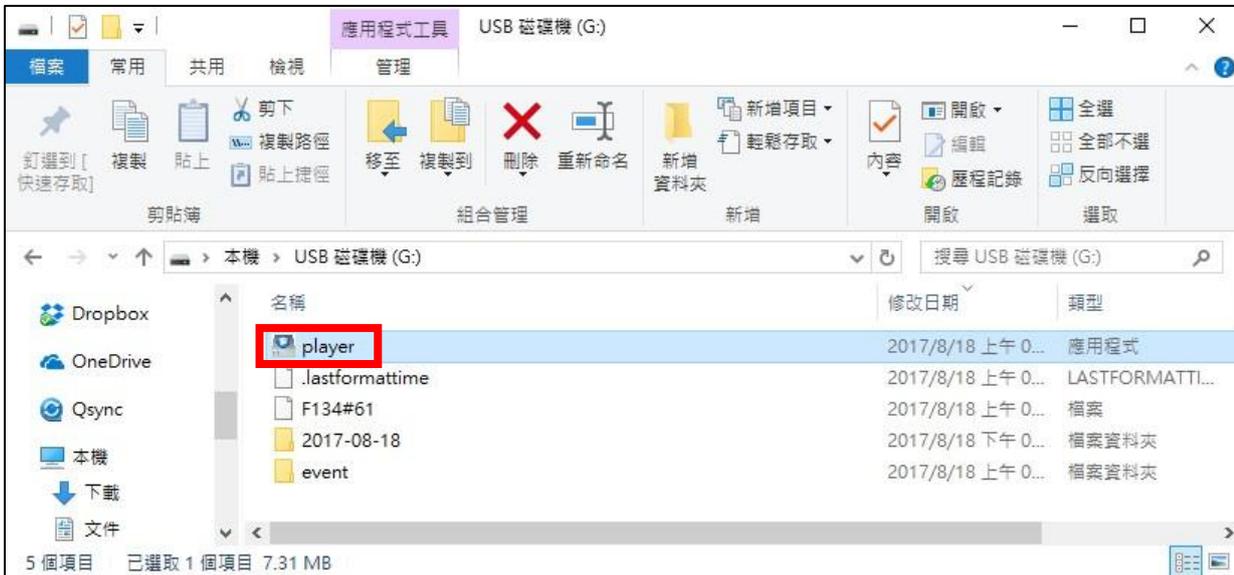
You can use this player without any installment.

Click the icon and then show the interface as below :
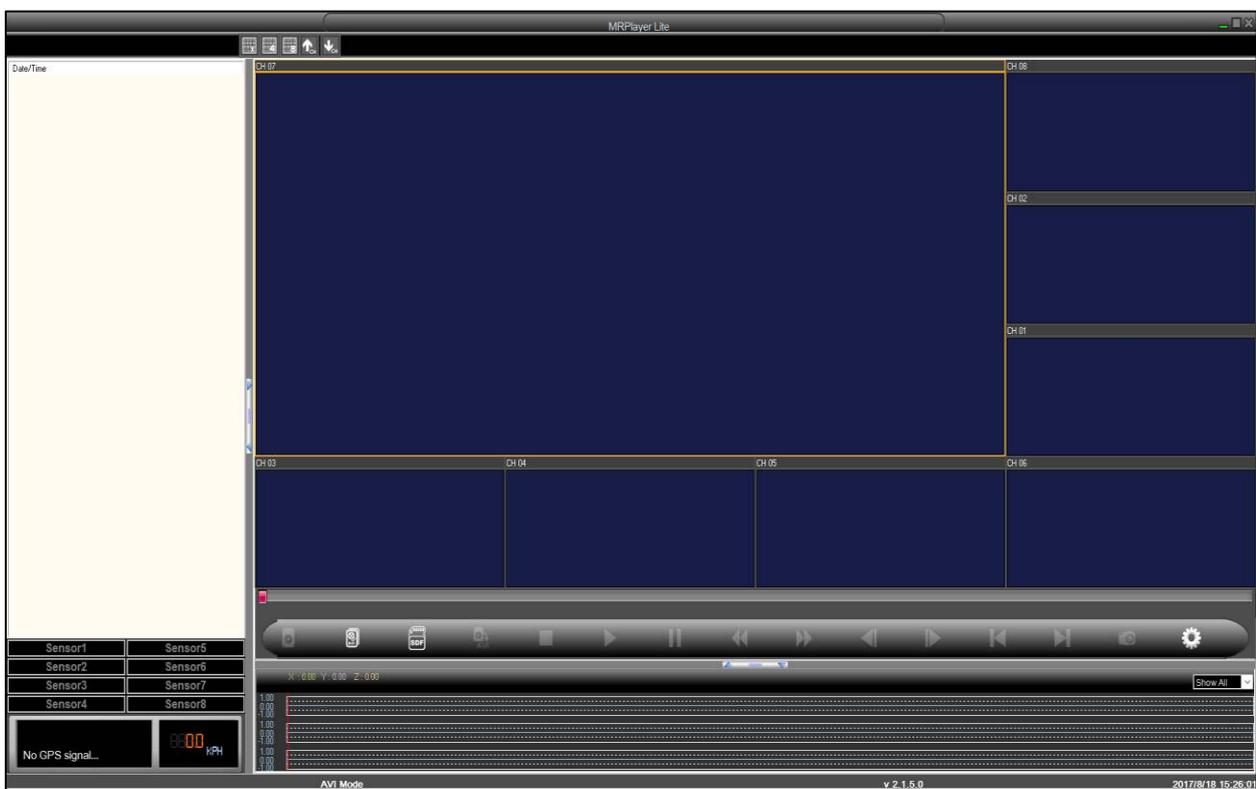
SPECIFICATION

Item	Specification
Panel Display	9.0" (Diagonal) LCD panel with LED backlight.
Resolution	800 (H) x 480 (V)
Active Area	198mm (W) x 111.696mm (H)
View Angle	Top 50˚ / Bottom 70˚ / Left 70˚ / Right 70˚
Contrast Ratio	500:1 (typ)
Panel Response Time	15ms (typ); 35ms (max)
Brightness	500 cd/m^2
Language	English / Chinese / Spanish
Operating Temperature	-20℃ to +70℃
Anti-vibration	10G
Waterproof	IPx1
Menu lock	YES
Camera input	8 CH (D1 / 960H / AHD / TVI)
Audio input	8 CH
Power Supply	DC 9.6V~36V
Power Out	DC 12.0± 1.0V (250mA)
HD Input	Up to 720P
Live Video Out	NTSC / PAL
Live Audio Out	1

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