

# EMV800 FHD / EMV1200 FHD

## 8 / 12 Channels Mobile DVR

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### *User's Manual*



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EVERFOCUS ELECTRONICS CORPORATION

# EMV800 FHD / EMV1200 FHD Mobile DVR

## User's Manual

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## Safety Precautions

- Refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not block the ventilation openings or slots on the cover.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also may cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the mobile DVR at temperatures within -40°C~55°C / -40°F~131°F (Storage). The input power source is between 9V DC and 36V DC.
- **Read Instructions**  
All the safety and operating instructions should be read before the unit is operated.
- **Retain Instructions**  
The safety and operating instructions should be retained for future reference.
- **Heed Warnings**  
All warnings on the unit and in the operating instructions should be adhered to.

- **Follow Instructions**  
All operating and use instructions should be followed.
- **Cleaning**  
Unplug the unit from the outlet before cleaning. Do not use liquid cleaners, abrasive or aerosol cleaners. Use a damp cloth for cleaning.
- **Attachments**  
Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- **Water and Moisture**  
Do not use this unit near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.
- **Servicing**  
Do not attempt to service this unit by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- **Power Cord Protection**  
Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
- **Object and Liquid Entry**  
Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.
- **RTC (Real Time Clock) Battery**  
When encounter failure of time calibration of your DVR, the issue may be caused by running-out of RTC battery. Users will have to change the RTC battery on the main board of the Mobile DVR.



**ATTENTION!** This is a class A product which may cause radio interference in a domestic environment; in this case, the user may be urged to take adequate measures.



### Federal Communication Commission Interference Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the users' authority to operate this equipment.



This Product is RoHS compliant.

WEEE



Your EverFocus product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please, dispose of this equipment at your local community waste collection/recycling centre. In the European Union there are separate collection systems for used electrical and electronic product.

Please, help us to conserve the environment we live in!

The information in this manual was current upon publication. The manufacturer reserves the right to revise and improve his products. Therefore, all specifications are subject to change without prior notice. Manufacturer is not responsible for misprints or typographical errors. Please read this manual carefully before installing and using this unit. Be sure to keep it handy for later reference.

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# Chapter 1

## 1. Introduction

The latest EverFocus digital video recorder generation is based on H.264 compression technology, resulting in enhanced recording capacity and improved network image transmission speed with high image quality. The EMV800 FHD / EMV1200 FHD can support 8 / 12 channels analog SD/HD/FHD cameras, delivering up to 1080p live view resolution.

Its comprehensive features along with the embedded 3-axis g-sensor function enable the almost universal application of this mobile DVR series. It supports various interfaces such as three USB ports / RS-485 / RS-232 / Panic Button / CAN bus / GPS, 3G, 4G and Wi-Fi Antenna. The design of RCA video/audio outputs at front panel makes your installation easy. You can install one 2.5" hard disk or SSD in the mobile DVR. You can also install one SD Card for alarm event backup recording. The User Interface has been specially designed to fit mobile small-sized monitor.

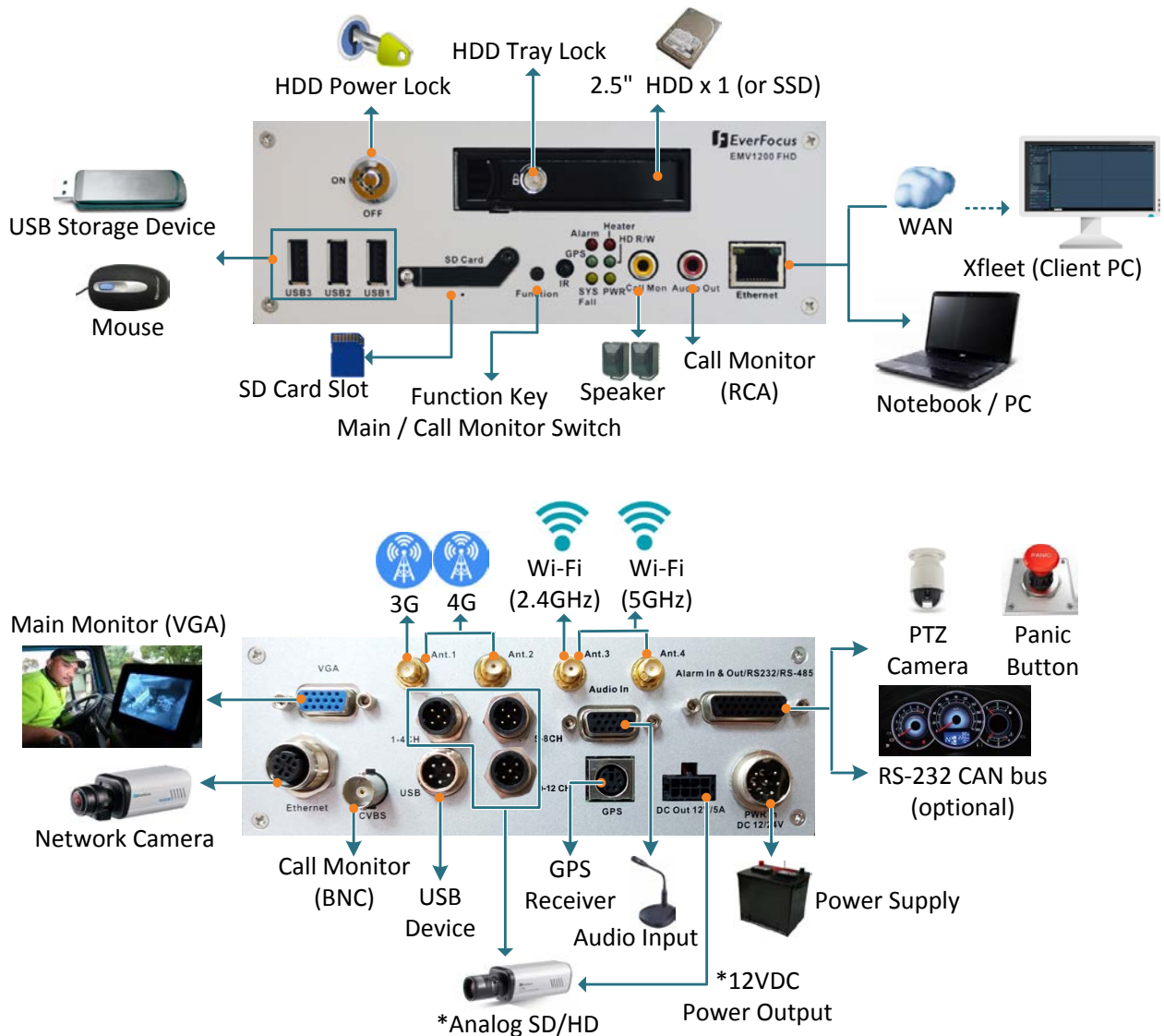
EMV800 FHD / EMV1200 FHD are equipped with anti-shock and anti-vibration housing. The aviation M12 connectors are also equipped. The power supply supports voltage regulator, and delay on/off. In addition, the mobile DVRs are SAE-J1455, EN50155, E-Mark, CE and FCC certified.

You can use EverFocus Mobile Applications, MobileFocus, to remotely view the camera streams from the mobile DVR through your handheld devices; or use EverFocus Xfleet system for remote fleet management. You can also use EverFocus EF-Reader to remotely back up recordings from the HDD/SD card of the mobile DVRs. The mobile DVR series is the ideal solution for your mobile surveillance needs.

### EMV 1080p Series Models

Model	Video In	Audio In/Out	Alarm In/Out	3G/4G/ WiFi	12VDC Power-	Anti-Vibration Bracket	SAE-J1455 Standard
EMV800 FHD	8 CH	8/1 CH	8/2 CH	Yes	Yes	Yes	Yes
EMV1200 FHD	12 CH	8/1 CH	8/2 CH	Yes	Yes	Yes	Yes

## System Diagram



\* The EMV800 FHD / EMV1200 FHD have 4 power output sets (+/-) to power-up the connected cameras. The total power output is 12VDC, 5A. Please refer to 2.5.2 Video Cable / Power-Out Cable for more details.

## 1.1 Features

- Supports analog SD / HD / FHD cameras
- Up to 1080p resolution for recording
- Dual-stream from H.264 video compression
- eZ.Controller function: Control camera OSD settings and PTZ operation directly from DVR end
- Supports HDD (up to 2TB) or SSD (up to 4TB)
- Provides one 1Gb Ethernet port
- 3-axis G-sensor embedded
- Multiple serial interfaces
- Internal temperature control (built-in 2 heaters)
- IR remote control function
- Aviation (M12) connectors adopted
- Archives recordings to the USB storage device
- Supports mobile applications (MobileFocus)
- Multiple network monitoring: Web viewer, Xfleet (Server System), EF-Reader (Windows Application)
- Certificates: CE, FCC, EN50155, E-Mark, SAE-J1455 (shock & vibration only)\*
- 3G, 4G LTE function / GPS function / Wi-Fi function (Optional) \*\*

\* To meet the EN50155 and the SAE-J1455 standard, the mounting bracket is required. Please refer to *2.1.1 Mounting* for more details.

\*\* Requires an external 3G / 4G / Wi-Fi antenna and GPS receiver. Please refer to *1.3 Optional Accessories*.

## 1.2 Packing List





- Mobile DVR x 1
- HDD Tray Lock Key x 2 (with 4 screws for screwing HDD. See 2.2 *Hard Disk Installation*)
- HDD Power Lock Key x 2 (with 4 black screws and 8 spacers for mounting the mobile DVR. See 2.1.1 *Mounting*)
- IR Remote Control (with two AAA batteries. See Note 4) x 1
- Power Harness Cable x 1
- Video Cable x 3 (EMV1200 FHD); x2 (EMV800 FHD) (see 2.5.2 *Video Cable / Power-Out Cable*)
- Audio Cable x 1 (see 2.5.3 *Audio Cable*)
- D-Sub Cable x 1 (see 2.5.4 *D-Sub Cable*)
- Power-Out Cable x 1 (see 2.5.2 *Video Cable / Power-Out Cable*)
- CD x 1 (Please see Note 3.)
- Quick Installation Guide x 1

### Note:

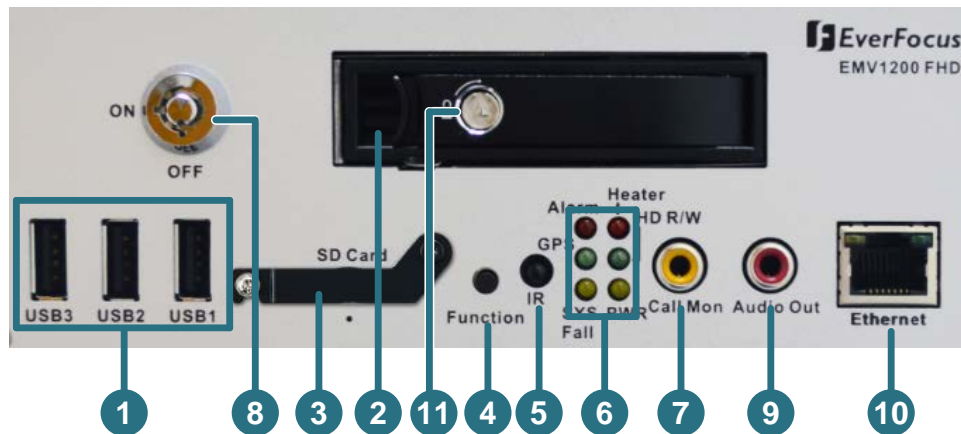
1. Equipment configurations and supplied accessories vary by country. Please consult your local EverFocus office or agents for more information. Please also keep the shipping carton for possible future use.
2. Contact the shipper if any items appear to have been damaged in the shipping process.
3. The CD contains the IP Utility software, User Manual and Quick Installation Guide.
4. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
  - a. Use only two AAA dry cell batteries.
  - b. Do not dispose of the batteries in a fire as it may explode.

## 1.3 Optional Accessories

The mobile DVRs feature Wi-Fi/3G/4G function. You can optionally connect Wi-Fi/3G/4G module and antenna to the mobile DVR for networking, or connect a GPS receiver for GPS function.


<ul style="list-style-type: none"> <li>• <b>3G Antenna:</b> For using 3G network function</li> </ul>  <p>3G Antenna      3G Module</p>	<ul style="list-style-type: none"> <li>• <b>4G Antenna:</b> For using 4G LTE network (LTE frequency bands differ among regions)</li> </ul>  <p>4G Antennas      4G Module</p>
<ul style="list-style-type: none"> <li>• <b>Wi-Fi Antenna:</b> For using Wi-Fi function</li> </ul>  <p>Wi-Fi Antenna      Wi-Fi Module</p>	<ul style="list-style-type: none"> <li>• <b>GPS Receiver (LS23035):</b> For using GPS function</li> </ul> 

## 1.4 Front Panel



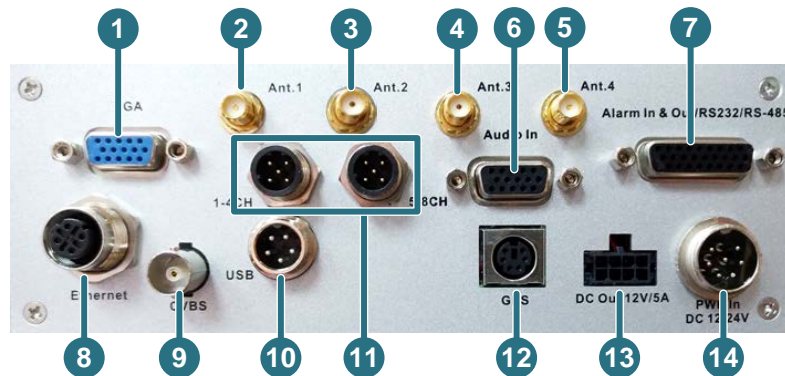
EMV800 FHD / EMV1200 FHD

No.	Name	Description
1	USB2.0 Port	Three USB2.0 ports for connecting to the USB storage device or mouse.
2	HDD Tray	Install a 2.5" HDD or SSD for recording.
3	SD Card Slot	Insert a SD / SDHC card (up to 32GB) for alarm event backup recording (see 2.3 <i>SD Card Installation</i> ). To see the SD card info, see 6.4.2 <i>SD Card</i> . To enable the SD card function, see 6.3.1 <i>Alarm</i> . You can also see <i>Appendix G</i> for tested card brands.
4	Function Key	Press the button for 3 seconds to switch the RCA / BNC video output from call monitor to main monitor; and to switch the VGA video output from main monitor to call monitor. To switch back the main and call monitors, press the button for 3 seconds again. Please refer to 2.6 <i>Monitor Connection</i> for more details.
5	IR Receiver	Receives data from the infrared remote control.
6	System LEDs	<ul style="list-style-type: none"> <li>• <b>Alarm:</b> Turns on when the connected alarm I/O is triggered; turns off when the alarm I/O stops being triggered.</li> <li>• <b>GPS:</b> Turns on continuously when the mobile DVR is receiving GPS data.</li> <li>• <b>System Fail:</b> Turns off when system is acting normally. Turns on when these events occur: System Clock Error / Fan Fail / Disk Temperature Over / Disk Fail / Disk Off / Network Loss.</li> <li>• <b>Heater:</b> Blinks when heater on; off blinking when heater off.</li> <li>• <b>HDD R/W:</b> Blinks when the HDD is reading or writing.</li> <li>• <b>Power:</b> Turns on continuously when the power is supplied. Blinks when Battery power error occurs (lower than 9V or higher than 36V) or 12VDC power supply error.</li> </ul>

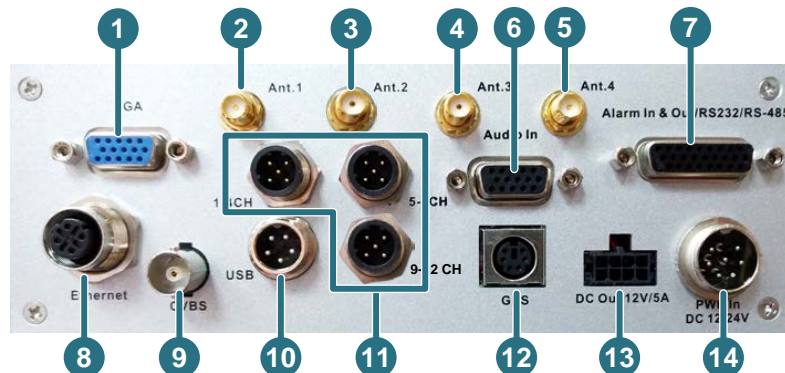
7	<b>Call Monitor (RCA)</b>	By default, this port is set to a Call monitor output. Connects to a Call monitor using a RCA cable. <b>Note:</b> You can optionally switch this port from Call monitor to Main monitor. Please refer to <i>2.6 Monitor Connection</i> for more details.
8	<b>HDD Power Lock</b>	Lock to power on the HDD. After locking the <b>HDD Tray Lock</b> (No.11), lock the <b>HDD Power Lock</b> to power on the HDD. The HDD power indicator will light in blue to indicate the HDD power is on.  <b>Note:</b> Only when the <b>HDD Power Lock</b> is locked will the system start to record on the HDD.
9	<b>Audio Out</b>	RCA audio output for connecting to the speakers. The audio output only works during playback. Speakers with a (built-in) amplifier and external power supply are required.
10	<b>Ethernet Port (WAN)</b>	One RJ-45 port for connecting to the network.
11	<b>HDD Tray Lock</b>	Lock or unlock the HDD tray. To power on the HDD, the <b>HDD Power Lock</b> (No.8) has to be locked.

## 1.5 Rear Panel

EMV800 FHD



EMV1200 FHD





No.	Name	Description
1	<b>Main Monitor (VGA)</b>	By default, this port is set to a Main monitor output. Connects to a Main monitor using a VGA cable. <b>Note:</b> You can optionally switch this port from Main monitor to Call monitor. Please refer to <i>2.6 Monitor Connection</i> for more details.
2	<b>Antenna 1 (3G/4G)</b>	Connects to the 3G or 4G Antenna for using 3G / 4G LTE function.
3	<b>Antenna 2 (4G)</b>	Connects to the 4G Antenna for using 4G LTE function. Note that the 4G function is required to use both Antenna 1 and 2.
4	<b>Antenna 3 (Wi-Fi) (2.4GHz / 5GHz)</b>	Connects to the Wi-Fi Antenna for using Wi-Fi (2.4GHz / 5GHz) function.
5	<b>Antenna 4 (Wi-Fi) (5GHz)</b>	Connects to the Wi-Fi Antenna for using Wi-Fi (5GHz) function. Note that the 5GHz Wi-Fi function is required to use both Antenna 3 and 4.
6	<b>Audio Input</b>	D-Sub connector for connecting to the supplied Audio Cable. For details, please refer to <i>2.5.3 Audio Cable</i> . Microphones with a (built-in) amplifier and external power supply are required.
7	<b>D-Sub Connector</b>	D-Sub connector for connecting to the Alarm I/O, RS-232 (CAN bus) or RS-485 devices (such as analog PTZ cameras). For details, please refer to <i>2.5.4 D-Sub Cable</i> .
8	<b>Ethernet Port (LAN)</b>	M12 connector for connecting to network cameras. For details, please refer to <i>2.5.5 Ethernet Cable</i> .
9	<b>Call Monitor (CVBS)</b>	By default, this port is set to a Call monitor output. Connects to a Call monitor using a BNC cable. <b>Note:</b> You can optionally switch this port from Call monitor to Main monitor. Please refer to <i>2.6 Monitor Connection</i> for more details.
10	<b>USB Port</b>	USB ports for connecting to the USB device. For details, please refer to <i>2.5.6 USB Cable</i> .
11	<b>Video Input</b>	M12 connector for connecting to the supplied Video Cable. You can then connect analog HD / SD cameras to the Video Cable. Please refer to <i>2.5.2 Video Cable / Power-Out Cable</i> .
12	<b>GPS Data Input</b>	Connector for connecting to the GPS receiver. For details, please refer to <i>2.5.7 GPS Cable</i> .
13	<b>12VDC Power Outputs</b>	A total of 12VDC, 5A power supply to the connected cameras. Please refer to <i>2.5.2 Video Cable / Power-Out Cable</i> .
14	<b>DC Power Input</b>	Power harness cable for connecting to 9 ~ 36VDC power source. For details, please refer to <i>2.4 Vehicle Connection</i> .

# Chapter 2

## 2. Getting Started

### 2.1 Installation

Before installation, choose a location in the vehicle where it can:

- Provide convenient access for installing or removing the hard disk
- Allow air to flow around the fan vents. Inadequate or improper air flow can impede proper operation of the mobile DVR

Please **avoid** installing the mobile DVR to the following locations in the vehicle:

- That is subject to high vibration / sunlight levels
- That is subject to be drenched of the rain
- Where passengers can interfere with the mobile DVR
- Next to a heater duct

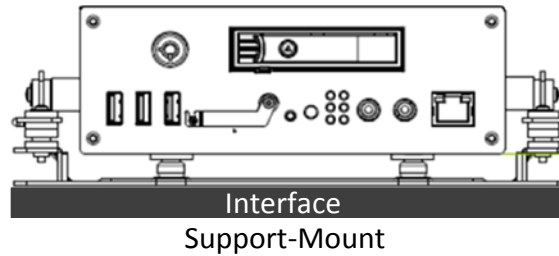
The following table lists the recommended location options in the vehicle:

Location	Convenient Operation	Easy to Install	Low Vibration	Good Air Flow
Bottom of glove box- horizontal mount	Yes	Yes	Yes	Yes
Bottom of passenger seat next to the driver	<b>No</b>	Yes	Yes	Yes
Underneath bulkhead-horizontal mount	Yes	Yes	<b>No</b>	Yes
Front of bulkhead-horizontal mount	Yes	Yes	Yes	Yes
Beside driver seat-horizontal mount	Yes	Yes	Yes	Yes

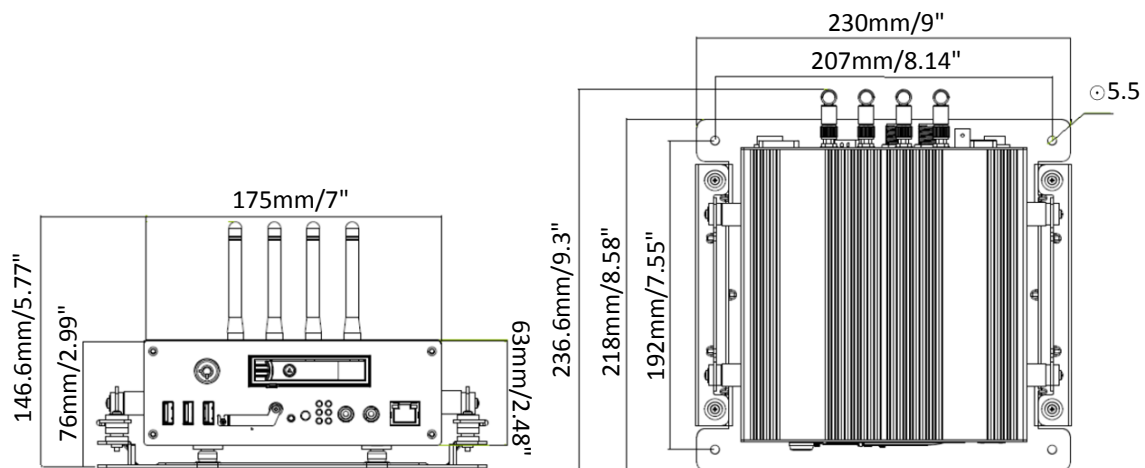
**Note:** Do not install the mobile DVR on the floor or on the transmission access hatch. These locations have the highest levels of vibration and may be subject to water damage.

### 2.1.1 Mounting

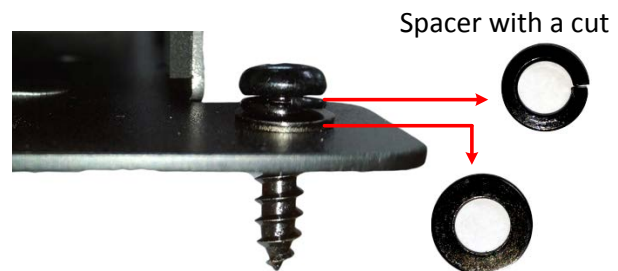
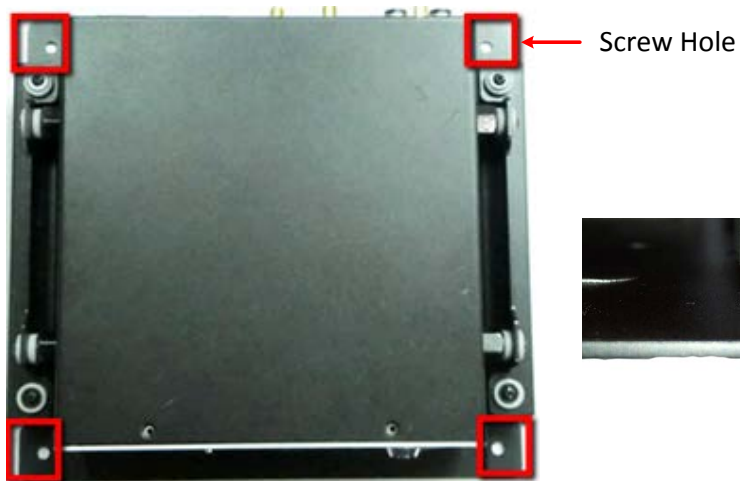
You can mount the mobile DVR onto a surface inside the vehicle. Please note that to meet the EN50155 and the SAE-J1455 standard for the mobile DVR, the **Bracket** on the MDVR is required to be used.



#### ➤ Dimensions:



**Installation:** The **Bracket** is already installed on the mobile DVR. To mount the mobile DVR onto a surface, use the supplied 4 black screws and 8 spacers (place 2 spacers on each screw hole).



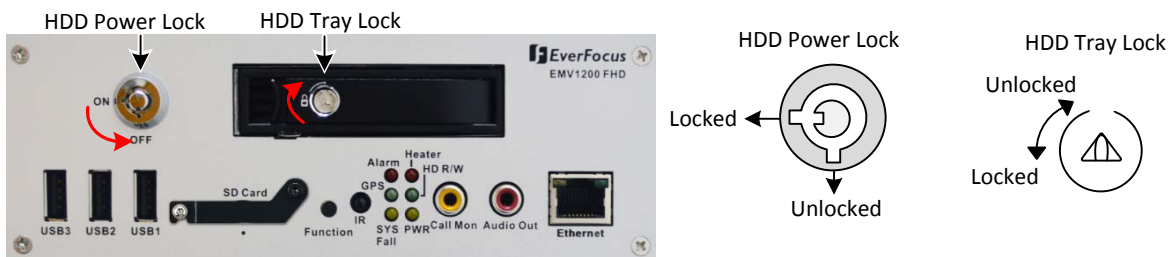
## 2.2 Hard Disk Installation

You can insert a 2.5" HDD or SSD into the HDD tray for video recording. Please follow the steps below.

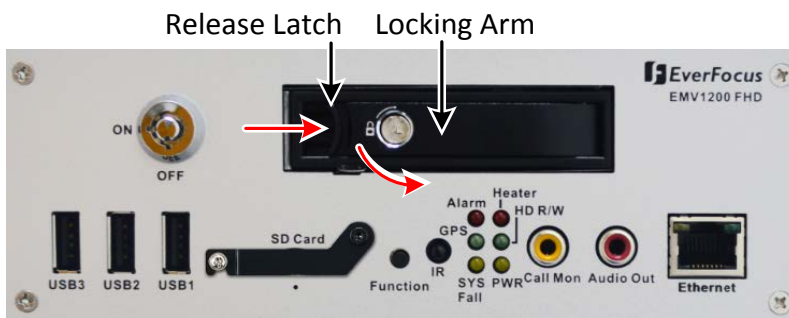
### Note:

1. The mobile DVR does not support hot swap for the hard disk. Ensure to power off the mobile DVR before removing the hard disk. Also ensure to remove the hard disk only after the power is completely shut-off. This would protect and extend the operating life of the hard disk.
2. Please go to the EMV800 FHD / EMV1200 FHD Web page on our website <http://www.everfocus.com.tw> to see the latest Storage Compatibility List. It's recommended to use the HDD/SSD models listed in the Storage Compatibility List to ensure your storage will be compatible.

1. Make sure the mobile DVR is powered-off. Unlock the HDD Power Lock using the supplied **HDD Power Lock Key**. Use the supplied **HDD Tray Lock Key** to unlock the HDD Tray.



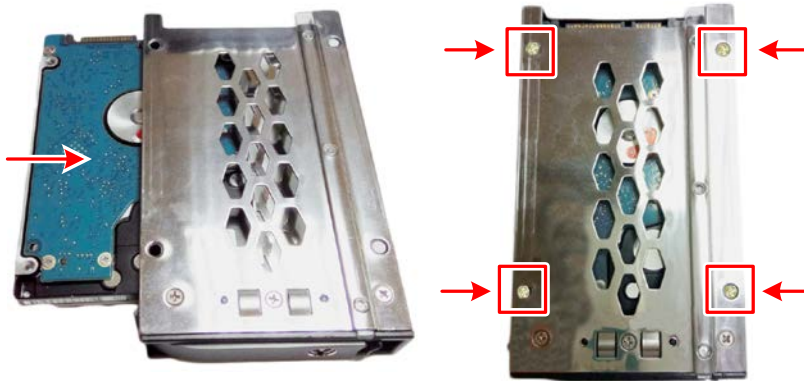
2. Push the **Release Latch** to the right, and the **Locking Arm** will pop up.



3. Gently pull out the **Locking Arm** to take out the **HDD tray**.



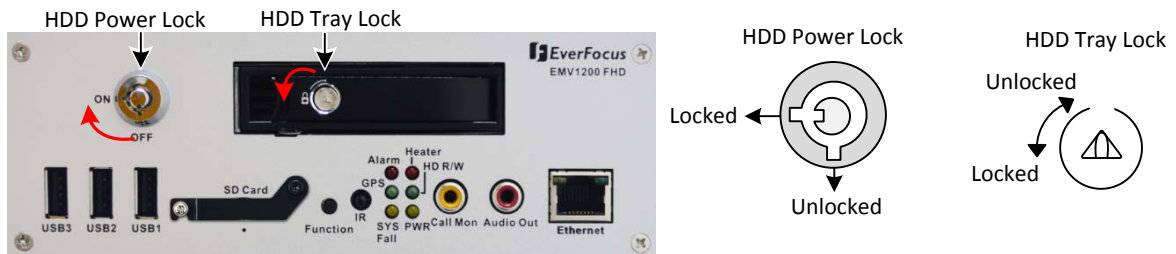
4. Insert a HDD in the HDD Tray and then screw the HDD to the tray with the supplied 4 screws.



5. Insert the HDD Tray into the drive bay and close the **Locking Arm** until you hear a click.



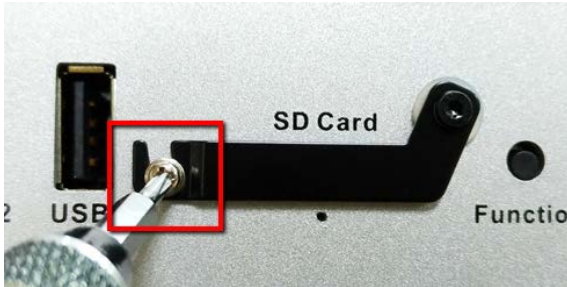
6. Lock the **HDD Tray Lock** and **HDD Power Lock** before you power on the mobile DVR.



## 2.3 SD Card Installation

The mobile DVRs provide SD card function for Alarm event backup recording. Please follow the steps below to install the SD Card. Up to 128 GB SD / SDHC cards are supported (see *Appendix G Tested Card Brands*).

1. On the front panel of the mobile DVR, unscrew the SD card protection plate.

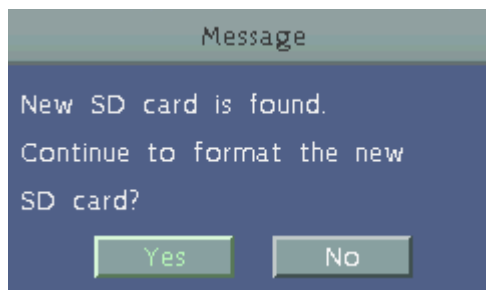


2. Push down the SD card protection plate and then insert a SD card.



3. Screw back the SD card protection plate. The SD card installation is now complete.

The Mobile DVR will automatically detect when a new SD card has been inserted and the below SD card format message will pop-up. Click **Yes** to format the SD card. The formatting process will take about 30 ~ 60 seconds. Note that only the formatted SD card can be used for alarm event backup recording function.





After installing the SD Card, it's recommended to enable the **Record Overwrite** function. The Record Overwrite function enables the mobile DVR to overwrite the recordings when the card space is full. If Record Overwrite is not enabled, the alarm event backup recording to the SD card will stop when card space is full. The mobile DVR will automatically pop-up a "SD Card Disk Full" message for notification. Users will have to replace a new SD card; or backup the SD card recordings and then erase (format) the recordings to resume the alarm event backup recording function.

To enable the Record Overwrite function, please go to the OSD menu: System < Record & Playback < Record.



To remove the SD card, please go to the OSD menu: System < Disk < SD Card, and click the **Unmount SD** button. Then you can safely remove the SD card from the mobile DVR.

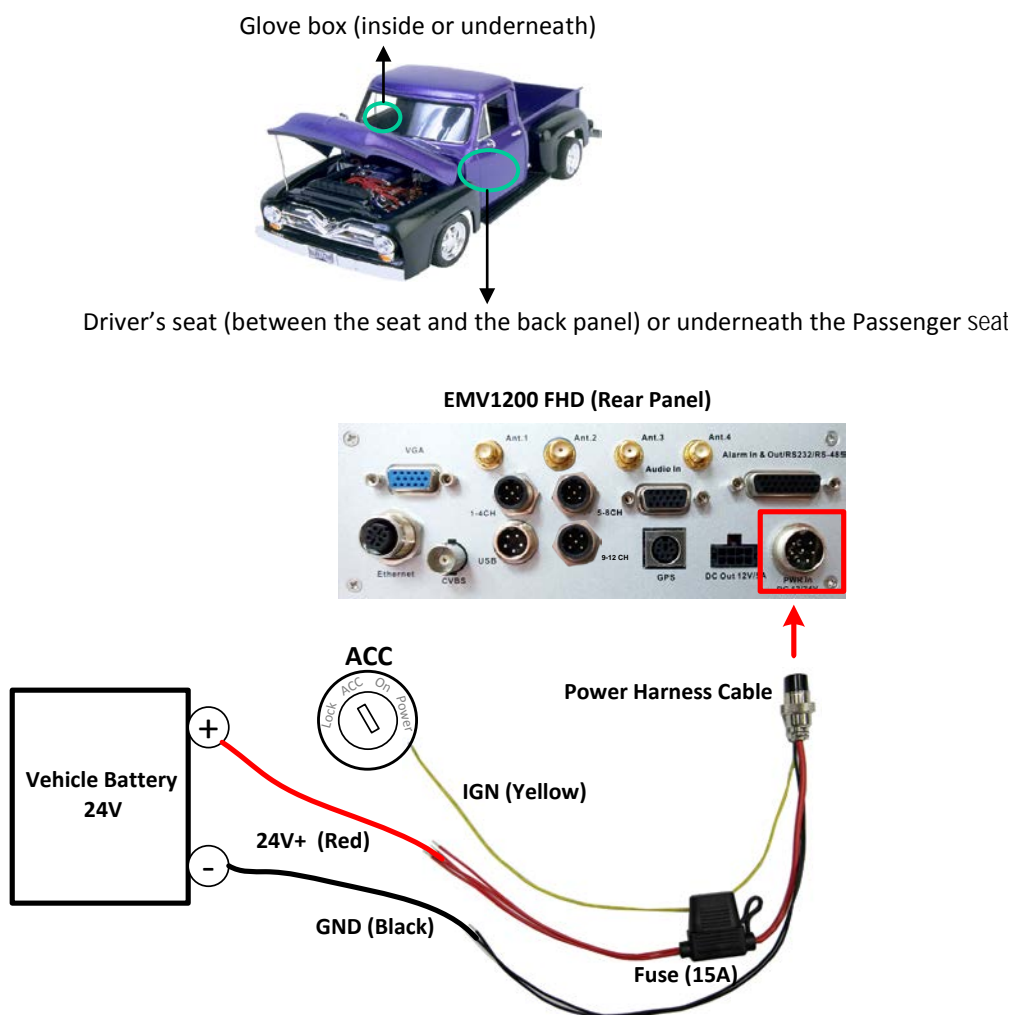


## 2.4 Vehicle Connection

The mobile DVR supports input power voltage between 9 VDC ~ 36 VDC. You can install the mobile DVR in all kinds of vehicles support the above power voltage. The diagrams below are examples to illustrate the connection inside car / truck with 12 VDC / 24 VDC.

\* The following figures are using EMV1200 FHD for example; the differences between the two models are the numbers of video input and audio input.

### 2.4.1 Connecting to a Truck with 24 VDC



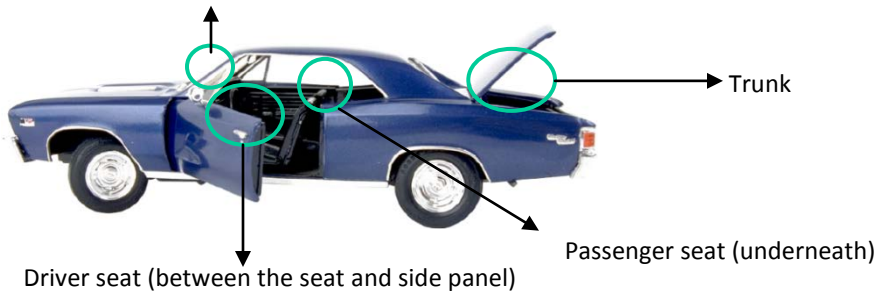
#### Note:

1. If the car is without an ignition key, please connect the IGN (yellow) wire directly or via a switch to the vehicle battery.
2. Please note that since the power of mobile DVR is directly connected to the vehicle battery, the mobile DVR will always draw power (2.5mA) from the vehicle battery.

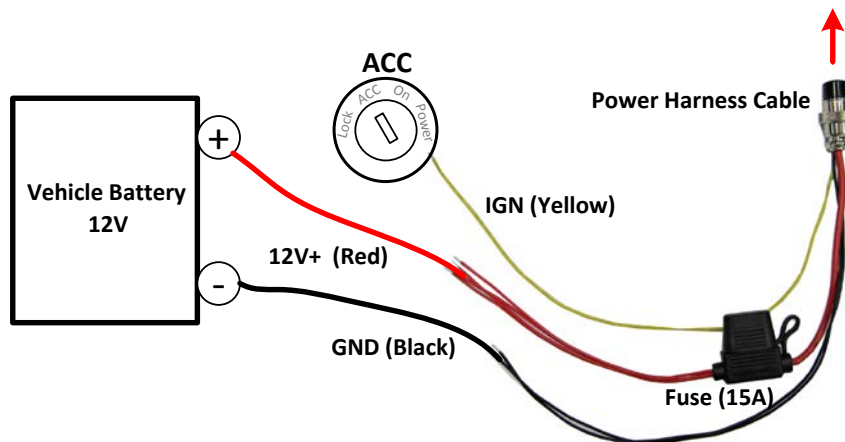


## 2.4.2 Connecting to a Car with 12 VDC

Glove box (inside or underneath)



EMV1200 FHD (Rear Panel)

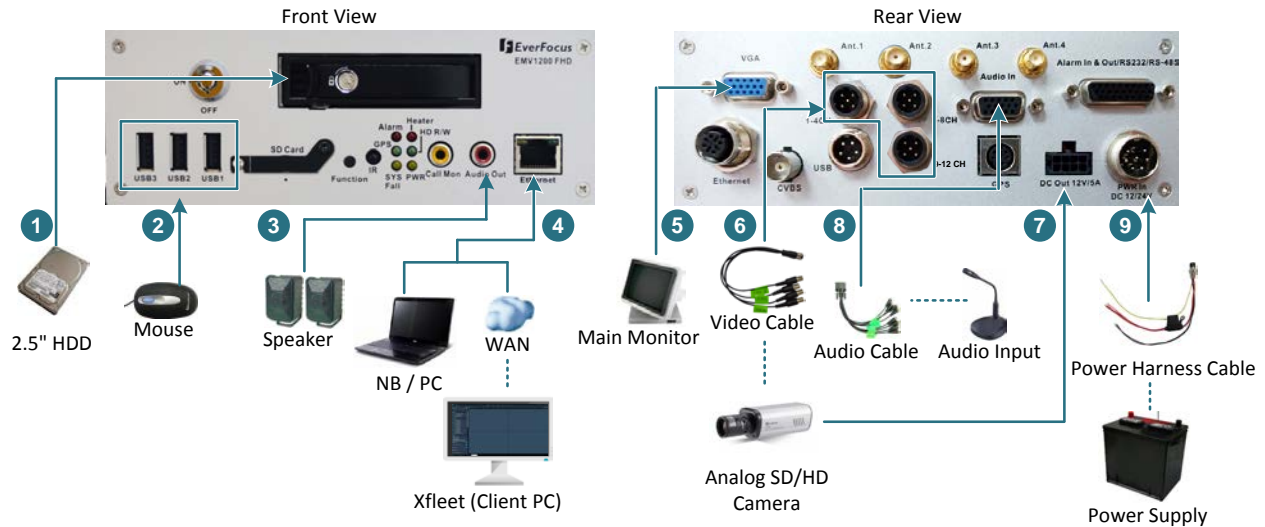


### Note:

1. If the car is without an ignition key, please connect the IGN (yellow) wire directly or via a switch to the vehicle battery.
2. Please note that since the power of mobile DVR is directly connected to the vehicle battery, the mobile DVR will always draw power (2.5mA) from the vehicle battery.

## 2.5 Basic Connection

After installing the mobile DVR in the vehicle, you can start connecting the mobile DVR to the external devices. The instructions below describe the basic connection to the mobile DVRs. For details on cable connections, please refer to the following sections.



1. To record videos, insert a 2.5" HDD (or SSD) to the HDD tray. Remember to lock the HDD Key Lock after inserting the HDD or the recording will not start (see 2.2 *Hard Disk Installation*).
2. To control the system, connect a mouse to the mobile DVR or use the supplied IR Remote Control.
3. To listen to audio of video source, connect a speaker to the Audio-out RCA socket. Note that the speaker with a (built-in) amplifier and external power is required.
4. To manage the mobile DVR over network, use a standard RJ-45 cable to connect the mobile DVR to the network.

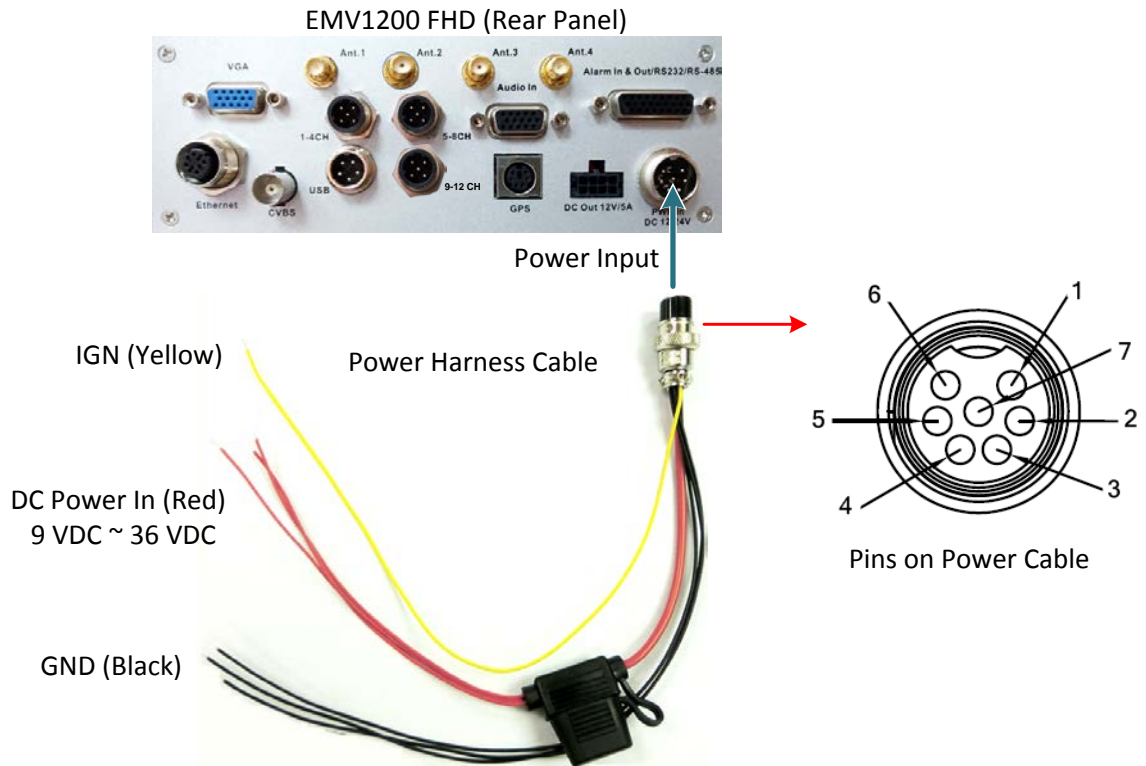
**Note:** The mobile DVRs feature Wi-Fi/3G/4G function. You can optionally connect Wi-Fi/3G/4G module and antenna to the mobile DVR for networking.

5. To view videos, connect a monitor to the VGA port using the VGA cable supplied by the monitor manufacturer. You can also connect the monitor to other video out ports, please refer to 2.5 *Monitor Connection*.
6. Connect the cameras to the mobile DVR using the supplied Video Cable. Please refer to 2.5.2 *Video Cable / Power-Out Cable*.
7. To power on the cameras, connect the power inputs of the cameras to the 12VDC power outputs of the mobile DVR using the supplied Power-Out Cable, please refer to 2.5.2 *Video Cable / Power-Out Cable*.
8. Connect the audio input devices to the mobile DVR using the supplied Audio Cable. Please refer to 2.4.3 *Audio Cable*.
9. Connect the supplied Power Harness Cable to the power supply in the vehicle for powering the mobile DVR. For details on vehicle connection, please refer to 2.4 *Vehicle Connection*.

### 2.5.1 Power Harness Cable

You can connect the mobile DVR to a power source between 9 VDC ~ 36 VDC.

(The following figure uses EMV1200 FHD as an example).



#### Pin Assignment

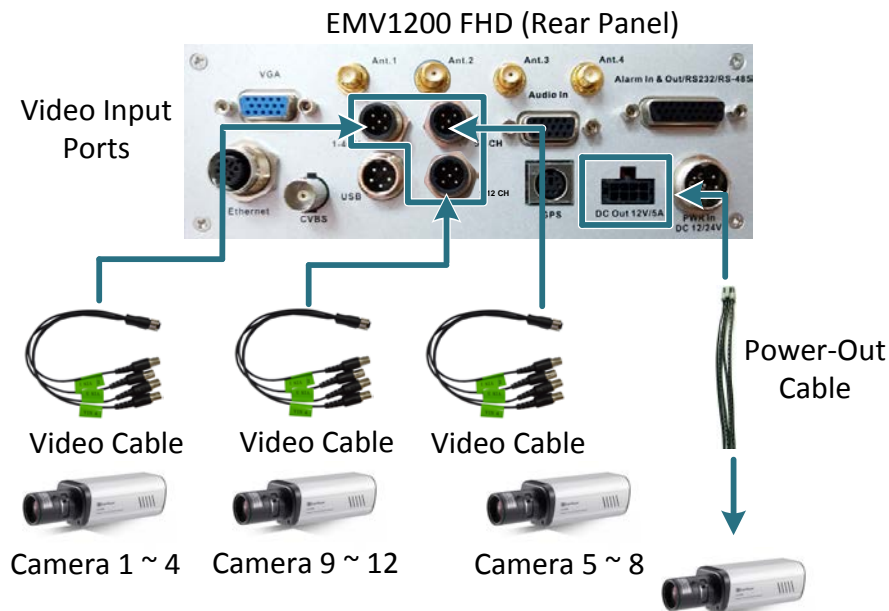
No.	Color	Description	No.	Color	Description
1	Red	DC Power Input	5	Black	GND
2	Red	DC Power Input	6	Black	GND
3	Red	DC Power Input	7	Yellow	IGN
4	Black	GND			

## 2.5.2 Video Cable / Power-Out Cable

The mobile DVRs have 1 / 2 / 3 Video In ports for connecting 4 / 8 / 12 analog cameras using the supplied Video Cables.

The Video Cables are all labeled with VIN 1~ VIN 4, and you can connect any Video Cable to any of the Video In ports on the mobile DVR. If the Video Cable connects to 5-8 CH Video In port, the cable labeled as VIN 1 will be channel 5 and so forth.

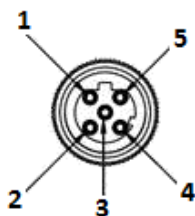
(The following figure uses EMV1200 FHD as an example).



You can also use the supplied Power-Out Cable to power on the connected cameras. The Power-Out Cable provides four set of power output wires (+/-). The total power output is 12VDC, 5A. You can optionally prepare the wires and connect the wires to the Power-Out pins for powering up more cameras.

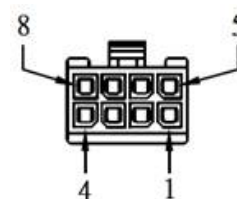


### Video Input Pin Assignment



M12-5	1	2	3	4	5
Video	Vin1	Vin2	GND	Vin3	Vin4

### Power-Out Pin Assignment

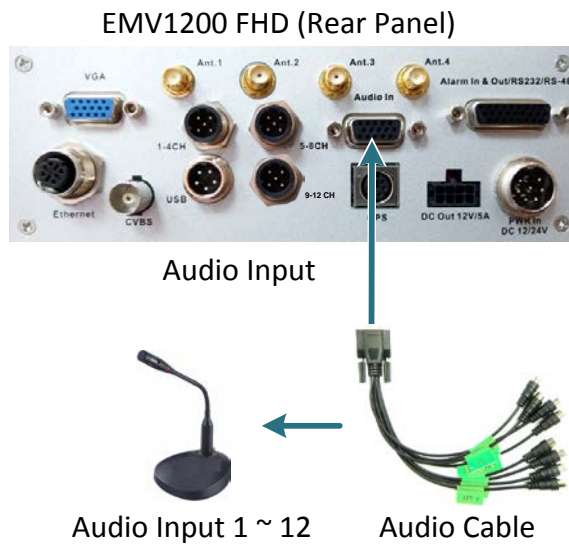


Pin 5 ~ 8: 12V  
Pin 1 ~ 4: GND

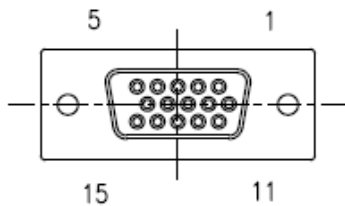
### 2.5.3 Audio Cable

The mobile DVRs have 1 Audio In port for connecting 12 microphones using the supplied Audio Cable. The Audio Cable is labeled with AIN 1~ AIN 12. Please be noted that Microphones with a (built-in) amplifier and external power supply are required.

The following figure uses EMV1200 FHD as an example. The EMV1200 FHD provides 12 audio inputs; while the EMV800 FHD provides 8 audio inputs.



#### Pin Assignment



#### EMV800FHD

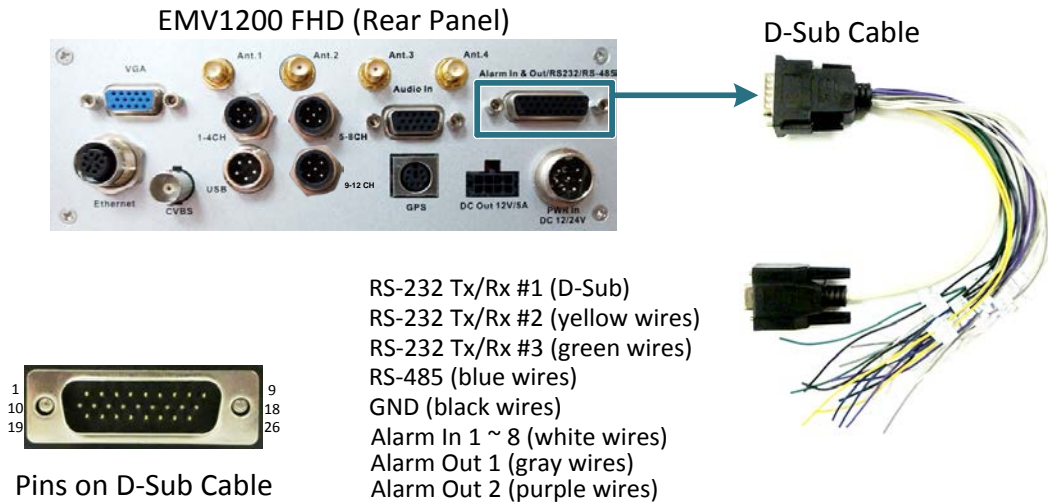
D-SUB	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Audio	Ain1	Ain2	Ain3	Ain4	Ain5	Ain6	Ain7	Ain8	GND	GND	GND	GND	GND	GND	GND

#### EMV1200FHD

D-SUB	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Audio	Ain1	Ain2	Ain3	Ain4	Ain5	Ain6	Ain7	Ain8	Ain9	Ain 10	Ain 11	Ain 12	GND	GND	GND

## 2.5.4 D-Sub Cable

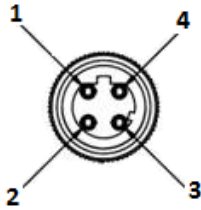
You can connect the mobile DVR to the Alarm I/O, RS-232 (CAN bus) or RS-485 devices using the supplied D-Sub Cable. The mobile DVR provides 8 alarm inputs, 2 alarm outputs, 3 RS-232 and 1 RS-485 connections.



26 Pins on D-Sub Cable							
Pin	Pin Assignment		Pin	Pin Assignment		Pin	Pin Assignment
1	Alarm Output	N.O. 1	10	Alarm Input	Alarm in 1	18	GND
2		COM 1	11		Alarm in 2	19	RS-232 Tx #2
3		N.C. 1	12		Alarm in 3	20	RS-232 Rx #2
4		N.O. 2	13		Alarm in 4	21	GND
5		COM 2	14		Alarm in 5	22	RS-232 Tx #3
6		N.C. 2	15		Alarm in 6	23	RS-232 Rx #3
7	D-Sub	RS-232 Tx #1	16		Alarm in 7	24	GND
8		RS-232 Rx #1	17		Alarm in 8	25	RS-485
9		GND				26	RS-485

### 2.5.5 Ethernet Cable

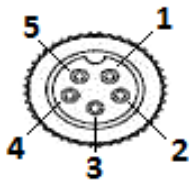
Pin Assignment



M12-4P	1	2	3	4
NET	MDI0-	MDI1+	MDI0+	MDI1-

### 2.5.6 USB Cable

Pin Assignment



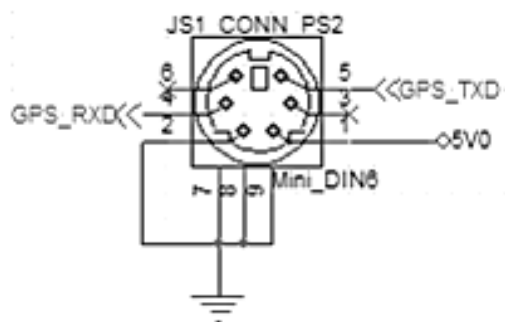
M12-5	1	2	3	4	5
USB	SHIELD	GND	D+	D-	VCC

### 2.5.7 GPS Cable

Connect the GPS Receiver to the GPS port on the rear panel of the mobile DVR.

**Note:** To perform the GPS function, you will have to apply for the GPS Receiver (refer to 1.3 *Optionally Accessories*).

Pin Assignment



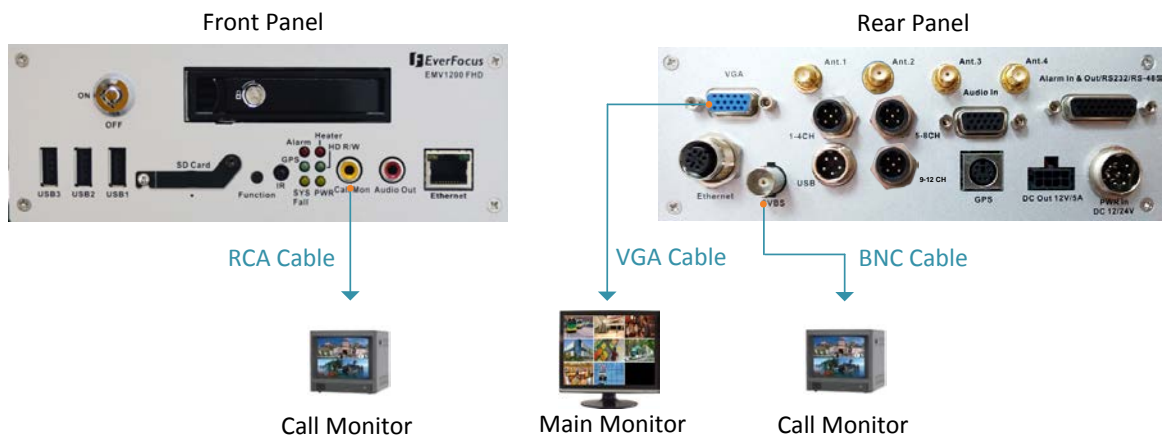


## 2.6 Monitor Connection

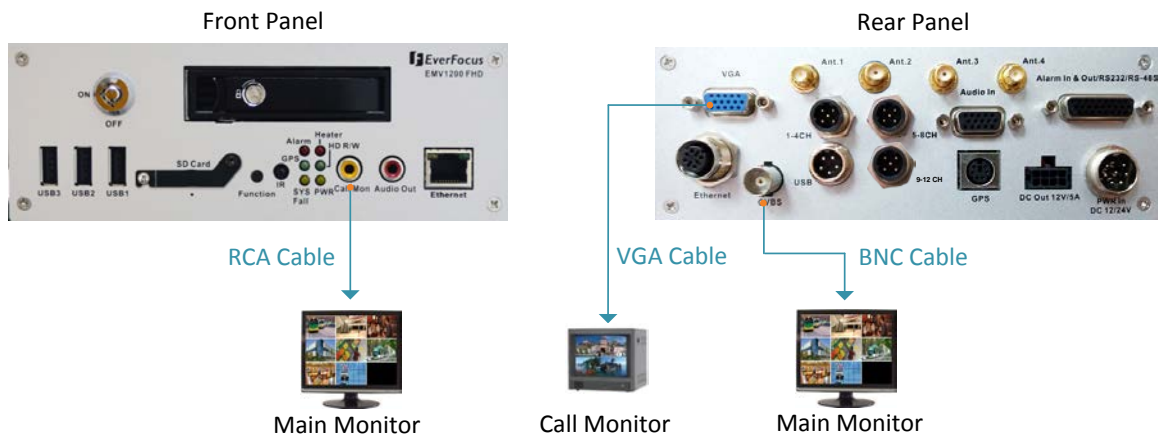
By default, the mobile DVRs provide 1 Main Monitor port (VGA) and 2 Call monitor ports (BNC and RCA). All of the Main and Call Monitor ports can be used simultaneously.

The configuration can only be operated on the Main Monitor. Call monitor can only display camera streams or perform sequence display mode. The two call monitor outputs provide the identical functionality.

Make sure that the connected monitor's specifications comply with these resolution requirements. (This figure uses EMV1200 FHD mobile DVR as an example).



You can also optionally switch the RCA / BNC video output from call monitor to main monitor; and mean while, switch the VGA video output from main monitor to call monitor. To do this, press the **Function Key** on the front panel for 3 seconds, the system will start rebooting. Once the system reboot process is complete, the Main and Call monitors will be switched (see image below). To switch back the main and call monitors, press the button for 3 seconds again.

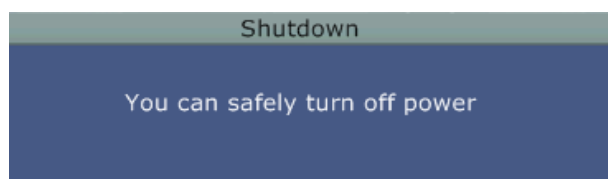




## 2.7 Turning On / Off the Power

Before powering on the mobile DVR, please make sure the internal HDD have been installed properly. Once you have completed the basic cable connections, you are ready to turn on the mobile DVR. Simply plug in the power source. The POWER LED will light up if power is normal. Once the system has finished loading, you can start setting up the menu options for the mobile DVR.


To turn off the power, please go to OSD Root Menu > System Setting > Miscellaneous setting page, and click **Shutdown** (refer to 6.8.7 Miscellaneous). After the message pops up as below, you can now turn off the power source.

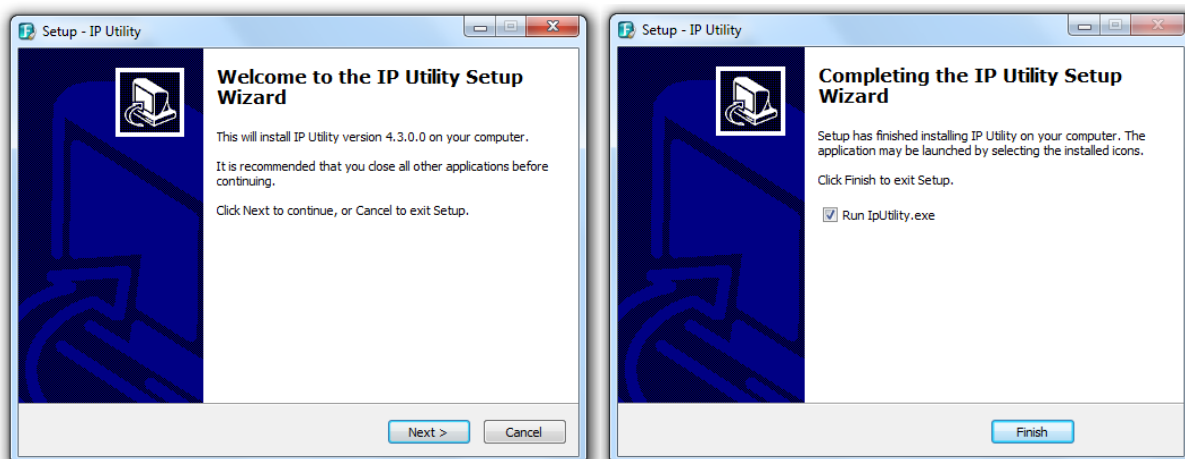


Note that when the mobile DVR is placed in an environment where the temperature is very low (for example, -40°C, the mobile DVR will NOT turn on immediately.)

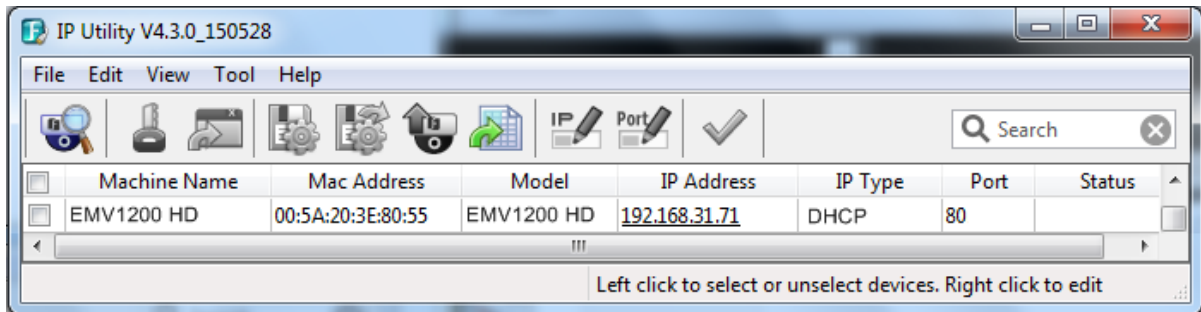
## 2.8 Accessing the Mobile DVR

You can look up the IP address and access the Web interface of the mobile DVR using the **IP Utility (IPU)** program, which is included in the software CD. The IP Utility can also be downloaded from EverFocus' Website: <http://everfocus.com.tw> Please connect the mobile DVR on the same LAN of your computer.

1. Save **IP Utility Setup .exe**  in your computer. Double click the .exe file and follow the on-screen instructions to install the IP Utility.



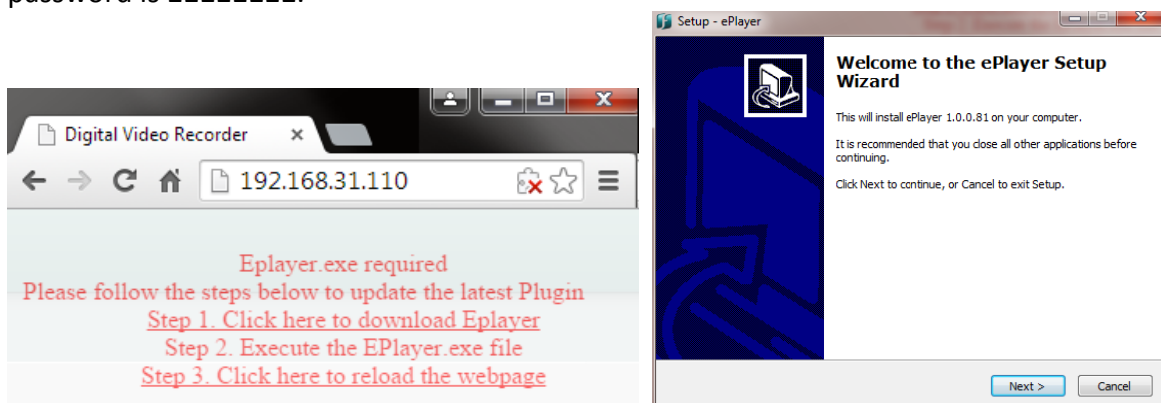
- Click the **Finish** button, the IP Utility will be automatically launched to search the IP devices connected on the same LAN.



- To access the Live View window, double click the IP address of the desired device, the login window pops up. Type the user ID and password to log in. By default, the user ID is **admin** and the password is **11111111**.



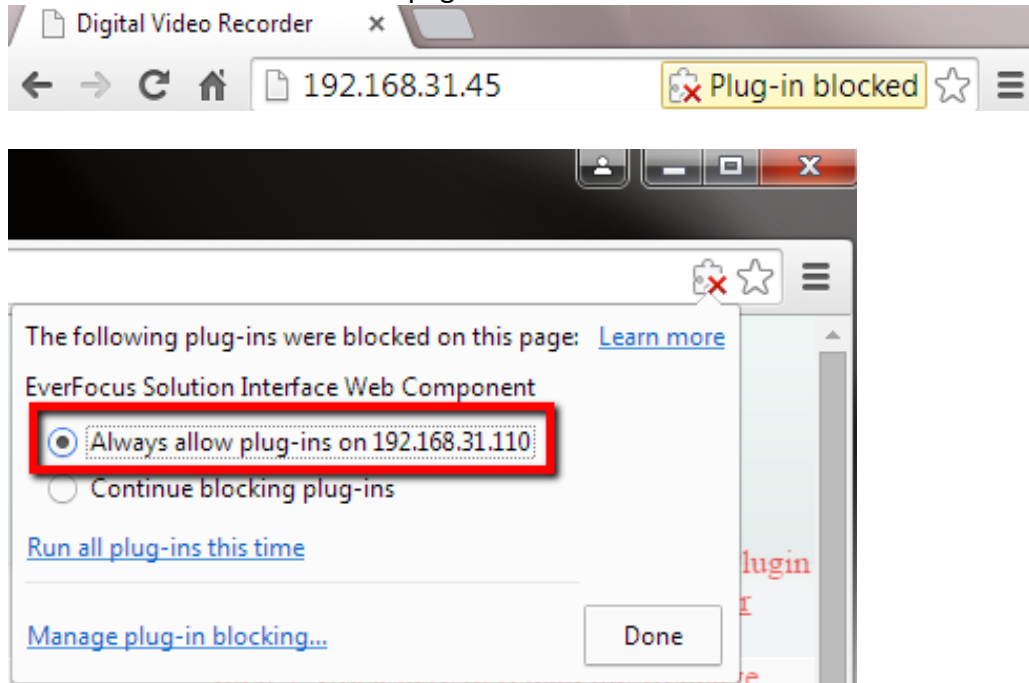
- If you log in for the first time, follow the instruction steps on the interface to update the latest Plugin version (ePlayer). After reloading the webpage, the login window pops up again. Type the user ID and password to log in again. By default, the user ID is **admin** and the password is **11111111**.



### Note for the first time login:

The “Download ePlayer Instruction” page will only be prompted for the first time login in order to update the system to the latest plugin version.

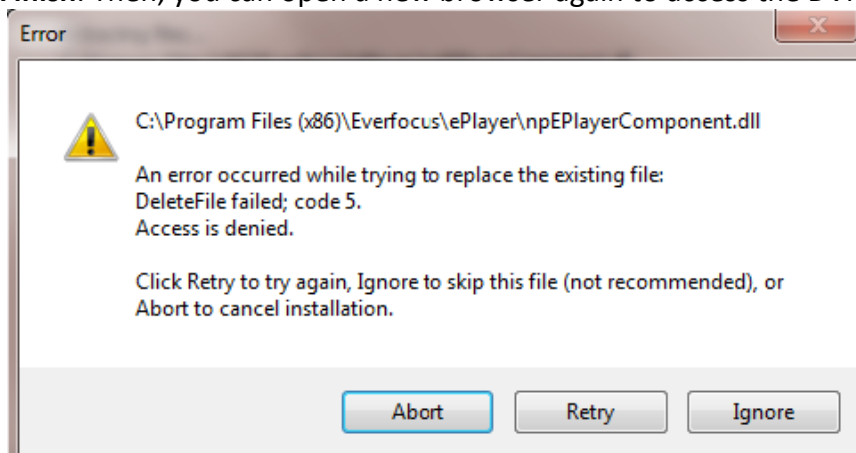
When the Plug-in blocked appears on the browser, select **Always allow plug-ins on xxx**, click **Done** and then reload the webpage.

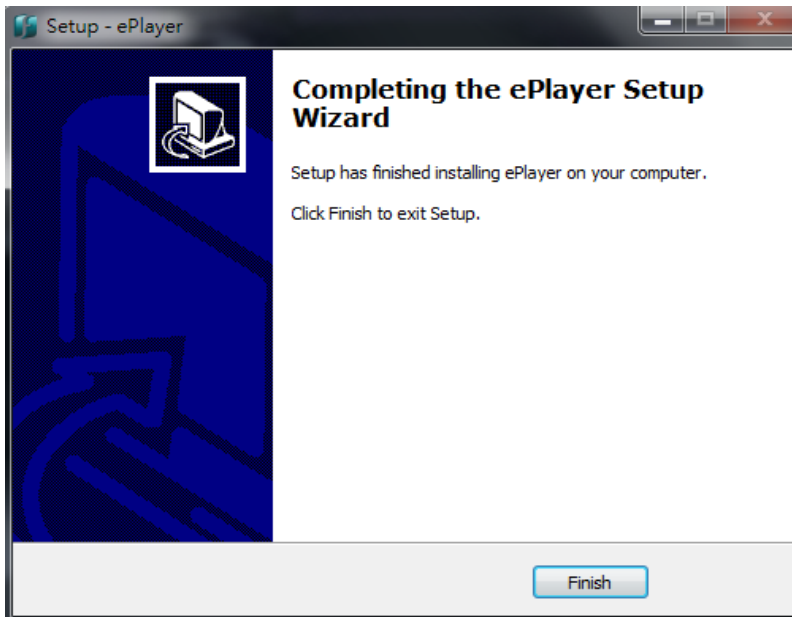


5. Now you will be able to see the remote live page.

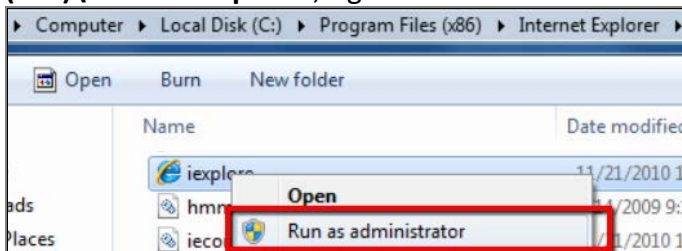
**If you encounter the following problem or still can't access the remote Web interface, please see below:**

- ◆ If the **Error** window appears, please be sure to **close ALL the Web browser windows first** and then click **Retry**. When the **Completing the ePlayer Setup Wizard** window shows up, click **Finish**. Then, you can open a new browser again to access the DVR's remote Web interface.

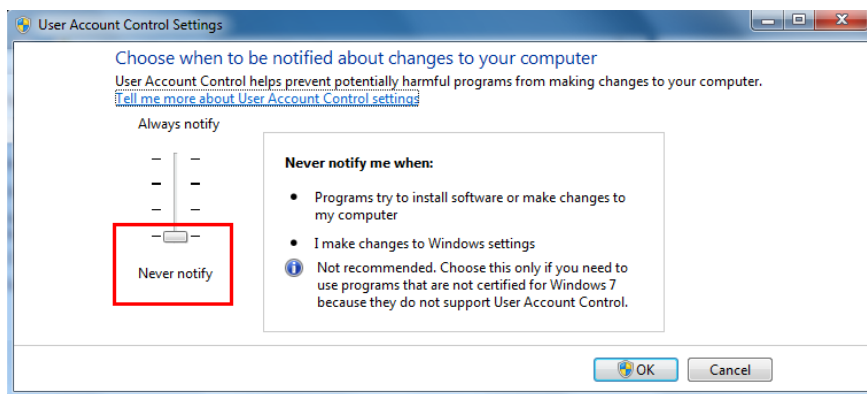




- ◆ If your PC or laptop is running with Windows, it's required to run the browser as administrator when first entering the remote web page of the device. Go to **C:\Program Files (x86)\Internet Explorer**, right-click the browser and then click **Run as administrator**.



- ◆ You may need to turn off the firewall and turn **User Account Control** off if you still can't see the Remote Live View.  
To turn **User Account Control** off, on the computer, click **Start > Control Panel > System and Security > Action Center** (click Change User Account Control Settings), the **User Account Control Settings** window appears. Adjust the slide bar to **Never Notify** and then click **OK**. Restart your computer if requested.

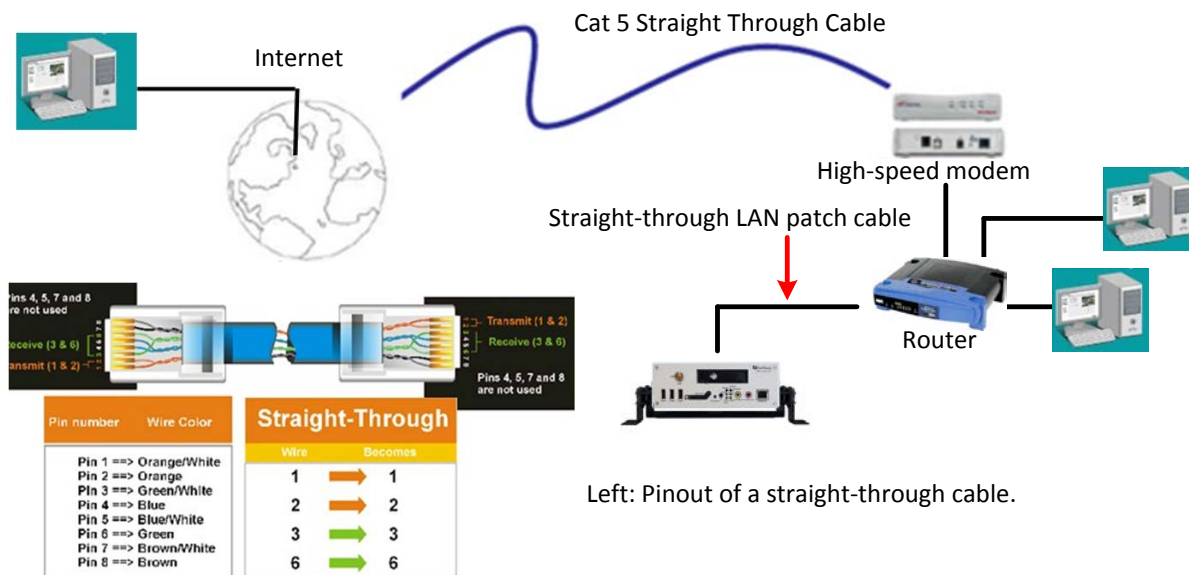


## 2.9 Connecting the Mobile DVR to the Network

There are three methods to connect the mobile DVR to the network: **Router or LAN Connection**, **Direct High-Speed Connection** and **One-to-One Connection**. For more information of the network, please refer to *Appendix A. Network Overview*.

### 2.9.1 Router or LAN Connection

This is the most common connection in which the MDVR is connected to a router and allows multiple users on and off site to see the MDVR on a LAN/WAN (Internet). The camera must be assigned an IP address that is compatible with its LAN. By setting up port forwarding on the router, you can remotely access the cameras from outside of the LAN via the Internet. To remotely access the Web interface, please refer to *7. Remote Access to the Mobile DVR*. To set up port forwarding, please consult the manual of the router or refer to *Appendix B: Linksys & D-Link Port Forwarding*.



**Connection Procedure:**

- The First step is to purchase or make a straight through cable. We recommend purchasing one if you have never made a straight through cable. Please remember you can not use a cross-over network cable for this application.
- Once you have a straight through cable plug one end into the LAN port on the back of the recorder and the other into the router.
- Log into the EverFocus mobile DVR menu and go to the Network Setting Menu.
- To let the router automatically assign an address:
  - ◆ Set the Network Type to DHCP. Make sure to write down the IP address and the Gateway.
  - ◆ Exit from the Menu to save settings.

**To manually assign an address:**

- ◆ Go to a computer connected on the same network as the mobile DVR.
- ◆ Click on the Start button and choose Run.  
If using Windows Vista, choose Search instead.
- ◆ Type “command” and click on OK.  
In Vista, you will need to double-click on the “Command Prompt” file to open it.
- ◆ In the DOS prompt, type “ipconfig” and press Enter.
- ◆ The network information will be displayed on a screen similar to the one below.  
In Windows Vista, look for the information that says “IP v4”.



```

C:\Documents and Settings\Steven>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . . . : 192.168.0.80
    IP Address. . . . . : 255.255.255.0
    Subnet Mask . . . . . : 192.168.0.1
    Default Gateway . . . . . : 192.168.0.1

C:\Documents and Settings\Steven>
  
```

- ◆ Take the values for Subnet Mask and Default Gateway and input them into the mobile DVR; these values should be exactly the same in both devices. However, you should change the last number of the IP address. For example, if the IP address of the computer is 192.168.2.101, the mobile DVR’s IP address should be 192.168.002.050.

- To access the mobile DVR from a computer simply open Internet Explorer and in the address bar type:  
http:// (IP address of the mobile DVR)

**Note:** The mobile DVR's IP address will only work at the location of the mobile DVR. To connect from a different location over the Internet, see below.

**To set the mobile DVR for Internet Connection through router:**

- The next step is to open ports within your router. Log into the router using a PC and open the following ports.
  - ◆ Ports to open: 80
  - ◆ If your Internet service provider blocks port 80, you can change it to a different port in the mobile DVR's Network Menu Setup; open/forward that port instead.
  - ◆ If you are using a Linksys or D-Link router, see *Appendix A* for basic support on setting up ports. For any other router, you will need to contact the manufacturer for support.
- To access the mobile DVR from a computer simply open Internet Explorer and in the address bar type:  
http:// (the IP address given by your internet service provider)

**Note:** If you changed to a different port other than 80, you will need to include this at the end of the IP address:  
http:// (the IP address given by your internet service provider);portnumber

- If you have a WAN Dynamic IP address and have opened the ports, go to Chapter 7 to setup DDNS.

## 2.9.2 Direct High-Speed Connection

In a Direct High-Speed Connection, the camera connects directly to a modem without the need for a router. You need to set the static or dynamic WAN IP address assigned by your ISP (Internet Service Provider) in the camera's configuration web pages. To access the camera, just type "http://xxx.xxx.xxx.xxx", where xxx.xxx.xxx.xxx is the IP address given by your ISP. If you have a dynamic IP address, this connection may require that you use DDNS for a reliable connection.



### Connection Procedure:

- The first step is to purchase or make a straight through cable. We recommend purchasing one if you have never made a straight through cable. Please remember you can not use a cross-over network cable for this application
- Once you have a straight through cable plug one end into the LAN port on the back of the recorder and the other into the high speed modem.
- Log into the EverFocus mobile DVR menu and go to the Network Setting Menu.
- Input the Static IP address, the Subnet Mask, and the Gateway that you obtained from the internet service provider.

**Note:** If you have a dynamic IP address, you can set the mobile DVR to DHCP to automatically detect the network settings. Therefore, it can use a dynamic IP address.

- Exit from the mobile DVR's Menu to save the settings.

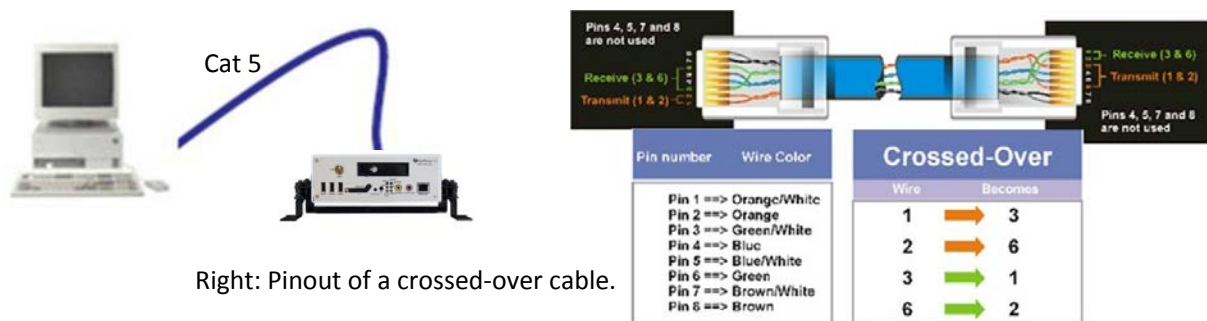


- To access the mobile DVR from a computer, open Internet Explorer and in the address bar type: http:// (IP address given by your internet service provider)

**Note:** When using this type of connection, only one device can be connected to the modem at a time. You will need to use a computer at a different location to test the connection s.

### 2.9.3 One-to-One Connection

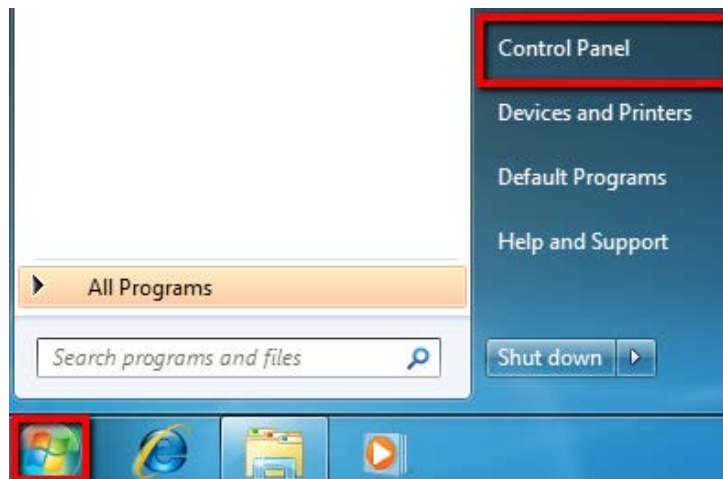
You can connect directly without using a switch, router or modem. However, only the PC connected to the camera will be able to view the MDVR. You will also have to manually assign a compatible IP address to both the computer and the MDVR. Unless the PC has another network connection, the MDVR will be the only network device visible to the PC. See the diagram below:



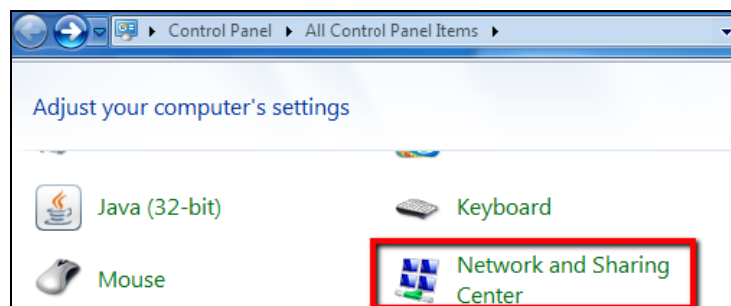
#### Connection Procedure:

- The First step is to purchase or make a cross-over cable. We recommend purchasing one if you have never made a cross-over cable. Please remember you can not use a straight through network cable for this application.
- Once you have a cross-over cable plug one end into the LAN port on the back of the mobile DVR and the other into the network card on the back of the computer.
- Log into the EverFocus mobile DVR menu and go to the Network Setting Menu.
- You must use the Static IP option for this type of connection.
- Assign an IP of 192.168.001.003, a Subnet Mask of 255.255.255.000, and a Gateway of 192.168.001.001. You can ignore DNS Server.
- The next step is to set the computer's network settings to match those of the mobile DVR. You will need Administrator privileges on your Windows machine to do this.
- To assign a fixed IP address in Windows 2000/XP, follow the instructions below:

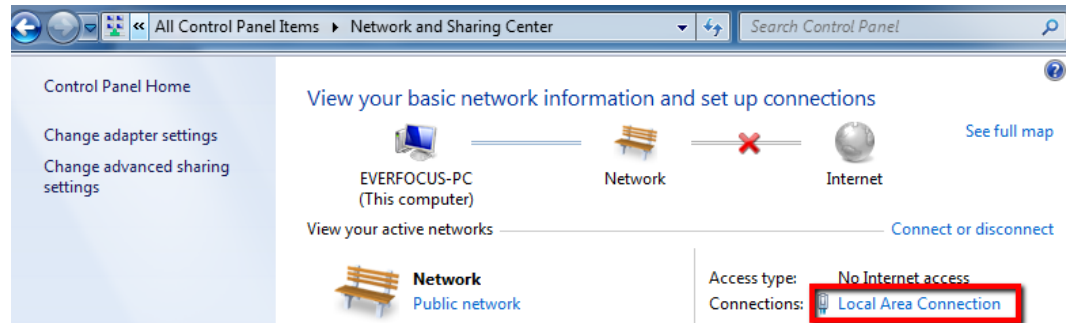
- ◆ Go to **Start**. Double-click on **Control Panel**.



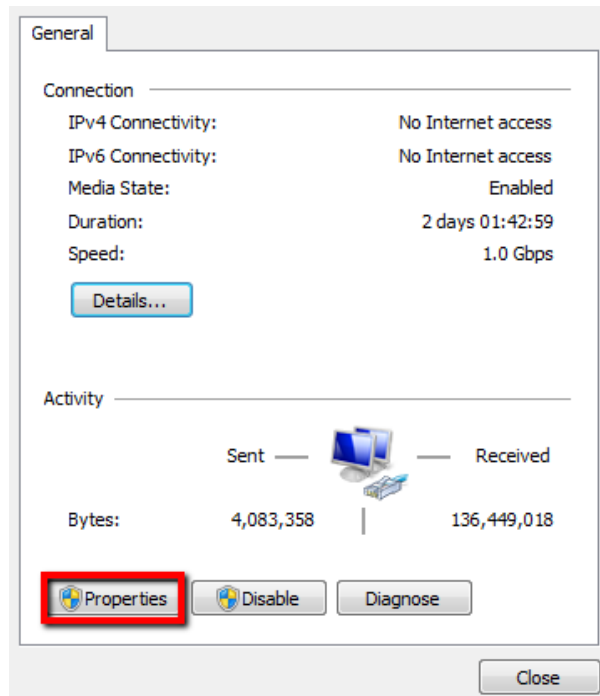
- ◆ Click **Network and Sharing Center**.



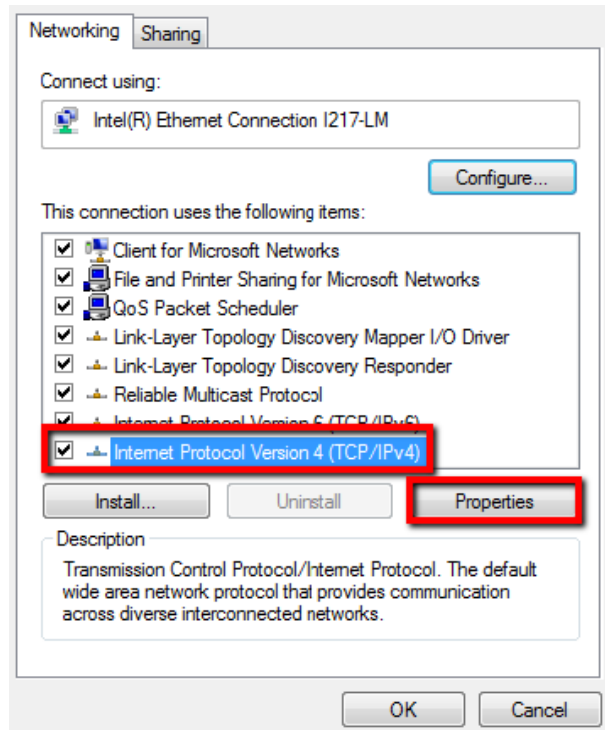
- ◆ Click **Local Area Connection**.



- ◆ Click **Properties**.



- ◆ Click on **Internet Protocol Version 4 (TCP/IPv4)** and then click **Properties**.



- ◆ Select **Use the following IP address**. Assign an IP address of 192.168.1.2, a Subnet Mask of 255.255.255.0, and a Default Gateway of 192.168.1.1 and then click **OK**.

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address:

Subnet mask:

Default gateway:

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server:

Alternate DNS server:

☐ Validate settings upon exit

Advanced...

OK Cancel

- ◆ Restart both of the computer and the mobile DVR.
- ◆ To access the mobile DVR from the computer, simply open Internet Explorer and in the address bar type: `http://192.168.1.3`


# Chapter 3

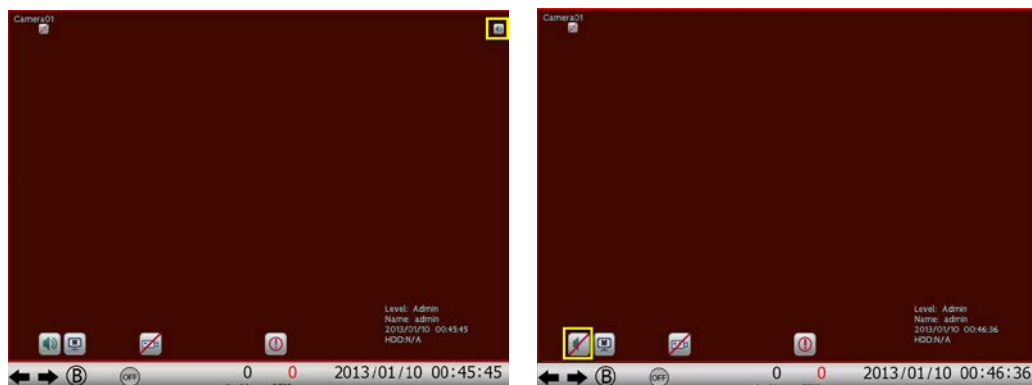
## 3. General Operation

There are two ways to control the OSD menu of the mobile DVRs: with a **Mouse** or the supplied handheld **IR Remote Control**. For details on the IR remote control, please refer to *Appendix E, IR Remote Control*. This chapter will discuss the basic operations using the mouse.

### 3.1 USB Mouse Operation

#### 3.1.1 How to Select a Channel / Enable Audio Out


- To select a channel, on the Live View window, single-click on the desired channel screen. The selected screen will be highlighted by a red frame.
- To toggle full screen of a channel, double-click on a desired channel.
- To switch the Audio Output channel, single-click on the desired channel screen, the highlighted channel will be automatically applied with the Audio Output function (an audio icon will be displayed on the upper-right corner of the channel). To turn on/off the Audio Output function, click the Audio Icon  at lower-left side of the monitor.



### 3.1.2 OSD Root Menu

1. Right-click the mouse, the OSD Root Menu window appears.



2. Click on any icon to enter to the setup menus.
3. Click the  button on the top-right corner or right-click to close the OSD Root Menu.

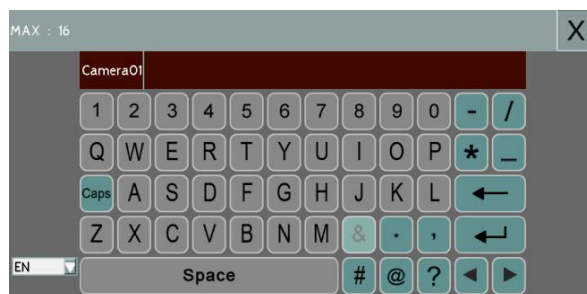
### 3.1.3 Field Input Options






You may find the following fields in the Configuration menu. Follow the instructions below to configure the settings.

**Text Box:** Click on the box and an on-screen keyboard will appear.



**On-Screen Keyboard:** Click on a button to input that character. The buttons on the right and bottom have the following functions:



<b>Caps</b>	Switch to capital letters
	Delete the letter backwards
	Confirm the selection
	Move to left
	Move to right
<b>Space</b>	Enter a space
	Select English or Chinese.

**Drop-Down Box:** Click on the down arrow to see all selections, then directly click on an option to select it.



**Check Box:** Click on the box to enable it (checked) or disable it (unchecked).



**Button:** Click the button to execute the function.



**Bar:** Slide the bar to the left or right for adjusting the set point.



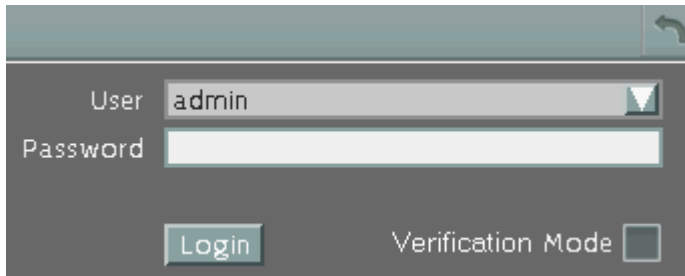


## 3.2 General Operation

### 3.2.1 Login

In order to access mobile DVRs, you may be prompted to log in for authority identification. To log in, follow the steps below:

1. Right click on the screen to display the Root Menu. The following window appears.




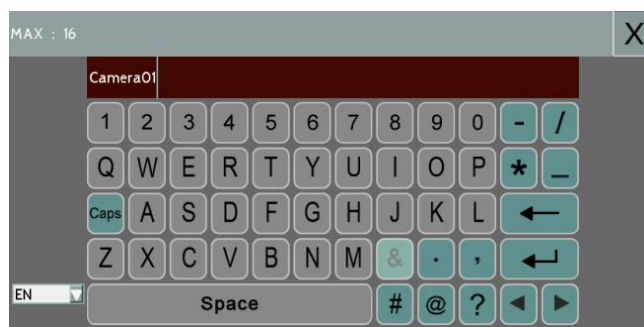
2. Select the user name from the User name drop-down list and input the password. The default user name and password are:

**User Name:** admin

**Password:** 11111111

**Note:** For details on setting up multiple user accounts, please refer to *6.8.4 User Management*.

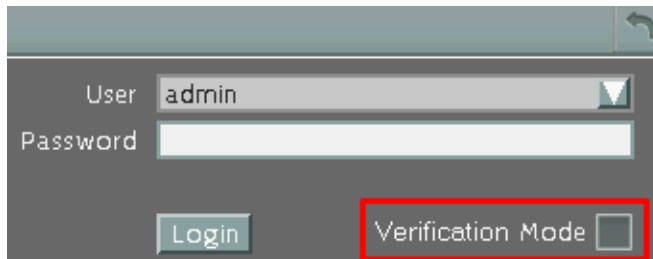
To input the password, click the Password field to bring up the on-screen keyboard. Click on each button to input the desired characters. When finished, click  to confirm the password.



3. Click the **Login** button to log in the system.

### 3.2.2 Forget Your Password

1. If you forget your password, please email the **Serial Number** of the mobile DVR to [ts@everfocus.com.tw](mailto:ts@everfocus.com.tw), and then EverFocus will send you a verification code.
2. Input this verification code in the **Password** field of the Login window within 24 hours, and check the **Verification Mode** box.

A screenshot of a login interface. It features a 'User' field with 'admin' entered, a 'Password' field, a 'Login' button, and a 'Verification Mode' checkbox. The 'Verification Mode' checkbox is highlighted with a red rectangular border. There is also a small circular arrow icon in the top right corner of the login area.

3. Click **Login** to log in the mobile DVR.

**Note:** This verification code is effective within 24 hours only, so please set up a new password in the System Setting page (refer to 6.8.4 *User Management*).

### 3.2.3 Camera Selection

You can control each camera individually by selecting that camera. To select a camera, follow the instructions below.

Click a camera on the screen, and the selected camera will be highlighted with a red frame. All cameras will be selected when you scrolling the mouse up / down between the first and the last channel.

### 3.2.4 Audio Selection


In order to utilize the audio function, please follow the instructions below before switching on the audio function.

**Note:** The Audio function is unavailable for Germany.

1. Connect the audio source and/or audio output amplifier to the mobile DVR.
2. Go to Camera setting menu (OSD Root Menu > System > Camera > Camera Status).
3. Click the **Set** button of the analog camera.
4. Check the box to enable the **Record Audio** option and select an audio input device. You can select multiple cameras to one single audio input device.

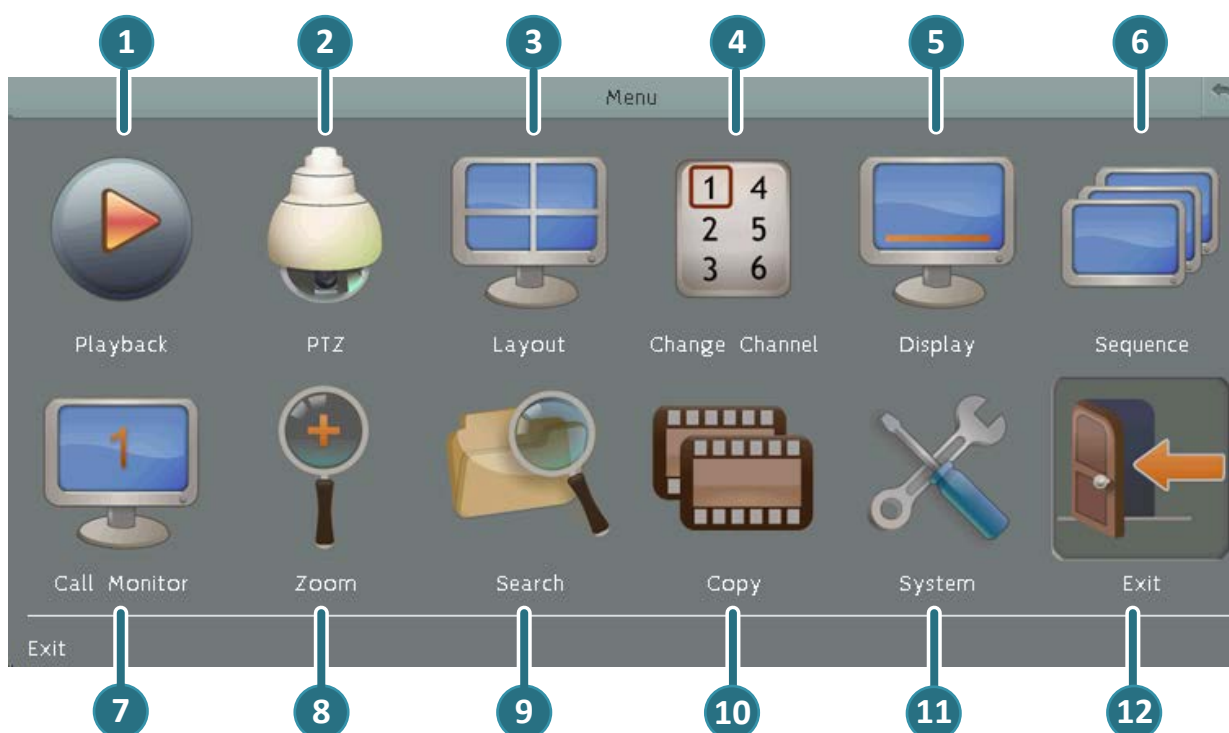


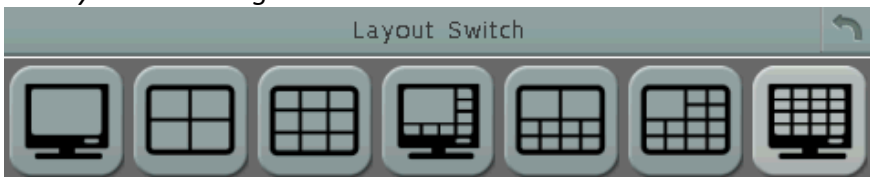
Note that the mobile DVR only provide one channel audio output. You can switch the Audio Output function to either one from the cameras. To switch the Audio Output function to the desired camera:




On the bottom of the live view screen, click the Audio icon  to switch the Audio Output function to the desired camera or disable the Audio Output function.

# Chapter 4

## 4. OSD Root Menu



No	Name	Description
1	Playback	Click to display the Playback Bar for viewing the recording videos. For details, please refer to 5. <i>Search and Playback</i> .
2	PTZ	Click to display the PTZ Control Panel for controlling the connected PTZ cameras. For details, please refer to 4.1 <i>PTZ</i> .
3	Layout	Click to display the Layout Bar as shown below. Select a layout type for the live view display on the Main Monitor. For details, please refer to 4.2 <i>Layout Switching</i> . 

4	Change Channel	<p>Click to display the Channel Changing Bar as shown below. To switch the selected camera to a specific channel, please refer to <i>4.3 Channel Switching</i>.</p> 
5	Display	<p>Click to display system information icons or status icons on the live view screen. For details, please refer to <i>4.4 Display</i>.</p>
6	Sequence	<p>Click to enter the auto sequential switching mode. Click again to disable. For setting up the sequencing order, please refer to <i>6.5.2 M/T SEQ</i>.</p>
7	Monitor	<p>Click to switch to the call monitor settings. On the OSD Root Menu, click the Monitor button  to switch to the Call monitor. On the OSD Root Menu, the Playback, PTZ, Zoom, Search, Copy, System and Exit icons will gray out. You can only configure the Layout, Channel, Display and Sequence settings for the Call Monitor. To switch to the Main Monitor, click the  button. Note that the Call Monitor can only be used to display camera views. The functions including the layout, channel switching, icon display, sequencing mode of the Call Monitor can only be configured on the Main Monitor.</p>
8	Zoom	<p>Click to enter the Zoom mode. You can zoom in the camera view up to x4 and navigate the camera view. For details, please refer to <i>4.6 Zoom</i>.</p>
9	Search	<p>Click to display the Search menu for setting up the Search mode for playing back. For details, please refer to <i>5.3 Searching the Recordings for Playback Back</i>.</p>
10	Copy	<p>Click to display the Copy menu for archiving the recordings or log data to the USB storage device or FTP. For details, please refer to <i>4.7 Archiving the Recordings or Log Data to the USB or FTP</i>.</p>
11	System	<p>Click to enter the System Setting menu. Please refer to <i>6. System</i>.</p>
12	Exit	<p>Click to bring up the Logout Confirmation window and then click <b>Yes</b> to log out the system (see <i>4.8 Logout</i>). To log in, please refer to <i>3.2.1 Login</i>.</p>

## 4.1 PTZ

You can use the PTZ Control Panel to control the connected PTZ cameras. To bring up the PTZ

control panel, on the OSD Root Menu, click the PTZ button



The following actions can be performed using the PTZ Control Panel:


1. To move the camera to the desired direction and angle, click the **Direction** buttons.
2. To zoom in / out the camera view, click the **Zoom** buttons.
3. To adjust the camera focus, click the Focus buttons.
4. To adjust the Iris open to increase / decrease the amount of light in, click the **Iris** buttons.
5. To program a Preset Position (if supported by the camera):
  - a. Move the PTZ camera to the desired position.
  - b. Click the **Preset** button.
  - c. Set up a preset number for the current position by clicking the number buttons. The number will be displayed in the number box.
  - d. Click the **Set** button to save the settings.
6. To jump to a Preset Position:
  - a. Click the **Preset** button.
  - b. Click the desired Preset number.
  - c. Click the **Go** button.
7. Shortcut for Preset 1 ~ 9:
  - a. Click digit 1 ~ 9 button without clicking any other buttons.
  - b. The camera will seek that Preset Position.
8. To delete a Preset Position (if supported by the camera):
  - a. Click the **Preset** button.
  - b. Click the desired Preset number.
  - c. Click the **Delete** button.
9. To operate the Auto Pan function, click the **Auto Pan** button.
10. To operate the Pattern function, click the **Pattern** button. The Pattern is the “0” Tour in



Everfocus and Pelco PTZ cameras.

11. To operate the Tour function:
  - a. Click the **Tour** button.
  - b. Click the desired Tour number.
  - c. Click the **Go** button.
12. To remove a pre-configured Tour (if supported by the camera):
  - a. Click the **Tour** button.
  - b. Click the desired Tour number.
  - c. Click the **Delete** button.

Click **C** to clear the entered number in the Number Box.

Click  at the top-right corner to hide the PTZ Control Panel (see 4.1.1 *Express Control of PTZ*). To display the PTZ Control Panel, right-click on the screen.

Click **Exit PTZ** to close the PTZ Control Panel and exit the PTZ mode.

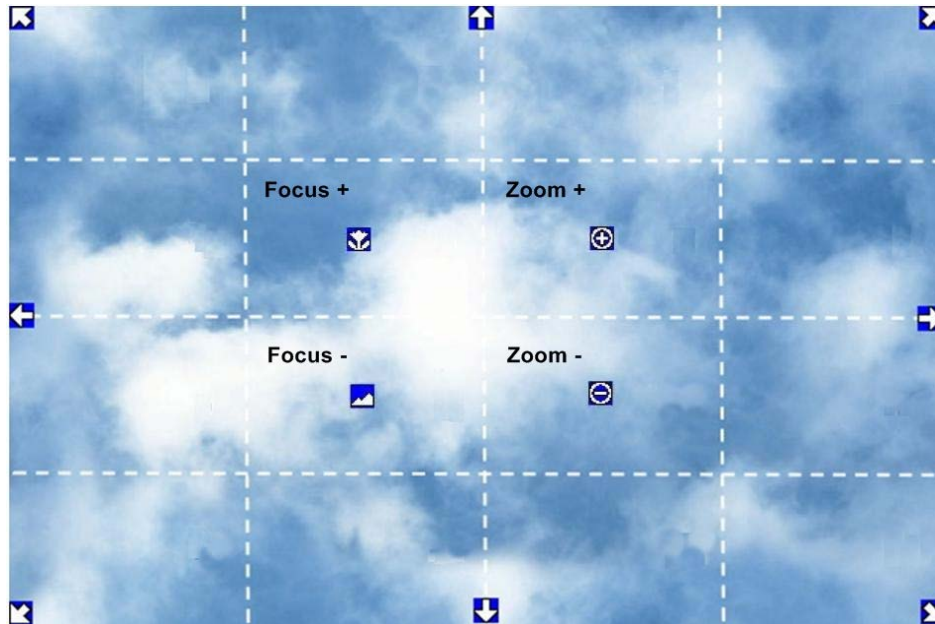
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**Note:** Before start using the Auto Pan, Pattern and Tour functions, you have to configure the related settings for the connected PTZ cameras. Please refer to the User's Manual of your PTZ cameras.



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
#### 4.1.1 Express Control of PTZ

If the PTZ Control Panel has first been opened and then hidden, the mouse can be used to control basic PTZ functions. Move your mouse cursor on the screen, the mouse cursor will turn into a control icon (direction, focus or zoom) in different areas of the screen. You can control PTZ direction, focus and zoom by clicking directly on the screen.



**Direction Controls:** When your mouse cursor turns into a direction icon, click on the screen will force the camera to turn in that direction.

**Focus Controls:** When your mouse cursor turns into , click on the screen will focus closer the image. When your mouse cursor turns into , click on the screen will focus farther the image.

**Zoom Controls:** When your mouse cursor turns into , click on the screen will zoom in the image. When your mouse cursor turns into , click on the screen will zoom out the image.



## 4.2 Layout Switching

The mobile DVRs have several screen layout options.



To change layout, follow the steps below:

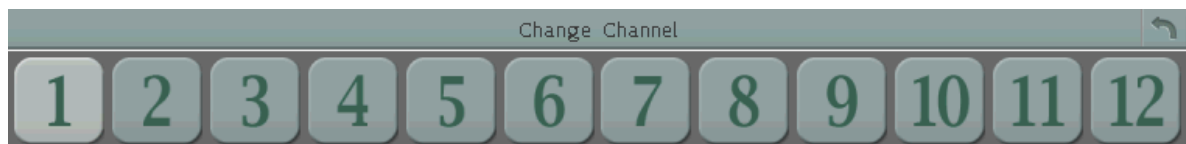
1. Right-click to bring up the OSD Root Menu.
2. Click the Layout icon.
3. Click on the desired layout.

## 4.3 Channel Switching

You can switch the selected camera to a specific channel. Follow the steps below:

1. On the live view screen, select a camera, the selected camera will be highlighted with a red frame.
2. Right-click to display the OSD Root Menu.


3. Click the **Change Channel** icon , the Channel Bar appears.















4. Select a channel, the selected camera will be switched to that channel.

## 4.4 Display

You can display system and camera status on the live view screen. Follow the steps below:

1. Click the Display button  on the OSD Root Menu or press the Display button on the front panel to display the system and camera status. You can continue click on the button to switch among the display modes. There are four modes provided: (1) Display both the camera and system status icons. (2) Display only the camera status icons. (3) Display only the system status icons. (4) Hide both the camera and system status icons.

2. The following icons will be displayed at the top-left side of each camera stream to show each camera's status.













					
Recording	Playback	Fast forward	Fast backward	Back	pause
					
Alarm	Motion	Video loss	Uninstall	Audio On	Audio In

3. The following icons will be displayed at the bottom of the monitor to show the system status.

				
Audio On	Audio Off	Alarm	Motion	Video loss
				
No network 1	Main	Call	Sequence	HDD failure*
				
HD temp. too high	Event	GPS	G-sensor	SD Card Recording

\* The MDVR features Auto HDD Retry mechanism. Once the HDD has been installed, when encounter HDD fail error, the MDVR will automatically reboot to detect the installed HDD up to 3 times. Please refer to *Appendix I: Auto HDD Retry Mechanism* for more details.

4. The following icons will be displayed at the bottom of the monitor to show the CAN bus status. To enable CAN bus status, please consult EverFocus for more details [ts@everfocus.com.tw](mailto:ts@everfocus.com.tw)

 Turn Left	 Turn Right	 Reverse	 Brake	 3G Network	 4G Network
 WiFi Network	 GPS	 No Signal of Wireless Network	 Wireless Network Off	 Low Beams	 High Beams

## 4.5 Sequence

The sequence function is used to display each channel in sequence mode. To enable this function:



Click the Sequence button to enter the sequential switching mode. The mobile DVR will display one channel at a time in full screen. The channels will be displayed in the sequence and for the amount of time as configured in the System > Display Setting > M/T SEQ submenu. The default setting is channels 1~12 with a dwell time of 3 seconds each – repeated. Please refer to 6.5.2 *M/T SEQ* for detailed information.

## 4.6 Zoom

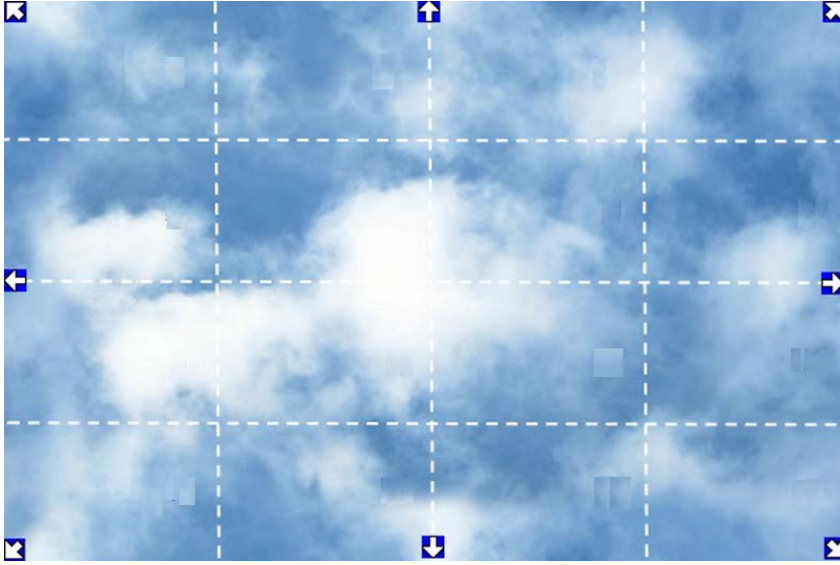
You can zoom in the camera view up to 4X and navigate the camera view using the mouse.





To enter the Zoom mode:




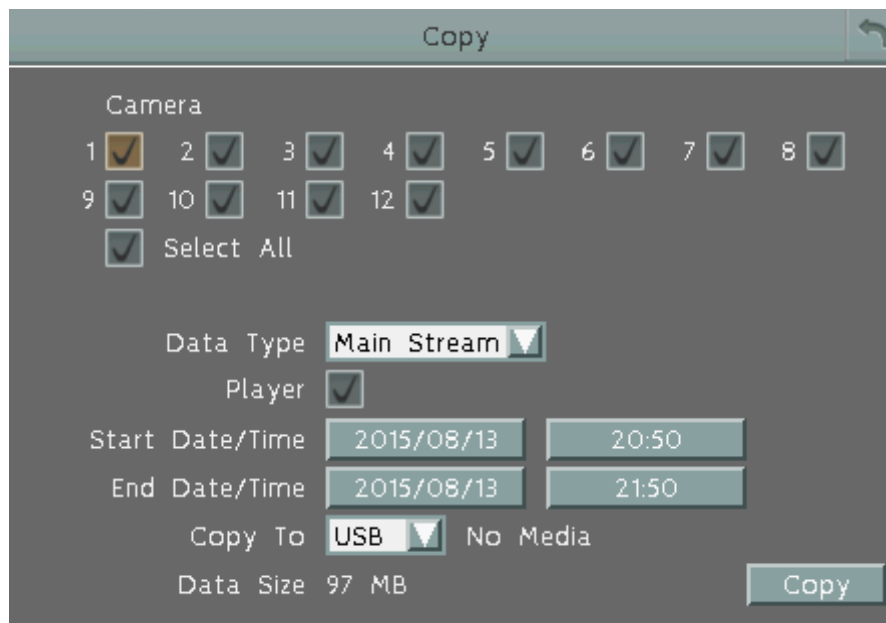
1. Select a camera and then click the **Zoom** button on the OSD Root Menu to zoom in the camera view to 2X. The ZOOM 2X stamp will be displayed on the top screen.
2. Navigate the camera view to the desired position by moving your mouse cursor over the camera view. The mouse cursor will turn into a direction icon when you move your mouse cursor to different portion on the camera view. Click directly on the screen can move to that direction.



3. Right-click the screen, the Zoom Bar appears in the middle of the screen.
4. Click  to zoom in the camera view up to 4X.
5. Click the **Logout** button  to log out the Zoom mode.

## 4.7 Archiving the Recordings or Log Data to the USB or FTP

You can archive the recordings or log data (event and motion) to the USB storage device. On the OSD Root Menu, click the **Copy** icon , the following menu appears.



The screenshot shows the 'Copy' menu with the following options:

- Camera:** A grid of checkboxes for cameras 1 through 12. Camera 1 is highlighted with a yellow box. A 'Select All' checkbox is also present.
- Data Type:** A dropdown menu set to 'Main Stream'.
- Player:** A checkbox that is checked.
- Start Date/Time:** Two input fields showing '2015/08/13' and '20:50'.
- End Date/Time:** Two input fields showing '2015/08/13' and '21:50'.
- Copy To:** A dropdown menu set to 'USB', with 'No Media' as an alternative option.
- Data Size:** A label indicating '97 MB'.
- Copy:** A button at the bottom right to initiate the archiving process.

**Camera:** Select the desired cameras.

**Data Type:** You can copy the recordings of selected cameras from main stream, or sub stream.

**Player:** Check the box to include the **EFPlayer**  program in the copy. You can use the EFPlayer on a computer to play back the recordings. Please see the instruction the next page.

**Start (End) Date/Time:** Click to bring up the on-screen keyboard/clock to select the start (end) date/time. Note the maximum archiving period is one day.

**Copy To:** Select a destination (USB or FTP) for the recordings or log data to be archived to.

### Note:






1. If the Archiving Recording to the FTP server is working in progress, the **FTP Upload** function (refer to 6.3.1 Alarm and 6.3.3 Motion) will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. Once you have clicked the **Copy** button to start archiving, you can only wait until the copy process is done to start the next copy action.

**Copy:** Click to start archiving.



## EFPlayer:

Unzip the EFPlayer file and double-click to open it as below. The EFPlayer can only display up to 16 channels at one time.




No.	Name	Function Description
1	Information	Shows the recording information of the device, including model of the recorder, recording start time / date, current playback time, recording end time / date.
2	Load	Click to select a recording file and open it.
3	Save as AVI	Click to archive the recording file of 1 channel and save as AVI format.
4	Time Search	Click to search a recording from a selected time.
5	Channel Switch	Click to switch channel bar between CH1~16 and CH17~32.
6	Time Bar	Move the time bar to a desired time to play back the recording from that time.
7	Playback Controls	<div>  : Click to fast reverse / fast forward. </div> <div>  : Click to reverse play /play. </div> <div> : Click to pause playing back. </div>

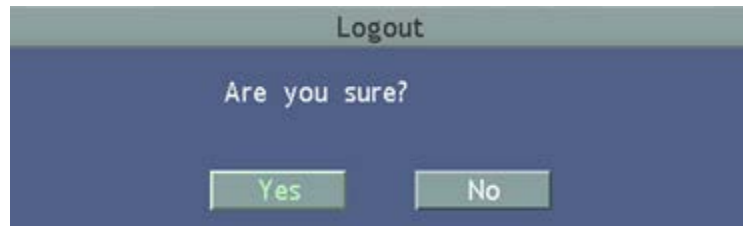


8	Snapshot	Click to take a snapshot of the channels displayed on the UI. You can save the snapshot file to a desired location.
9	Mute	Click to mute; click again to turn off the mute function.
10	Volume	Drag to increase or lower the volume.
11	Scale Out / In	Click to adjust time scale.
12	Screen Division	 : Click to display the channels to fit the screen.  : Click to select a desired screen division display mode (1, 4, 9, 16 screen division display modes). If the channels are more than the screen divisions, you can select the same screen division display mode to change the channels on the screen.
13	Speed	Shows the fast reverse / forward speed (up to 64X).



## 4.8 Logout


You can log out the mobile DVR by clicking the **Exit** icon  on the OSD Root Menu to bring up the Logout Confirmation window. Click “Yes” when you are ready to logout of the system. You will need to login again before accessing the OSD Root Menu.



If you do not need the Login / Logout step before entering the Root Menu, please uncheck the **Login** box in the User Management setting page. For more details, please refer to 6.8.4 *User Management*.



### 4.8.1 Temporarily Logout

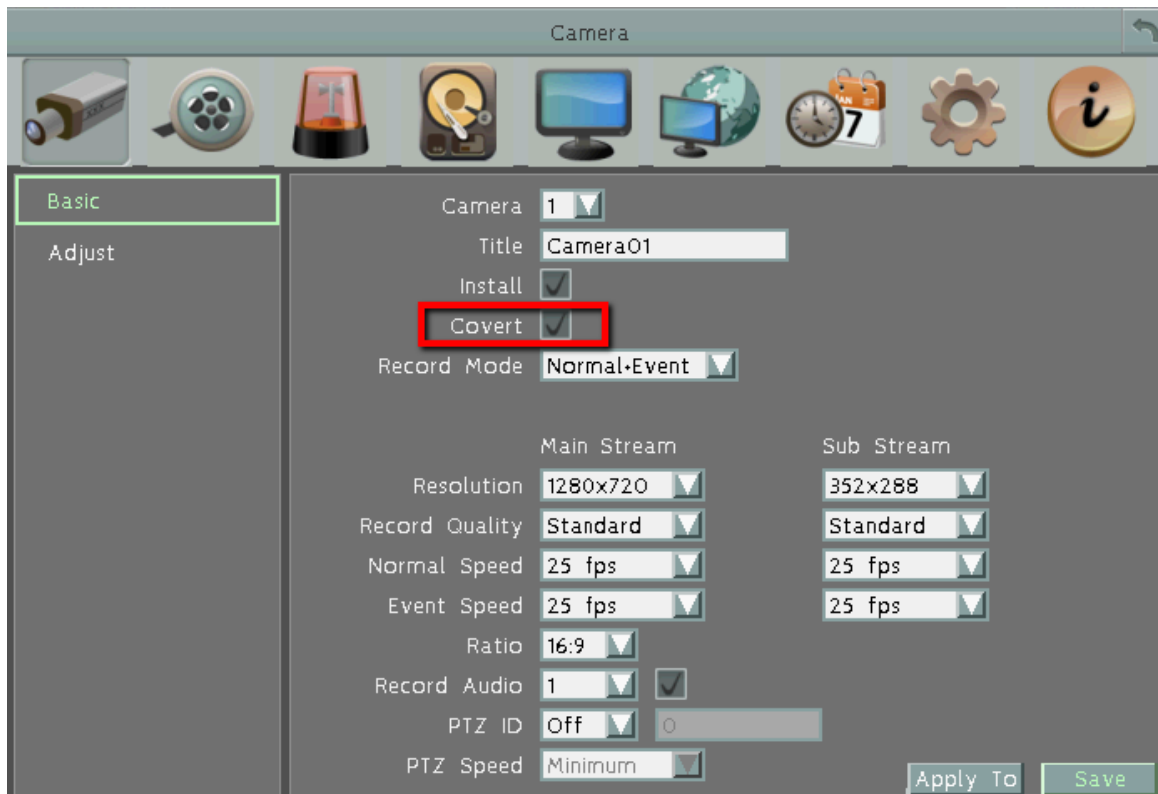
You can temporarily log out the mobile DVR by clicking the **Exit** icon  on the OSD Root Menu. This function is designed for use in conjunction with the **Covert Camera** function. Once you click the **Exit** icon, the camera streams will be hidden on the Live View / Sequence Mode. However, the mobile DVR will still record the videos and the recordings can be played back.

To enable the Temporarily Logout function, follow the steps below:

1. Ensure the Login box is **Unchecked** (OSD Root Menu > System > System Setting > User Management).



2. Select the cameras to be hidden once enabling the Temporarily Logout function and then check the **Covert** box (OSD Root Menu > System > Camera > Basic).



3. Click the **Exit** icon on the OSD Root Menu, the Logout menu appears.



4. Click the **Yes** button and the selected camera streams will be hidden on the Live View / Sequence Mode.
5. To disable the Temporarily Logout function, simply right-click the screen to bring up the OSD Root Menu, and then you can start controlling the mobile DVR.

# Chapter 5

## 5. Search and Playback


You can use the Quick Playback function to play back the recordings start from the pre-configured time or use the Search functions to search for the desired recordings for playing back.

### 5.1 Quick Playback

To start using the Quick Playback function, follow the steps below:

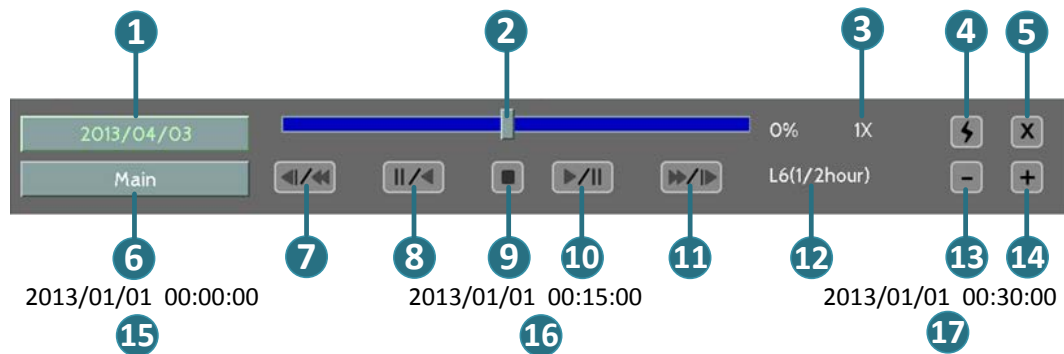
1. To set up the start time of the playback recording, check the **Quick Playback** box in the **Record** setting page (OSD Root Menu > System > Record & Playback > Playback) to enable the configured time in the field below.




2. Enter the desired time for playing back the recording. Take 60 seconds for example, if the current system clock time is 17:35:00, the start time for the playback recording will start from 17:34:00 (60 seconds ago from 17:35:00).
3. On the Live View Window, select a desired camera, right-click to bring up the OSD Root Menu and then click the **Playback** button .
4. The recording should be played back and the Playback Bar appears on the bottom of the screen.

## 5.2 Playback Bar

The playback bar is the fastest way to show video from the exact time which users want to see. The playback bar allows users to see both a timeline and the current playback indicator. Users can then click the timeline to move the indicator to the desired position.




No.	Name	Description
1	<b>Date/Time</b>	Click to set up the start time of playback recording.
2	<b>Time Bar</b>	Move the slider to the left / right on the Time Bar to select the time for playing back. The status of each camera is presented by different colors on the Time Bar. Green→Normal, Orange→Motion, Blue→Video Loss, Red→Alarm Event.
3	<b>Playback Speed</b>	Indicates the current Playback Speed.
4	<b>Express Copy</b>	Click to bring up the Copy menu for archiving the recordings / log data to the USB storage device or DVD burner. For details, please refer to <i>4.7 Archiving the Recordings or Log Data to the USB or FTP</i> .
5	<b>Close</b>	Click to hide the Playback Bar. To bring up the Playback Bar again, move your cursor to the lower side of the screen.
6	<b>Main /Sub Stream</b>	Click to select the recorded data from main or sub stream. This function is only functional for single view in the Quick Playback mode. To operate this function, on the Live View Window, double-click a channel to display its single view, right-click to bring up the OSD Root Menu and then click the <b>Playback</b> button  .
7	<b>Fast Reverse</b>	Click to play the recorded data in fast reverse.
8	<b>Reverse Play/Pause</b>	Click to play the recorded data in reverse at normal speed. Click this button again to Pause the reverse playback. Click the <b>Stop</b> button to stop all playback actions and exit the playback area.
9	<b>Stop</b>	Click to stop all playback actions and exit the playback mode.

No.	Name	Description
10	Play/Pause	Click to play the recorded data forward. Click this button again to Pause the playback.
11	Fast Forward	Click to play the recorded data in fast forward.
12	Time Scale	L1: Entire Time Bar scale is 30 days. L2: Entire Time Bar scale is 2 weeks. L3: Entire Time Bar scale is 1 week. L4: Entire Time Bar scale is 1 day. L5: Entire Time Bar scale is 1 hour. L6: entire Time Bar scale is 30 minutes.
13	Time Bar Scale	Use the + and - buttons to adjust the time scale range for the bar. The scale range includes 6 options (levels). When changing the level, the Start Time and End Time will change.
14		
15	Start Time	Indicates the playback start time.
16	Current Playback Time	Indicates the current playback time.
17	End time	Indicates the playback end time.

## 5.3 Searching the Recordings for Playing Back

You can search the recordings for playing back by using the **Search** menu. On the left side of the Search menu, select **Time Search**, **Event Search** or **Snapshot Search** to enter to the setup menu.

To bring up the **Search** menu:

Right-click to bring up the OSD Root Menu, and then click the **Search** button .



### 5.3.1 Time Search

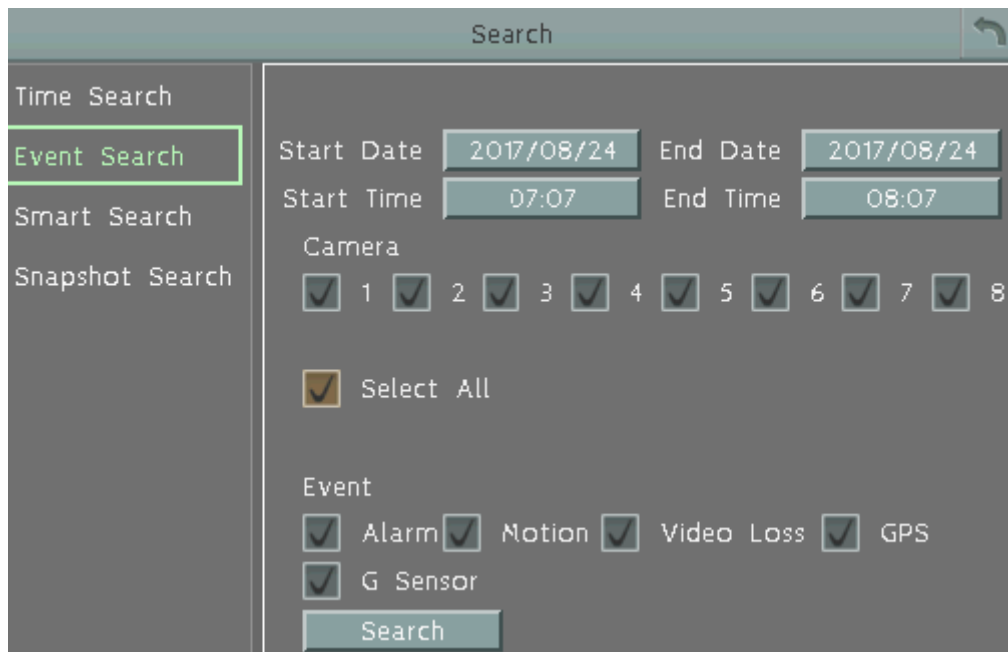


**Start Date:** Click to bring up the on-screen keyboard to select the date.

**Start Time:** Click to bring up the on-screen clock to select the time.

**Play:** Click to start playing back.

### 5.3.2 Event Search



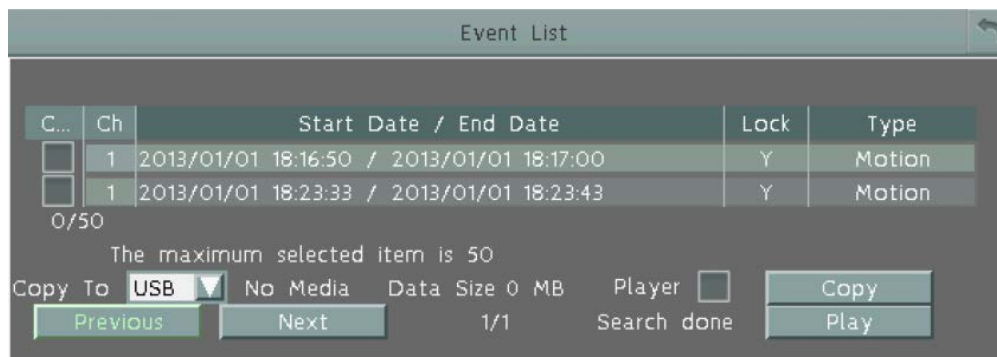
**Start Date / End Date:** Click to bring up the on-screen keyboard to select the start / end date.

**Start Time / End Time:** Click to bring up the on-screen clock to select the start / end time.

**Camera:** Select the desired cameras to be searched.

**Event:** Select an event type to be searched.

**Search:** Click to start searching. The search results will be listed in the Event List menu as shown below.



C...	Ch	Start Date / End Date	Lock	Type
<input type="checkbox"/>	1	2013/01/01 18:16:50 / 2013/01/01 18:17:00	Y	Motion
<input type="checkbox"/>	1	2013/01/01 18:23:33 / 2013/01/01 18:23:43	Y	Motion

0/50  
The maximum selected item is 50


Copy To: USB No Media Data Size 0 MB Player ☐ Copy  
Previous Next 1/1 Search done Play

**Copy to:** Select a destination (USB or FTP) for the recordings to be copied to.

#### Note:

1. If the Archiving Recording to the FTP server is working in progress, the **FTP Upload** function (refer to 6.3.1 Alarm and 6.3.3 Motion) will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. Once you have clicked the **Copy** button to start archiving, you can only wait until the copy process is done to start the next copy action.



**Player:** Check the box to include the EFPlayer program  in the copy. You can use the EFPlayer on a computer to play back the recordings. To use the program, please refer to 4.7 *Archiving the Recordings or Log Data to the USB or FTP*.

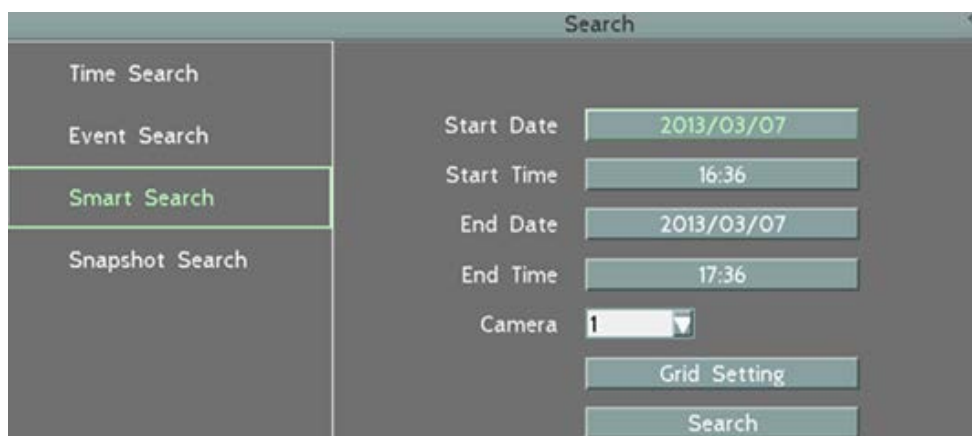
**Copy:** Click to start copying the event recording files.

**Previous / Next:** Click to go to the previous / next page.

**Play:** Click to playback the selected items.

### 5.3.3 Smart Search

The Smart Search function allows users to search for the motion event recordings. You can set up the motion areas in this setup menu and then search for the motion events within the specified time.



The screenshot shows the 'Search' menu with a sidebar on the left containing four options: 'Time Search', 'Event Search', 'Smart Search' (highlighted with a green border), and 'Snapshot Search'. The main area on the right contains the following fields and buttons:

- Start Date:** 2013/03/07
- Start Time:** 16:36
- End Date:** 2013/03/07
- End Time:** 17:36
- Camera:** 1 (with a dropdown arrow)
- Grid Setting** button
- Search** button

**Start Date / End Date:** Click to bring up the on-screen keyboard to select the start / end date.

**Start Time / End Time:** Click to bring up the on-screen clock to select the start / end time.

**Camera:** Select a desired camera to be searched.

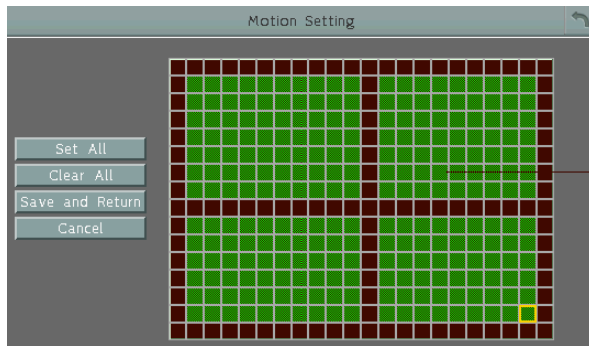
**Grid Setting:** Click to set up the motion areas. The Motion Grid Setup menu appears.

**Search:** Click to start searching. The search results will be listed in the Event List menu.

To set up the Motion Grid:

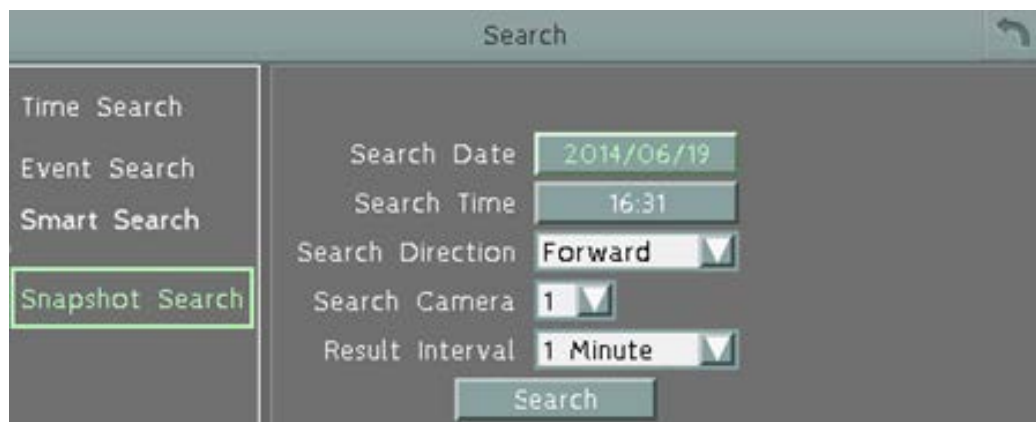
1. To set up a motion area, drag a rectangle with your mouse (from top to bottom / upper-left to lower-right). The selected areas will be highlighted in green (see image below). You can also click the **Set All** button to select all grids.
2. To delete a motion area, drag a rectangle with your mouse (from bottom to top / lower-right to upper-left). You can also click the **Clear All** button to clear all grids.
3. Follow Step 1 to set up multiple motion areas if necessary.

4. Click the **Save & Return** button to save the settings and then return to the Smart Search menu.



### 5.3.4 Snapshot Search

You can display video frames in snapshot and resume a video from where the snapshot has been set up.



**Search Date:** Click to bring up the on-screen keyboard to select the date.

**Search Time:** Click to bring up the on-screen clock to select time.

**Search Direction:** Click to search forward / backward based on the setup time above.

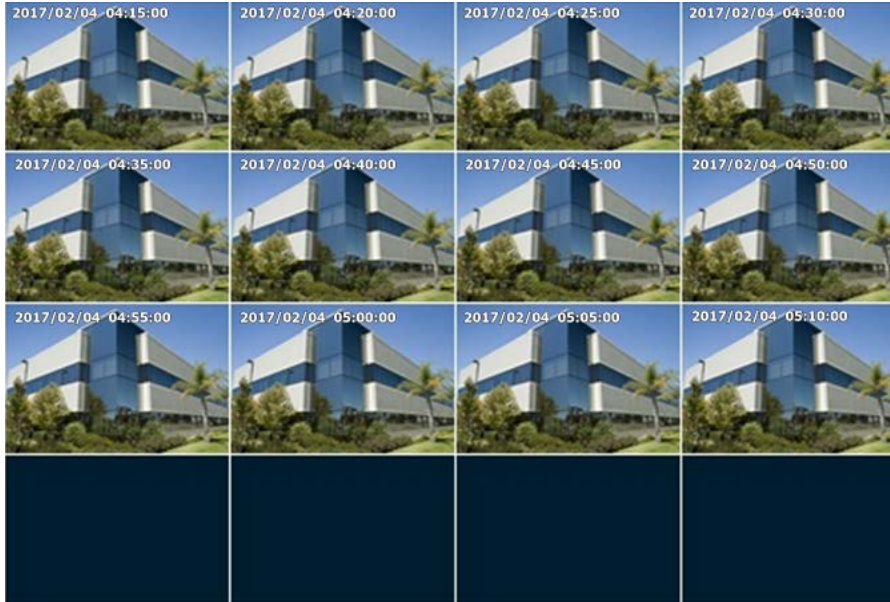
**Search Camera:** Select a desired camera to be searched.

**Result Interval:** Click to set up the interval for the snapshots of the video frame. For example, if you select 5 minutes, the video frame will be snapshotted with 5-minute interval (see image below).

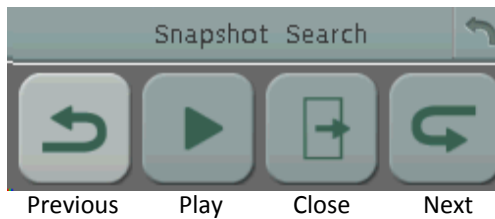
**Search:** Click to start searching. The search results will be displayed (see image below).

To resume the video:

1. Click **Search**, the search results will be displayed. In this picture, you can see the time overlay on the upper-left corner of each snapshot, which are set up with 5-minute interval. To change the interval, configure **Result Interval** on the Snapshot Search page.



2. Right-click on the screen, the Resume Playback Bar appears in the middle of the screen.




3. Click the **Previous** or **Next** buttons to display the previous / next snapshots.
4. Select a snapshot by clicking on the snapshot, the selected snapshot will be highlighted with a white frame.
5. Click the **Play** button to resume the video.
6. Click the **Close** button to close the Resume Playback Bar and then return to the Snapshot Search menu.

# Chapter 6

## 6. System

The mobile DVRs can be configured through a series of menus on screen by using a **Mouse** or the supplied **IR Remote Control**. The following operations are examples of using a Mouse. This chapter describes the functions and options of the System Setting in the on-screen display (OSD)

menus. Right-click the mouse, the OSD Root Menu appears. Click the **System** button , the following Configuration Menu appears.



Camera																												
Camera	1																											
Title	Camera01																											
Install	<input checked="" type="checkbox"/>																											
Covert	<input checked="" type="checkbox"/>																											
Record Mode	Normal+Event																											
<table border="1"> <thead> <tr> <th></th> <th>Main Stream</th> <th>Sub Stream</th> </tr> </thead> <tbody> <tr> <td>Resolution</td> <td>1280x720</td> <td>352x288</td> </tr> <tr> <td>Record Quality</td> <td>Standard</td> <td>Standard</td> </tr> <tr> <td>Normal Speed</td> <td>25 fps</td> <td>25 fps</td> </tr> <tr> <td>Event Speed</td> <td>25 fps</td> <td>25 fps</td> </tr> <tr> <td>Ratio</td> <td>16:9</td> <td></td> </tr> <tr> <td>Record Audio</td> <td>1 <input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>PTZ ID</td> <td>Off</td> <td></td> </tr> <tr> <td>PTZ Speed</td> <td>Minimum</td> <td></td> </tr> </tbody> </table>			Main Stream	Sub Stream	Resolution	1280x720	352x288	Record Quality	Standard	Standard	Normal Speed	25 fps	25 fps	Event Speed	25 fps	25 fps	Ratio	16:9		Record Audio	1 <input checked="" type="checkbox"/>		PTZ ID	Off		PTZ Speed	Minimum	
	Main Stream	Sub Stream																										
Resolution	1280x720	352x288																										
Record Quality	Standard	Standard																										
Normal Speed	25 fps	25 fps																										
Event Speed	25 fps	25 fps																										
Ratio	16:9																											
Record Audio	1 <input checked="" type="checkbox"/>																											
PTZ ID	Off																											
PTZ Speed	Minimum																											
<div>Apply To <span>Save</span></div>																												

### List of Configuration Options:

Please find the topic of interest by referring to the section prefixed to each option.

6.1 Camera	6.1.1 Basic Setting
	6.1.2 Adjust Setting
6.2 Record	6.2.1 Record
	6.2.2 Playback
6.3 Event	6.3.1 Alarm
	6.3.2 Video Loss
	6.3.3 Motion
	6.3.4 GPS Event
	6.3.5 G-Sensor Event
	6.3.6 Other
6.4 Hard Disk	6.4.1 Disk
	6.4.2 SD Card
	6.4.3 Lock/Format
6.5 Display Setting	6.5.1 Monitor OSD
	6.5.2 M/T SEQ
6.6 Network	6.6.1 LAN
	6.6.2 Wireless
	6.6.3 Mobile
	6.6.4 Email
	6.6.5 DDNS
	6.6.6 FTP
	6.6.7 Alarm Server
	6.6.8 Network Test
	6.6.9 Remote/Mobile
	6.6.10 Xfleet
6.7 Schedule	6.7.1 Express Setup
	6.7.2 Holidays
	6.7.3 Schedule
6.8 System Setting	6.8.1 Date / Time
	6.8.2 Daylight Saving Time
	6.8.3 User Group
	6.8.4 User Management
	6.8.5 I/O Control
	6.8.6 EKB200 Setting
	6.8.7 Miscellaneous
6.9 System Information	6.9.1 System
	6.9.2 Log

## 6.1 Camera

You can configure the settings for individual cameras.

### 6.1.1 Basic Setting



	Main Stream	Sub Stream
Resolution	1280x720	352x288
Record Quality	Standard	Standard
Normal Speed	25 fps	25 fps
Event Speed	25 fps	25 fps
Ratio	16:9	
Record Audio	1	<input checked="" type="checkbox"/>
PTZ ID	Off	0
PTZ Speed	Minimum	

**Camera:** Select a camera to be configured.

**Title:** Click to bring up the on-screen keyboard for assigning a title for the selected camera. Each title supports up to 16 characters.

**Install:** Check the box to enable the selected camera. If this box is unchecked, the mobile DVR will not get the camera streaming.

**Covert:** Check the box to hide the camera stream in Live View and Sequence modes. However, the MDVR will still record the videos and the recordings can be played back by users who have the privilege to playback. For details on enabling the Covert function, please refer to *4.8.1 Temporarily Logout*.

**Record Mode:** Select a record mode from the drop-down list.

Normal+Event: Continuous and Event recordings.

Event Only: Event recordings only.

**Main / Sub Resolution:** Select the most suitable resolution for the Main Stream and Sub Stream. If you connect eZ.HD cameras (1080p) to the MDVR, the main stream resolution option will display 1920x1080 only. If you connect eZ.HD cameras (720p) to the MDVR, the main stream resolution option will display 1280x720 only. The Sub Stream is designed for remote operation, such as remote live view and remote playback. Please refer to *7.2 Remote Live View* for more details.

Main Stream	Sub Stream
eZ.HD Camera (1080p): 1920x1080 eZ.HD Camera (720p): 1280x720 WD1 or D1 Camera: 960x480 / 704x480 / 352x240	352x240 / 176x120

**Record Quality:** Select a recording quality for the Main Stream and Sub Stream. The options include Low, Basic, Standard, High and Superior. The higher the quality, the more the HDD space is used.

**Normal Speed:** Select a frame rate per second (FPS) for continuous recording. The speed is limited by the maximum total recording capacity of the MDVR as allocated across all the installed cameras, with upper limit of 30 FPS (NTSC) / 25 FPS (PAL) per individual camera respectively (real time recording).

**Event Speed:** Select a frame rate per second (FPS) for event recording.

**Ratio:** Select 4:3, 16:9 or Stretch for camera display on the layout screen. For more information about 4:3 and 16:9 aspect ratio, please refer to *6.1.1.1 Display Aspect Ratio*.

**Record Audio:** Check the box to enable audio recording on the MDVR, and then select an audio input device.

**PTZ ID:** To allow the DVR to recognize and then control the connected PTZ camera, you have to set up an ID for the PTZ camera. Select On and then enter an ID for the camera. This ID must match the ID address set up on the PTZ camera. For setting up the ID address on the PTZ camera, please refer to the User's Manual of your PTZ camera.

**PTZ Speed:** Select a PTZ speed from the PTZ Speed drop-down list for the camera to move to the directions when you use the direction buttons during the configuration period.

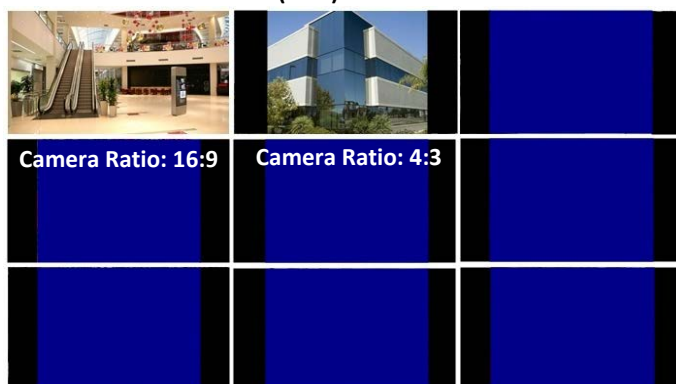
**Save:** Click to save the settings.

### 6.1.1.1 Display Aspect Ratio

It is recommended to select the same ratio of the screen resolution and the camera live view display to avoid black bars showing on the live view screen as the images below.

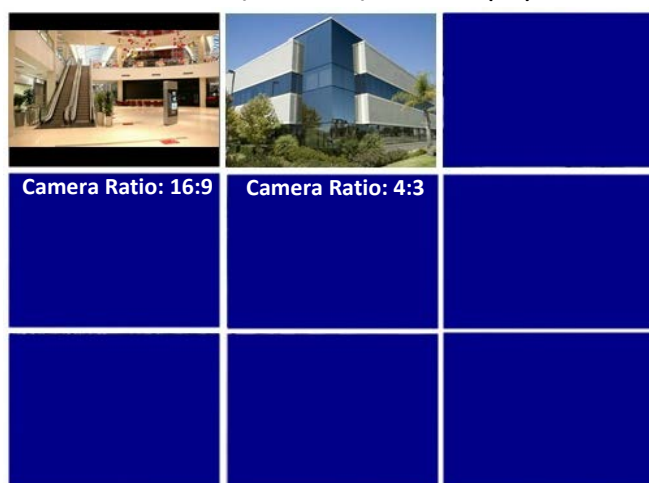
If you select 1920x1080 (16:9) screen resolution in the **Screen Mode** drop-down list (see 6.5.1 *Monitor OSD*), it is recommended to also change the camera live view display to 16:9 aspect ratio in the **Ratio** drop-down list (see 6.1.1 *Basic Setting*).

Screen Mode: 1920x1080 (16:9)



If you select 800x600, 1024x768 or 1280x1024 (4:3) screen resolution in the **Screen Mode** drop-down list (see 6.5.1 *Monitor OSD*), it is recommended to also change the camera live view display to 4:3 aspect ratio in the **Ratio** drop-down list (see 6.2.1 *Basic Setting*).

Screen Mode: 800x600 / 1024x768 / 1280x1024 (4:3)





### 6.1.2 Adjust Setting

You can adjust the Brightness, Contrast and Color of the selected camera.



**Camera:** Select a camera to adjust the following settings.

**Device Title:** Displays the title of the selected camera.

**Mirror:** Check the checkbox and then click **Save** to rotate the image horizontally around a vertical axis.

**Flip:** Check the checkbox and then click **Save** to rotate the image vertically around a horizontal axis.

**Brightness:** Move the bar to adjust the brightness.

**Contrast:** Move the bar to adjust the contrast.

**Color:** Move the bar to adjust the color.

**Advanced:** Click to enter the camera's OSD menu for controlling and adjusting the camera's setting. Please see the figure and instructions on the next page.

**Apply to:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### 6.1.2.1 eZ Controller (Control Camera OSD Setting from DVR End)

Traditionally, the CCTV installer needs to take a portable monitor to connect to the camera for controlling the camera OSD at the camera installation site as the **Diagram A** below. It will take extra effort, time and people to adjust the camera.

Now, EverFocus' **eZ.Controller** allows users to control the camera OSD simply on the monitor at the DVR end as illustrated in **Diagram B**.



1. On the **Adjust** setting page. Select the camera you want to adjust.
2. Click the **Advanced** button, and the camera live view with its OSD menu will display as the figure below.
3. You can easily use the direction buttons on the **Coaxial Panel** to control the camera's OSD setting menu.
4. To exit the setting, click the **Exit** button to return to the **Adjust** setting page.



## 6.2 Record & Playback

### 6.2.1 Record

You can configure the basic recording settings on the hard disk or SD card.



**Record Overwrite:** Check the box to overwrite the hard disk / SD card when it is full. Note that unless this box is checked, or the mobile DVR will stop recording when the hard disk / SD card is full. The use of record overwrite is strongly recommended. If you do not use this feature, please be sure to enable the Event setting for Disk Full for notification (see 6.3.6 *Other*). For SD card, when the card is full, the “SD Card Disk Full” message will automatically pop-up.

**Schedule Record:** Check the box to record by the schedule to the hard disk. Please see 6.7 *Schedule Setting* for more details.

**Time Stamp:** Select **Top / Bottom** to overlay time information on the top / bottom of the recording streams. Select **Off** to disable the function.

**Record Status Relay Output:** Select a number to monitor the recording status of the selected alarm relay. The recording status of the selected alarm relay will be transmitted to the alarm output device.

**Power Delay-On:** Set the delay time to supply power to the mobile DVR in order to avoid excess consumption surge at ignition.

**Power Delay-Off:** Set the delay time to power off the mobile DVR after ignition off. It can extend the recording time after ignition off.

**Save:** Click to save the settings.

### 6.2.2 Playback

You can set up the quick playback time on this page. For using this function, please refer to [5.1 Quick Playback](#).



**Quick Playback:** Check the box to enable the Quick Playback function as described below.

**Playback From X Seconds ago:** When the mobile DVR is put into playback mode, it will begin playing from the selected time. Choose from 60 to 3600 seconds prior to the present time.

**Save:** Click to save the settings.

## 6.3 Event

You can configure the Alarm, Video Loss, Motion and Other settings in this menu.

### 6.3.1 Alarm



**Alarm:** Select an Alarm input number from 1 to 16.

**Enable:** Check the box to enable the Alarm trigger function for the selected alarm input.

**Log:** Check the box to record alarm events to log data.

**Pre-alarm Record:** Check the box to start copying the recordings to the storage from 5 seconds before the alarm event occurs. The pre-alarm recording rate will follow the Normal Speed configured in the earlier section (see 6.2.1 Basic Setting). Note that the Pre-Alarm recording time may be reduced from 5 seconds when the system loading is too heavy, e.g., when all channels are triggered for pre-alarm recording simultaneously.

**Buzzer:** Check the box to enable the buzzer when an alarm event is triggered.

**Email Notify:** Check the box to send email notification with a snapshot file when an alarm event is detected. Email operation requires valid email entered in the Email setup menu (see 6.6.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when alarm events occur. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.6.7 Alarm Server).

**Auto Lock:** Check the box and the events will be recorded in a write protected segment of the hard disk (will not be overwritten). The mobile DVR will lock a period of time when the alarm occurs. The length of the time depends on mobile DVR setting (see 6.4.2 Lock / Format).

**SD Backup:** Check the box to enable Alarm event backup recordings to the SD card. When an alarm is triggered, the mobile DVR will record the alarm event to the SD card for 60 seconds start from the triggered time. The SD card will start recording the next alarm event only when the recording process is done (the alarm events occurred during the SD card recording process will be ignored and not be recorded). Up to four alarm events can be simultaneously recorded if the alarms are triggered at the same time.

**FTP Upload:** Check the box to enable uploading recordings to the FTP server function. To setup the FTP server, please refer to 6.6.6 FTP.

**Note:**

1. If the Archiving Recording to the FTP server function (refer to 4.7 Archiving the Recordings or Log Data to the USB or FTP) is working in progress, the FTP Upload function will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. If multiple alarms have been triggered, up to 10 alarm recordings can be simultaneously uploaded to the FTP server at once.

**Panic Alarm:** Check the box to send panic alarm data to the Xfleet system.

**Send to Xfleet:** Check the box to send the alarm data to the Xfleet system. Note that for the Xfleet system to receive alarm data from the mobile DVR in order to perform the alarm event actions on Xfleet system, this function must be enabled.

**FTP Upload File Type:** Select MP4 file type to upload videos to FTP server; select JPEG file type to upload snapshots to the FTP server.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when an alarm is triggered.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the motion event. The alarm output will last for the setup duration time between 1 and 150 seconds.

**Main Monitor/Call Monitor:** Select **Full Screen** to force the camera associated with the selected alarm number to display full screen on the monitor. The full screen camera view will last according to the Output Type selected in the field above.

**Record:** Select a camera to start recording when the associated alarm number is triggered.

**Input Type:** Select an input type when the selected alarm number is triggered. The options include N.O. and N.C.

**Active Camera:** This function is for associating an alarm trigger with a specific camera. For example, if you set up an external motion detector near Camera 2, you can select Camera 2 in

this field. The alarm will be associated with this camera for full screen display, event logging and PTZ actions.

**PTZ:** If the Active Camera selected above is a PTZ camera, you can further set up the PTZ actions in this field.

**Apply to:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.



### 6.3.2 Video Loss

You can enable the Video Loss Event function and configured the video loss event notifications in this menu.



**Camera:** Select a camera to be configured.

**Enable:** Check the box to enable the Video Loss event settings for the selected camera.

**Log:** Check the box to record video loss events to log data.

**Pre-alarm Record:** Check the box to start copying the recordings to the storage from 5 seconds before the alarm event occurs. The pre-alarm recording rate will follow the Normal Speed configured in the earlier section (see 6.2.1 *Basic Setting*). Note that the Pre-Alarm recording time may be reduced from 5 seconds when the system loading is too heavy, e.g., when all channels are triggered for pre-alarm recording simultaneously.

**Buzzer:** Check the box to enable the buzzer when a video loss event is triggered.

**Email Notify:** Check the box to send email notification when a video loss event is detected. Email operation requires valid email entered in the Email setup menu (see 6.6.4 *Email*).

**Network Alarm:** Check the box to send out a network alarm to a client PC when video loss event occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.6.7 *Alarm Server*).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the alarm output relay.



**Output Type:** Select an output type when an alarm is triggered.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the motion event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Apply To:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### 6.3.3 Motion

You can enable the Motion Event function and configured the related settings including motion event notifications and motion areas in this menu.



**Camera:** Select a camera to be configured.

**Enable:** Check the box to enable the Motion Event settings for the selected camera.

**Log:** Check the box to record motion events to log data.

**Pre-alarm Record:** Check the box to start copying the recordings to the storage from 5 seconds before the alarm event occurs. The pre-alarm recording rate will follow the Normal Speed configured in the earlier section (see 6.2.1 Basic Setting). Note that the Pre-Alarm recording time may be reduced from 5 seconds when the system loading is too heavy, e.g., when all channels are triggered for pre-alarm recording simultaneously.

**Buzzer:** Check the box to enable the buzzer when a motion event is triggered.

**Email Notify:** Check the box to send email notification when a motion event is detected. Email operation requires valid email entered in the Email setup menu (see 6.6.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when motion occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.6.7 Alarm Server).

**Auto Lock:** Check the box and the events will be recorded in a write protected segment of the hard disk (will not be overwritten). The mobile DVR will lock a period of time when the alarm occurs. The length of the time depends on mobile DVR setting (see 6.4.2 *Lock / Format*).

**FTP Upload:** Check the box to enable uploading recordings to the FTP server function. To setup the FTP server, please refer to 6.6.6 *FTP*.

**Note:**

1. If the Archiving Recording to the FTP server function (refer to 4.7 *Archiving the Recordings or Log Data to the USB or FTP*) is working in progress, the FTP Upload function will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. If multiple alarms have been triggered, up to 10 alarm recordings can be simultaneously uploaded to the FTP server at once.

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**FTP Upload File Type:** Select MP4 file type to upload videos to FTP server; select JPEG file type to upload snapshots to the FTP server.

**Alarm Output:** Select an alarm output relay. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when an alarm is triggered.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the motion event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Main Monitor/Call Monitor:** Select **Full Screen** to force the camera which detects motion to display full screen on the monitor. The full screen camera view will last according to the Output Type selected in the field above.

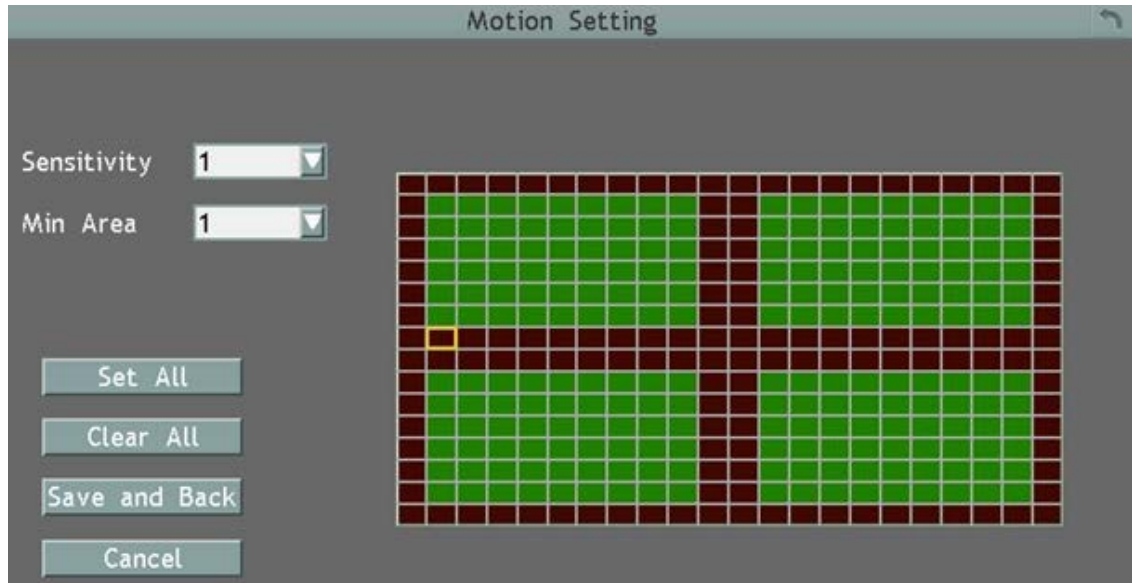
**Edit Motion Grid:** Press the button to bring up the Motion Setting menu. To edit the motion grids, please refer to the instructions later in this section.

**Apply To:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### To Edit the Motion Grids:

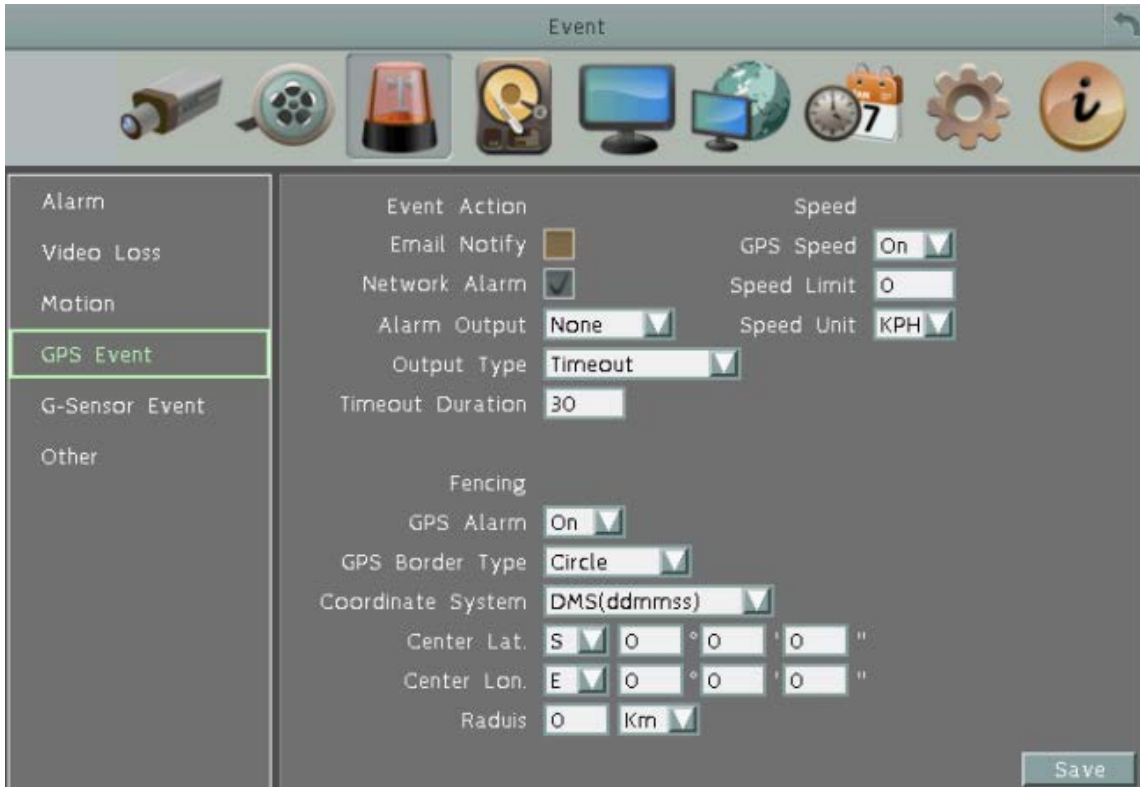
1. Click the **Edit Motion Grid** button, the Motion Setting menu appears.



2. Click on the image and the grid will be displayed.
3. To set up a motion area, drag a rectangle with your mouse (from top to bottom / upper-left to lower-right). The selected areas will be highlighted in green (see image below).
4. To delete a motion area, drag a rectangle with your mouse (from bottom to top / lower-right to upper-left).
5. Follow Step 3 to set up multiple motion areas if necessary.
6. Sets up the Sensitivity and Min Area for the motion grids.  
Sensitivity: Sets up the motion sensitivity for the grids. The larger the number, the higher the sensitivity.  
Min Area: This function is designed to prevent false detections caused by small objects. If you select 2, only the object size larger than 2-grid size can be detected.
7. Click the **Save & Back** button to save the settings and then return to the Motion menu.

### 6.3.4 GPS Event

You can configure the GPS settings to display the vehicle speed on the live view / recordings, or to set up the GPS events including higher speed limit / GPS fencing for alarm notifications.



**【Event Action】** : You can configure the alarm types for GPS events.

**Email Notify:** Check box to enable email notification when GPS event occurs. Email operation requires valid email settings entered in the Email setup screen (see 6.6.4 Email).

**Network Alarm:** Check box to send out a network alarm to the client PC. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for mobile DVR to send network alarms to the client PC (see 6.6.7 Alarm Server).

**Alarm Output:** This will transmit a signal through the alarm output relay. It can be set to either "NONE" (not active), "1" (active) or "2" (active).

**Output Type:** Output action when alarm is triggered.

Timeout: Alarm output lasts for the set time duration.

Permanent: Alarm will be continuously active until user presses the "Enter" key or resets the alarm remotely.

Transparent: Alarm output remains active until event ends.

Trans+Timeout: Alarm output continues until event ends, then continues for the set time duration.

**Timeout Duration:** The amount of time the buzzer sounds when GPS event occurs.

**【GPS Fencing】** : You can set up the geo-fencing event for alarm notification.

**GPS Alarm:** Select On / Off to enable / disable GPS Fencing alarm.

**GPS Border Type:** Select **Circle** or **Rectangle** for the GPS border type.

**Coordinate Express:** Select **DMS** to set up the latitude and longitude of the border in Degrees / Minutes / Seconds; or select **Decimal Degrees** to set up the border in decimal degrees.

If you select **Circle** in the GPS Border Type field, the following settings will appear:

**Center Latitude:** Select S (South) or N (North) and then set the latitude.

**Center Longitude:** Select E (East) or W (West) and then set the latitude.

**Radius:** Select radius value from kilometer (Km) or mile (Mi).

If you select **Rectangle** in the GPS Border Type field, the following settings will appear:

**Upper Left Latitude.:** Select S (South) or N (North) and then set the latitude.

**Upper Left Longitude:** Select E (East) or W (West) and then set the latitude.

**Lower Right Latitude:** Select S (South) or N (North) and then set the latitude.

**Lower Right Longitude:** Select E (East) or W (West) and then set the latitude.

**【GPS Speed】** : You can display the vehicle speed on the live view / recordings or to set up the higher speed limit event for alarm notification.

**GPS Speed:** Select whether to display the vehicle speed or not.

**Speed Limit:** Set the vehicle speed to determine at which level the alarm will be triggered. Once the vehicle reaches the setup speed, the alarm will be triggered.

**Speed Unit:** Select **KPH** (kilometer per hour) or **MPH** (mile per hour) to display the vehicle speed on live view or recordings.

**Save:** Click to save the settings.

### 6.3.5 G-Sensor Event

You can configure the gravity value of the X, Y and Z-axial, once the vehicle reach the setup value, the alarm will be triggered.



**G-Sensor:** Select On / Off to enable / disable G-Sensor function.

**Email Notify:** Check box to enable email notification when GPS is lost. Email operation requires valid email settings entered in the Email setup screen (see 6.6.4 Email).

**Network Alarm:** Check box to send out a network alarm to the client PC. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for mobile DVR to send network alarms to the client PC (see 6.6.7 Alarm Server).

**XY Axial Trigger Value:** Set XY Axial trigger value, alarm will be triggered when acceleration reaches this value in horizontal direction with respect to the horizon. The available setup value is between 0 ~127 (1000mg = 1 Gravity).

**Z Axial Trigger Value:** Set Z Axial trigger value, alarm will be triggered when vertical acceleration reaches this value. The available setup value is between 0 ~127 (1000mg = 1 Gravity).

**Alarm Output:** This will transmit a signal through the alarm output relay. It can be set to either "NONE" (not active), "1" (active) or "2" (active).

**Output Type:** Output action when alarm is triggered.

Timeout: Alarm output lasts for the set time duration.

Permanent: Alarm will be continuously active until user presses the “Enter” key or resets the alarm remotely.

Transparent: Alarm output remains active until event ends.

Trans+Timeout: Alarm output continues until event ends, then continues for the set time duration.

**Timeout Duration**: The amount of time the buzzer sounds when GPS is lost. Duration selectable from 1 to 150 seconds.

**Save**: Click to save the settings.



### 6.3.6 Other

You can configure the system event settings and enable the Buzzer or Email alert for notifications.

#### 6.3.6.1 Storage Temperature.



**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when System / Storage temperature is over the “Temp. Warning Limit”.

**Email Notify:** Check the box to send email notification when system / Storage temperature is over the “Temp. Warning Limit”. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC. This feature works with EverFocus’ CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Stop Recording:** Check box to stop recording when System / Storage’s temperature is over the “Temp. Warning Limit”.

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.


**Temp. Warning Limit:** Sets the trigger temperature for System / Storage Temperature event actions. Choose between 45°C /113°F and 70°C /158°F.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Output action will be Transparent and cannot be changed (alarm output remains as long as the alarm condition is active).

**Save:** Click to save the settings.

### 6.3.6.2 Storage Failure



The screenshot shows the 'Event' configuration window for 'Storage Failure'. The left sidebar lists various event types, with 'Other' selected. The main panel contains the following settings:

- Event:** Storage Failure (dropdown menu)
- Log:** ☒
- Buzzer:** ☒
- Email Notify:** ☐
- Network Alarm:** ☐
- Send to Xfleet:** ☒
- Alarm Output:** Ncne (dropdown menu)
- Output Type:** Transparent (dropdown menu)
- Save:** Button

**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when storage fails.

**Email Notify:** Check the box to send email notification when storage fails. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when storage fails. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).


**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Output action will be Transparent and cannot be changed (alarm output remains as long as the alarm condition is active).

**Save:** Click to save the settings.

### 6.3.6.3 Storage Full



**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when storage is full.

**Email Notify:** Check the box to send email notification when storage is full. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when storage is full. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when storage is full.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

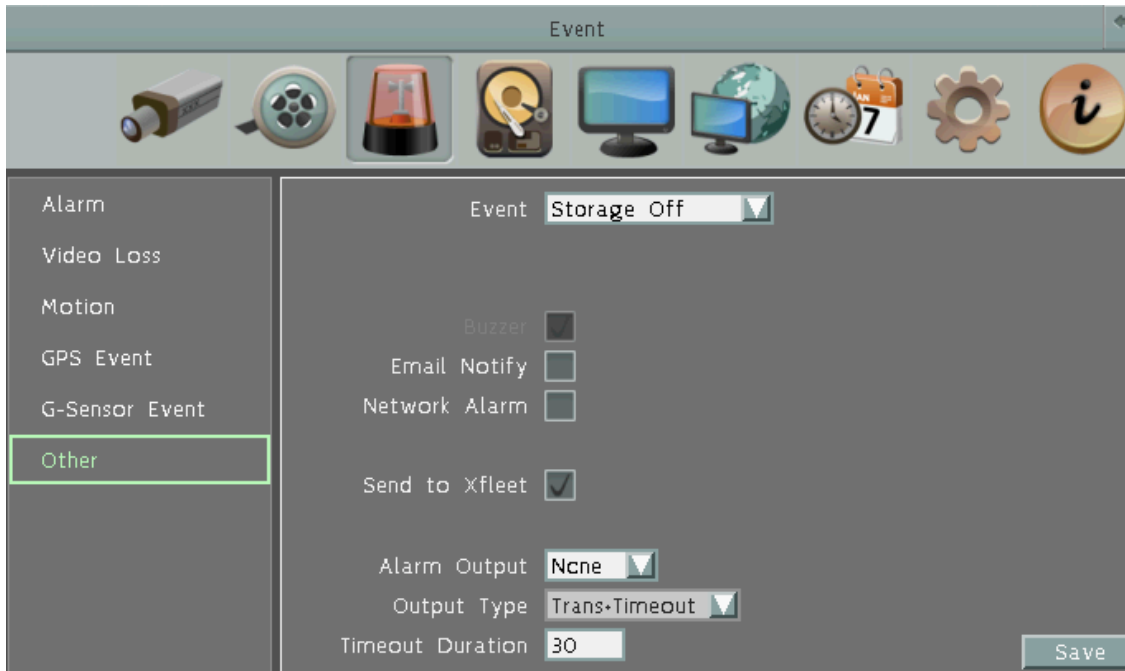
Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

#### 6.3.6.4 Storage Off



**Buzzer:** The buzzer will activate when storage is off.

**Email Notify:** Check the box to send email notification when storage is off. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when storage is off. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when storage is off.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 6.3.6.5 Storage Retry Failure



**Buzzer:** The buzzer will activate when fan is not working.

**Email Notify:** Check the box to send email notification when Disk Retry Failure occurs. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when Disk Retry Failure occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when Disk Retry Failure occurs.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 6.3.6.6 Unmount SD



**Log:** Check the box to record alarm events to log data.

**Buzzer:** The buzzer will activate when SD card is unmounted.

**Email Notify:** Check the box to send email notification when SD card is unmounted. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when SD card is unmounted. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when SD card is unmounted.

**Timeout:** Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

**Permanent:** Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

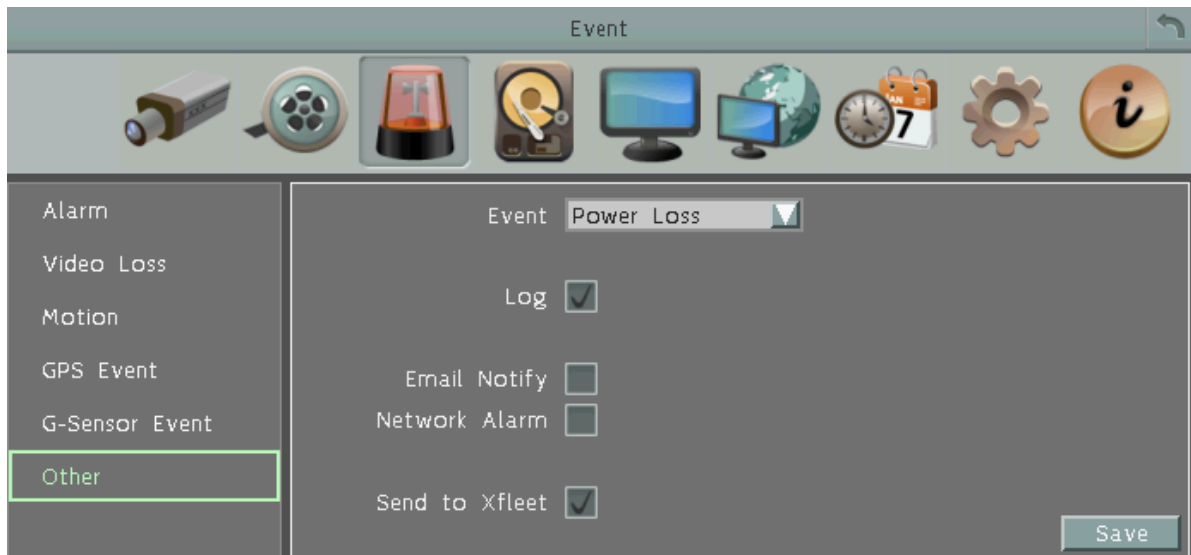
**Transparent:** Alarm output remains as long as the alarm input is active.

**Trans + Timeout:** Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 6.3.6.7 Power Loss



**Log:** Check the box to record alarm events to log data.

**Email Notify:** Check the box to send email notification when power has been restored. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

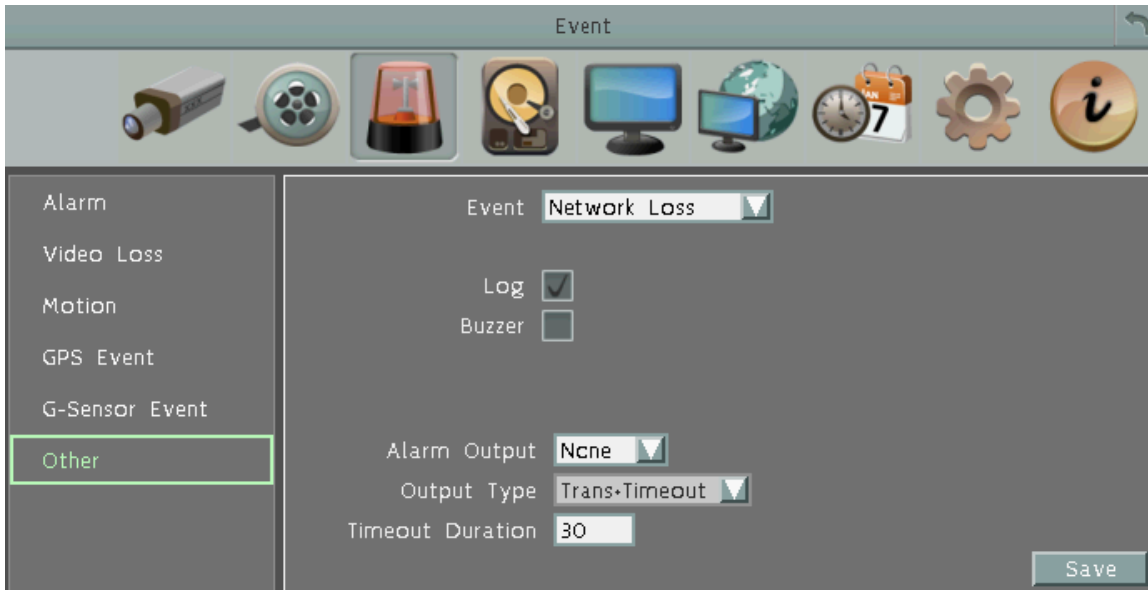
**Network Alarm:** Check the box to send out a network alarm to a client PC when power has been restored. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Note:** As alarms and emails cannot be transmitted without power, the log entry is made when power is restored, and any notifications cannot be made until that time.

**Save:** Click to save the settings.

### 6.3.6.8 Network Loss



**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when network is lost.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when the network is lost.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

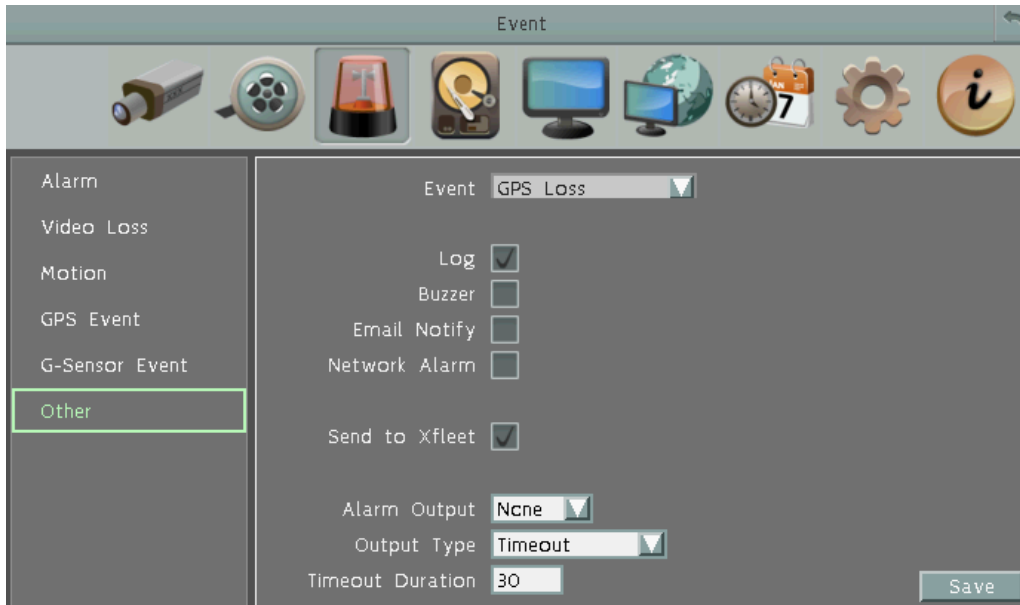
**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Note:** This function only checks the physical connection (link) to the network. Any network behavior that blocks data connectivity (blocked ports, IP addressing errors, etc.) is not detected by this function.

**Save:** Click to save the settings.



### 6.3.6.9 GPS Loss



**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when GPS is lost.

**Email Notify:** Check the box to send email notification when GPS is lost. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when GPS is lost. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when the GPS is lost.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

## 6.4 Storage

The Storage menu is used to review the mobile DVR's hard drive settings and status. No value in this menu can be configured by the operator.

### 6.4.1 Storage



**Record Time (Start):** Shows the earliest recording time of the mobile DVR.

**Record Time (End):** Shows the latest or most current time on the mobile DVR.

**Disk:** Select a disk number.

**Health Status:** Displays the current status of the selected disk.

**Disk Temperature:** Displays the current temperature of the selected disk.

**Disk Size (Total):** Shows the total space of the selected disk.

**Disk Size (Usage):** Shows the used space of the selected disk.

### 6.4.2 SD Card

On this page, you can see the SD card information including the status, disk size and usage. You can also format the SD card using the Format SD button.

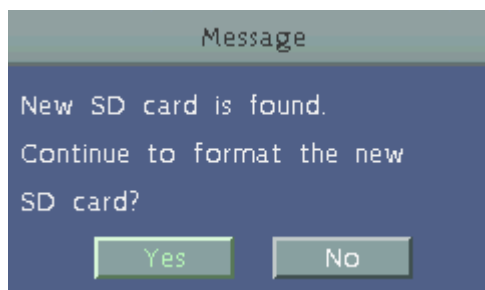
The SD card can be used for alarm event backup recording function. To activate the function, insert a SD card to the SD card slot on the front panel of the mobile DVR (see 2.3 *SD Card Installation*) and then configure the alarm settings (see 6.3.1 *Alarm*).



**Unmount SD:** Before removing the SD card from the mobile DVR, please click the **Unmount SD** button first for data safety purpose.

**Format SD:** Click the button to format the SD card. After formatting the SD card, all the recordings will be erased and 5% of the card space will be reserved for system use. If you want to back up the recordings, you can use EverFocus EF-Reader to remotely/locally back up the recordings from the SD card (see *Appendix H Recording Backup through EF-Reader*).

The Mobile DVR will automatically detect when a new SD card has been inserted and the below SD card format message will pop-up. Click **Yes** to format the SD card. The formatting process will take about 30 ~ 60 seconds. Note that only the formatted SD card can be used for event recording function.



### 6.4.3 Lock/Format

You can control the percentage of the hard disk space reserved for Locked Event Recordings. You can also format the hard disk if necessary.



**Maximum Lock (%):** Sets the maximum percentage of the hard disk space reserved for Locked Event Recordings. To set up the Locked Event Recordings, please select the **Auto Lock** item in 6.4.3 Motion or 6.4.1 Alarm.

**Current Lock (%):** Displays the current percentage of the locked event recordings in the hard disk. If the amount of locked event recordings has reached the maximum lock percentage, the mobile DVR will be unable to lock new event recordings.

**Unlock All:** Click this button to unlock the locked part of hard disk.

**Delete All:** Click this button to delete all the unlocked data in the hard disk. WARNING: This will effectively ERASE the hard disk's contents, except for the locked portion.

**Format Disk:** Click this button to format the whole HDD. WARNING: This will effectively ERASE the ENTIRE hard disk!! If you want to back up the recordings, you can use EverFocus EF-Reader to remotely/locally back up the recordings from the hard disk (see *Appendix H Recording Backup through EF-Reader*).

**Save:** Click to save the settings.

## 6.5 Display Setting

You can configure the settings for displaying the camera / mobile DVR information on the live view image. You can also set up the sequencing order for the Main / Call monitor.

### 6.5.1 Monitor OSD

Check the boxes under the Main Monitor / Call Monitor fields will display the selected items on the live view image.



**Title:** Input a title to be displayed on the upper-middle of the live view screen.

**【Main Monitor / Call Monitor】** : Select the below items to be displayed on the live view image.

**Title:** Check the box to display camera titles.

**Date/Time:** Check the box to display current date/time.

**Event Status:** Check the box to display event status.

**Storage Status:** Check the box to display hard drive status.

**Playback Date/Time:** Check the box to display playback date/time (only for main monitor).

**Playback Status:** Check the box to display playback status (only for main monitor).

**GPS Status:** Check the box to display GPS status (only for main monitor).

**G-Sensor Status:** Check the box to display G-Sensor status (only for main monitor).

**OBDII:** Check the box to display OBDII info (only for main monitor).

**User Information:** Check the box to display user info (only for call monitor).

**System Icon:** Check the box to display system icon (only for call monitor).

**Save:** Click to save the settings.

## 6.5.2 Monitor Sequence

You can configure up to 20 steps of the sequencing order for the Main / Call monitor. The Sequence will repeat continuously from step 1 to step 20 until interrupted.



Main Monitor					
Step	Camera	Dwell (sec)	Step	Camera	Dwell (sec)
1	1	3	11	3	3
2	2	3	12	4	3
3	3	3	13	5	3
4	4	3	14	6	3
5	5	3	15	7	3
6	6	3	16	8	3
7	7	3	17	1	3
8	8	3	18	2	3
9	1	3	19	3	3
10	2	3	20	4	3

**Monitor Drop-Down:** Select Main Monitor or Call Monitor.

**Step:** The sequencing order.

**Camera:** Select a camera for the specific step.

**Dwell (sec):** Sets up the dwell time between 0 and 60 seconds for each step.

**Save:** Click to save the settings.

## 6.6 Network Settings

The mobile DVR allows you to use a Web browser to remotely view and manage the system. You can also receive live video streaming from the mobile DVR using your smartphone.

**Note:** Since every Network Configuration is different, please check with your Network Administrator or ISP to see if your mobile DVR should use specific IP addresses and/or port numbers.

### 6.6.1 LAN

According to your network environment, select **Static IP**, **DHCP** or **PPPoE** to configure an IP address to the mobile DVR.



The screenshot shows the 'Network' configuration window with a sidebar on the left containing menu items: LAN, Wireless, Mobile, Email, DDNS, FTP, Alarm Server, Remote/Mobile, Network Test, and Xfleet. The 'LAN' item is selected. The main area displays the following settings:

- LAN Port: 1 (dropdown)
- Network Type: DHCP (dropdown)
- P: 192.168.31.66
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.31.254
- DNS Server 1: 192.168.10.188
- DNS Server 2: 192.168.10.189
- HTTP Port: 80
- Bandwidth Limit: Disable (dropdown)
- Network ID: (empty text field)
- Anonymous Viewer Login: ☐
- Save button

**LAN Port:** The mobile DVR supports WAN and LAN network connections. Select **1** (WAN) or **2** (LAN) from the drop down list and further set up the below network settings.

**Network Type:** Three options are selectable: **Static IP**, **DHCP** and **PPPoE**.

Static IP: User can set a fixed IP for network connection.

DHCP: DHCP server in LAN will automatically assign an IP configuration for the network connection.

PPPoE: For direct connection to the DSL only. Verify with your ISP if they use PPPoE (the option is only available for WAN connection).

**IP address:** Displays the mobile DVR's current IPv4 IP Address. A static IP address must be set manually. If DHCP is selected, this value will be assigned automatically.

**Subnet Mask:** Displays the subnet mask for your network so the mobile DVR will be recognized within the network. If DHCP is selected, this value will be assigned automatically.

**Gateway:** Displays the gateway on your network for the mobile DVR to use when communicating with any devices not on the local network. If DHCP is selected, this value will be assigned automatically.

**DNS Server 1:** Displays the primary DNS server for your network. If DHCP is selected and an internet connection is available, this value should be assigned automatically. This field must have a valid DNS address in order to use the DDNS feature (see 6.6.5 DDNS).

**DNS Server 2:** This field shows the secondary DNS server for your network.

**HTTP Port:** Port number for HTTP/WEB communication.

**Bandwidth Limit (Kbps):** Specify, disabled / 128 K / 256 K / 512 K / 768K / 1M / 3M bps. This is the maximum bandwidth that the mobile DVR is allowed to use on the network. This is a useful function when connecting the mobile DVR to busy or heavily loaded networks, or when accessing the mobile DVR(s) over a WAN.

**Network ID:** The network ID is an identifier for the alarm transmitter (mobile DVR sending the alarm).

**Anonymous Viewer Login:** Check the box to allow the unauthorized persons to log in the Web page of the mobile DVR. Note that to protect your mobile DVR from being taken over by unauthorized persons, make sure the "Anonymous viewer login" button IS NOT checked/selected.

**Save:** Click to save the settings.

Additional information:

1. Set up the mobile DVR Network Menu according to the instructions detailed in the Networking chapter of this mobile DVR's manual.
  - a. If using DHCP, all settings will be detected automatically. While DHCP is a useful tool for determining the network settings, if you set up your mobile DVR in this manner its IP address may change at different times for different reasons, particularly after a power failure. If the IP address of the mobile DVR changes, you may have difficulties accessing your mobile DVR locally and/or remotely. It is strongly recommended that you assign a fixed (static) IP address to your mobile DVR, and that in order to avoid address conflicts the IP address assigned be outside of the DHCP range of addresses your router issues to DHCP clients. Please do not set the DHCP address issued to the mobile DVR by the router as its static IP address unless you take specific steps that program your router to prevent such address conflicts.
  - b. If using a Fixed IP (recommended), you will need to input the information manually. In order for DDNS to work, you must enter valid data, compatible with your network, for all four of the network setting fields: IP address, subnet mask, default gateway and the



- DNS Address (depending on your network hardware and IP configuration this may be the IP address of your router/gateway, or it may be the actual IP address of the local DNS server). The DNS server IP is required because your DNS server provides critical information necessary for the mobile DVR to communicate with the DDNS server.
- c. You can obtain the actual DNS IP from your Internet Service Provider (ISP); or, from a PC located on the same LAN as the mobile DVR, go to <http://www.dnsserverlist.org/> to obtain a list of the IP addresses of their recommendation of the best servers to use for your location.
2. If you are connecting through a router, make sure that you have 'opened up' all the required network ports in the port forwarding section of your router's setup options. That is, you have directed the router to send any incoming traffic using those IP ports to the LAN IP address of the mobile DVR. Useful information about router port forwarding can be found at [www.portforward.com](http://www.portforward.com). Different routers may use different terms for port forwarding function. For instance, D-Link calls it virtual server, Netopia calls it pinholes.

The default port for the mobile DVR is: 80

Note: Port 80 is the default port used for Web browsing. Because of this, in order to prevent the average user from hosting a Web server, most ISPs BLOCK traffic using port 80 from reaching the average site. If you only plan to view your mobile DVR on a LAN, you can use port 80, and don't have to concern yourself with DDNS or routers. However, if you desire **remote access** to your mobile DVR, perhaps using DDNS (optional), you **MUST** select functional ports and set up the port forwarding in your router. Other ports, such as 8080 and 8000 are sometimes blocked by ISPs as well.

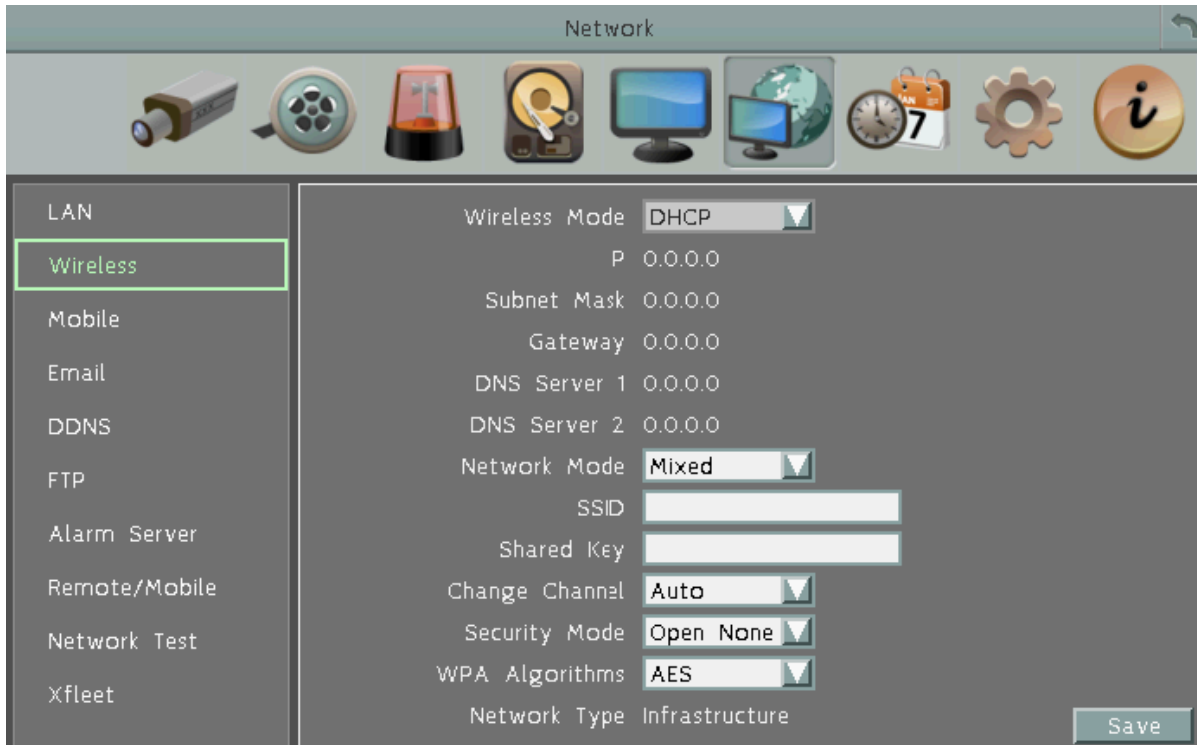
What port(s) should be used? There are 65,535 valid IP ports to choose from. These are broken down into three groups:

- Well Known Ports 0 thru 1023
- Registered Ports 1024 thru 49151
- Dynamic and/or Private Ports 49152 thru 65535

So, rather than encounter a port conflict by choosing a port commonly used for another purpose (like port 25 for SMTP mail or port 443 for secure sockets), choose an 'unusual' port number. For example, add 50,000 to your house number: 50,123 is less likely to lead to a port conflict. For a list of the known and registered ports, see <http://www.iana.org/assignments/port-numbers>

## 6.6.2 Wireless

You can set up the Wi-Fi network on this page.



The screenshot shows the 'Network' configuration page. On the left is a sidebar menu with options: LAN, Wireless (highlighted), Mobile, Email, DDNS, FTP, Alarm Server, Remote/Mobile, Network Test, and Xfleet. The main area is titled 'Network' and contains the following settings:

- Wireless Mode: DHCP (dropdown menu)
- P: 0.0.0.0
- Subnet Mask: 0.0.0.0
- Gateway: 0.0.0.0
- DNS Server 1: 0.0.0.0
- DNS Server 2: 0.0.0.0
- Network Mode: Mixed (dropdown menu)
- SSID: (text input field)
- Shared Key: (text input field)
- Change Channel: Auto (dropdown menu)
- Security Mode: Open None (dropdown menu)
- WPA Algorithms: AES (dropdown menu)
- Network Type: Infrastructure
- Save button

**Wireless Mode:** Three options are selectable: **Disable**, **Static IP** and **DHCP**.

Disable: Select to disable this function.

Static IP: User can set a fixed IP for network connection.

DHCP: DHCP server in LAN will automatically assign an IP configuration for the network connection.

**IP address:** Displays the mobile DVR's current IPv4 IP Address. A static IP address must be set manually. If DHCP is selected, this value will be assigned automatically.

**Subnet Mask:** Displays the subnet mask for your network so the mobile DVR will be recognized within the network. If DHCP is selected, this value will be assigned automatically.

**Gateway:** Displays the gateway on your network for the mobile DVR to use when communicating with any devices not on the local network. If DHCP is selected, this value will be assigned automatically.

**DNS Server 1:** Displays the primary DNS server for your network. If DHCP is selected and an internet connection is available, this value should be assigned automatically. This field must have a valid DNS address in order to use the DDNS feature (see 6.6.5 DDNS).

**DNS Server 2:** This field shows the secondary DNS server for your network.

**Network Mode:** Select a wireless networking standard.

**SSID:** Enter the name (SSID) of the wireless network.

**Shared Key:** Enter the password of the wireless network.

**Change Channel:** Select a wireless channel for the mobile DVR. It's recommended to select **Auto** when there is more than one mobile DVR set up in the same wireless network environment.

**Security Mode:** Select a wireless encryption protocol: WEP, WPA and WPA2.

**WPA Algorithms:** Select a WPA algorithm from the drop-down list.

**Save:** Click to save the settings.

### 6.6.3 Mobile

After connecting the 3G / 4G Antenna to the mobile DVR, you have to set up the mobile settings for the mobile DVR to connect to the wireless network. Follow the steps below:



1. Connect the 3G / 4G Antenna to the mobile DVR. Please refer to the *User's Manual* of the *3G / 4G Antenna Module*.
2. Select **On** from the GPRS Service drop-down list and select an authentication (**CHAP** or **PAP**).
3. Insert the APN, Dial Number, User Name and Password provided by the network service provider and then click the **Save** button. The connection status will be displayed in the **Status** field below.

Status: If the connection is established, the status will display "Success".

Date Rate: If the connection is established, the Data Rate information will be displayed.

ISP: Displays the information of internet service provider.

Type: Displays the network type, such as 3G or 4G.

Signal: Displays the signal strength (0~98). The higher the value, the stronger the strength.

4. You can now use the IP for remote access to the mobile DVR.

**Note:** If "Please insert a 3G modem" message window pops up, please reboot the mobile DVR.

#### 6.6.4 Email

You can configure the Email settings for mobile DVR to send Email alert when an event occurs.



The screenshot shows the 'Network' configuration window with the 'Email' tab selected. The left sidebar lists various network and system settings. The main configuration area includes the following fields and controls:

- SMTP Server:** smtp.gmail.com
- SMTP Port:** 25
- Authentication:** ☐
- SSL:** ☐
- User Name:** [Empty text box]
- Password:** [Empty text box]
- Confirm:** [Empty text box]
- Sender Email:** [Empty text box]
- Receiver Email 1:** [Empty text box]
- Receiver Email 2:** [Empty text box]
- Receiver Email 3:** [Empty text box]
- Email Subject:** [Empty text box]
- E-Mail Test:** [Button]
- Save:** [Button]

**SMTP Server:** Assign the SMTP (e-mail) server's name. Note that for more reliable email service, use the server's IP address.

**SMTP Port:** Assign the port number used by the SMTP server.

**Authentication:** Check this box if the SMTP server requires authentication (user name / password).

**SSL:** Check the box if mail server needs communication to be encrypted by SSL.

**User Name:** Input the login user name if the SMTP server requires authentication.

**Password:** Input the password if the SMTP server requires authentication.

**Confirm:** Input the password again to confirm the password.

**Sender Email:** Input the e-mail address of the sender (the mobile DVR). Sender's e-mail address has to match the user name and password above.

**Receiver Email 1:** Input the first e-mail address that event messages are sent to.

**Receiver Email 2:** Input the second e-mail address that event messages are sent to.

**Receiver Email 3:** Input the third e-mail address that event messages are sent to.

**Email Subject:** Input email subject.

**E-Mail test:** You can click the button to test the email function. If the function works fine, a Pass message will be displayed; otherwise, a Fail message will be displayed.

**Save:** Click to save the settings.

### 6.6.5 DDNS

DDNS (Dynamic Domain Name System) is a service used to map a domain name to the dynamic IP address of a network device. You can set up the DDNS service for remote access to the mobile DVR.



DDNS assigns a domain name (URL) to the mobile DVR, so that the user does not need to go through the trouble of checking if the IP address assigned by DHCP Server has changed. Once the IP is changed, the mobile DVR will automatically update the information to the DDNS to ensure it is always available for remote access.

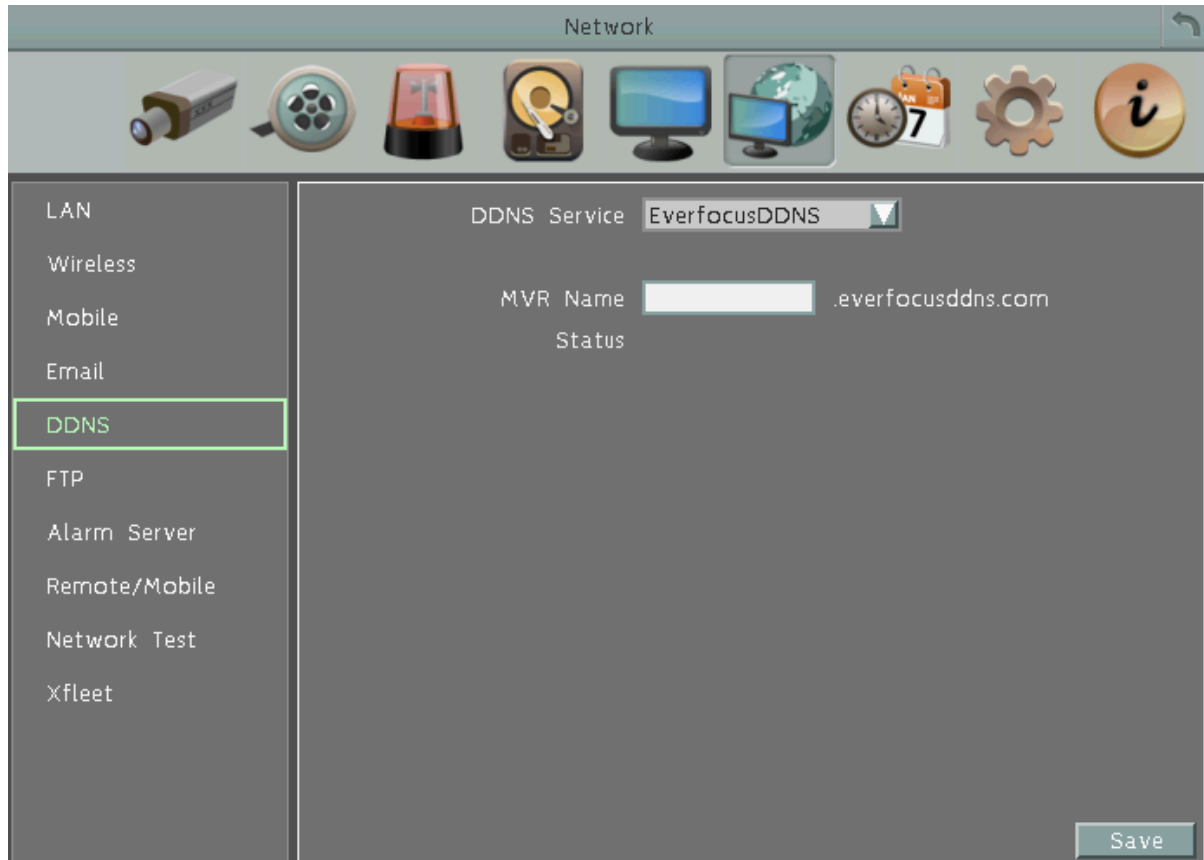
Before enabling the following DDNS function, user should have applied for a host name from the DDS service provider's website. We support two DDNS server providers:

**www.everfocusddns.com** and **www.dyndns.com**.

**Note:** We highly recommend that you use **xxxx.everfocusddns.com** for the simplicity of setting up your mobile DVR.

### 6.6.5.1 EverFocus DDNS

Note that the **DNS Server 1** (6.6.1 LAN) should be set up correctly or the DDNS will not work.



**DDNS Service:** Select **EverfocusDDNS** from the drop-down list.

**MVR Name:** Input the desired name for the mobile DVR, and you can enter up to 32 letters. If the length of the name exceeds the text field size on the OSD, you can move your cursor onto the text field to display the entire name on the OSD.

Note that the name of the mobile DVR cannot include a space, underline or any special characters particularly \_ ~ ! @ # \$ % ^ & \* ( ) + < > " ; : ,

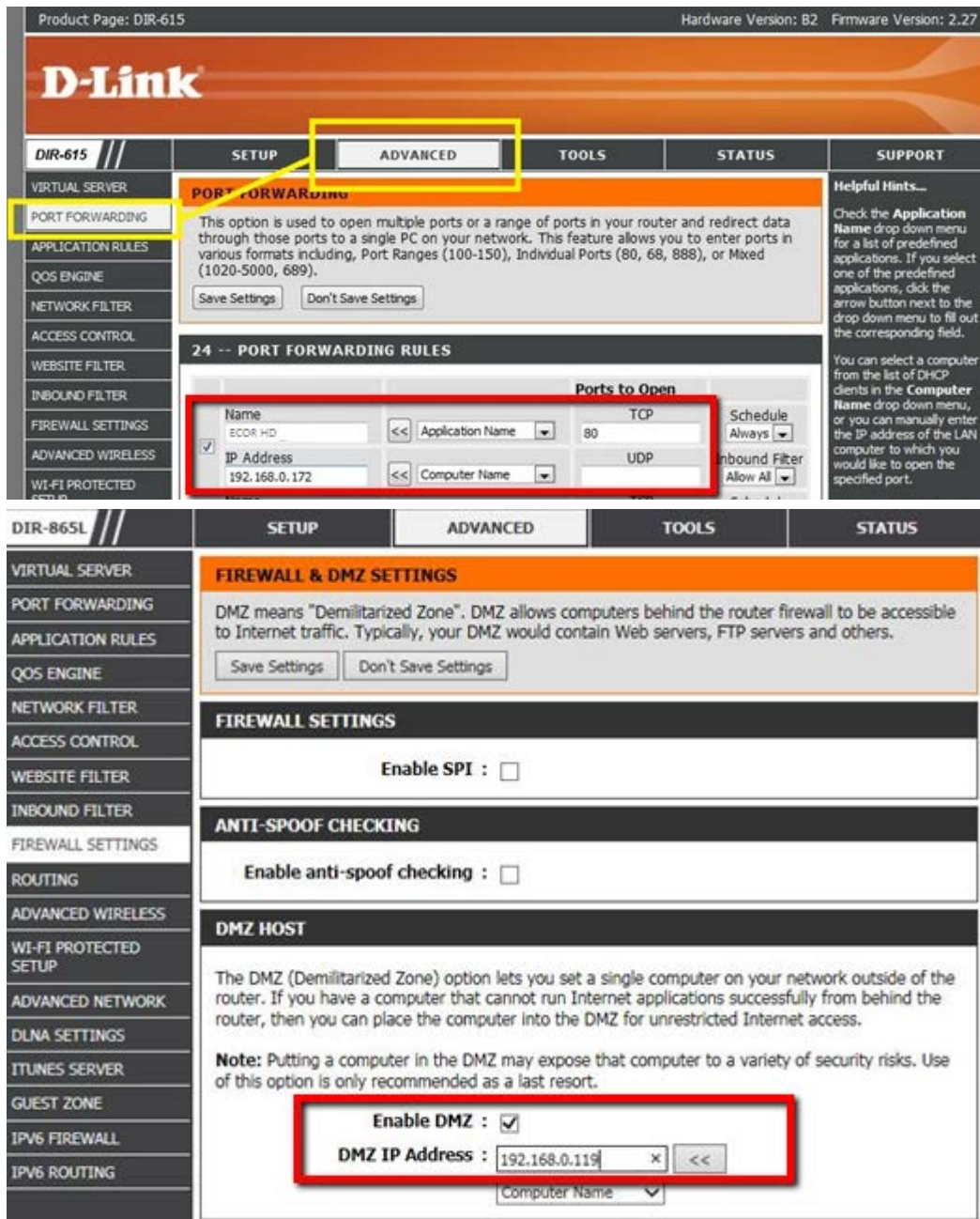
**Save:** Click to save the settings.

#### Note:

1. It is not necessary to append the HTTP port number to the DDNS name. The EverFocus DDNS server not only keeps track of your mobile DVR's IP address, but also keeps track of the ports.
2. You can go to <http://www.everfocusddns.com> to check the DDNS name can be registered or not.

### To set up DDNS function:

1. In order to allow remote access to the MDVR from outside of the local network, enable either the **Port Forwarding** or **DMZ** function of your router. Please refer to the manual of your router for more details.



The image shows two screenshots of D-Link router configuration interfaces. The top screenshot is for a DIR-615 router, showing the 'PORT FORWARDING' page. The 'ADVANCED' tab is selected, and the 'PORT FORWARDING' section is highlighted. Below this, the '24 -- PORT FORWARDING RULES' table is visible, with a rule for 'ECOR HD' on port 80. The bottom screenshot is for a DIR-865L router, showing the 'FIREWALL & DMZ SETTINGS' page. The 'DMZ HOST' section is highlighted, showing the 'Enable DMZ' checkbox checked and the 'DMZ IP Address' set to 192.168.0.119.

**Product Page: DIR-615** Hardware Version: B2 Firmware Version: 2.27

**D-Link**

**DIR-615** // **SETUP** **ADVANCED** **TOOLS** **STATUS** **SUPPORT**

**PORT FORWARDING**

This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

Save Settings Don't Save Settings

**24 -- PORT FORWARDING RULES**

Name	Application Name	Ports to Open	Schedule	Inbound Filter
ECOR HD	Application Name	80 TCP	Always	Allow All
IP Address: 192.168.0.172	Computer Name	UDP		

**DIR-865L** // **SETUP** **ADVANCED** **TOOLS** **STATUS**

**FIREWALL & DMZ SETTINGS**

DMZ means "Demilitarized Zone". DMZ allows computers behind the router firewall to be accessible to Internet traffic. Typically, your DMZ would contain Web servers, FTP servers and others.

Save Settings Don't Save Settings

**FIREWALL SETTINGS**

Enable SPI : ☐

**ANTI-SPOOF CHECKING**

Enable anti-spoof checking : ☐

**DMZ HOST**

The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access.

**Note:** Putting a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.

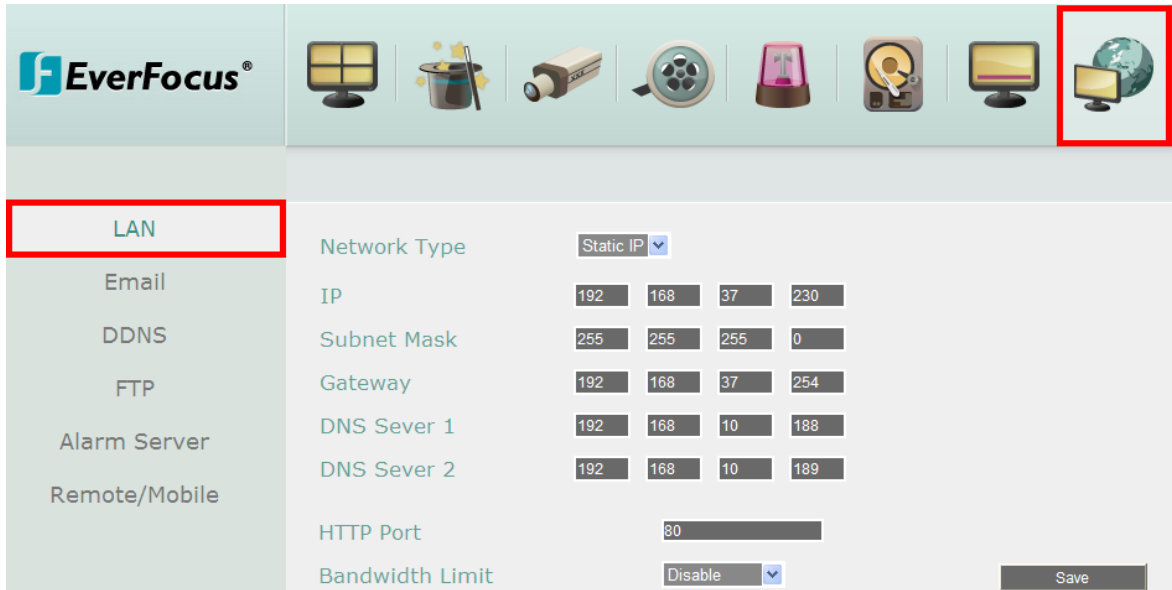
Enable DMZ : ☒

DMZ IP Address : 192.168.0.119 x <<<

Computer Name

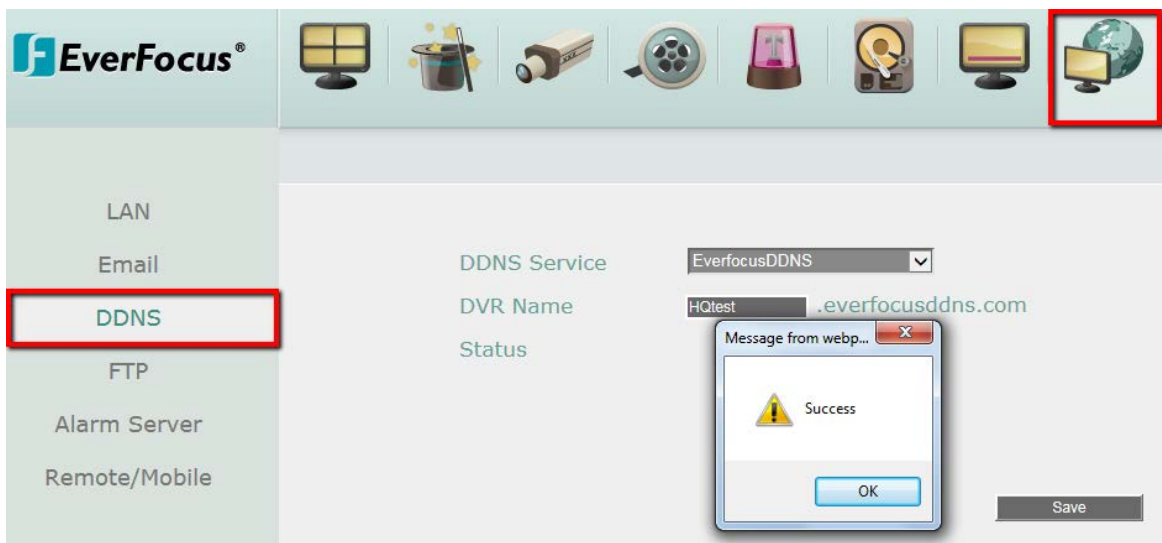


2. On the Network Setting page of MDVR (Network > LAN), configure the LAN settings, keep HTTP port “80” and then click the **Save** button.



- If **Static IP** is selected: Enter the IP address, subnet mask, default gateway and the DNS Server 1. Please consult with your ISP service provider for the information of subnet mask, default gateway and the DNS Server 1.
- If **DHCP** is selected: The IP address, subnet mask, default gateway and the DNS Server 1 will be assigned automatically by DHCP server.
- If **PPPoE** is selected: Enter the User Name (e.g. xxxx@hinet.net) and Password provided by your ISP service provider.

3. On the DDNS setting page, register a free host name from EverFocus DDNS and then click the **Save** button.



- a. Select **EverfocusDDNS** from the DDNS Service drop-down list.

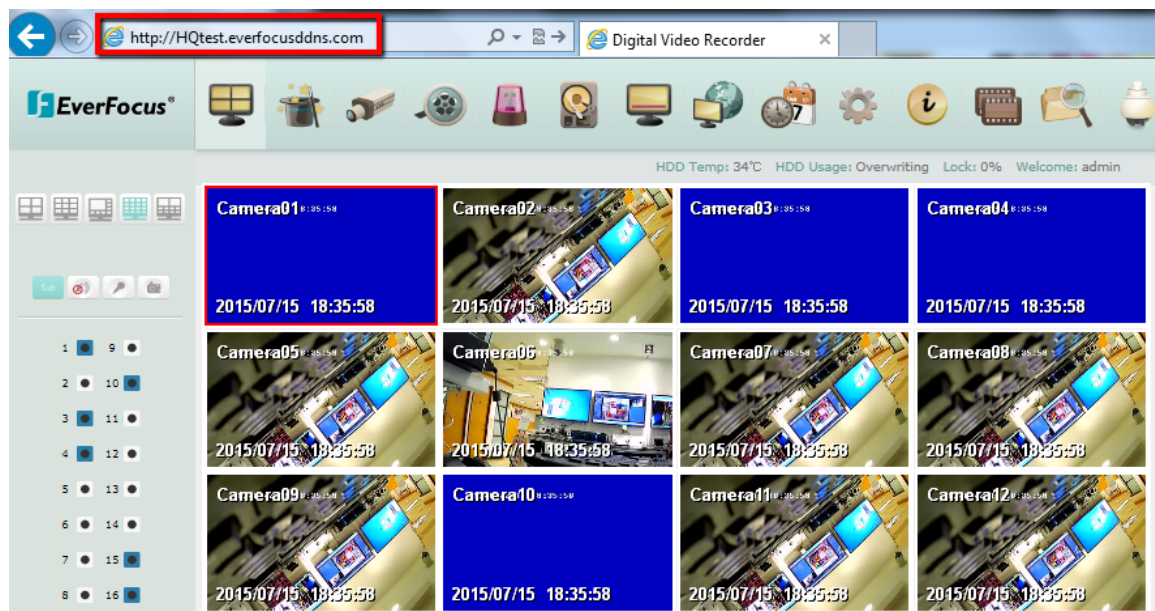
- b. Enter a desired host name in the DVR Name field. If the host name is available, a “Success” window will appear. Click **OK**. If not, try another host name until the “Success” window appears.

**Note:** The host name should not include a space, underline or any special characters particularly \_ ~ ! @ # \$ % ^ & \* ( ) + < > " ; : . ,

- c. Click **Save**.

4. The DDNS setup is now complete. Open a browser and enter the domain name ([http://\[host name\].everfocusddns.com](http://[host name].everfocusddns.com)) in the address field. The Web interface of the MDVR should be displayed.

For example, if you’ve obtained the host name “HQtest” from EverFocus DDNS server, enter <http://HQtest.everfocusddns.com> in the address field of the browser.



### 6.6.5.2 www.dyndns.org



The screenshot shows a web interface titled "Network" with a toolbar containing icons for various settings. On the left is a sidebar menu with options: LAN, Wireless, Mobile, Email, **DDNS** (highlighted with a green border), FTP, Alarm Server, Remote/Mobile, Network Test, and Xfleet. The main area is titled "DDNS Service" and features a drop-down menu currently set to "www.dyndns.org". Below this are four input fields labeled "Host Name", "User Name", "Password", and "Confirm". A "Save" button is located at the bottom right of the main area.

**DDNS Service:** Select [www.dyndns.org](http://www.dyndns.org) from the drop-down list.

**Host name:** Host name created through the dyndns account.

**User name:** User name of the dyndns account.

**Password:** Password of the dyndns account.

**Confirm:** Input the password again to confirm.

**Save:** Click to save the settings.

#### Setup Steps:

1. Apply for a host name from [www.dyndns.org](http://www.dyndns.org).
2. Make sure that the DNS Server 1 is set up correctly (see DNS Server 1 in 6.6.1 LAN) or the DDNS will not work.
3. Select [www.dyndns.org](http://www.dyndns.org) from the DDNS Service drop-down list.
4. Enter the host name in the Host Name field. Note that the name of the mobile DVR cannot include a space, underline or any special characters particularly \_ ~ ! @ # \$ % ^ & \* ( ) + < > " ; : , \_
5. Enter the User Name / Password of the dyndns account.
6. The setting is complete. And you should now be able to remotely connect the mobile DVR by typing the name you created into the address bar. Example:  
<http://hostname.dyndns.com>

**Note:** If you are connecting through a router, make sure that you have opened up all the required network ports in the "Port Forwarding" section of your router's setup options. The default port of the mobile DVR is 80. To set up Port Forwarding, please consult the manual of the router.

### 6.6.6 FTP

Set up the FTP server settings to enable the FTP function. The function is for users to upload the alarm / motion recordings or snapshots from sub stream to the FTP server. You can choose to upload either the recordings or snapshots, please see [6.2.1 Alarm](#) and [6.3.3 Motion](#).



The screenshot shows the 'Network' settings window. On the left is a sidebar menu with options: LAN, Wireless, Mobile, Email, DDNS, **FTP** (highlighted), Alarm Server, Remote/Mobile, Network Test, and Xfleet. The main area displays the FTP configuration form with the following fields:

- FTP Server: 0.0.0.0
- Port: 21
- User Name: [empty field]
- Password: [empty field]
- Confirm: [empty field]
- File Name: [empty field]

A 'Save' button is located at the bottom right of the form.

**FTP Server:** Enter the IP address or the host name of the FTP server.

**Port:** Enter the port number for the FTP server. Default is 21.

**User Name:** Set FTP User's name.

**Password:** Set FTP password.

**Confirm:** Input the FTP password again to confirm.

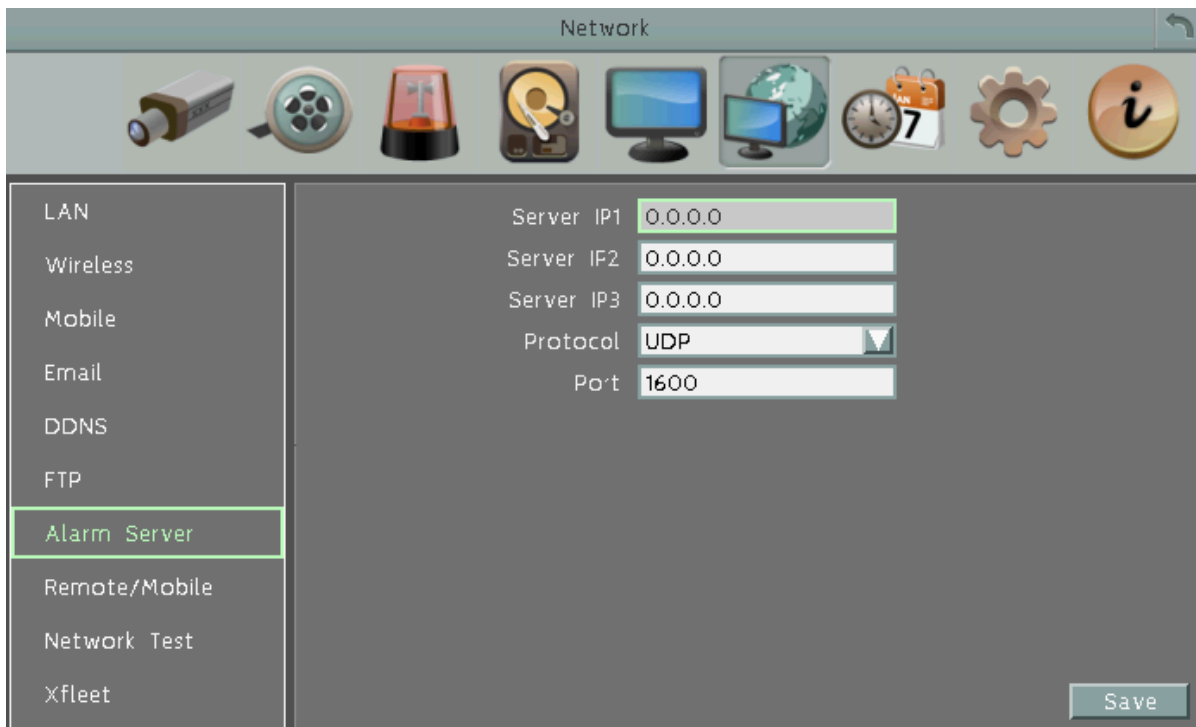
**File Name:** Enter the file name.

**Save:** Click to save the settings.

**Note:** If you want to upload recordings to the FTP, please go to the Remote / Mobile setting page to select H.264 codec.

### 6.6.7 Alarm Server

You can send out the alarm notifications to EverFocus's CMS software. Please also consult the CMS's user manual for network alarm settings.



Setting	Value
Server IP1	0.0.0.0
Server IP2	0.0.0.0
Server IP3	0.0.0.0
Protocol	UDP
Port	1600

**Server IP1~3:** IP address of client PC. The network alarm can be transmitted to up to 3 addresses.

**Protocol:** Select the protocol type for alarm transmission. Note the protocol selected here should match the protocol set up for the CMS alarm server.

UDP: User Datagram Protocol.

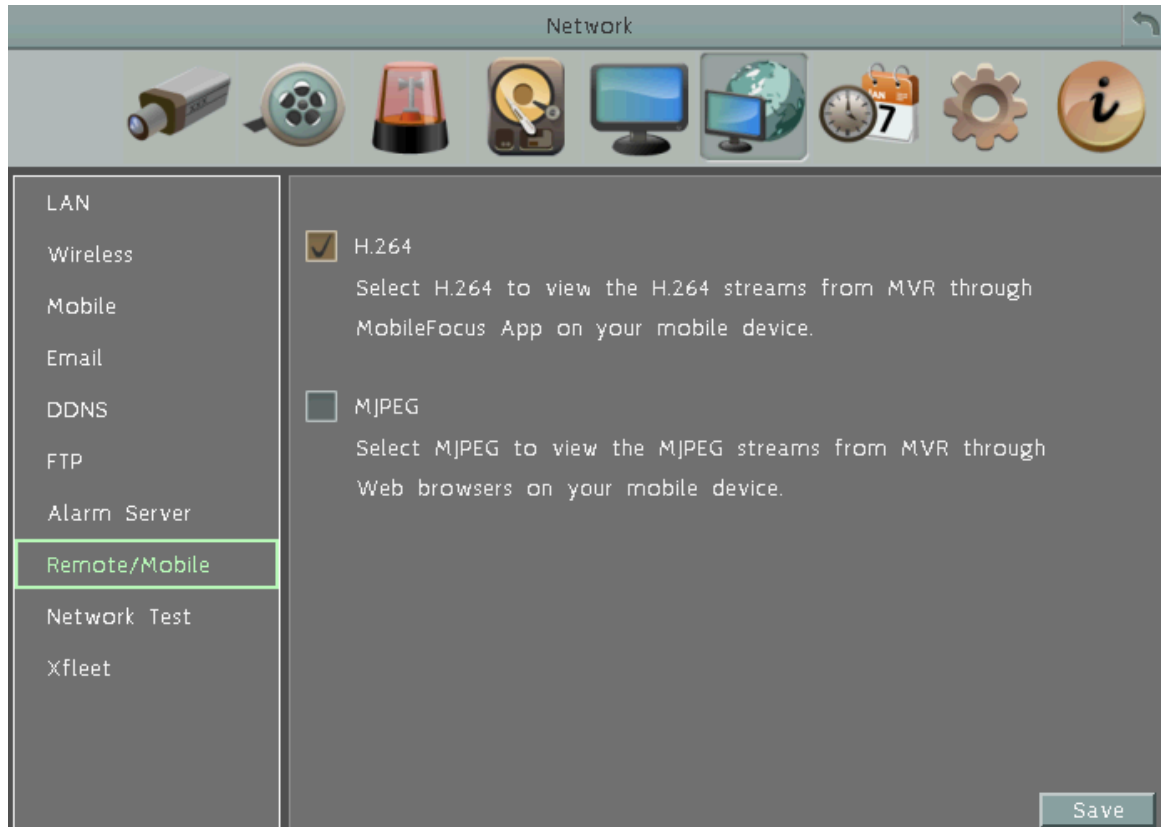
TCP: Transmission Control Protocol.

**Port:** Select the transmission port for network alarm messages. The port setup here should match the port set up for the CMS alarm server.

**Save:** Click to save the settings.

### 6.6.8 Remote/Mobile

You can configure the compression format for the sub-stream for mobile phone access. Select **H.264** or **MJPEG** codec to enable the mobile phone access function. Note that if you also want to use the FTP function for uploading the recordings (MP4 video format), please select the H.264 codec.



**H.264:** The H.264 codec is compatible with iOS and Android MobileFocus applications and IE Web browser viewing on iPhone, iPod touch, iPad, Android, and BlackBerry.

**MJPEG:** The MJPEG codec is compatible with iOS and Android MobileFocus applications and IE Web browser viewing on iPhone, iPod touch, iPad, Android, and BlackBerry.

**Save:** Click to save the settings.

### 6.6.9 Network Test

The Ping utility is useful in diagnosing connectivity problems by obtaining responses from nodes progressively farther along the network. DNS functionality can also be confirmed by entering a valid DNS name instead of an IP address.



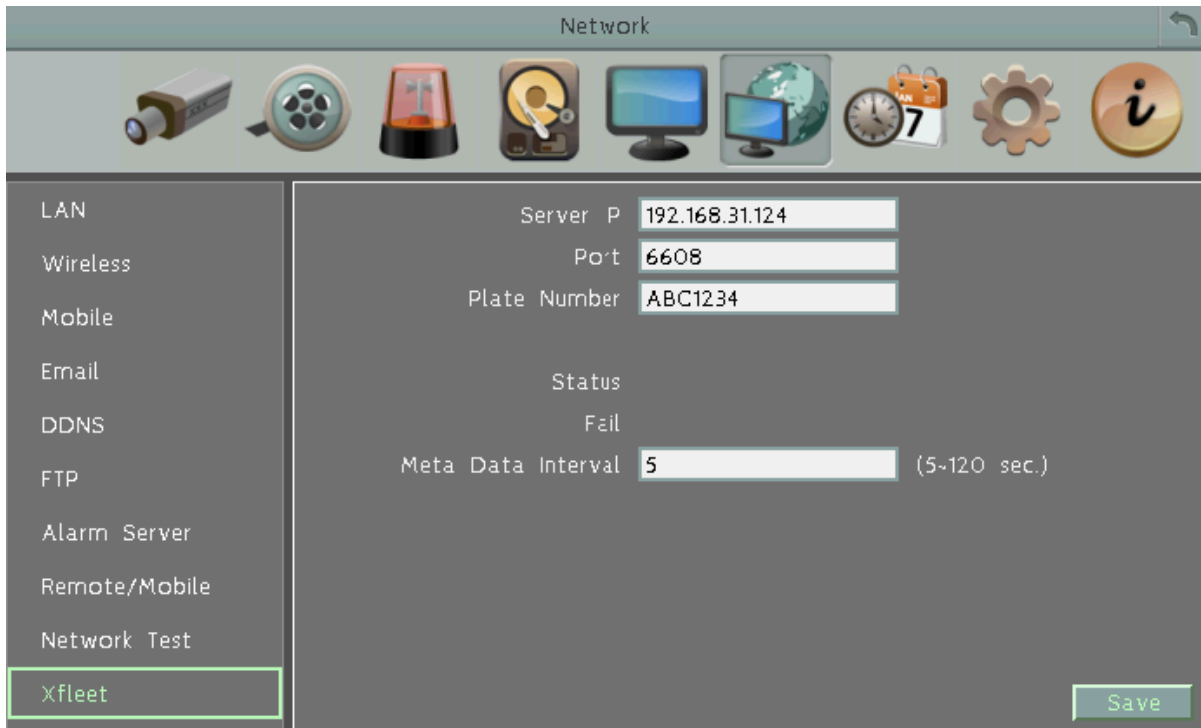
To verify basic network connectivity between the mobile DVR and other LAN or WAN nodes, click the **Ping** button.

### 6.6.10 Xfleet

You can use EverFocus Xfleet system for fleet management.

Xfleet 2.0 is a centralized management platform which is well designed to not only monitor fleets, but also to track driver statistics, maintenance records, fuel statistics and plenty of other in-depth analytics reports that assist you to make decisions and eventually reduce overall costs.

With Xfleet 2.0, making prediction and optimizing business performance will no longer be a burden as it provides timely response on the demands you need, creating long term value for clients across industries.



**Server IP:** Input the IP address of the Xfleet system.

**Port:** Input 6608 port and do not change the port as it is set up by default.

**Plate Number:** Optionally input the plate number.

**Meta Data Interval:** Input an interval for mobile DVR to send meta data to the Xfleet system.

**Save:** Click to save the settings.



## 6.7 Schedule Setting

You can set up the recording schedule with the desired time, event types or FPS.

### 6.7.1 Express Setup

You can set up a weekly recording schedule for the mobile DVR to automatically record videos.



	Record Type	Normal	Event	Activities
Weekend	Normal-Event	1 FPS	30 FPS	<input checked="" type="checkbox"/>
Weekday Daytime	Event Only	1 FPS	30 FPS	<input type="checkbox"/>
Weekday Nighttime	Normal-Event	1 FPS	30 FPS	<input checked="" type="checkbox"/>
Holidays	Normal-Event	1 FPS	30 FPS	<input checked="" type="checkbox"/>
Others	Normal-Event	1 FPS	30 FPS	<input checked="" type="checkbox"/>

**Weekend Start:** Select a start date and time for the weekend.

**Weekend End:** Select an end date and time for the weekend.

**Daytime Start:** Select a weekday start time (Nighttime schedule ends when Daytime begins).

**Daytime End:** Select a weekday end time (Nighttime schedule ends when Daytime ends).

**Record Type:** Select a recording type for each time period.

Disable: No recording during the scheduled time period.

Normal+Event: Continuous and Event recordings.

Event Only: Event recordings only.

**Normal (FPS):** Set up the fps for continuous recording.

**Event (FPS):** Set up the fps for event recording.

**Activities:** Check the box to enable the Buzzer, Alarm Out, E-mail and Network actions selected in 6.3 *Event* when an event occurs during the selected time period.

**Note:** For **Holiday** and **Others**, you can set up the recording schedule in 6.7.2 *Holidays*.

**Save:** Click to save the settings.

## 6.7.2 Holidays

In addition to set up a weekly recording schedule, you can also set up a holiday recording schedule to automatically record videos on a specific day of the year.



No.	Date Type	Recurrent Type	Details
1	Others	One time	2013/1/1
2	Holidays	Month/date	Jan.1
3	Holidays	Month/weekday	Jan.1st.Sun
4	Holidays	Disable	
5	Holidays	Disable	
6	Holidays	Disable	
7	Holidays	Disable	
8	Holidays	Disable	
9	Holidays	Disable	
10	Holidays	Disable	

**Date Type:** Select **Holiday** or **Others** if you have configured the settings in 6.7.1 *Express Setup*. The Holiday and Others are two different groups designed for you to assign special days independently.

**Recurrent Type:** Select a date layout for the selected group above.

Disabled: Select to disable the Holiday / Others recording schedule.

One time: Select this option and then set up the specific date and year in the Details field. The mobile DVR will start recording on this specific date.

Month/date: Select this option and then set up the specific date in the Details field. The mobile DVR will start recording on this date yearly.

Month/Weekday: Select this option and then set up the specific date in the Details field. The mobile DVR will start recording on this specific date.

**Details:** Click to specify the date for the selected group above.

**Previous:** Previous Page (30 Holidays Total).

**Next:** Next Page (30 Holidays Total).

**Save:** Click to save the settings.

### 6.7.3 Schedule

You can set up the camera recording mode by time of day on specific days of the week and/or holidays and other days. Please note that after the configuration, you have to check the **Schedule Record** box in the Record setting page to enable the schedule recording mode.



**Camera (1~12):** Select a camera number to change the schedule for the selected camera. Each camera can be controlled during a 24-hour time block for Holiday (Hol), Other (Oth), Sunday (Sun), Monday (Mon), Tuesday (Tue), Wednesday (Wed), Thursday (Thu), Friday (Fri), or Saturday (Sat).

**Time (0~23):** The numbers represent the 24 hours of a day.

**Time Bar:** The time bar uses three different colors to distinguish each recording mode.

Gray (No Rec): No recording during this time block.

Pink (E): Only events are recorded during this time block.

Blue-green (N+E): (Default) Normal and event recording during this time block.

There are 48 blocks on the time bar, and each block represents half hour respectively. When moving the cursor onto the time bar, the exact time will appear at the right side of the time bar (shown as the above figure).

### Schedule setting

1. Select a camera first and click on desired start time block (no number on it) on a time bar. At this time, the selected time block will be highlighted in yellow frame and the entire time bar will be highlighted by red frame.
2. Click the desired start time block again to confirm, and this block (shows a new sequence number on it) and all the following blocks will turn to gray. This means the grey time blocks has been set to No Recording mode.
3. To change the time blocks to different record mode (which shows a different color), users need to click again on the block (with number on it) of any section. Every time the user clicks the first block of a section, the color switches from gray->pink ->blue-green.
4. Repeat the above steps to configure the record modes. You can configure up to six record modes on each time bar.

Click the **“Edit Timezone”** button to edit the recording parameters for a time zone.



Editing: Tuesday							
From	To	Record	Resolution	Normal	Event	Action	
0:00	6:00	Normal-Event	960x480	1 fps	30 fps	<input checked="" type="checkbox"/>	
6:00	18:00	Event Only	960x480	1 fps	30 fps	<input type="checkbox"/>	
18:00	21:00	Normal-Event	960x480	1 fps	30 fps	<input checked="" type="checkbox"/>	
21:00	24:00	No Record					

Apply Close

### Editing Timezone:

**From:** Displays time zone start time.

**To:** Displays time zone end time.

**Record:** Displays Record mode.

**Resolution:** Recording resolution is displayed.

**Normal:** Frame rate in FPS for continuous recording. It is important to keep track of the normal recording resources being allocated at each hours of the day. Increasing the Normal recording resolution and/or rate can inadvertently request more recording resources than the mobile DVR is capable of delivering, or allocate so much of the mobile DVRs resources that there is no excess available for increased FPS rate and/or resolution in response to an Event.

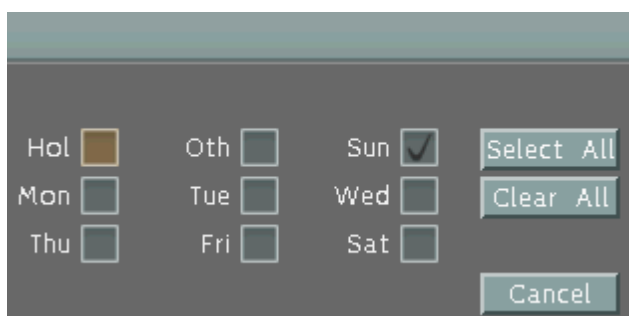
The speed is limited by the maximum total recording capacity of the mobile DVR as allocated across TV standard in global setting, all the installed cameras, with an upper limit of 30 FPS (NTSC – 25 PAL) per individual camera (real time recording).

Since EverFocus mobile DVRs have the capability to change the FPS rate in response to events, it may be advisable to reserve some recording capacity for event response.

**Event:** Maximum desired frame rate in frames per second (FPS) for event recording; if more than one camera requires simultaneous event recording, the total for all cameras cannot exceed the maximum available FPS for the mobile DVR at the corresponding resolution setting, and *the available FPS may be divided across the cameras responding to an event.*

**Action:** Check this box to enable notifications enabled elsewhere (Buzzer, Alarm out, E-mail, and Network Alarm) when an event occurs.

**Apply to Days:** This button can be used to copy schedules to other days. Select which days you wish to copy to. "Select All" selects all days, "Clear All" deselects all days. Click "OK" to copy the settings or "Cancel" to exit without copying.



Hol	<input checked="" type="checkbox"/>	Oth	<input type="checkbox"/>	Sun	<input checked="" type="checkbox"/>	Select All Clear All Cancel
Mon	<input type="checkbox"/>	Tue	<input type="checkbox"/>	Wed	<input type="checkbox"/>	
Thu	<input type="checkbox"/>	Fri	<input type="checkbox"/>	Sat	<input type="checkbox"/>	

**Apply to Cameras:** This button can be used to copy schedules to other cameras. Select which cameras you wish to copy to. "Select All" selects all cameras, "Clear All" deselects all cameras. Click "OK" to copy the settings or "Cancel" to exit without copying.



1	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	Select All Clear All Cancel
5	<input type="checkbox"/>	6	<input type="checkbox"/>	7	<input type="checkbox"/>	8	<input type="checkbox"/>	
9	<input type="checkbox"/>	10	<input type="checkbox"/>	11	<input checked="" type="checkbox"/>	12	<input type="checkbox"/>	

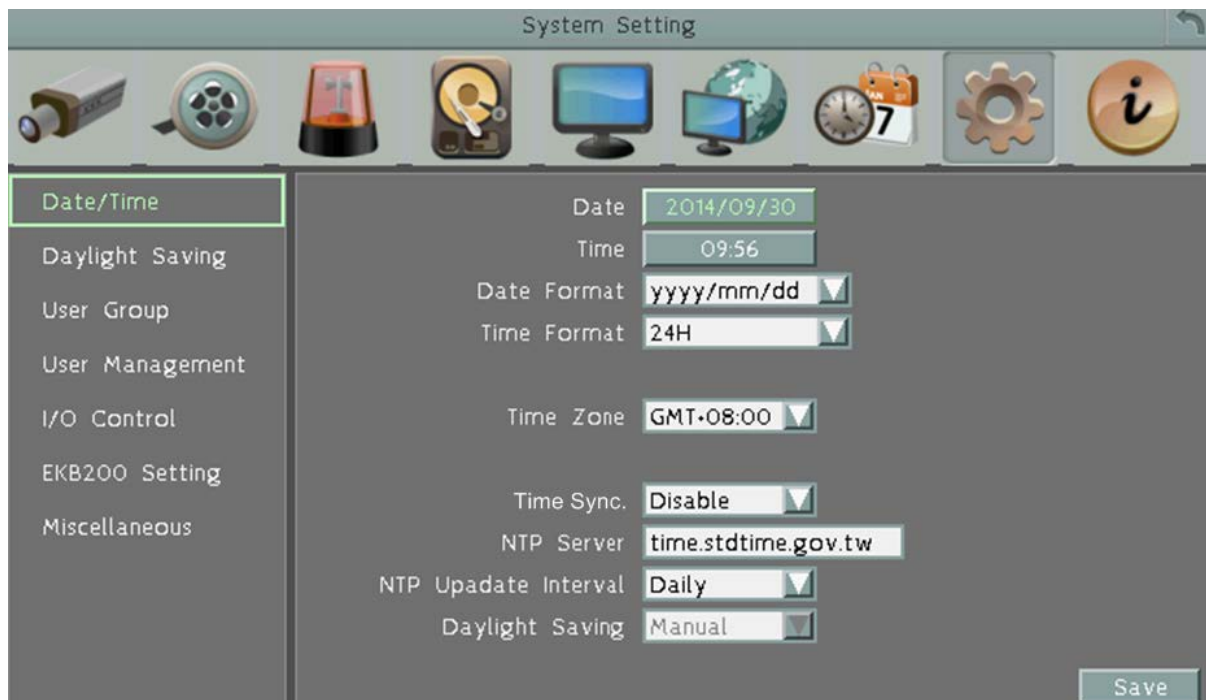
## 6.8 System Setting

You can configure the general settings for the mobile DVR in this menu.

### 6.8.1 Date / Time

You can set up the date and time for the mobile DVR.

**Note:** Clicking **Save** at this page will disable the **Daylight Saving** function if this function has been enabled. Therefore, after setting up the time at this page, you need to go to *Daylight Saving* page to reset and enable the daylight saving time if the function is needed. Please refer to 6.8.2 *Daylight Saving* for detailed information.



**Date:** Click to bring up the on-screen keyboard to set up the date.

**Time:** Click to bring up the on-screen clock to set up the time.

**Date Format:** Select a date format from the drop-down list.

**Time Format:** Select a time format from the drop-down list.

**Time Zone:** Select a time zone for the mobile DVR to adjust to when updating from the time server.

**Time Sync:** You can synchronize the MDVR time with NTP server or GPS time.

- **Disable:** Select to disable the time synchronization function.
- **NTP:** Select to synchronize the MDVR time with NTP server. You will have to further set up the **NTP Server** and **NTP Update Interval** settings below.

- **GPS:** Select to synchronize the MDVR time with GPS time. For this function to work, a GPS antenna is required to connect to the MDVR to receive GPS signal.

**NTP Server:** If **NTP** is selected from the **Time Sync** drop-down list above, you will have to further select a **NTP Server**. The NTP Server displays the time server address that the mobile DVR uses for time synchronization. For this function to work, operating network configuration and WAN or LAN access to a compatible NTP server is required. The default NTP address is the NTP server in Taiwan. To find a compatible NTP address of the mobile DVR's physical location, follow the steps below:

- a. Use a computer connected to the Network.
- b. Click Start > Run > type "command" and then click OK.
- c. In the DOS Prompt, type "ping pool.ntp.org" to find out the IP address of an NTP Server.

**NTP Update Interval:** If **NTP** is selected from the **Time Sync** drop-down list above, you will have to further set up the **NTP Update Interval**, which is the frequency that the system automatically updates the time via the NTP server. Select Daily, Weekly or Monthly.

**Daylight Saving:** This **Auto** daylight saving function is used for the system to automatically set up the daylight saving time but it is currently reserved for the users in the United States. So, if you want to set up the daylight saving time, please go to Daylight Saving setting page to manually set up the time (refer to 6.8.2 *Daylight Saving*).

For the users in United States, if they want to use the **Auto** daylight saving functions, please follow the steps below:

1. Select a U.S Time zone (GMT -05:00 ~ GMT -08:00).
2. Enable the **NTP**.
3. Enter a NTP server IP address in United States.
4. Select **Auto** in the **Daylight Saving** drop-down list.
5. Click **Save** to save the settings.
6. The Daylight Saving setting page (refer to 6.8.2 *Daylight Saving*) will be grayed out and automatically set to the correct daylight saving time.

## 6.8.2 Daylight Saving

You can configure the settings for mobile DVR to automatically adjust to daylight saving time.

### Note:

1. If this page is grayed out, it means that you have enabled the **Auto** daylight saving function, please refer to 6.8.1 *Date/Time*.
2. If you need to use the **Daylight Saving** function, you must set up the date and time settings first in **Date/Time** page. Because if you change any setting or just click **Save** in **Date/Time** page, the **Daylight Saving** function will be disabled.



The screenshot shows the 'System Setting' window with a sidebar on the left containing icons for various settings. The 'Daylight Saving' option is selected and highlighted with a green border. The main area displays the 'Daylight Saving' configuration with a checkbox that is currently unchecked. Below the checkbox, there are fields for 'Start Date' (Jan, 1st, Sunday), 'Start Time (hh:mm)' (0, 00), 'Set To (hh:mm)' (0, 00), 'End Date' (Jan, 1st, Sunday), and 'End Time (hh:mm)' (0, 00). A 'Save' button is located at the bottom right of the configuration area.

**Daylight Saving:** Check the box to enable automatic daylight saving time (DST).

**Start Date:** Set the start date for daylight saving time.

**Start Time (hh:mm):** Set the time when daylight saving time begins.

**Set To (hh:mm):** This is what the time will change to when daylight saving begins. For most regions, this will be one hour ahead of the “Start Time”.

**End Date:** Set the end date for daylight saving time.

**End Time (hh:mm):** Set the time when daylight saving time ends.

The time change difference on the End Date will be the same as the difference between the Start Time and End Time entered for the Start Date (typically 1 hour as in the example shown).

**Save:** Click to save the settings.



### 6.8.3 User Group

This setting page is used for configuring the privilege of the three access levels: Administrator, Manager and Operator. Check the boxes under an access level to enable the privileges of that access level. For example, if you check the **Clear Log** box under the Operator access level, only the Operator has the privilege to clear log.



User Group	Admin	Manager	Operator
Manage User at Own Level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Clear Log	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Firmware Upgrade/Configuration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storage Setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record Setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Live Audio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Playback Audio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Archival Functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System Log View/Export	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Manage User at Own Level:** Check this box for the user of an access level to be able to configure other users' settings of the same level at the User Management setting page (see 6.8.4 User Management). For example, if this box under the Operator level has been checked, any user with the Operator privilege can go to the User Management setting page to set up the settings of other Operators.

**User Management:** Check this box under an access level to enable the users of that level to access the User Management and User Group setting page.

**Previous:** Click to return to the previous page.

**Next:** Click to enter the next page.

**Save:** Click to save the settings.

**Important Notes for Account Privilege Definition**

Users with the Administrator account have full privileges, so the checkboxes under the Administrator access level will always be grayed out. The Administrator can grant privileges to both the Manager and Operator while the Manager and Operator can also give certain privileges to the lower level accounts based on the following rules.

- **Account Viewing:**

Administrator: The Administrator account has the privilege to view all the user accounts.

Manager: The Manager account can only view its own and the Operator accounts.

Operator: The Operator account can only view its own account.

- **Camera Access:**

Administrator: The Administrator account has the privilege to set up Camera Access right to all the user accounts.

Manager: The Manager account can set up Camera Access right (cameras enabled by the Administrator account) to itself and Operator accounts.

Operator: The Operator account can only set up its own Camera Access right.

- **Change Password:**

Administrator: The Administrator account has the privilege to change password to all the user accounts.

Manager: The Manager account can change password to itself and Operator accounts.

Operator: The Operator account can only change its own password.

- **Edit User Rights:**

Administrator: The Administrator account has the privilege to edit user rights to all the user accounts.


Manager: The Manager account can only edit user rights to Operator accounts.


Operator: The Operator account cannot edit user rights to any accounts.

#### 6.8.4 User Management

You can create multiple user accounts (max: 20 user accounts) with different privileges. The mobile DVR has default user accounts which you can choose to copy, edit, add or delete, and the default password is 11111111.



**Copy:** Click the  button to copy the settings of an existing user account to a new user account.

**Edit:** Click the  button to edit the settings of an existing user account.

**Add:** Click the  button to add a new user.

**Delete:** Click the  button to delete

**Previous:** Click to return to the previous page.

**Next:** Click to enter the next page.

**Login:** Check the box to enable the User Login function after logging out the mobile DVR. For details on logging in the mobile DVR, please refer to 3.2.1 Login.

**Auto User Log Off:** Check the box to automatically logoff the mobile DVR after 3 minutes of inactivity.

**Password Renew after xx days:** Input a number of days to renew the password of the MDVR.

**Save:** Click to save the settings.

You can further configure each user account and its settings individually, see the steps below:

1. Click on a user account.
2. Click the **Add**, **Copy** or **Edit** button, and the following page appears.



**User Name:** Click to bring up the keyboard and input the desired user name.

**User Group:** Select a user group (access level). There are three options: Administrator, Manager and Operator. The Administrator has the highest user privilege level, the Operator has the lowest user privilege level, and Manager is in the middle.

**Status:** Select to enable or disable the user account.

**Password:** Input the password.

**Confirm:** Enter the same password again to confirm.

**Camera Access:** Click to bring up the Camera Access setting page, and check the boxes to enable the live, playback or PTZ functions of the cameras for local or remote access.

**User Rights:** Check the boxes to enable the functions for the user account.

**Previous:** Click to return to the previous page.

**Next:** Click to enter the next page.

**Save:** Click to save the settings.

### 6.8.5 I/O Control

The I/O Control setup menu is used to define the settings for controlling the mobile DVR through RS-485 / RS-232 communication protocol and for mobile DVR to control the connected PTZ cameras. Please note that the RS-232 port on the mobile DVR is currently reserved.



The screenshot shows the 'System Setting' window with the 'I/O Control' option selected in the left sidebar. The main area displays settings for RS-232, RS-485, and GPS. The RS-232 section is currently disabled, indicated by a greyed-out background. The RS-485 and GPS sections are active and show various communication parameters.

Section	Parameter	Value
RS-232 (Disabled)	Type	Contro.
	Baud Rate	9600
	Data Bit	8
	Stop Bit	1
	Parity	None
RS-485	PTZ Protocol	Pelco_D
	485 ID	0
	Baud Rate	9600
	Data Bit	8
	Stop Bit	1
GPS	Baud Rate	9600
	Data Bit	8
	Stop Bit	1
	Parity	None
	Control	IR Remote ID: 1

A 'Save' button is located at the bottom right of the settings area.

#### RS-232

**Type:** Select Control or Text Insert.

**Baud Rate:** This field is to set the speed at which is used to transmit instruction or information through the RS-232 port on the mobile DVR. There are eight different speeds: 1200 BPS, 2400 BPS, 4800 BPS, 9600 BPS, 19200 BPS, 38400 BPS, 57600 BPS and 115200 BPS.

**Data Bit:** This field is the data bit at which you will be transferring. There are two settings for this option: 8 or 7.

**Stop Bit:** This field is to set the stop bit for the RS-232 connection. There are two different stop bits, 1 or 2.

**Parity:** This field is to select the parity level at which you will be connected. You can choose between None, Odd, or Even parity levels.

**Note:** For details on the RS-232 related settings, please consult the Technical Support Department of EverFocus.

**RS-485**

**PTZ Protocol:** Select PTZ protocol, choose from the following protocols: Transparent, Pelco\_D, Pelco\_P, Everfocus or Samsung. (Note: All cameras on the RS-485 bus must use the same protocol)

**485 ID:** This is the ID used by the EKB500 to send commands to the mobile DVR. On an RS-485 connection, every device (PTZ, mobile DVR and controller) must be assigned a unique ID number between 0 and 127.

**Baud Rate:** This field is to set the speed at which is used to transmit instruction or information through the RS-485 port on the mobile DVR. There are eight different speeds: 1200 BPS, 2400 BPS, 4800 BPS, 9600 BPS, 19200 BPS, 38400 BPS, 57600 BPS and 115200 BPS.

**Data Bit:** This field is the data bit at which you will be transferring. There are two settings for this option: 8 or 7.

**Stop Bit:** This field is to set the stop bit for the RS232 connection. There are two different stop bits, 1 or 2.

**Parity:** This field is to select the parity level at which you will be connected. You can choose between None, Odd, or Even parity levels.

**GPS**

**Baud Rate:** This field is to set the speed at which is used to transmit instruction or information through the RS-485 port on the mobile DVR. There are eight different speeds: 1200 BPS, 2400 BPS, 4800 BPS, 9600 BPS, 19200 BPS, 38400 BPS, 57600 BPS and 115200 BPS.

**Data Bit:** This field is the data bit at which you will be transferring. There are two settings for this option: 8 or 7.

**Stop Bit:** This field is to set the stop bit for the RS232 connection. There are two different stop bits, 1 or 2.

**Parity:** This field is to select the parity level at which you will be connected. You can choose between None, Odd, or Even parity levels.

**Control:** One remote control can be used to operate four mobile DVRs. The mobile DVR to be addressed is selected by pressing the key corresponding to its ID number on the IR Remote control. Please refer to *Appendix E: IR Remote Control*.

**IR Controller ID:** Set up an ID for the mobile DVR and allow the IR remote control to control this mobile DVR.

### 6.8.6 EKB200 Setting

You can connect an EKB200, which is EverFocus' USB keyboard, to the USB port on the DVR to control the Iris, focus or the pre-configured PTZ control functions of the connected cameras. For details on how to configure the PTZ control functions, including Preset Position, Auto Pan, Tour and Pattern, please refer to 4.1 PTZ.



The control keys on the EKB200




After connecting the EKB200 keyboard to the DVR and configuring the PTZ control functions, you need to configure the above setup page to define the function for each control key on the keyboard. Click the **Save** button to save the settings. Once you press the control key on the keyboard, the camera will do the action which you've defined for the key.

**【Key No】** The control key number on the keyboard.

**【Action】** Select an item from the drop-down list to define the function for each key on the keyboard.

- **Set Preset:** You can use the joystick on the keyboard to select a position and then press this key to save the position as the Preset Position.
- **Go to Preset:** Press this key to let the camera go to the Preset Position number specified in the Value column.
- **Go to Home:** Press this key and the camera will go to the Preset Position 1.
- **Clear Preset:** Press this key to clear the Preset Position number specified in the Value column.
- **Run Auto Pan:** Press this key to start the AutoPan number specified in the Value column.
- **Stop Auto Pan:** Press this key to stop the AutoPan number specified in the Value column.
- **Tour Run:** Press this key to start running the Tour number specified in the Value column.
- **Tour Stop:** Press this key to stop running the Tour number specified in the Value column.
- **Pattern Run:** Press this key to start running the Pattern number specified in the Value column.
- **Pattern Stop:** Press this key to stop running the Pattern number specified in the Value column.
- **Set Auto Tracking:** Press this key to switch On / Off the Auto-Tracking function.
- **Select Tracking Object:** Press the key to display the tracking crosshairs on the screen. Use the joystick on the keyboard to select the desired tracking object and press this key again to save the selection.
- **Toggle Full Screen:** Press this key to toggle between the full screen and current screen.

**【Value】** Type in the number for the selected Action item. For example, selecting **Go to Preset** from the Action drop-down list and typing in 2 in the Value column represents the Preset Position 2.

To activate the EKB200 keyboard on the PTZ Live View window, click the PTZ  icon on the OSD Root Menu, and then you are able to control the PTZ camera over the EKB200 keyboard (please refer to *4.1 PTZ*).



### 6.8.7 Miscellaneous

You can upgrade the latest firmware, restore the factory default settings to the mobile DVR, upload / save the mobile DVR configuration settings from / to the USB or change the language in this setup menu.



#### 【Firmware】

**Current Firmware Version:** Shows the current firmware version of the mobile DVR.

**Firmware (Upgrade):** Click to upgrade the latest firmware. Note you will need to restore the firmware file to the USB flash device and then connect the USB flash device to the mobile DVR.

#### 【Configurations】

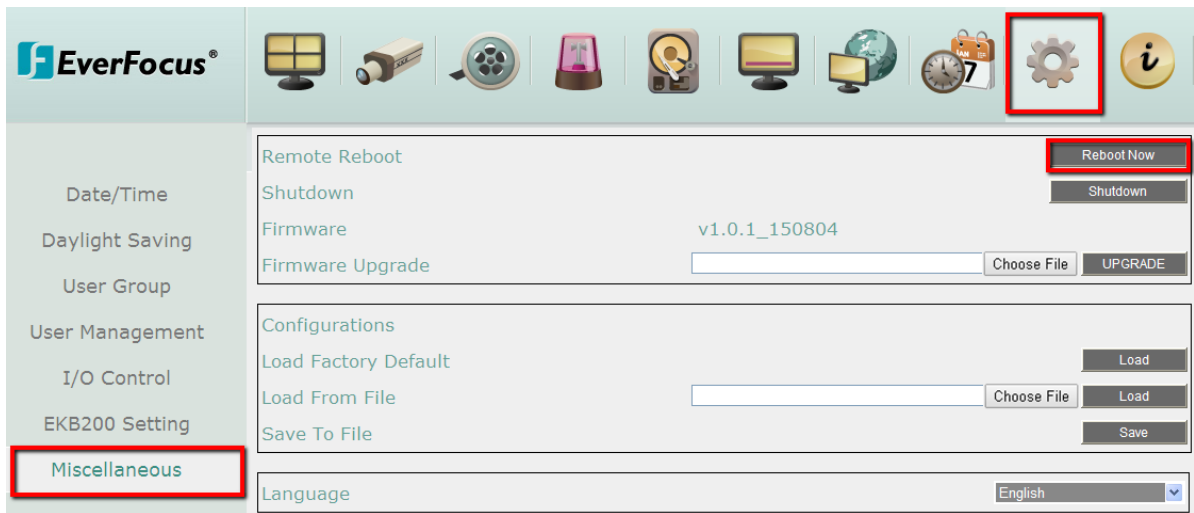
**Load Factory Default:** Click to restore the mobile DVR to factory default settings. The User Account, Network IP Settings, and Time settings will not be affected.

**Load From USB:** Click to upload the mobile DVR configurations restored in the USB flash device.

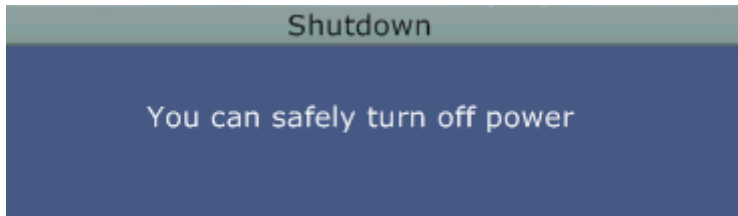
**Save To USB:** Click to save the mobile DVR configurations to the USB flash device.

**Language:** Choose which language the mobile DVR uses.

**Remote Reboot:** Check the box to enable restarting the mobile DVR via the Network.



**Shutdown:** Click the **Shutdown** button if you need to turn off the mobile DVR. When the message as below pops up on the screen, you can now turn off the mobile DVR.



**Save:** Click to save the settings.

## 6.9 Information

You can see the mobile DVR information and Log data in this menu. Or export the log data to the USB storage device.

### 6.9.1 System

In the System Menu, you can only see the information of the mobile DVR, Network or HDD. No configuration can be done in this menu.



#### 【System】

**Version:** Displays the firmware version.

**Model:** Displays the model name of the mobile DVR.

**NTSC / PAL:** Displays the current video format automatically detected by the mobile DVR.

**S/N:** Display the serial number of the mobile DVR.

#### 【LAN】

**IP 1 / IP 2:** Displays the IP address of LAN 1 / LAN 2 set up in the Network or Express menu.

**MAC 1 / MAC 2:** Displays the MAC address of LAN 1 / LAN2. This option cannot be changed.

**MVR Name:** Displays the DDNS name if configured.

**Network ID:** The ID number for EverFocus' CMS as set up in the LAN menu.

#### 【Status】

**Storage:** Displays the status of the internal storage. Normal storage operation is indicated by "OK".

## 6.9.2 Log

You can choose, display or export log data using this menu.



The screenshot shows the 'System Information' menu with various icons at the top. The 'Log' option is selected in the left sidebar. The main area displays date and time selection fields for 'From' and 'To'. Below these are checkboxes for 'Log Type' including Configuration, Event, Record, Operation, and User. At the bottom are buttons for 'View Log', 'Clear Log', and 'Export Log to USB'.

System Information

System

Log

From Date: 2014/06/22 Time: 18:10 To Date: 2014/06/23 Time: 18:10

Log Type

☐ Configuration ☐ Event ☐ Record

☐ Operation ☐ User

View Log

Clear Log

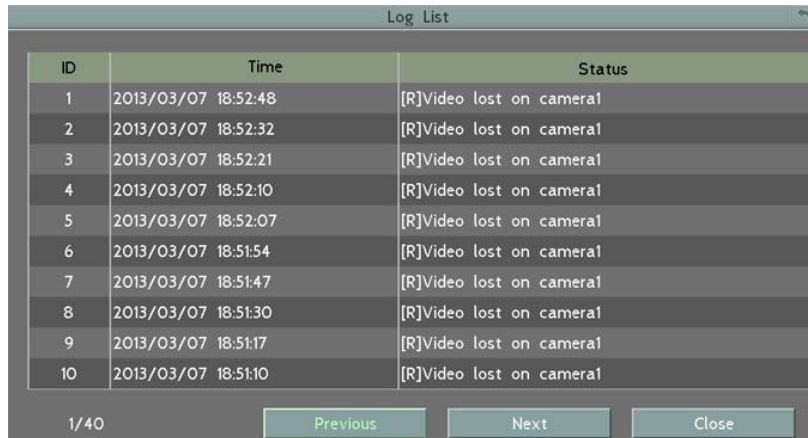
Export Log to USB Export

**Start Date / End Date:** Click to bring up the on-screen keyboard to set up the start / end date.

**Start Time / End Time:** Click to bring up the on-screen clock to set up the start / end time.

**Log Type:** Select the desired log types.

**View Log:** Click to bring up the Log List shown as below.



The screenshot shows the 'Log List' window with a table of log entries. The table has columns for ID, Time, and Status. There are 10 entries, all showing a video loss on camera 1 at various times on 2013/03/07. At the bottom, there are navigation buttons: Previous, Next, and Close, along with a page indicator 1/40.

ID	Time	Status
1	2013/03/07 18:52:48	[R]Video lost on camera1
2	2013/03/07 18:52:32	[R]Video lost on camera1
3	2013/03/07 18:52:21	[R]Video lost on camera1
4	2013/03/07 18:52:10	[R]Video lost on camera1
5	2013/03/07 18:52:07	[R]Video lost on camera1
6	2013/03/07 18:51:54	[R]Video lost on camera1
7	2013/03/07 18:51:47	[R]Video lost on camera1
8	2013/03/07 18:51:30	[R]Video lost on camera1
9	2013/03/07 18:51:17	[R]Video lost on camera1
10	2013/03/07 18:51:10	[R]Video lost on camera1

1/40 Previous Next Close

**Clear Log:** Click to delete all the selected log data.

**Export Log to USB:** Click the **Export** button to export the log data to the USB storage device.

# Chapter 7

## 7. Remote Access to the Mobile DVR

### 7.1 Accessing the Mobile DVR on the Network

Follow the steps below to access the mobile DVR from a computer.

1. Open an Internet Explorer window and in the address bar type the IP address.

**Local connection:**

http:// (IP address from the mobile DVR's Network Menu): IP port used

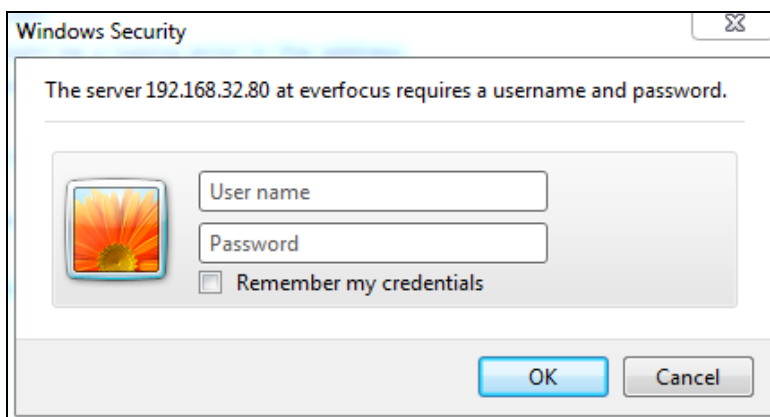
e.g. http://192.168.1.163:2468

**Internet connection:**

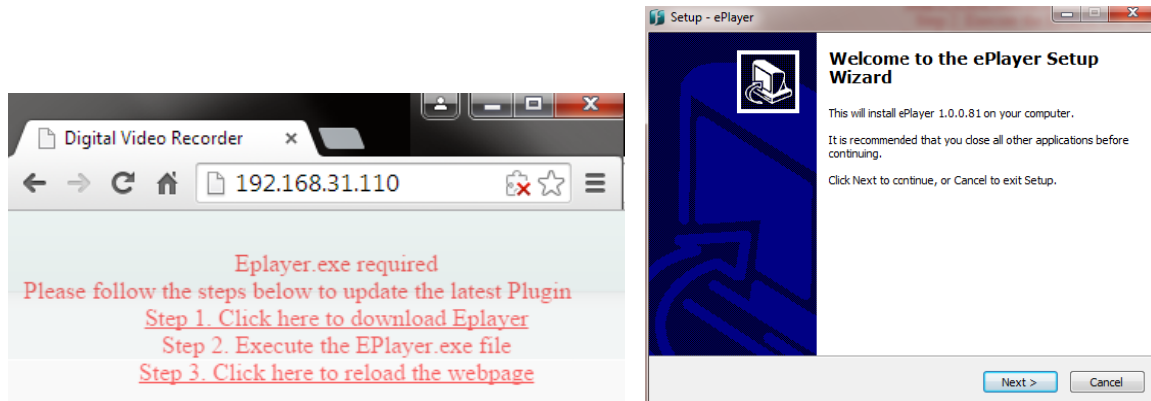
http:// (IP address given by your Internet Service Provider): IP port used

e.g. http://57.182.67.204:2468

2. The Login window pops up. Type the User Name and Password. The default User Name is **admin**, while the password is **11111111**  
Click **OK** to login.

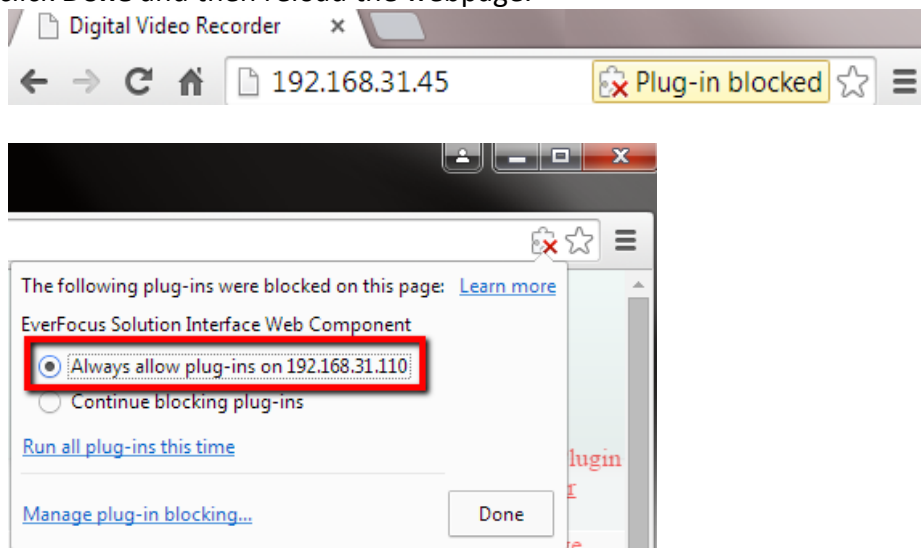


- If you log in for the first time, follow the instruction steps on the interface to update the latest Plugin version (ePlayer). After reloading the webpage, the login window pops up again. Type the user ID and password to log in again. By default, the user ID is **admin** and the password is **11111111**.



**Note for the first time login:**

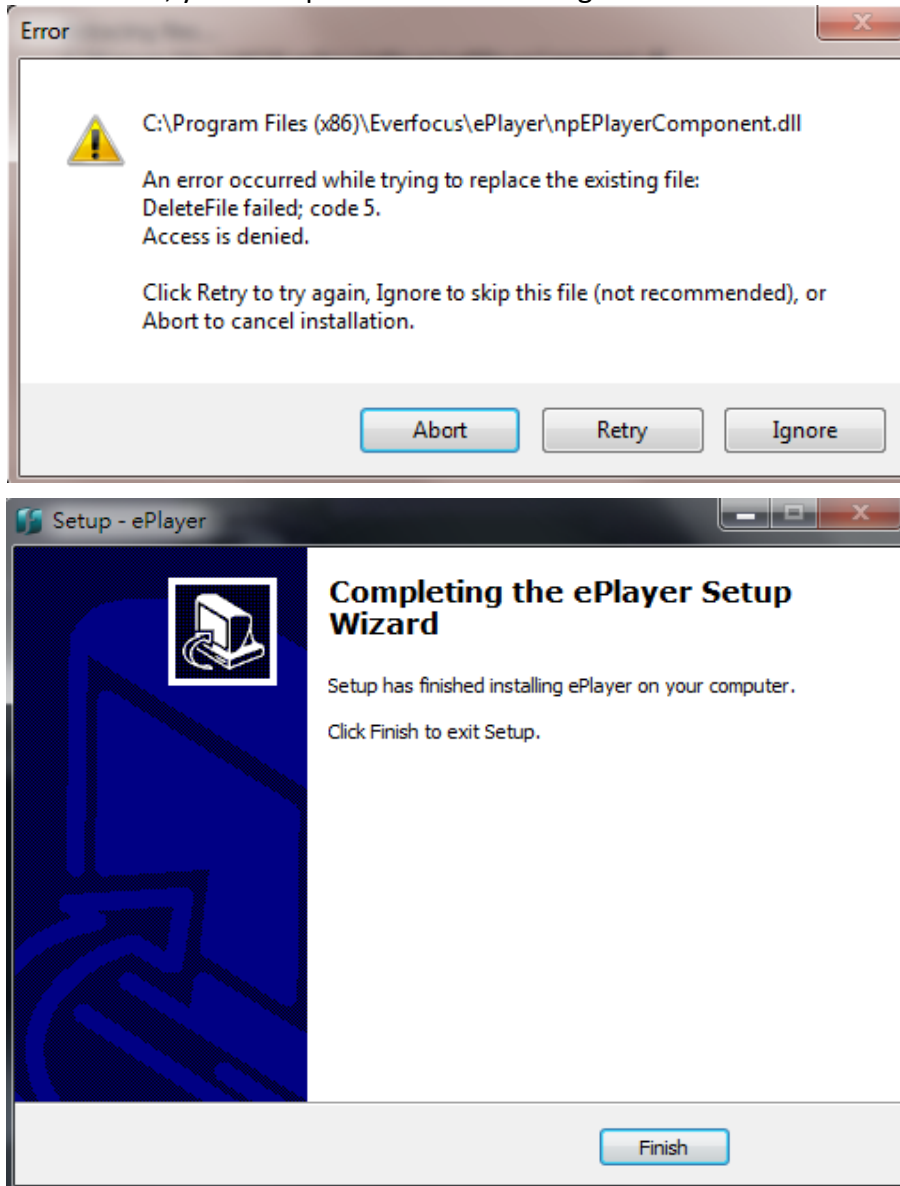
- ◆ The “Download ePlayer Instruction” page will only be prompted for the first time login in order to update the system to the latest plugin version.
- ◆ When the Plug-in blocked appears on the browser, select **Always allow plug-ins on xxx**, click **Done** and then reload the webpage.



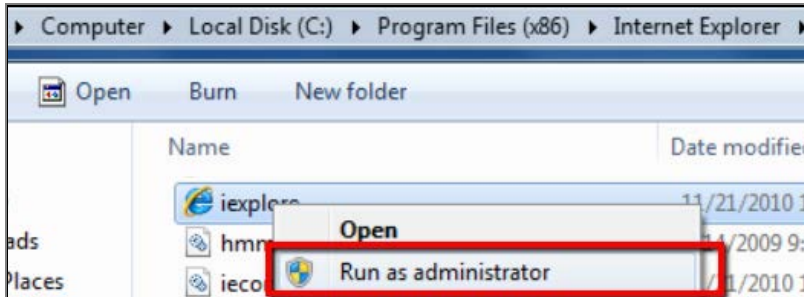
- Now you will be able to see the remote live page.

If you encounter the following problem or still can't access the remote Web interface, please see below:

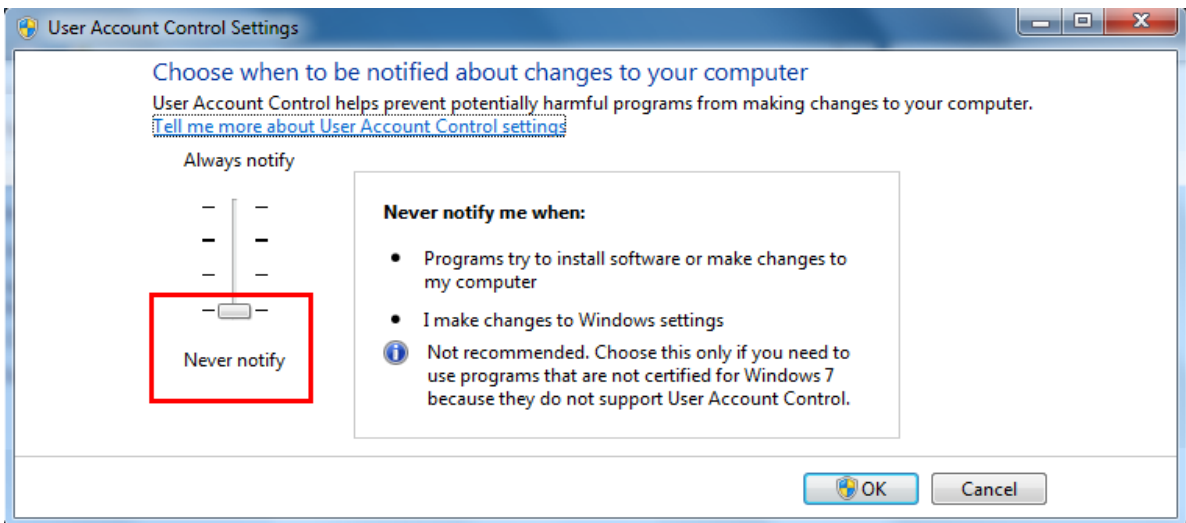
- ◆ If the **Error** window appears, please be sure to **close ALL the Web browser windows first** and then click **Retry**. When the **Completing the ePlayer Setup Wizard** window shows up, click **Finish**. Then, you can open a new browser again to access the DVR's remote Web interface.



- ◆ If your PC or laptop is running with Windows, it's required to run the browser as administrator when first entering the remote web page of the device. Go to **C:\Program Files (x86)\Internet Explorer**, right-click the browser and then click **Run as administrator**.

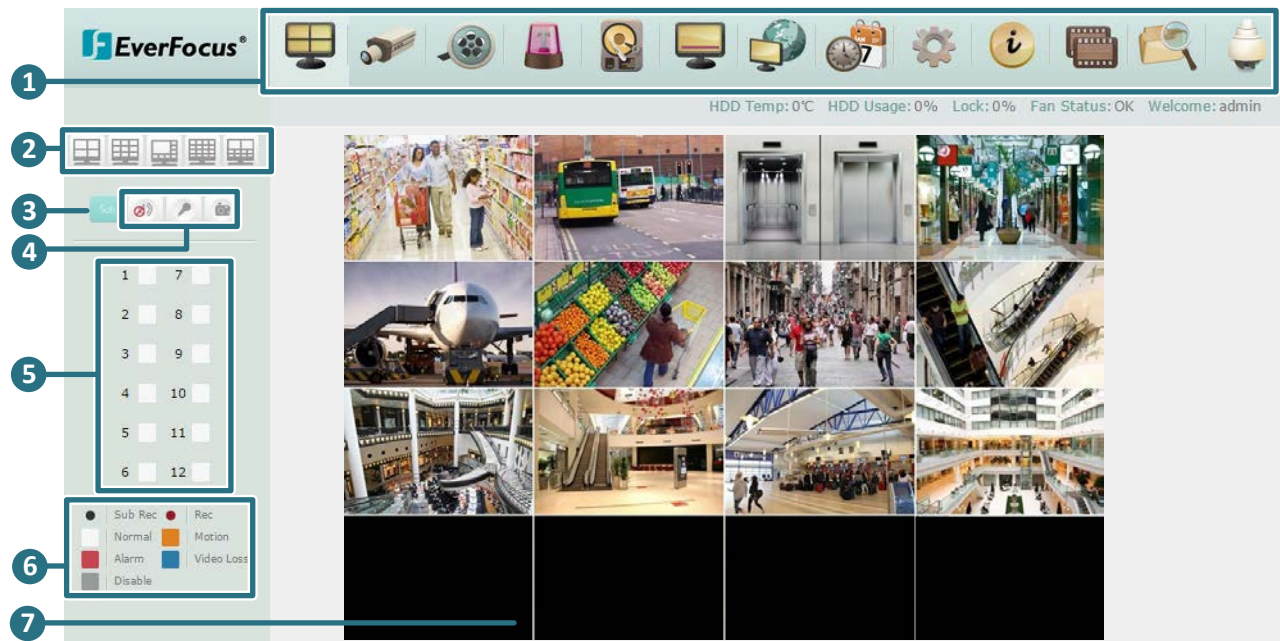


- ◆ You may need to turn off the firewall and turn **User Account Control** off if you still can't see the Remote Live View. To turn **User Account Control** off, on the computer, click **Start > Control Panel > System and Security > Action Center** (click Change User Account Control Settings), the **User Account Control Settings** window appears. Adjust the slide bar to **Never Notify** and then click **OK**. Restart your computer if requested.



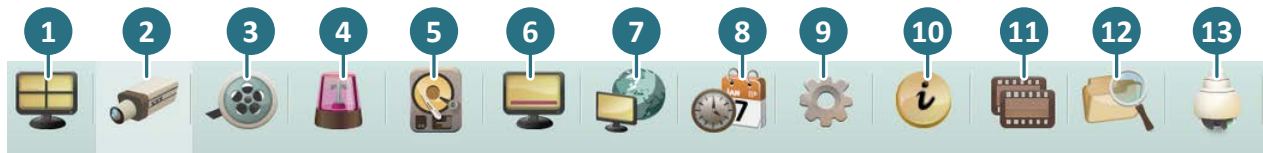


## 7.2 Remote Live View



No.	Name	Description
1	<b>Menu Bar</b>	For configuring the mobile DVR. Please refer to 7.3 <i>Menu Bar</i> .
2	<b>Layout</b>	Click to select a desired layout.
3	<b>Sub / Main</b>	Click to switch between the Main stream and Sub stream.
4	<b>Speaker / Microphone / Snapshot</b>	Click the <b>Speaker</b> button to transfer audio to the client side from mobile DVR if there is a speaker on the PC and a microphone and preamp attached to the mobile DVR, and audio recording is enabled on the mobile DVR. Click the <b>Microphone</b> button to transfer audio to mobile DVR from client side if there is a microphone attached to the PC and an amplifier and speaker attached to the mobile DVR. Click the <b>Snapshot</b> button to save a snapshot of the video image currently being displayed.
5	<b>Channel Buttons</b>	Click to display the channel in full screen.
6	<b>Status Highlight</b>	Black Circle: Indicates the mobile DVR is recording in sub-stream. Red Circle: Indicates the mobile DVR is recording in main-stream. White: Indicates the live view is in a normal status. Orange: Indicates a motion event is being detected. Blue: Indicates video loss. Red: Indicates an alarm / event is triggered. Grey: Indicates the live view is disabled.
7	<b>Live View Window</b>	Double-click on a camera image to enlarge the current display to full screen; double-click again to return to the normal view.

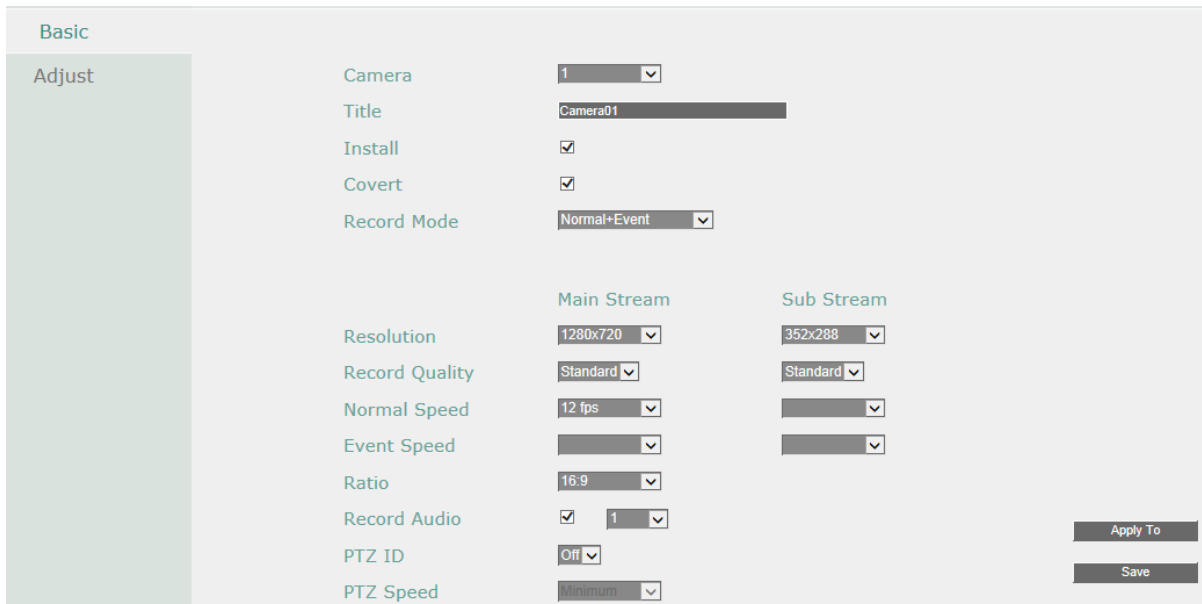
## 7.3 Menu Bar



No.	Name	Description
1	Live View	Click to display the live view window.
2	Camera	Click to configure the camera settings. Please refer to 7.3.1 Camera.
3	Record	Click to configure the record settings. Please refer to 7.3.2 Record.
4	Event	Click to configure the alarm / event settings. Please refer to 7.3.3 Event.
5	Disk	Click to display the HDD information. Please refer to 7.3.4 Disk.
6	Display Setting	Click to configure the display settings for displaying the camera information on the camera live view. Please refer to 7.3.5 Display Setting.
7	Network	Click to configure the network settings. Please refer to 7.3.6 Network.
8	Schedule	Click to configure the recording schedule. Please refer to 7.3.7 Schedule.
9	System Setting	Click to configure the Mobile DVR time / user privilege / IO control / UI language or upgrading firmware and etc. Please refer to 7.3.8 System Setting.
10	System Information	Displays the system information. Please refer to 7.3.9 Information.
11	Copy	Click to archive the recordings from the Mobile DVR to the client PC. Please refer to 7.3.10 Copy.
12	Search	Search the recordings for remote playback. Please refer to 7.3.11 Search.
13	PTZ	Click to control the connected PTZ cameras. Please refer to 7.3.12 PTZ.

## 7.3.1 Camera

### 7.3.1.1 Basic Setting



Setting	Value
Camera	1
Title	Camera01
Install	<input checked="" type="checkbox"/>
Covert	<input checked="" type="checkbox"/>
Record Mode	Normal+Event
Resolution	1280x720
Record Quality	Standard
Normal Speed	12 fps
Event Speed	
Ratio	16.9
Record Audio	<input checked="" type="checkbox"/> 1
PTZ ID	Off
PTZ Speed	Minimum

**Camera:** Select a camera to be configured.

**Title:** Click to bring up the on-screen keyboard for assigning a title for the selected camera. Each title supports up to 16 characters.

**Install:** Check the box to enable the selected camera. If this box is unchecked, the mobile DVR will not get the camera streaming.

**Covert:** Check the box to hide the camera stream in Live View and Sequence modes. However, the MDVR will still record the videos and the recordings can be played back by users who have the privilege to playback. For details on enabling the Covert function, please refer to [4.8.1 Temporarily Logout](#).

**Record Mode:** Select a record mode from the drop-down list.

Normal+Event: Continuous and Event recordings.

Event Only: Event recordings only.

**Main / Sub Resolution:** Select the most suitable resolution for the Main Stream and Sub Stream. If you connect eZ.HD cameras (1080p) to the MDVR, the main stream resolution option will display 1920x1080 only. If you connect eZ.HD cameras (720p) to the MDVR, the main stream resolution option will display 1280x720 only. The Sub Stream is designed for remote operation, such as remote live view and remote playback. Please refer to [7.2 Remote Live View](#) for more details.

Main Stream	Sub Stream
eZ.HD Camera (1080p): 1920x1080 eZ.HD Camera (1080pH): 960x1080 * eZ.HD Camera (720p): 1280x720 WD1 or D1 Camera: 960x480 / 704x480 / 352x240	352x240 / 176x120
* If you connect two eZ.HD cameras (1080p) to a pair of video inputs (say CH1 and CH2), both of the maximum live resolution will be displayed as 1080p; however, the maximum recording resolutions on CH1 and CH2 will get lower down to 1080pH (960x1080).	

**Record Quality:** Select a recording quality for the Main Stream and Sub Stream. The options include Low, Basic, Standard, High and Superior. The higher the quality, the more the HDD space is used.

**Normal Speed:** Select a frame rate per second (FPS) for continuous recording. The speed is limited by the maximum total recording capacity of the MDVR as allocated across all the installed cameras, with upper limit of 30 FPS (NTSC) / 25 FPS (PAL) per individual camera respectively (real time recording).

**Event Speed:** Select a frame rate per second (FPS) for event recording.

**Ratio:** Select 4:3, 16:9 or Stretch for camera display on the layout screen. For more information about 4:3 and 16:9 aspect ratio, please refer to *6.1.1.1 Display Aspect Ratio*.

**Record Audio:** Check the box to enable audio recording on the MDVR, and then select an audio input device.

**PTZ ID:** To allow the DVR to recognize and then control the connected PTZ camera, you have to set up an ID for the PTZ camera. Select On and then enter an ID for the camera. This ID must match the ID address set up on the PTZ camera. For setting up the ID address on the PTZ camera, please refer to the User's Manual of your PTZ camera.

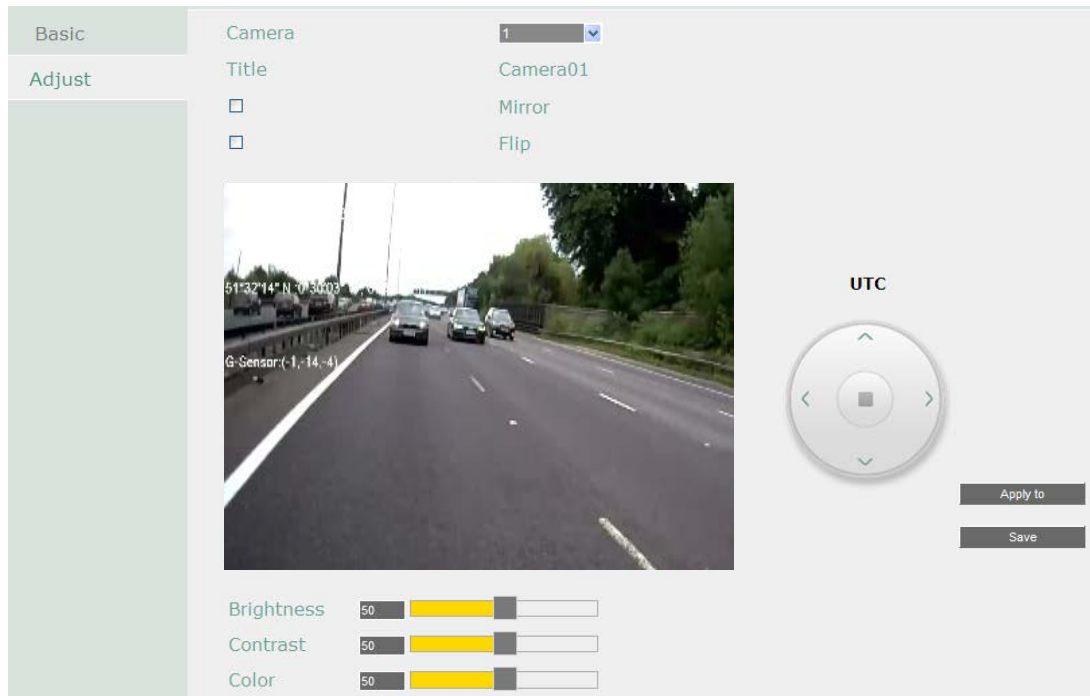
**PTZ Speed:** Select a PTZ speed from the PTZ Speed drop-down list for the camera to move to the directions when you use the direction buttons during the configuration period.

**Apply To:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### 7.3.1.2 Adjust Setting

You can adjust the Brightness, Contrast and Color of the selected camera.



**Camera:** Select a camera to adjust the following settings.

**Device Title:** Displays the title of the selected camera.

**Mirror:** Check the checkbox and then click **Save** to rotate the image horizontally around a vertical axis.

**Flip:** Check the checkbox and then click **Save** to rotate the image vertically around a horizontal axis.

**Brightness:** Move the bar to adjust the brightness.

**Contrast:** Move the bar to adjust the contrast.

**Color:** Move the bar to adjust the color.

**UTC:** You can use the UTC panel to bring up the camera OSD here. Please see the figure and instructions on the next page.

**Apply to:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

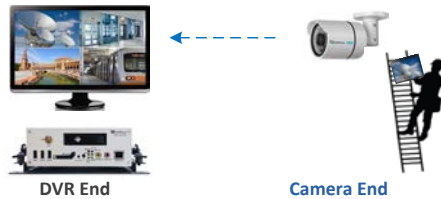
### eZ Controller (Control Camera OSD Setting from DVR End)

Traditionally, the CCTV installer needs to take a portable monitor to connect to the camera for controlling the camera OSD at the camera installation site as the [Diagram A](#) below. It will take extra effort, time and people to adjust the camera.

Now, EverFocus' **eZ.Controller** allows users to control the camera OSD simply on the monitor at the DVR end as illustrated in [Diagram B](#).

#### A Traditional Way to Control Camera OSD


Control Camera OSD at **Camera End**

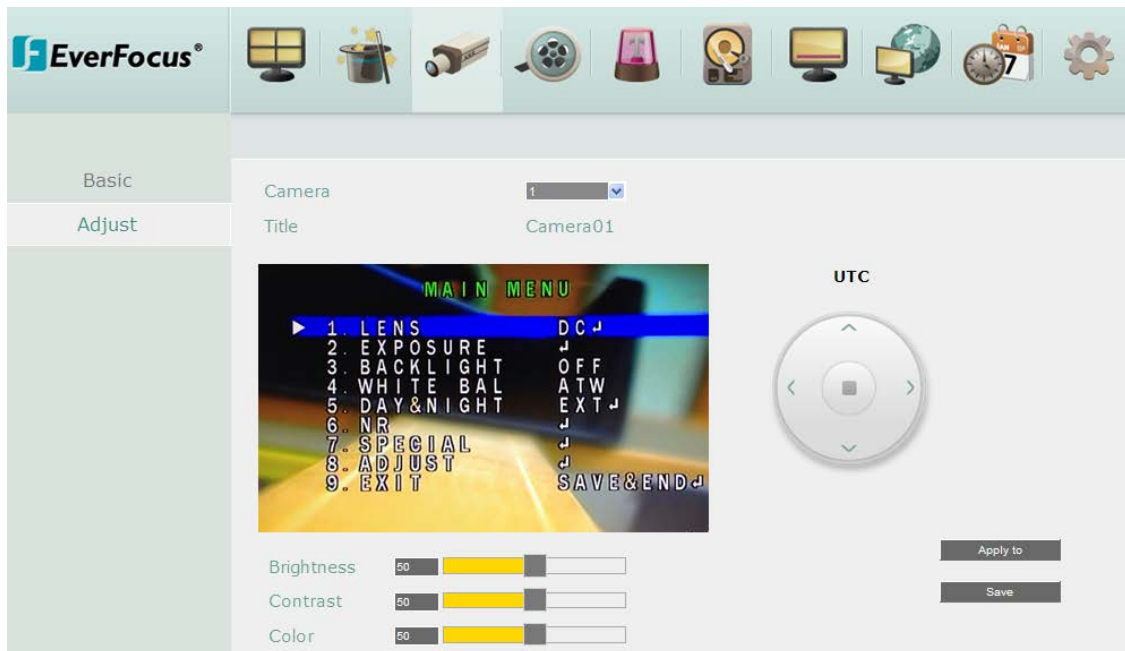


#### B Use eZ.Controller to Control Camera OSD

Camera OSD Control Directly at **DVR End**



1. On the **Adjust** setting page. Select the camera you want to adjust.
2. Click the  button, and the camera OSD menu will be displayed.
3. You can easily use the direction buttons on the **UTC Panel** to control the camera's OSD setting menu.
4. To exit the setting, click the **Left** button.



### 7.3.2 Record

You can configure the basic recording settings.

Record	Record Overwrite	<input checked="" type="checkbox"/>
	Schedule Record	<input type="checkbox"/>
	Time Stamp	Top <input type="button" value="v"/>
	Record Status Relay Output	None <input type="button" value="v"/>
	Power Delay-On	0 <input type="text"/> Sec(s)
	Power Delay-Off	0 <input type="text"/> Min(s)
	Estimation Result:	
	day(s) of data can be stored 0	
	based on current setting.	
	Notice: The result is for reference only!	
		<input type="button" value="Save"/>

**Record Overwrite:** Check the box to overwrite the hard disk / SD card when it is full. Note that unless this box is checked, or the mobile DVR will stop recording when the hard disk / SD card is full. The use of record overwrite is strongly recommended. If you do not use this feature, please be sure to enable the Event setting for Disk Full for notification (see 7.3.3.6 *Other*). For SD card, when the card is full, the “SD Card Disk Full” message will automatically pop-up.

**Schedule Record:** Check the box to record by the schedule to the hard disk. Please see 7.3.7 *Schedule Setting* for more details.

**Time Stamp:** Select **Top / Bottom** to overlay time information on the top / bottom of the recording streams. Select **Off** to disable the function.

**Record Status Relay Output:** Select a number to monitor the recording status of the selected alarm relay. The recording status of the selected alarm relay will be transmitted to the alarm output device.

**Power Delay-On:** Set the delay time to supply power to the mobile DVR in order to avoid excess consumption surge at ignition.

**Power Delay-Off:** Set the delay time to power off the mobile DVR after ignition off. It can extend the recording time after ignition off.

**Save:** Click to save the settings.



### 7.3.3 Event

You can configure the Alarm, Video Loss, Motion and Other settings in this menu.

#### 7.3.3.1 Alarm

Alarm	Alarm	1			
Video Loss	Enable	<input checked="" type="checkbox"/>	Main Monitor	No Change	
Motion	Log	<input checked="" type="checkbox"/>	Call Monitor	No Change	
GPS Event	Pre-alarm Recording	<input type="checkbox"/>	Record	Cameras	
G-Sensor Event	Buzzer	<input type="checkbox"/>	Input Type	N.O.	
Other	Email Notify	<input type="checkbox"/>	Active Camera	1	
	Network Alarm	<input type="checkbox"/>	PTZ	Off	
	Auto Lock	<input type="checkbox"/>			
	SD Backup	<input type="checkbox"/>			
	FTP Upload	<input type="checkbox"/>			
	Panic Alarm	<input checked="" type="checkbox"/>			
	Send To xFleet	<input checked="" type="checkbox"/>			
	FTP Upload File Type	MP4			
	Alarm Output	None			
	Output Type	Trans+Timeout			
	Timeout Duration	30			
					Apply to
					Save

**Alarm:** Select an Alarm input number from 1 to 16.

**Enable:** Check the box to enable the Alarm trigger function for the selected alarm input.

**Log:** Check the box to record alarm events to log data.

**Pre-alarm Record:** Check the box to start copying the recordings to the storage from 5 seconds before the alarm event occurs. The pre-alarm recording rate will follow the Normal Speed configured in the earlier section (see 6.2.1 Basic Setting). Note that the Pre-Alarm recording time may be reduced from 5 seconds when the system loading is too heavy, e.g., when all channels are triggered for pre-alarm recording simultaneously.

**Buzzer:** Check the box to enable the buzzer when an alarm event is triggered.

**Email Notify:** Check the box to send email notification with a snapshot file when an alarm event is detected. Email operation requires valid email entered in the Email setup menu (see 7.3.6.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when an alarm event occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 7.3.6.7 Alarm Server).

**Auto Lock:** Check the box and the events will be recorded in a write protected segment of the hard disk (will not be overwritten). The mobile DVR will lock a period of time when the alarm occurs. The length of the time depends on mobile DVR setting (see 7.3.4.2 Lock / Format).



**SD Backup:** Check the box to enable Alarm event backup recordings to the SD card. When an alarm is triggered, the mobile DVR will record the alarm event to the SD card for 60 seconds start from the triggered time. The SD card will start recording the next alarm event only when the recording process is done (the alarm events occurred during the SD card recording process will be ignored and not be recorded). Up to four alarm events can be simultaneously recorded if the alarms are triggered at the same time.

**FTP Upload:** Check the box to enable uploading recordings to the FTP server function. To setup the FTP server, please refer to 7.3.6.6 FTP.

**Note:**

1. If the Archiving Recording to the FTP server function (refer to 4.7 Archiving the Recordings or Log Data to the USB or FTP) is working in progress, the FTP Upload function will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. If multiple alarms have been triggered, up to 10 alarm recordings can be simultaneously uploaded to the FTP server at once.

**Panic Alarm:** Check the box to send panic alarm data to the Xfleet system.

**Send to Xfleet:** Check the box to send the alarm data to the Xfleet system. Note that for the Xfleet system to receive alarm data from the mobile DVR in order to perform the alarm event actions on Xfleet system, this function must be enabled.

**FTP Upload File Type:** Select MP4 file type to upload videos to FTP server; select JPEG file type to upload snapshots to the FTP server.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when an alarm is triggered.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the motion event. The alarm output will last for the setup duration time between 1 and 150 seconds.

**Main Monitor/Call Monitor:** Select **Full Screen** to force the camera associated with the selected alarm number to display full screen on the monitor. The full screen camera view will last according to the Output Type selected in the field above.

**Record:** Select a camera to start recording when the associated alarm number is triggered.

**Input Type:** Select an input type when the selected alarm number is triggered. The options include N.O. and N.C.

**Active Camera:** This function is for associating an alarm trigger with a specific camera. For example, if you set up an external motion detector near Camera 2, you can select Camera 2 in

this field. The alarm will be associated with this camera for full screen display, event logging and PTZ actions.

**PTZ:** If the Active Camera selected above is a PTZ camera, you can further set up the PTZ actions in this field.

**Apply to:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### 7.3.3.2 Video Loss

You can enable Video Loss Event function and configure video loss notifications in this menu.

Alarm	Camera	1	
Video Loss	Enable	<input checked="" type="checkbox"/>	
Motion	Log	<input checked="" type="checkbox"/>	
GPS Event	Pre-alarm Recording	<input checked="" type="checkbox"/>	
G-Sensor Event	Buzzer	<input type="checkbox"/>	
Other	Email Notify	<input type="checkbox"/>	
	Network Alarm	<input type="checkbox"/>	
	Send to Xfleet	<input checked="" type="checkbox"/>	
	Alarm Output	None	
	Output Type	Trans+Timeout	
	Timeout Duration	30	
			Apply to
			Save

**Camera:** Select a camera to be configured.

**Enable:** Check the box to enable the Video Loss event settings for the selected camera.

**Log:** Check the box to record video loss events to log data.

**Pre-alarm Record:** Check the box to start copying the recordings to the storage from 5 seconds before the alarm event occurs. The pre-alarm recording rate will follow the Normal Speed configured in the earlier section (see 7.3.1 Basic Setting). Note that the Pre-Alarm recording time may be reduced from 5 seconds when the system loading is too heavy, e.g., when all channels are triggered for pre-alarm recording simultaneously.

**Buzzer:** Check the box to enable the buzzer when a video loss event is triggered.

**Email Notify:** Check the box to send email notification when a video loss event is detected. Email operation requires valid email entered in the Email setup menu (see 7.3.6.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when video loss event occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 7.3.6.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the alarm output relay.

**Output Type:** Select an output type when an alarm is triggered.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the motion event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Apply To:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### 7.3.3.3 Motion

You can enable the Motion Event function and configured the related settings including motion event notifications and motion areas in this menu.

Alarm	Camera	1	
Video Loss			
Motion	Enable	<input checked="" type="checkbox"/>	Main Monitor <span>No Change</span>
GPS Event	Log	<input checked="" type="checkbox"/>	Call Monitor <span>No Change</span>
G-Sensor Event	Pre-alarm Recording	<input type="checkbox"/>	<span>Edit Motion Grid</span>
Other	Buzzer	<input type="checkbox"/>	
	Email Notify	<input type="checkbox"/>	
	Network Alarm	<input checked="" type="checkbox"/>	
	Auto Lock	<input type="checkbox"/>	
	FTP Upload	<input type="checkbox"/>	
	Send to Xfleet	<input checked="" type="checkbox"/>	
	FTP Upload File Type	MP4	
	Alarm Output	None	<span>Apply to</span>
	Output Type	Timeout	<span>Save</span>
	Timeout Duration	30	

**Camera:** Select a camera to be configured.

**Enable:** Check the box to enable the Motion Event settings for the selected camera.

**Log:** Check the box to record motion events to log data.

**Pre-alarm Record:** Check the box to start copying the recordings to the storage from 5 seconds before the alarm event occurs. The pre-alarm recording rate will follow the Normal Speed configured in the earlier section (see 7.3.1 Basic Setting). Note that the Pre-Alarm recording time may be reduced from 5 seconds when the system loading is too heavy, e.g., when all channels are triggered for pre-alarm recording simultaneously.

**Buzzer:** Check the box to enable the buzzer when a motion event is triggered.

**Email Notify:** Check the box to send email notification when a motion event is detected. Email operation requires valid email entered in the Email setup menu (see 7.3.6.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when motion occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 7.3.6.7 Alarm Server).

**Auto Lock:** Check the box and the events will be recorded in a write protected segment of the hard disk (will not be overwritten). The mobile DVR will lock a period of time when the alarm occurs. The length of the time depends on mobile DVR setting (see 7.3.4.2 Lock / Format).

**FTP Upload:** Check the box to enable uploading recordings to the FTP server function. To setup the FTP server, please refer to 7.3.6.6 *FTP*.

**Note:**

1. If the Archiving Recording to the FTP server function (refer to 4.7 *Archiving the Recordings or Log Data to the USB or FTP*) is working in progress, the FTP Upload function will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. If multiple alarms have been triggered, up to 10 alarm recordings can be simultaneously uploaded to the FTP server at once.

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**FTP Upload File Type:** Select MP4 file type to upload videos to FTP server; select JPEG file type to upload snapshots to the FTP server.

**Alarm Output:** Select an alarm output relay. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when an alarm is triggered.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the motion event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Main Monitor/Call Monitor:** Select **Full Screen** to force the camera which detects motion to display full screen on the monitor. The full screen camera view will last according to the Output Type selected in the field above.

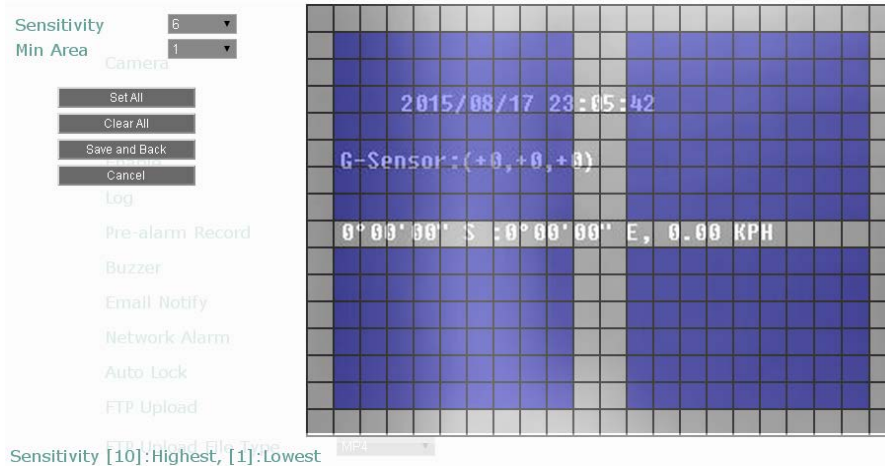
**Edit Motion Grid:** Press the button to bring up the Motion Setting menu. To edit the motion grids, please refer to the instructions later in this section.

**Apply To:** Click the button to apply the same settings to the desired cameras.

**Save:** Click to save the settings.

### To Edit the Motion Grids:

1. Click the **Edit Motion Grid** button, the Motion Setting menu appears.



2. Click **Set All** to set all area for motion detection, the selected area will be highlighted in purple. Click **Clear All** to clear all the selected area.  
You can also customize the motion area by clicking on each grid. Or drag a rectangle with your mouse to enable (from top to bottom / upper-left to lower-right) or disable the motion area (from bottom to top / lower-right to upper-left).
3. Set up the Sensitivity and Min Area for the motion grids.  
Sensitivity: Sets up the motion sensitivity for the grids. The larger the number, the higher the sensitivity.  
Min Area: This function is designed to prevent false detections caused by small objects. If you select 2, only the object size larger than 2-grid size can be detected.
4. Click the **Save and Back** button to save the settings and then return to the Motion menu.

### 7.3.3.4 GPS Event

You can configure the GPS settings to display the vehicle speed on the live view / recordings, or to set up the GPS events including higher speed limit / GPS fencing for alarm notification.

Alarm	Event Action	Speed
Video Loss	Email Notify <input type="checkbox"/>	GPS Speed <span>Off</span>
Motion	Network Alarm <input type="checkbox"/>	Speed Higher Limit <span>0</span>
GPS Event	Alarm Output <span>None</span>	Speed Unit <span>KPH</span>
G-Sensor Event	Output Type <span>Timeout</span>	
Other	Timeout Duration <span>30</span>	
	Fencing	
	GPS Alarm <span>Off</span>	
	GPS Border Type <span>Circle</span>	
	Coordinate Express <span>DMS(ddmmss)</span>	
	Center Lat. <span>S</span> <span>0</span> <span>0</span> <span>0</span> <span>"</span>	
	Center Lon. <span>E</span> <span>0</span> <span>0</span> <span>0</span> <span>"</span>	
	Radius <span>0</span> <span>Km</span>	
	<span>Save</span>	

**【Event Action】** : You can configure the alarm types for GPS events.

**Email Notify:** Check box to enable email notification when GPS event occurs. Email operation requires valid email settings entered in the Email setup screen (see 7.3.6.4 Email).

**Network Alarm:** Check box to send out a network alarm to the client PC. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for mobile DVR to send network alarms to the client PC (see 7.3.6.7 Alarm Server).

**Alarm Output:** This will transmit a signal through the alarm output relay. It can be set to either "NONE" (not active), "1" (active) or "2" (active).

**Output Type:** Output action when alarm is triggered.

Timeout: Alarm output lasts for the set time duration.

Permanent: Alarm will be continuously active until user presses the "Enter" key or resets the alarm remotely.

Transparent: Alarm output remains active until event ends.

Trans+Timeout: Alarm output continues until event ends, then continues for the set time duration.

**Timeout Duration:** The amount of time the buzzer sounds when GPS event occurs.

**【Fencing】** : You can set up the geo-fencing event for alarm notification.

**GPS Alarm:** Select On / Off to enable / disable GPS Fencing alarm.



**GPS Border Type:** Select **Circle** or **Rectangle** for the GPS border type.

**Coordinate Express:** Select **DMS** to set up the latitude and longitude of the border in Degrees / Minutes / Seconds; or select **Decimal Degrees** to set up the border in decimal degrees.

If you select **Circle** in the GPS Border Type field, the following settings will appear:

**Center Latitude:** Select S (South) or N (North) and then set the latitude.

**Center Longitude:** Select E (East) or W (West) and then set the latitude.

**Radius:** Select radius value from kilometer (Km) or mile (Mi).

If you select **Rectangle** in the GPS Border Type field, the following settings will appear:

**Upper Left Latitude:** Select S (South) or N (North) and then set the latitude.

**Upper Left Longitude:** Select E (East) or W (West) and then set the latitude.

**Lower Right Latitude:** Select S (South) or N (North) and then set the latitude.

**Lower Right Longitude:** Select E (East) or W (West) and then set the latitude.

**【Speed】** : You can display the vehicle speed on the live view / recordings or to set up the higher speed limit event for alarm notification.

**GPS Speed:** Select whether to display the vehicle speed or not.

**Speed Higher Limit:** Set the vehicle speed to determine at which level the alarm will be triggered. Once the vehicle reaches the setup speed, the alarm will be triggered.

**Speed Unit:** Select **KPH** (kilometer per hour) or **MPH** (mile per hour) to display the vehicle speed on live view or recordings.

**Save:** Click to save the settings.

### 7.3.3.5 G-Sensor Event

You can configure the gravity value of the X, Y and Z-axis, once the vehicle reach the setup value, the alarm will be triggered.

Alarm	G Sensor	Off	▼
Video Loss	Email Notify	<input type="checkbox"/>	
Motion	Network Alarm	<input type="checkbox"/>	
GPS Event	XY Axial Trigger Val	5	x 72mg
G-Sensor Event	Z Axial Trigger Val	18	x 72mg
Other	Alarm Output	None	▼
	Output Type	Timeout	▼
	Timeout Duration	30	
			Save

**G-Sensor:** Select On / Off to enable / disable G-Sensor function.

**Email Notify:** Check box to enable email notification when GPS is lost. Email operation requires valid email settings entered in the Email setup screen (see 7.3.6.4 *Email*).

**Network Alarm:** Check box to send out a network alarm to the client PC. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for mobile DVR to send network alarms to the client PC (see 7.3.6.7 *Alarm Server*).

**XY Axial Trigger Value:** Set XY Axial trigger value, alarm will be triggered when acceleration reaches this value in horizontal direction with respect to the horizon. The available setup value is between 0 ~127 (1000mg = 1 Gravity).

**Z Axial Trigger Value:** Set Z Axial trigger value, alarm will be triggered when vertical acceleration reaches this value. The available setup value is between 0 ~127 (1000mg = 1 Gravity).

**Alarm Output:** This will transmit a signal through the alarm output relay. It can be set to either "NONE" (not active), "1" (active) or "2" (active).

**Output Type:** Output action when alarm is triggered.

**Timeout:** Alarm output lasts for the set time duration.

**Permanent:** Alarm will be continuously active until user presses the "Enter" key or resets the alarm remotely.

**Transparent:** Alarm output remains active until event ends.

**Trans+Timeout:** Alarm output continues until event ends, then continues for the set time duration.

**Timeout Duration:** The amount of time the buzzer sounds when GPS is lost. Duration selectable from 1 to 150 seconds.

**Save:** Click to save the settings.

### 7.3.3.6 Other

You can configure the system event settings and enable the Buzzer or Email alert for notifications.

#### 7.3.3.1 Storage Temperature.

Alarm	Event	
Video Loss	Log	<input checked="" type="checkbox"/>
Motion	Buzzer	<input checked="" type="checkbox"/>
GPS Event	Email Notify	<input type="checkbox"/>
G-Sensor Event	Network Alarm	<input type="checkbox"/>
	Stop Recording	<input type="checkbox"/>
Other	Send to Xfleet	<input checked="" type="checkbox"/>
	Temp. Warning Limit	65 C/ 149 F
	Alarm Output	None
	Output Type	Transparent
		<input type="button" value="Save"/>

**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when System / Storage temperature is over the “Temp. Warning Limit”.

**Email Notify:** Check the box to send email notification when system / Storage temperature is over the “Temp. Warning Limit”. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC. This feature works with EverFocus’ CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Stop Recording:** Check box to stop recording when System / Storage’s temperature is over the “Temp. Warning Limit”.

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Temp. Warning Limit:** Sets the trigger temperature for System / Storage Temperature event actions. Choose between 45°C /113°F and 70°C /158°F.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Output action will be Transparent and cannot be changed (alarm output remains as long as the alarm condition is active).

**Save:** Click to save the settings.

### 7.3.3.2 Storage Failure

Alarm	Event	Storage Failure	
Video Loss	Log	<input checked="" type="checkbox"/>	
Motion	Buzzer	<input checked="" type="checkbox"/>	
GPS Event	Email Notify	<input type="checkbox"/>	
G-Sensor Event	Network Alarm	<input type="checkbox"/>	
	Send to Xfleet	<input checked="" type="checkbox"/>	
Other	Alarm Output	None	
	Output Type	Transparent	
			Save

**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when storage fails.

**Email Notify:** Check the box to send email notification when storage fails. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when storage fails. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Output action will be Transparent and cannot be changed (alarm output remains as long as the alarm condition is active).

**Save:** Click to save the settings.

### 7.3.3.3 Storage Full

Alarm	Event	Storage Full	
Video Loss	Log	<input checked="" type="checkbox"/>	
Motion	Buzzer	<input type="checkbox"/>	
GPS Event	Email Notify	<input type="checkbox"/>	
G-Sensor Event	Network Alarm	<input type="checkbox"/>	
	Send to Xfleet	<input checked="" type="checkbox"/>	
Other	Alarm Output	None	
	Output Type	Trans+Timeout	
	Timeout Duration	30	Save

**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when storage is full.

**Email Notify:** Check the box to send email notification when storage is full. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when storage is full. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when storage is full.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 7.3.3.4 Storage Off

Alarm	Event	Storage Off	
Video Loss	Buzzer	<input checked="" type="checkbox"/>	
Motion	Email Notify	<input type="checkbox"/>	
GPS Event	Network Alarm	<input type="checkbox"/>	
G-Sensor Event	Send to Xfleet	<input checked="" type="checkbox"/>	
Other	Alarm Output	None	
	Output Type	Trans+Timeout	
	Timeout Duration	30	Save

**Buzzer:** The buzzer will activate when storage is off.

**Email Notify:** Check the box to send email notification when storage is off. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when storage is off. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when storage is off.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 7.3.3.5 Storage Retry Failure

Alarm	Event	Storage Retry Failure
Video Loss	Buzzer	<input checked="" type="checkbox"/>
Motion	Email Notify	<input type="checkbox"/>
GPS Event	Network Alarm	<input type="checkbox"/>
G-Sensor Event	Alarm Output	None
Other	Output Type	Trans+Timeout
	Timeout Duration	30
		Save

**Buzzer:** The buzzer will activate when fan is not working.

**Email Notify:** Check the box to send email notification when Disk Retry Failure occurs. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when Disk Retry Failure occurs. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when Disk Retry Failure occurs.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 7.3.3.6 Unmount SD

Alarm	Event	Unmount SD	
Video Loss	Log	<input checked="" type="checkbox"/>	
Motion	Buzzer	<input checked="" type="checkbox"/>	
GPS Event	Email Notify	<input type="checkbox"/>	
G-Sensor Event	Network Alarm	<input type="checkbox"/>	
	Send to Xfleet	<input checked="" type="checkbox"/>	
Other	Alarm Output	None	
	Output Type	Transparent	Save

**Log:** Check the box to record alarm events to log data.

**Buzzer:** The buzzer will activate when SD card is unmounted.

**Email Notify:** Check the box to send email notification when SD card is unmounted. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when SD card is unmounted. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when SD card is unmounted.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.



### 7.3.3.7 Power Loss

Alarm	Event	Power Loss	▼
Video Loss	Log	<input checked="" type="checkbox"/>	
Motion	Email Notify	<input type="checkbox"/>	
GPS Event	Network Alarm	<input type="checkbox"/>	
G-Sensor Event	Send to Xfleet	<input checked="" type="checkbox"/>	
Other			
			Save

**Log:** Check the box to record alarm events to log data.

**Email Notify:** Check the box to send email notification when power has been restored. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when power has been restored. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Note:** As alarms and emails cannot be transmitted without power, the log entry is made when power is restored, and any notifications cannot be made until that time.

**Save:** Click to save the settings.

### 7.3.3.8 Network Loss

Alarm	Event	Network Loss	
Video Loss	Log	<input checked="" type="checkbox"/>	
Motion	Buzzer	<input type="checkbox"/>	
GPS Event	Alarm Output	None	
G-Sensor Event	Output Type	Trans+Timeout	
Other	Timeout Duration	30	
			Save

**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when network is lost.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when the network is lost.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the “Enter” key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Note:** This function only checks the physical connection (link) to the network. Any network behavior that blocks data connectivity (blocked ports, IP addressing errors, etc.) is not detected by this function.

**Save:** Click to save the settings.

### 7.3.3.9 GPS Loss

Alarm	Event	GPS Loss	
Video Loss	Log		<input checked="" type="checkbox"/>
Motion	Buzzer		<input type="checkbox"/>
GPS Event	Email Notify		<input type="checkbox"/>
G-Sensor Event	Network Alarm		<input type="checkbox"/>
	Send to Xfleet		<input checked="" type="checkbox"/>
Other	Alarm Output	None	
	Output Type	Trans+Timeout	
	Timeout Duration	30	
			Save

**Log:** Check the box to record alarm events to log data.

**Buzzer:** Check the box to enable buzzer when GPS is lost.

**Email Notify:** Check the box to send email notification when GPS is lost. Email operation requires valid email entered in the Email setup menu (see 6.7.4 Email).

**Network Alarm:** Check the box to send out a network alarm to a client PC when GPS is lost. This feature works with EverFocus' CMS software. You will need to configure the Alarm Server for the mobile DVR to send network alarms to the client PC (see 6.7.7 Alarm Server).

**Send to Xfleet:** Check the box to send the event data to the Xfleet system. Note that for the Xfleet system to receive event data from the mobile DVR in order to perform the event actions on Xfleet system, this function must be enabled.

**Alarm Output:** Select an alarm output number. When an alarm is triggered, the signal will be transmitted through the selected alarm output relay.

**Output Type:** Select an output type when the GPS is lost.

Timeout: Select this option and then set up the Timeout Duration in the field below, the alarm output will last for the setup duration time (1 ~ 150 seconds).

Permanent: Alarm will remain active until the user presses the "Enter" key on the IR Remote Control or resets the alarm remotely.

Transparent: Alarm output remains as long as the alarm input is active.

Trans + Timeout: Alarm output continues until event ends, then continues for the setup duration time (1 ~ 150 seconds).

**Timeout Duration:** This function only appears when you select **Timeout** or **Trans + Timeout** options in the Output Type drop-down list. Select a duration time for the event. The alarm output will last for the setup duration time between 10 and 150 seconds.

**Save:** Click to save the settings.

### 7.3.4 Storage

The Storage menu is used to review the mobile DVR's storage settings and status. No value in this menu can be configured by the operator.

#### 7.3.4.1 Storage

Storage	
SD Card	Record Time (Start) 2013/04/03 16:03
Lock/Format	Record Time (End) 2017/08/25 06:35
	Storage <input type="text" value="1"/>
	Health Status OK
	Storage Temperature 44 °C / 111 °F
	Storage Size (Total) 500 GB
	Storage Size (Usage) 499 GB

**Record Time (Start):** Shows the earliest recording time of the mobile DVR.

**Record Time (End):** Shows the latest or most current time on the mobile DVR.

**Disk:** Select a disk number.

**Health Status:** Displays the current status of the selected disk.

**Disk Temperature:** Displays the current temperature of the selected disk.

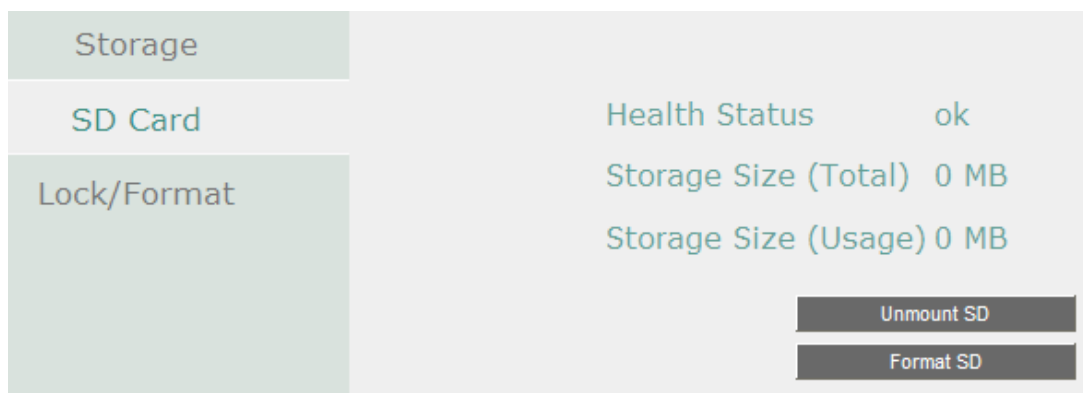
**Disk Size (Total):** Shows the total space of the selected disk.

**Disk Size (Usage):** Shows the used space of the selected disk.

### 7.3.4.2 SD Card

On this page, you can see the SD card information including the status, disk size and usage. You can also format the SD card using the Format SD button.

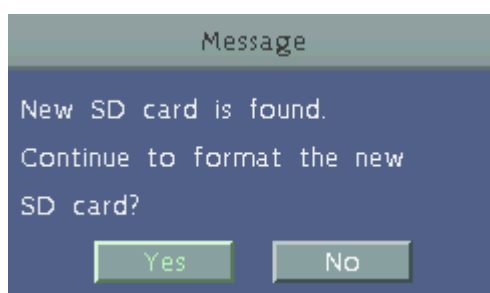
The SD card can be used for alarm event backup recording function. To activate the function, insert a SD card to the SD card slot on the front panel of the mobile DVR (see 2.3 *SD Card Installation*) and then configure the alarm settings (see 6.3.1 *Alarm*).



**Unmount SD:** Before removing the SD card from the mobile DVR, please click the **Unmount SD** button first for data safety purpose.

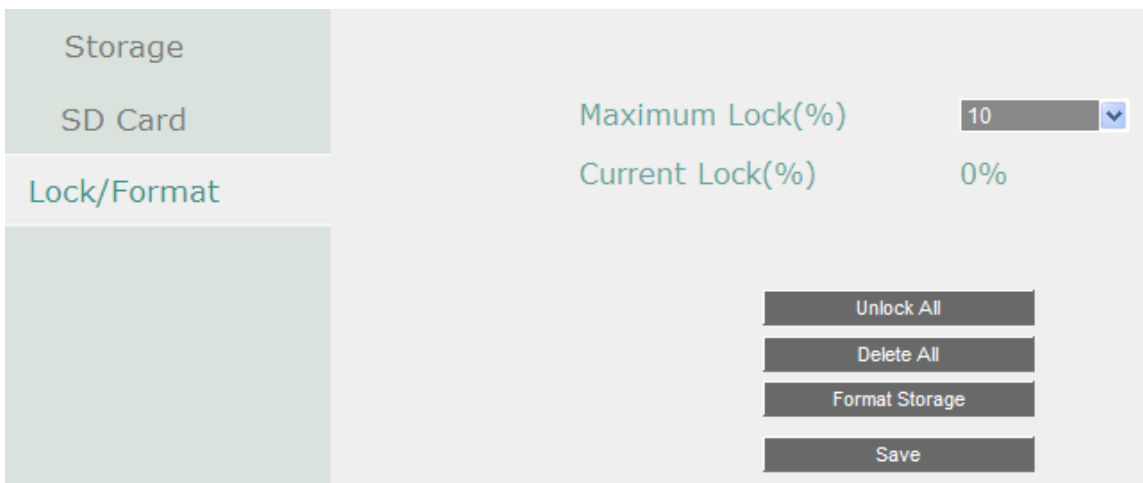
**Format SD:** Click the button to format the SD card. After formatting the SD card, all the recordings will be erased and 5% of the card space will be reserved for system use. If you want to back up the recordings, you can use EverFocus EF-Reader to remotely/locally back up the recordings from the SD card (see *Appendix H Recording Backup through EF-Reader*).

The Mobile DVR will automatically detect when a new SD card has been inserted and the below SD card format message will pop-up. Click **Yes** to format the SD card. The formatting process will take about 30 ~ 60 seconds. Note that only the formatted SD card can be used for event recording function.



### 7.3.4.3 Lock/Format

You can control the percentage of the storage space reserved for Locked Event Recordings. You can also format the hard disk if necessary.



Storage	Maximum Lock(%)	Current Lock(%)
SD Card	10	0%
Lock/Format		

Unlock All  
Delete All  
Format Storage  
Save

**Maximum Lock (%):** Sets the maximum percentage of the hard disk space reserved for Locked Event Recordings. To set up the Locked Event Recordings, please select the **Auto Lock** item in *7.3.3.3 Motion* or *7.3.3.1 Alarm*.

**Current Lock (%):** Displays the current percentage of the locked event recordings in the hard disk. If the amount of locked event recordings has reached the maximum lock percentage, the mobile DVR will be unable to lock new event recordings.

**Unlock All:** Click this button to unlock the locked part of hard disk.

**Delete All:** Click this button to delete all the unlocked data in the hard disk. WARNING: This will effectively ERASE the hard disk's contents, except for the locked portion.

**Format Disk:** Click this button to format the whole HDD. WARNING: This will effectively ERASE the ENTIRE hard disk!!

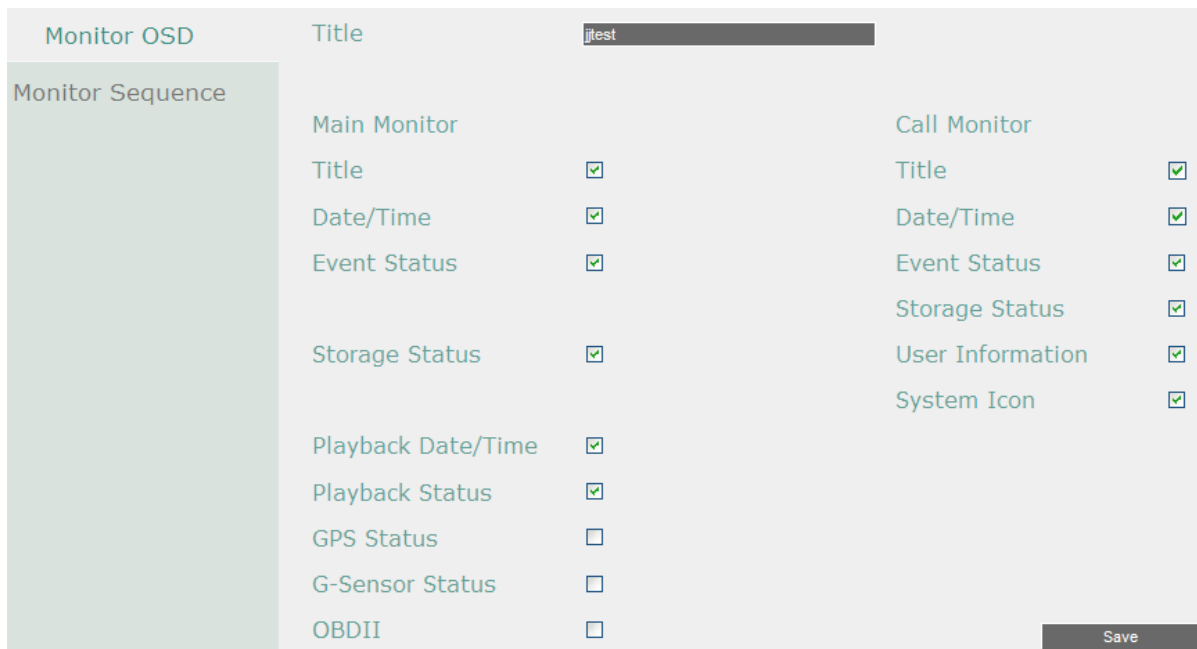
**Save:** Click to save the settings.

### 7.3.5 Display Setting

You can configure the settings for displaying the camera / mobile DVR information on the live view image. You can also set up the sequencing order for the Main / Call monitor.

#### 7.3.5.1 Monitor OSD

Check the boxes under the Main Monitor / Call Monitor fields will display the selected items on the live view image.



Monitor OSD	Title	
jtest		
Monitor Sequence		
Main Monitor		Call Monitor
Title	<input checked="" type="checkbox"/>	Title
Date/Time	<input checked="" type="checkbox"/>	Date/Time
Event Status	<input checked="" type="checkbox"/>	Event Status
		Storage Status
Storage Status	<input checked="" type="checkbox"/>	User Information
		System Icon
Playback Date/Time	<input checked="" type="checkbox"/>	
Playback Status	<input checked="" type="checkbox"/>	
GPS Status	<input type="checkbox"/>	
G-Sensor Status	<input type="checkbox"/>	
OBDII	<input type="checkbox"/>	
		Save

**Title:** Input a title to be displayed on the upper-middle of the live view screen.

**【Main Monitor / Call Monitor】** : Select the below items to be displayed on the live view image.

**Title:** Check the box to display camera titles.

**Date/Time:** Check the box to display current date/time.

**Event Status:** Check the box to display event status.

**Storage Status:** Check the box to display hard drive status.

**Playback Date/Time:** Check the box to display playback date/time (only for main monitor).

**Playback Status:** Check the box to display playback status (only for main monitor).

**GPS Status:** Check the box to display GPS status (only for main monitor).

**G-Sensor Status:** Check the box to display G-Sensor status (only for main monitor).

**OBDII:** Check the box to display OBDII info (only for main monitor).

**User Information:** Check the box to display user info (only for call monitor).

**System Icon:** Check the box to display system icon (only for call monitor).

**Save:** Click to save the settings.

### 7.3.5.2 Monitor Sequence

You can configure up to 20 steps of the sequencing order for the Main / Call monitor. The Sequence will repeat continuously from step 1 to step 20 until interrupted.

Monitor OSD

Main Monitor

Monitor Sequence

Step	Camera	Dwell (sec)	Step	Camera	Dwell (sec)
1	1	3	11	3	3
2	2	3	12	4	3
3	3	3	13	5	3
4	4	3	14	6	3
5	5	3	15	7	3
6	6	3	16	8	3
7	7	3	17	1	3
8	8	3	18	2	3
9	1	3	19	3	3
10	2	3	20	4	3

Save

**Monitor:** Select Main Monitor or Call Monitor.

**Step:** The sequencing order.

**Camera:** Select a camera for the specific step.

**Dwell (sec):** Sets up the dwell time between 0 and 60 seconds for each step.

**Save:** Click to save the settings.



### 7.3.6 Network

The mobile DVR allows you to use a Web browser to remotely view and manage the system. You can also receive live video streaming from the mobile DVR using your smartphone.

**Note:** Since every Network Configuration is different, please check with your Network Administrator or ISP to see if your mobile DVR should use specific IP addresses and/or port numbers.

#### 7.3.6.1 LAN

According to your network environment, select **Static IP**, **DHCP** or **PPPoE** to configure an IP address to the mobile DVR.

LAN	Lan Port	1
Wireless	Network Type	DHCP
Mobile	IP	192.168.31.66
Email	Subnet Mask	255.255.255.0
DDNS	Gateway	192.168.31.254
FTP	DNS Server 1	192.168.10.188
Alarm Server	DNS Server 2	192.168.10.189
Remote/Mobile	HTTP Port	80
xFleet	Bandwidth Limit	Disable
	Network ID	1001
	Anonymous Viewer Login	<input type="checkbox"/>
		Save

**LAN Port:** The mobile DVR supports WAN and LAN network connections. Select **1** (WAN) or **2** (LAN) from the drop down list and further set up the below network settings.

**Network Type:** Three options are selectable: **Static IP**, **DHCP** and **PPPoE**.

Static IP: User can set a fixed IP for network connection.

DHCP: DHCP server in LAN will automatically assign an IP configuration for the network connection.

PPPoE: For direct connection to the DSL only. Verify with your ISP if they use PPPoE (the option is only available for WAN connection).

**IP address:** Displays the mobile DVR's current IPv4 IP Address. A static IP address must be set manually. If DHCP is selected, this value will be assigned automatically.

**Subnet Mask:** Displays the subnet mask for your network so the mobile DVR will be recognized within the network. If DHCP is selected, this value will be assigned automatically.

**Gateway:** Displays the gateway on your network for the mobile DVR to use when communicating with any devices not on the local network. If DHCP is selected, this value will be assigned automatically.

**DNS Server 1:** Displays the primary DNS server for your network. If DHCP is selected and an internet connection is available, this value should be assigned automatically. This field must have a valid DNS address in order to use the DDNS feature (see 7.3.6.5 *DDNS*).

**DNS Server 2:** This field shows the secondary DNS server for your network.

**HTTP Port:** Port number for HTTP/WEB communication.

**Bandwidth Limit (Kbps):** Specify, disabled / 128 K / 256 K / 512 K / 768K / 1M / 3M bps. This is the maximum bandwidth that the mobile DVR is allowed to use on the network. This is a useful function when connecting the mobile DVR to busy or heavily loaded networks, or when accessing the mobile DVR(s) over a WAN.

**Network ID:** The network ID is an identifier for the alarm transmitter (mobile DVR sending the alarm).

**Anonymous Viewer Login:** Check the box to allow the unauthorized persons to log in the Web page of the mobile DVR. Note that to protect your mobile DVR from being taken over by unauthorized persons, make sure the "Anonymous viewer login" button IS NOT checked/selected.

**Save:** Click to save the settings.

Additional information:

1. Set up the mobile DVR Network Menu according to the instructions detailed in the Networking chapter of this mobile DVR's manual.
  - a. If using DHCP, all settings will be detected automatically. While DHCP is a useful tool for determining the network settings, if you set up your mobile DVR in this manner its IP address may change at different times for different reasons, particularly after a power failure. If the IP address of the mobile DVR changes, you may have difficulties accessing your mobile DVR locally and/or remotely. It is strongly recommended that you assign a fixed (static) IP address to your mobile DVR, and that in order to avoid address conflicts the IP address assigned be outside of the DHCP range of addresses your router issues to DHCP clients. Please do not set the DHCP address issued to the mobile DVR by the router as its static IP address unless you take specific steps that program your router to prevent such address conflicts.
  - b. If using a Fixed IP (recommended), you will need to input the information manually. In order for DDNS to work, you must enter valid data, compatible with your network, for all four of the network setting fields: IP address, subnet mask, default gateway and the DNS Address (depending on your network hardware and IP configuration this may be the IP address of your router/gateway, or it may be the actual IP address of the local DNS server). The DNS server IP is required because your DNS server provides critical information necessary for the mobile DVR to communicate with the DDNS server.

You can obtain the actual DNS IP from your Internet Service Provider (ISP); or, from a PC located on the same LAN as the mobile DVR, go to <http://www.dnsserverlist.org/> to obtain a list of the IP addresses of their recommendation of the best servers to use for your location.

2. If you are connecting through a router, make sure that you have 'opened up' all the required network ports in the port forwarding section of your router's setup options. That is, you have directed the router to send any incoming traffic using those IP ports to the LAN IP address of the mobile DVR. Useful information about router port forwarding can be found at [www.portforward.com](http://www.portforward.com). Different routers may use different terms for port forwarding function. For instance, D-Link calls it virtual server, Netopia calls it pinholes.

The default port for the mobile DVR is: 80

Note: Port 80 is the default port used for Web browsing. Because of this, in order to prevent the average user from hosting a Web server, most ISPs BLOCK traffic using port 80 from reaching the average site. If you only plan to view your mobile DVR on a LAN, you can use port 80, and don't have to concern yourself with DDNS or routers. However, if you desire **remote access** to your mobile DVR, perhaps using DDNS (optional), you **MUST** select functional ports and set up the port forwarding in your router. Other ports, such as 8080 and 8000 are sometimes blocked by ISPs as well.

What port(s) should be used? There are 65,535 valid IP ports to choose from. These are broken down into three groups:

- Well Known Ports 0 thru 1023
- Registered Ports 1024 thru 49151
- Dynamic and/or Private Ports 49152 thru 65535

So, rather than encounter a port conflict by choosing a port commonly used for another purpose (like port 25 for SMTP mail or port 448 for secure sockets), choose an 'unusual' port number. For example, add 50,000 to your house number: 50,123 is less likely to lead to a port conflict. For a list of the known and registered ports, see <http://www.iana.org/assignments/port-numbers>

### 7.3.6.2 Wireless

You can set up the Wi-Fi network on this page.

LAN	Wireless Mode	DHCP
Wireless	IP	0.0.0.0
Mobile	Subnet Mask	0.0.0.0
Email	Gateway	0.0.0.0
DDNS	DNS Server 1	0.0.0.0
	DNS Server 2	0.0.0.0
FTP	Network Mode	Mixed
Alarm Server	SSID	EverFocus-Guest
Remote/Mobile	Shared Key	••••••••
xFleet	Change Channel	Auto
	Security Mode	WPA
	WPA Algorithms	TKIP
		Save

**Wireless Mode:** Three options are selectable: **Disable**, **Static IP** and **DHCP**.

Disable: Select to disable this function.

Static IP: User can set a fixed IP for network connection.

DHCP: DHCP server in LAN will automatically assign an IP configuration for the network connection.

**IP address:** Displays the mobile DVR's current IPv4 IP Address. A static IP address must be set manually. If DHCP is selected, this value will be assigned automatically.

**Subnet Mask:** Displays the subnet mask for your network so the mobile DVR will be recognized within the network. If DHCP is selected, this value will be assigned automatically.

**Gateway:** Displays the gateway on your network for the mobile DVR to use when communicating with any devices not on the local network. If DHCP is selected, this value will be assigned automatically.

**DNS Server 1:** Displays the primary DNS server for your network. If DHCP is selected and an internet connection is available, this value should be assigned automatically. This field must have a valid DNS address in order to use the DDNS feature (see 7.3.6.5 DDNS).

**DNS Server 2:** This field shows the secondary DNS server for your network.

**Network Mode:** Select a wireless networking standard.

**SSID:** Enter the name (SSID) of the wireless network.

**Shared Key:** Enter the password of the wireless network.

**Change Channel:** Select a wireless channel for the mobile DVR. It's recommended to select **Auto** when there is more than one mobile DVR set up in the same wireless network.

**Security Mode:** Select a wireless encryption protocol: WEP, WPA and WPA2.

**WPA Algorithms:** Select a WPA algorithm.

**Save:** Click to save the settings.

### 7.3.6.3 Mobile

After connecting the 3G / 4G Antenna to the mobile DVR, you have to set up the mobile settings for the mobile DVR to connect to the wireless network. Follow the steps below:

LAN	GPRS Service	On	None
Wireless	APN		
Mobile	Phone Number		
Email	User Name		
DDNS	Password		
FTP	IP	0.0.0.0	ISP NA
Alarm Server	Subnet Mask	0.0.0.0	Type NA
Remote/Mobile	Gateway	0.0.0.0	Signal 0
xFleet	DNS Server 1	0.0.0.0	
	DNS Server 2	0.0.0.0	
	Status	Fail	
	Data Rate	Upload	0 Mbps
		Download	0 Mbps
Save			

1. Connect the 3G / 4G Antenna to the mobile DVR. Please refer to the *User's Manual* of the 3G / 4G Antenna Module.
2. Select **On** from the GPRS Service drop-down list and select an authentication (**CHAP** or **PAP**).
3. Insert the APN, Phone Number, User Name and Password provided by the network service provider and then click the **Save** button. The connection status will be displayed in the **Status** field below.

Status: If the connection is established, the status will display "Success".

Date Rate: If the connection is established, the Data Rate information will be displayed.

ISP: Displays the information of internet service provider.

Type: Displays the network type, such as 3G or 4G.

Signal: Displays the signal strength (0~98). The higher the value, the stronger the strength.

4. You can now use the IP for remote access to the mobile DVR.

**Note:** If "Please insert a 3G modem" message window pops up, please reboot the mobile DVR.

#### 7.3.6.4 Email

You can configure the Email settings for mobile DVR to send Email alert when an event occurs.

LAN	SMTP Server	smtp.gmail.com
Wireless	SMTP Port	587
Mobile	Authentication	<input type="checkbox"/>
Email	SSL	<input type="checkbox"/>
DDNS	User Name	
FTP	Password	
Alarm Server	Sender Email	
Remote/Mobile	Receiver Email 1	
xFleet	Receiver Email 2	
	Receiver Email 3	
	Email Subject	
		Save

**SMTP Server:** Assign the SMTP (e-mail) server's name. Note that for more reliable email service, use the server's IP address.

**SMTP Port:** Assign the port number used by the SMTP server.

**Authentication:** Check this box if the SMTP server requires authentication (user name / password).

**SSL:** Check the box if mail server needs communication to be encrypted by SSL.

**User Name:** Input the login user name if the SMTP server requires authentication.

**Password:** Input the password if the SMTP server requires authentication.

**Confirm:** Input the password again to confirm the password.

**Sender Email:** Input the e-mail address of the sender (the mobile DVR). Sender's e-mail address has to match the user name and password above.

**Receiver Email 1:** Input the first e-mail address that event messages are sent to.

**Receiver Email 2:** Input the second e-mail address that event messages are sent to.

**Receiver Email 3:** Input the third e-mail address that event messages are sent to.

**Email Subject:** Input email subject.

**E-Mail test:** You can click the button to test the email function. If the function works fine, a Pass message will be displayed; otherwise, a Fail message will be displayed.

**Save:** Click to save the settings.

### 7.3.6.5 DDNS

DDNS (Dynamic Domain Name System) is a service used to map a domain name to the dynamic IP address of a network device. You can set up the DDNS service for remote access to the mobile DVR.

LAN	DDNS Service	EverfocusDDNS
Wireless	DVR Name	.everfocusddns.com
Mobile	Status	
Email		
DDNS		Save

DDNS assigns a domain name (URL) to the mobile DVR, so that the user does not need to go through the trouble of checking if the IP address assigned by DHCP Server has changed. Once the IP is changed, the mobile DVR will automatically update the information to the DDNS to ensure it is always available for remote access.

Before enabling the following DDNS function, user should have applied for a host name from the DDS service provider's website. We support two DDNS server providers: **www.everfocusddns.com** and **www.dyndns.com**.

**Note:** We highly recommend that you use **xxxx.everfocusddns.com** for the simplicity of setting up your mobile DVR.

### EverFocus DDNS

Note that the **DNS Server 1** (7.3.6.1 LAN) should be set up correctly or the DDNS will not work.

DDNS Service	EverfocusDDNS
MVR Name	efjotest .everfocusddns.com
Status	OK

**DDNS Service:** Select **EverfocusDDNS** from the drop-down list.

**DVR Name:** Input the desired name for the mobile DVR, and you can enter up to 32 letters. If the length of the name exceeds the text field size on the OSD, you can move your cursor onto the text field to display the entire name on the OSD.

Note that the name of the mobile DVR cannot include a space, or a dot (period) or any special characters particularly \_ ~ ! @ # \$ % ^ & \* ( ) + < > " ; : . ,

**Note:**

1. It is not necessary to append the HTTP port number to the DDNS name. The EverFocus DDNS server not only keeps track of your mobile DVR's IP address, but also keeps track of the ports.
2. You can go to <http://www.everfocusddns.com> to check the DDNS name can be registered or not.

[www.dyndns.org](http://www.dyndns.org)

DDNS Service	<a href="http://www.dyndns.org">www.dyndns.org</a> ▼
Host Name	<input type="text"/>
User Name	<input type="text"/>
Password	<input type="password"/>

**DDNS Service:** Select [www.dyndns.org](http://www.dyndns.org) from the drop-down list.

**Host name:** Host name created through the dyndns account.

**User name:** User name of the dyndns account.

**Password:** Password of the dyndns account.

**Setup Steps:**

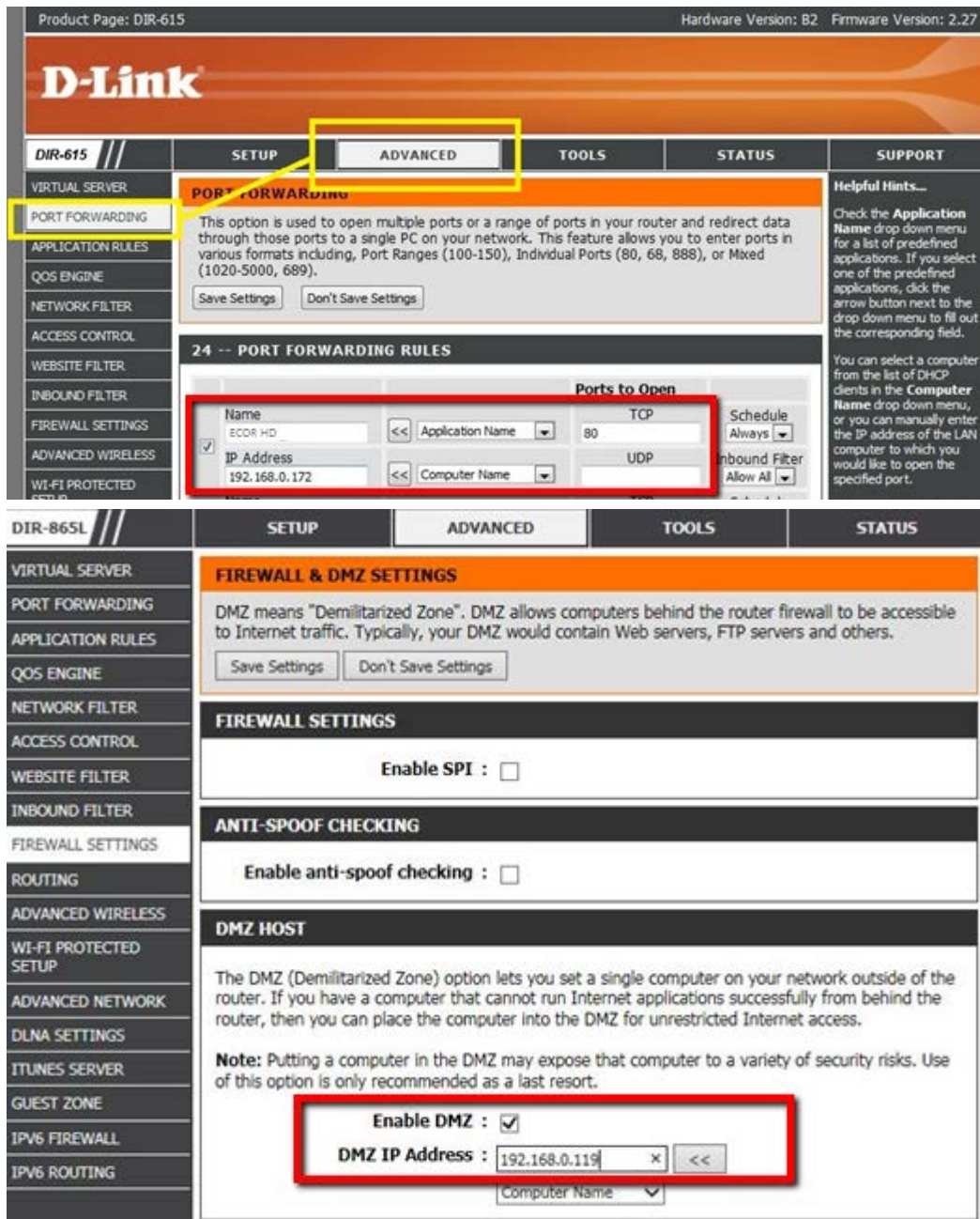
1. Apply for a host name from [www.dyndns.org](http://www.dyndns.org).
2. Make sure that the DNS Server 1 is set up correctly (see DNS Server 1 in 7.3.6.1 LAN) or the DDNS will not work.
3. Select [www.dyndns.org](http://www.dyndns.org) from the DDNS Service drop-down list.
4. Enter the host name in the Host Name field. Note that the name of the mobile DVR cannot include a space, or a dot (period) or any special characters particularly \_ ~ ! @ # \$ % ^ & \* ( ) + < > " ; : . ,
5. Enter the User Name / Password of the dyndns account.
6. The setting is complete. And you should now be able to remotely connect the mobile DVR by typing the name you created into the address bar. Example:  
<http://hostname.dyndns.com>

**Note:** If you are connecting through a router, make sure that you have opened up all the required network ports in the "Port Forwarding" section of your router's setup options. The default port of the mobile DVR is 80. To set up Port Forwarding, please consult the manual of the router.



### To set up DDNS function:

1. In order to allow remote access to the MDVR from outside of the local network, enable either the **Port Forwarding** or **DMZ** function of your router. Please refer to the manual of your router for more details.



The image shows two screenshots of D-Link router configuration interfaces. The top screenshot is for a DIR-615 router, showing the 'PORT FORWARDING' page. The 'ADVANCED' tab is selected, and the 'PORT FORWARDING' section is highlighted. Below this, the '24 -- PORT FORWARDING RULES' table is visible, with a rule for 'ECOR HD' on port 80, TCP, and IP address 192.168.0.172. The bottom screenshot is for a DIR-865L router, showing the 'FIREWALL & DMZ SETTINGS' page. The 'DMZ HOST' section is highlighted, showing 'Enable DMZ' checked and 'DMZ IP Address' set to 192.168.0.119.

**DIR-615 Configuration:**

- Product Page: DIR-615, Hardware Version: B2, Firmware Version: 2.27
- Navigation: SETUP, **ADVANCED**, TOOLS, STATUS, SUPPORT
- Left Menu: VIRTUAL SERVER, **PORT FORWARDING**, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ADVANCED WIRELESS, WI-FI PROTECTED SETUP
- PORT FORWARDING Description: This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).
- Buttons: Save Settings, Don't Save Settings
- 24 -- PORT FORWARDING RULES:
 

Name	IP Address	Application Name	Ports to Open	Schedule	Inbound Filter
ECOR HD	192.168.0.172	80	TCP	Always	Allow All

**DIR-865L Configuration:**

- Navigation: SETUP, **ADVANCED**, TOOLS, STATUS
- Left Menu: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, DLNA SETTINGS, ITUNES SERVER, GUEST ZONE, IPV6 FIREWALL, IPV6 ROUTING
- FIREWALL & DMZ SETTINGS: DMZ means "Demilitarized Zone". DMZ allows computers behind the router firewall to be accessible to Internet traffic. Typically, your DMZ would contain Web servers, FTP servers and others.
- Buttons: Save Settings, Don't Save Settings
- FIREWALL SETTINGS: Enable SPI : ☐
- ANTI-SPOOF CHECKING: Enable anti-spoof checking : ☐
- DMZ HOST:
 

The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access.

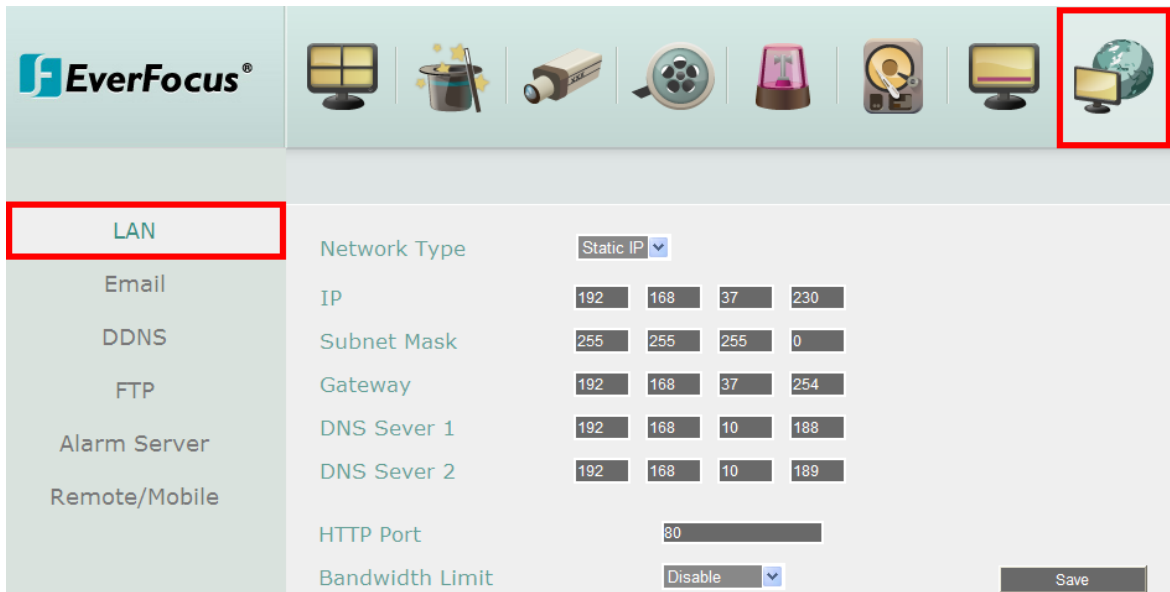
**Note:** Putting a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.

Enable DMZ : ☒

DMZ IP Address : 192.168.0.119

Computer Name : [Dropdown]

2. On the Network Setting page of MDVR (Network > LAN), configure the LAN settings, keep HTTP port “80” and then click the **Save** button.



EverFocus®

LAN

Network Type: Static IP

IP: 192.168.37.230

Subnet Mask: 255.255.255.0

Gateway: 192.168.37.254

DNS Server 1: 192.168.10.188

DNS Server 2: 192.168.10.189

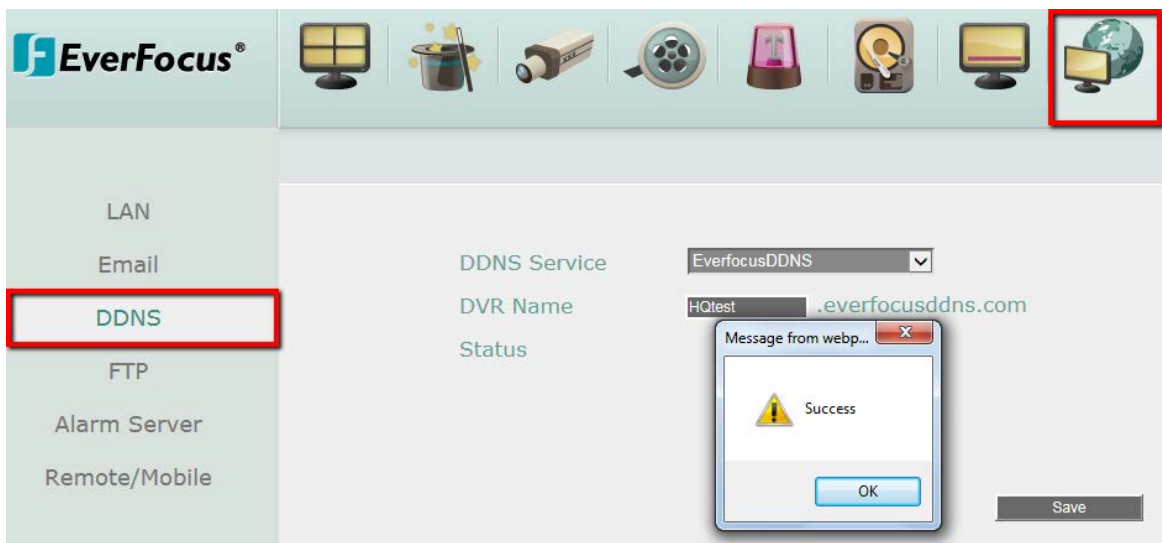
HTTP Port: 80

Bandwidth Limit: Disable

Save

- If **Static IP** is selected: Enter the IP address, subnet mask, default gateway and the DNS Server 1. Please consult with your ISP service provider for the information of subnet mask, default gateway and the DNS Server 1.
- If **DHCP** is selected: The IP address, subnet mask, default gateway and the DNS Server 1 will be assigned automatically by DHCP server.
- If **PPPoE** is selected: Enter the User Name (e.g. xxxx@hinet.net) and Password provided by your ISP service provider.

3. On the DDNS setting page, register a free host name from EverFocus DDNS and then click the **Save** button.



EverFocus®

DDNS

DDNS Service: EverfocusDDNS

DVR Name: HQtest

Status: .everfocusddns.com

Success

Save

- a. Select **EverfocusDDNS** from the DDNS Service drop-down list.

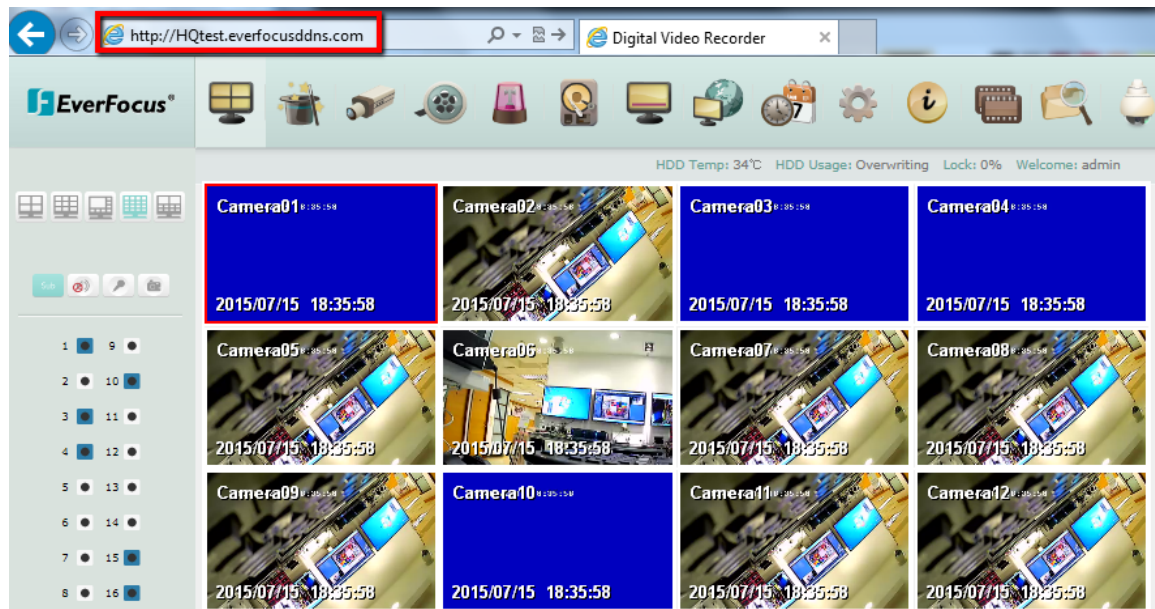
- b. Enter a desired host name in the DVR Name field. If the host name is available, a “Success” window will appear. Click **OK**. If not, try another host name until the “Success” window appears.

**Note:** The host name should not include a space, or a dot (period) or any special characters particularly \_ ~ ! @ # \$ % ^ & \* ( ) + < > " ; : . ,

- c. Click **Save**.

4. The DDNS setup is now complete. Open a browser and enter the domain name ([http://\[host name\].everfocusddns.com](http://[host name].everfocusddns.com)) in the address field. The Web interface of the MDVR should be displayed.

For example, if you’ve obtained the host name “HQtest” from EverFocus DDNS server, enter <http://HQtest.everfocusddns.com> in the address field of the browser.



### 7.3.6.6 FTP

Set up the FTP server settings to enable the FTP function. The function is for users to upload the alarm / motion recordings or snapshots from sub stream to the FTP server. You can choose to upload either the recordings or snapshots, please see [7.3.2 Record](#) and [7.3.3.3 Motion](#).

LAN	FTP Server	0.0.0.0
Wireless	Port	21
Mobile	User Name	
Email	Password	
DDNS	File Name	
FTP	Save	

**FTP Server:** Enter the IP address or the host name of the FTP server.

**Port:** Enter the port number for the FTP server. Default is 21.

**User Name:** Set FTP User's name.

**Password:** Set FTP password.

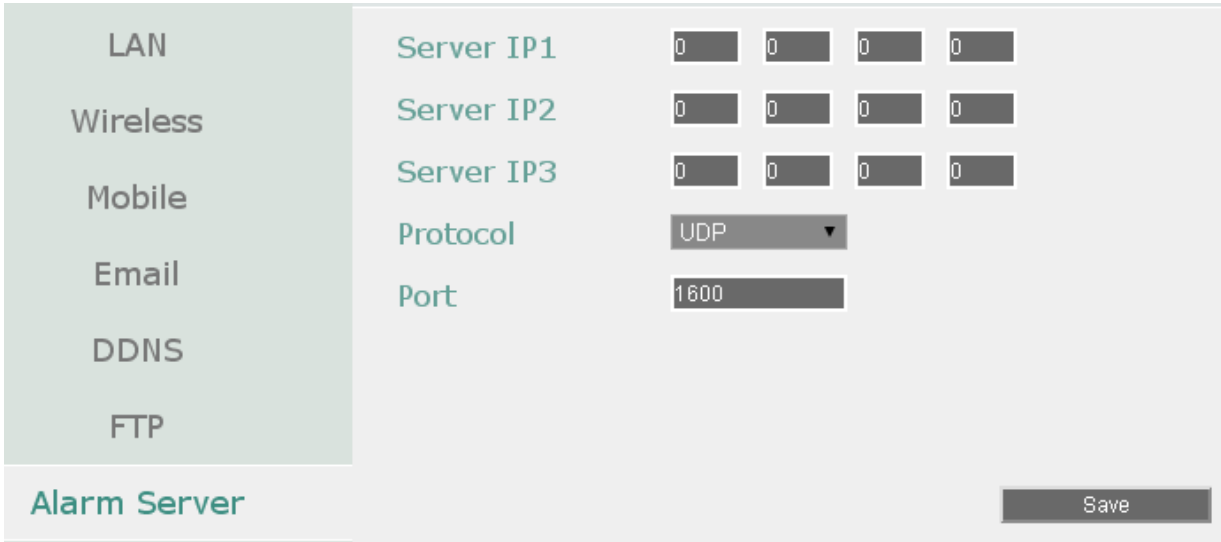
**File Name:** Enter the file name.

**Note:** If you want to upload recordings to the FTP, please go to the Remote / Mobile setting page to select H.264 codec.

**Save:** Click to save the settings.

### 7.3.6.7 Alarm Server

You can send out the alarm notifications to EverFocus's CMS software. Please also consult the CMS's user manual for network alarm settings.



LAN	Server IP1	0	0	0	0
Wireless	Server IP2	0	0	0	0
Mobile	Server IP3	0	0	0	0
Email	Protocol	UDP			
DDNS	Port	1600			
FTP					

Alarm Server Save

**Server IP1~3:** IP address of client PC. The network alarm can be transmitted to up to 3 addresses.

**Protocol:** Select the protocol type for alarm transmission. Note the protocol selected here should match the protocol set up for the CMS alarm server.

UDP: User Datagram Protocol.

TCP: Transmission Control Protocol.

**Port:** Select the transmission port for network alarm messages. The port setup here should match the port set up for the CMS alarm server.

**Save:** Click to save the settings.

### 7.3.6.8 Remote/Mobile

You can configure the compression format for the sub-stream for mobile phone access. Select **H.264** or **MJPEG** codec to enable the mobile phone access function. Note that if you also want to use the FTP function for uploading the recordings (MP4 video format), please select the H.264 codec.

LAN	<input checked="" type="checkbox"/> H.264
Wireless	Only for MobileFocus or mobile phone viewing is not required.
Mobile	
Email	
DDNS	<input type="checkbox"/> MJPEG
FTP	MobileFocus or other smart phones. Please select H.264 codec if you need to use the FTP function for uploading MP4 video format.
Alarm Server	
Remote/Mobile	<input type="button" value="Save"/>

**H.264:** The H.264 codec is compatible with iOS and Android MobileFocus applications and IE Web browser viewing on iPhone, iPod touch, iPad, Android, and BlackBerry.

**MJPEG:** The MJPEG codec is compatible with iOS and Android MobileFocus applications and IE Web browser viewing on iPhone, iPod touch, iPad, Android, and BlackBerry.

**Save:** Click to save the settings.

### 7.3.6.9 Xfleet

You can use EverFocus Xfleet system for fleet management.

Xfleet 2.0 is a centralized management platform which is well designed to not only monitor fleets, but also to track driver statistics, maintenance records, fuel statistics and plenty of other in-depth analytics reports that assist you to make decisions and eventually reduce overall costs.

With Xfleet 2.0, making prediction and optimizing business performance will no longer be a burden as it provides timely response on the demands you need, creating long term value for clients across industries.

LAN	Server IP	192.168.31.124	
Wireless	Port	6608	
Mobile	Plate Number	ABC1234	
Email	Meta Data Interval	5	(0~120 sec)
DDNS			
FTP			
Alarm Server	XFleet Status	Fail	
Remote/Mobile			
xFleet			Save

**Server IP:** Input the IP address of the Xfleet system.

**Port:** Input 6608 port and do not change the port as it is set up by default.

**Plate Number:** Optionally input the plate number.

**Meta Data Interval:** Input an interval for mobile DVR to send meta data to the Xfleet system.

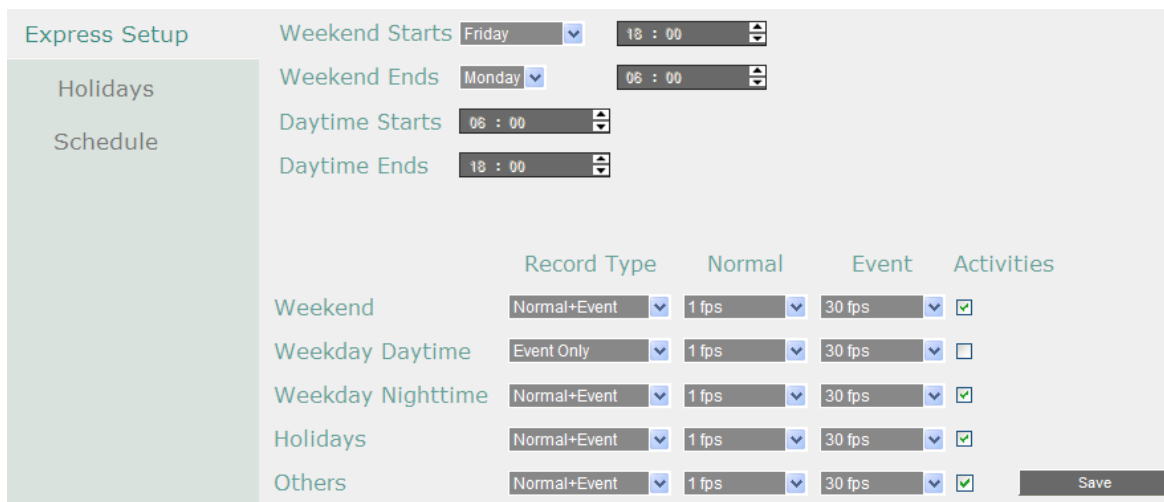
**Save:** Click to save the settings.

### 7.3.7 Schedule

You can set up the recording schedule with the desired time, event types or FPS.

#### 7.3.7.1 Express Setup

You can set up a weekly recording schedule for the mobile DVR to automatically record videos.



	Record Type	Normal	Event	Activities
Weekend	Normal+Event	1 fps	30 fps	<input checked="" type="checkbox"/>
Weekday Daytime	Event Only	1 fps	30 fps	<input type="checkbox"/>
Weekday Nighttime	Normal+Event	1 fps	30 fps	<input checked="" type="checkbox"/>
Holidays	Normal+Event	1 fps	30 fps	<input checked="" type="checkbox"/>
Others	Normal+Event	1 fps	30 fps	<input checked="" type="checkbox"/>

**Weekend Start:** Select a start date and time for the weekend.

**Weekend End:** Select an end date and time for the weekend.

**Daytime Start:** Select a weekday start time (Nighttime schedule ends when Daytime begins).

**Daytime End:** Select a weekday end time (Nighttime schedule ends when Daytime ends).

**Record Type:** Select a recording type for each time period.

Disable: No recording during the scheduled time period.

Normal+Event: Continuous and Event recordings.

Event Only: Event recordings only.

**Normal (FPS):** Set up the fps for continuous recording.

**Event (FPS):** Set up the fps for event recording.

**Activities:** Check the box to enable the Buzzer, Alarm Out, E-mail and Network actions selected in 7.3.3 *Event* when an event occurs during the selected time period.

**Note:** For **Holiday** and **Others**, you can set up the recording schedule in 7.3.7.2 *Holidays*.

**Save:** Click to save the settings.



### 7.3.7.2 Holiday

In addition to set up a weekly recording schedule, you can also set up a holiday recording schedule to automatically record videos on a specific day of the year.

Express Setup

Holidays
Schedule

List of Holidays

No.	Date Type	Recurrent Type	Details
1	Others	One time	2013/01/01
2	Holidays	Month/date	Jan,1
3	Holidays	Month/weekday	Jan,1st,Sun
4	Holidays	Disable	
5	Holidays	Disable	
6	Holidays	Disable	
7	Holidays	Disable	
8	Holidays	Disable	
9	Holidays	Disable	
10	Holidays	Disable	

Previous
Next
1 - 10 / 30
Save

**Date Type:** Select **Holiday** or **Others** if you have configured the settings in 7.3.7.1 *Express Setup*. The Holiday and Others are two different groups designed for you to assign special days independently.

**Recurrent Type:** Select a date layout for the selected group above.

Disabled: Select to disable the Holiday / Others recording schedule.

One time: Select this option and then set up the specific date and year in the Details field. The mobile DVR will start recording on this specific date.

Month/date: Select this option and then set up the specific date in the Details field. The mobile DVR will start recording on this date yearly.

Month/Weekday: Select this option and then set up the specific date in the Details field. The mobile DVR will start recording on this specific date.

**Details:** Click to specify the date for the selected group above.

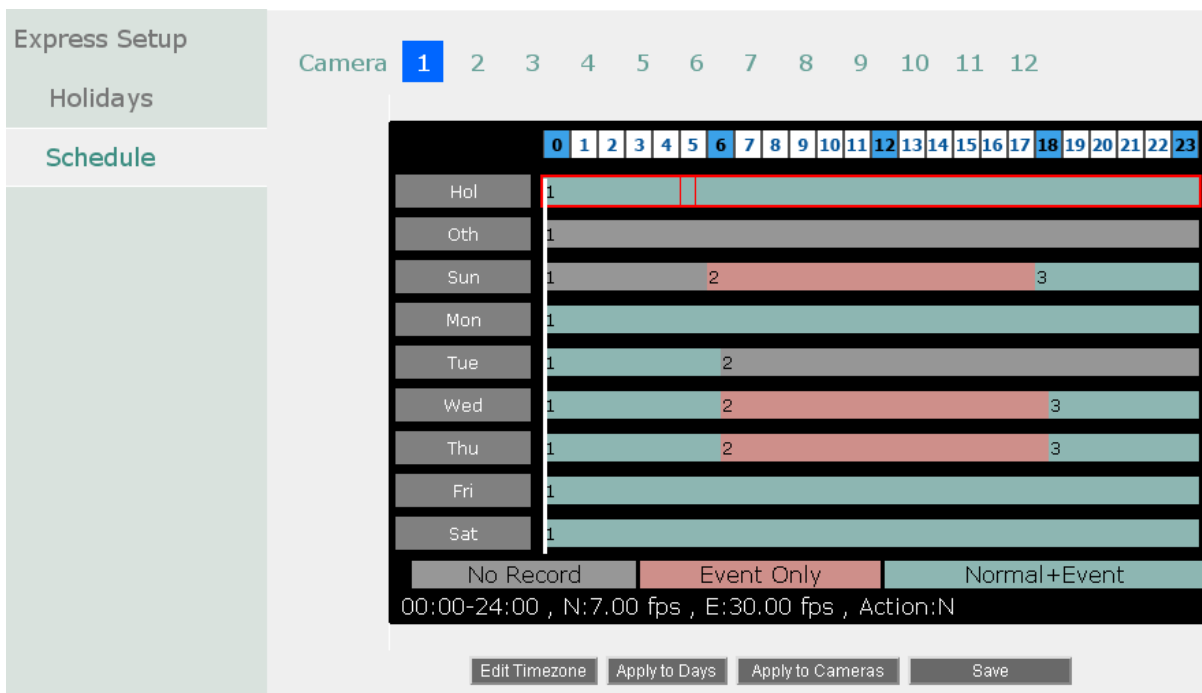
**Previous:** Previous Page (30 Holidays Total).

**Next:** Next Page (30 Holidays Total).

**Save:** Click to save the settings.

### 7.3.7.3 Schedule

You can set up the camera recording mode by time of day on specific days of the week and/or holidays and other days. Please note that after the configuration, you have to check the **Schedule Record** box in the Record setting page to enable the schedule recording mode.



**Camera (1~12):** Select a camera number to change the schedule for the selected camera. Each camera can be controlled during a 24-hour time block for Holiday (Hol), Other (Oth), Sunday (Sun), Monday (Mon), Tuesday (Tue), Wednesday (Wed), Thursday (Thu), Friday (Fri), or Saturday (Sat).

**Time (0~23):** The numbers represent the 24 hours of a day.

**Time Bar:** The time bar uses three different colors to distinguish each recording mode.

Gray (No Rec): No recording during this time block.

Pink (E): Only events are recorded during this time block.

Blue-green (N+E): (Default) Normal and event recording during this time block.

There are 48 blocks on the time bar, and each block represents half hour respectively. When moving the cursor onto the time bar, the exact time will appear at the right side of the time bar (shown as the above figure).

### Schedule setting

1. Select a camera first and click on desired start time block on a time bar. At this time, the entire time bar will be highlighted with a red frame.
2. Double-click the desired start time block, and this block (shows a new sequence number on it) and all the following blocks will turn to gray. This means the grey time blocks has been set to No Recording mode.
3. To change the time blocks to different recording mode (which shows a different color), users need to double-click on the block (with number on it) of any section. Every time the user double-clicks the first block of a section, the color switches from gray->pink ->blue-green.
4. Repeat the above steps to configure the recording modes. You can configure up to six record modes on each time bar.

Click the **“Edit Timezone”** button to edit the recording parameters for a time zone.

Editing: Sunday

	From To	Record	Resolution	Normal	Event	Action
1	00:0006:00	No Record				
2	06:0018:00	Event Only	1280x720	7 fps	30 fps	<input type="checkbox"/>
3	18:0024:00	Normal+Event	1280x720	7 fps	30 fps	<input type="checkbox"/>

### Editing Timezone:

**From:** Displays time zone start time.

**To:** Displays time zone end time.

**Record:** Displays Record mode.

**Resolution:** Recording resolution is displayed.

**Normal:** Frame rate in FPS for continuous recording. It is important to keep track of the normal recording resources being allocated at each hours of the day. Increasing the Normal recording resolution and/or rate can inadvertently request more recording resources than the mobile DVR is capable of delivering, or allocate so much of the mobile DVRs resources that there is no excess available for increased FPS rate and/or resolution in response to an Event. The speed is limited by the maximum total recording capacity of the mobile DVR as allocated across TV standard in global setting, all the installed cameras, with an upper limit of 30 FPS (NTSC – 25 PAL) per individual camera (real time recording).

Since EverFocus mobile DVRs have the capability to change the FPS rate in response to events, it may be advisable to reserve some recording capacity for event response.

**Event:** Maximum desired frame rate in frames per second (FPS) for event recording; if more than one camera requires simultaneous event recording, the total for all cameras cannot exceed the maximum available FPS for the mobile DVR at the corresponding resolution setting, and *the available FPS may be divided across the cameras responding to an event.*

**Action:** Check this box to enable notifications enabled elsewhere (Buzzer, Alarm out, E-mail, and Network Alarm) when an event occurs.

**Apply to Days:** This button can be used to copy schedules to other days. Select which days you wish to copy to. "Select All" selects all days, "Clear All" deselects all days. Click "OK" to copy the settings or "Cancel" to exit without copying.

Apply to Days									
Hol	<input type="checkbox"/>	Oth	<input type="checkbox"/>	Sun	<input type="checkbox"/>				
Mon	<input type="checkbox"/>	Tue	<input checked="" type="checkbox"/>	Wed	<input type="checkbox"/>				
Thu	<input type="checkbox"/>	Fri	<input type="checkbox"/>	Sat	<input type="checkbox"/>				
						Select All			
						Clear All			
						OK			
						Cancel			

**Apply to Cameras:** This button can be used to copy schedules to other cameras. Select which cameras you wish to copy to. "Select All" selects all cameras, "Clear All" deselects all cameras. Click "OK" to copy the settings or "Cancel" to exit without copying.

Apply to Cameras											
1	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>				
5	<input type="checkbox"/>	6	<input type="checkbox"/>	7	<input type="checkbox"/>	8	<input type="checkbox"/>				
9	<input type="checkbox"/>	10	<input type="checkbox"/>	11	<input type="checkbox"/>	12	<input type="checkbox"/>				
								Select All			
								Clear All			
								OK			
								Cancel			

Click the **Save** button to save the settings.

### 7.3.8 System Setting

You can configure the general settings for the mobile DVR in this menu.

#### 7.3.8.1 Date/Time

You can set up the date and time for the mobile DVR.

**Note:** Clicking **Save** at this page will disable the **Daylight Saving** function if this function has been enabled. Therefore, after setting up the time at this page, you need to go to *Daylight Saving* page to reset and enable the daylight saving time if the function is needed. Please refer to 7.3.8.2 *Daylight Saving* for detailed information.

Date/Time	Date	2015/04/20
Daylight Saving	Time	15 : 53
User Group	Date Format	yyyy/mm/dd
User Management	Time Format	24H
I/O Control	Time Zone	GMT+08:00
EKB200 Setting	Time Sync.	Disable
Miscellaneous	NTP Server	time.stdtime.gov.tw
	NTP Update Interval	Daily
	Daylight Saving	Manual
		Save

**Date:** Click to set up the date.

**Time:** Click to set up the time.

**Date Format:** Select a date format from the drop-down list.

**Time Format:** Select a time format from the drop-down list.

**Time Zone:** Select a time zone for the mobile DVR to adjust to when updating from the time server.

**Time Sync:** You can synchronize the MDVR time with NTP server or GPS time.

- **Disable:** Select to disable the time synchronization function.
- **NTP:** Select to synchronize the MDVR time with NTP server. You will have to further set up the **NTP Server** and **NTP Update Interval** settings below.
- **GPS:** Select to synchronize the MDVR time with GPS time. For this function to work, a GPS antenna is required to connect to the MDVR to receive GPS signal.

**NTP Server:** If **NTP** is selected from the **Time Sync** drop-down list above, you will have to further select a **NTP Server**. The NTP Server displays the time server address that the mobile DVR uses for time synchronization. For this function to work, operating network configuration and WAN or LAN access to a compatible NTP server is required. The default NTP address is

the NTP server in Taiwan. To find a compatible NTP address of the mobile DVR's physical location, follow the steps below:

- a. Use a computer connected to the Network.
- b. Click Start > Run > type "command" and then click OK.
- c. In the DOS Prompt, type "ping pool.ntp.org" to find out the IP address of an NTP Server.

**NTP Update Interval:** If **NTP** is selected from the **Time Sync** drop-down list above, you will have to further set up the **NTP Update Interval**, which is the frequency that the system automatically updates the time via the NTP server. Select Daily, Weekly or Monthly.

**Daylight Saving:** This **Auto** daylight saving function is used for the system to automatically set up the daylight saving time but it is currently reserved for the users in the United States. So, if you want to set up the daylight saving time, please go to Daylight Saving setting page to manually set up the time (refer to 7.3.8.2 *Daylight Saving*).

**Save:** Click to save the settings.

For the users in United States, if they want to use the **Auto** daylight saving functions, please follow the steps below:

1. Select a U.S Time zone (GMT -05:00 ~ GMT -08:00).
2. Enable the **NTP**.
3. Enter a NTP server IP address in United States.
4. Select **Auto** in the **Daylight Saving** drop-down list.
5. Click **Save** to save the settings.
6. The Daylight Saving setting page (refer to 7.3.8.2 *Daylight Saving*) will be grayed out and automatically set to the correct daylight saving time.

### 7.3.8.2 Daylight Saving

You can configure the settings for mobile DVR to automatically adjust to daylight saving time.

**Note:**

1. If this page is grayed out, it means that you have enabled the **Auto** daylight saving function, please refer to 7.3.8.1 *Date/Time*.
2. If you need to use the **Daylight Saving** function, you must set up the date and time settings first in **Date/Time** page. Because if you change any setting or just click **Save** in **Date/Time** page, the **Daylight Saving** function will be disabled.

Date/Time	Daylight Saving <input type="checkbox"/>		
Daylight Saving			
User Group	Start Date	Jan	1st
User Management	Start Time (hh:mm)	0	00
I/O Control	Set To (hh:mm)	0	00
EKB200 Setting	End Date	Jan	1st
Miscellaneous	End Time(hh:mm)	0	00
		Save	

**Daylight Saving:** Check the box to enable automatic daylight saving time (DST).

**Start Date:** Set the start date for daylight saving time.

**Start Time (hh:mm):** Set the time when daylight saving time begins.

**Set To (hh:mm):** This is what the time will change to when daylight saving begins. For most regions, this will be one hour ahead of the “Start Time”.

**End Date:** Set the end date for daylight saving time.

**End Time (hh:mm):** Set the time when daylight saving time ends.

The time change difference on the End Date will be the same as the difference between the Start Time and End Time entered for the Start Date (typically 1 hour as in the example shown).

**Save:** Click to save the settings.

### 7.3.8.3 User Group

This setting page is used for configuring the privilege of the three access levels: Administrator, Manager and Operator. Check the boxes under an access level to enable the privileges of that access level. For example, if you check the **Log** (clear log) box under the Operator access level, only the Operator has the privilege to clear log.

Date/Time		Admin	Manager	Operator
Daylight Saving	Manage User at Own Level	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Log	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Group	Firmware Upgrade / Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Management	Disk Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Record Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I/O Control	Live Audio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EKB200 Setting	Playback Audio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Archival Functions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Miscellaneous	System Log View/Export	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	User Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Date / Time / DST Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Display Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Network Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Schedule Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alarm / Event / I/O Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Camera Setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Playback/Search	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	OSD Display Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PTZ / EKB200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Change Own Password	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				Save

**Manage User at Own Level:** Check this box for the user of an access level to be able to configure other users' settings of the same level at the User Management setting page (see 7.3.8.4 *User Management*). For example, if this box under the Operator level has been checked, any user with the Operator privilege can go to the User Management setting page to set up the settings of other Operators.

**User Management:** Check this box under an access level to enable the users of that level to access the User Management and User Group setting page.

**Save:** Click to save the settings.

#### Important Notes for Account Privilege Definition

Users with the Administrator account have full privileges, so the checkboxes under the Administrator access level will always be grayed out. The Administrator can grant privileges to both the Manager and Operator while the Manager and Operator can also give certain privileges to the lower level accounts based on the following rules.



- **Account Viewing:**

Administrator: The Administrator account has the privilege to view all the user accounts.

Manager: The Manager account can only view its own and the Operator accounts.

Operator: The Operator account can only view its own account.

- **Camera Access:**

Administrator: The Administrator account has the privilege to set up Camera Access right to all the user accounts.

Manager: The Manager account can set up Camera Access right (cameras enabled by the Administrator account) to itself and Operator accounts.

Operator: The Operator account can only set up its own Camera Access right.

- **Change Password:**

Administrator: The Administrator account has the privilege to change password to all the user accounts.

Manager: The Manager account can change password to itself and Operator accounts.

Operator: The Operator account can only change its own password.

- **Edit User Rights:**

Administrator: The Administrator account has the privilege to edit user rights to all the user accounts.

Manager: The Manager account can only edit user rights to Operator accounts.





Operator: The Operator account cannot edit user rights to any accounts.


### 7.3.8.4 User Management


You can create multiple user accounts (max: 20 user accounts) with different privileges. The mobile DVR has default user accounts which you can choose to copy, edit, add or delete, and the default password is 11111111.

Date/Time	User Name	Level	Status
Daylight Saving	1 admin	Admin	Enable
User Group	2 user1	Manager	Enable
User Management	3 user2	Manager	Enable
I/O Control			
EKB200 Setting			
Miscellaneous			

☐ Login
 ☐ Auto User Log Off
   
 Password Renew after  Day(s) (0:OFF : 1~365)

**Copy:** Click the  button to copy the settings of an existing user account to a new user account.

**Edit:** Click the  button to edit the settings of an existing user account.

**Add:** Click the  button to add a new user.

**Delete:** Click the  button to delete

**Previous:** Click to return to the previous page.

**Next:** Click to enter the next page.

**Login:** Check the box to enable the User Login function after logging out the mobile DVR. For details on logging in the mobile DVR, please refer to 3.2.1 *Login*.

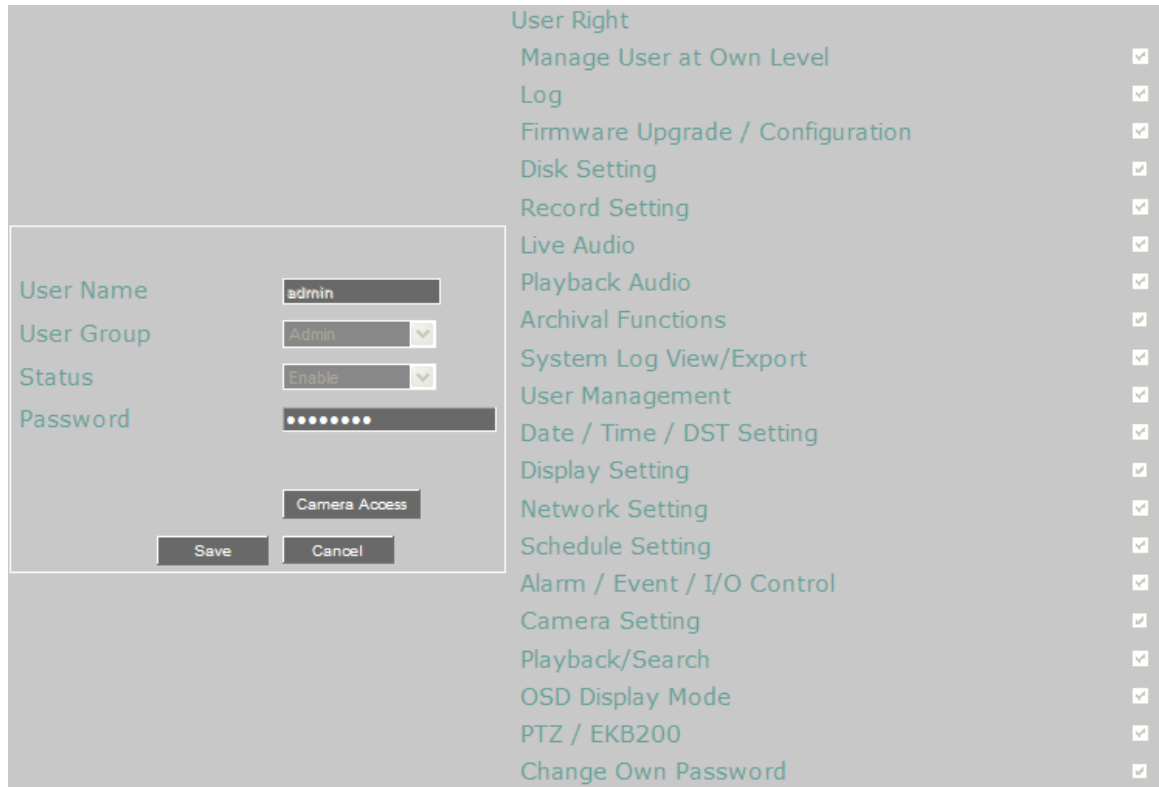
**Auto User Log Off:** Check the box to automatically logoff the mobile DVR after 3 minutes of inactivity.

**Password Renew after xx days:** Input a number of days to renew the password of the MDVR.

Click the **Save** button to save the settings.

You can further configure each user account and its settings individually, see the steps below:

1. Click on a user account.
2. Click the **Add**, **Copy** or **Edit** button, and the following page appears.



**User Name:** Click to bring up the keyboard and input the desired user name.

**User Group:** Select a user group (access level).

**Status:** Select to enable or disable the user account.

**Password:** Input the password.

**Camera Access:** Click to bring up a new setting page, and check the boxes to enable the live, playback or PTZ functions of the cameras for local or remote access.

**User Right:** Check the boxes to enable the functions for the user account.

Click the **Save** button to save the settings or **Cancel** to cancel the settings and return to the previous menu.

### 7.3.8.5 I/O Control

The I/O Control setup menu is used to define the settings for controlling the mobile DVR through RS-485 / RS-232 communication protocol and for mobile DVR to control the connected PTZ cameras.

Date/Time	RS-232		RS-485	
Daylight Saving	Type	Control	PTZ Protocol	Pelco_D
User Group	Baud Rate	9600	485 ID	1
User Management	Data Bit	8	Baud Rate	9600
I/O Control	Stop Bit	1	Data Bit	8
EKB200 Setting	Parity	None	Stop Bit	1
Miscellaneous			Parity	None
	GPS			
	Baud Rate	9600	Control	
	Data Bit	8	IR Remote ID	1
	Stop Bit	1		
	Parity	None		
	Save			

#### RS-232

**Type:** Select Control or Text Insert.

**Baud Rate:** This field is to set the speed at which is used to transmit instruction or information through the RS-232 port on the mobile DVR. There are eight different speeds: 1200 BPS, 2400 BPS, 4800 BPS, 9600 BPS, 19200 BPS, 38400 BPS, 57600 BPS and 115200 BPS.

**Data Bit:** This field is the data bit at which you will be transferring. There are two settings for this option: 8 or 7.

**Stop Bit:** This field is to set the stop bit for the RS-232 connection. There are two different stop bits, 1 or 2.

**Parity:** This field is to select the parity level at which you will be connected. You can choose between None, Odd, or Even parity levels.

**Note:** For details on the RS-232 related settings, please consult the Technical Support Department of EverFocus.

#### RS-485

**PTZ Protocol:** Select PTZ protocol, choose from the following protocols: Transparent, Pelco\_D, Pelco\_P, Everfocus or Samsung. (Note: All cameras on the RS-485 bus must use the same protocol).

**485 ID:** This is the ID used by the EKB500 to send commands to the mobile DVR. On an RS-485 connection, every device (PTZ, mobile DVR and controller) must be assigned a unique ID number between 0 and 127.

**Baud Rate:** This field is to set the speed at which is used to transmit instruction or information through the RS-485 port on the mobile DVR. There are eight different speeds: 1200 BPS, 2400 BPS, 4800 BPS, 9600 BPS, 19200 BPS, 38400 BPS, 57600 BPS and 115200 BPS.

**Data Bit:** This field is the data bit at which you will be transferring. There are two settings for this option: 8 or 7.

**Stop Bit:** This field is to set the stop bit for the RS232 connection. There are two different stop bits, 1 or 2.

**Parity:** This field is to select the parity level at which you will be connected. You can choose between None, Odd, or Even parity levels.

### GPS

**Baud Rate:** This field is to set the speed at which is used to transmit instruction or information through the RS-485 port on the mobile DVR. There are eight different speeds: 1200 BPS, 2400 BPS, 4800 BPS, 9600 BPS, 19200 BPS, 38400 BPS, 57600 BPS and 115200 BPS.

**Data Bit:** This field is the data bit at which you will be transferring. There are two settings for this option: 8 or 7.

**Stop Bit:** This field is to set the stop bit for the RS232 connection. There are two different stop bits, 1 or 2.

**Parity:** This field is to select the parity level at which you will be connected. You can choose between None, Odd, or Even parity levels.

**Control:** One remote control can be used to operate four mobile DVRs. The mobile DVR to be addressed is selected by pressing the key corresponding to its ID number on the IR Remote control. Please refer to *Appendix E: IR Remote Control*.

**IR Controller ID:** Set up an ID for the mobile DVR and allow the IR remote control to control this mobile DVR.

**Save:** Click to save the settings.

### 7.3.8.6 EKB200 Setting

You can connect an EKB200, which is EverFocus' USB keyboard, to the USB port on the DVR to control the Iris, focus or the pre-configured PTZ control functions of the connected cameras. For details on how to configure the PTZ control functions, including Preset Position, Auto Pan, Tour and Pattern, please refer to 7.3.12 PTZ.

Date/Time	Key No	Action	Value
Daylight Saving	1	Set Preset	0
	2	Goto Preset	5
	3	Clear Preset	1
	4	Run Autopan	0
	5	Stop Autopan	
User Group	6	Tour Run	0
	7	Tour Stop	
User Management	8		
	9		
I/O Control	10		
	11		
EKB200 Setting	12		
	13	IRIS +	
	14	IRIS -	
	15	Focus Near	
	16	Focus Far	
Miscellaneous			

The control keys on the EKB200




After connecting the EKB200 keyboard to the DVR and configuring the PTZ control functions, you need to configure the above setup page to define the function for each control key on the keyboard. Click the **Save** button to save the settings. Once you press the control key on the keyboard, the camera will do the action which you've defined for the key.

**【Key No】** The control key number on the keyboard.

**【Action】** Select an item from the drop-down list to define the function for each key on the keyboard.

- **Set Preset:** You can use the joystick on the keyboard to select a position and then press this key to save the position as the Preset Position.
- **Go to Preset:** Press this key to let the camera go to the Preset Position number specified in the Value column.
- **Go to Home:** Press this key and the camera will go to the Preset Position 1.
- **Clear Preset:** Press this key to clear the Preset Position number specified in the Value column.
- **Run Auto Pan:** Press this key to start the AutoPan number specified in the Value column.
- **Stop Auto Pan:** Press this key to stop the AutoPan number specified in the Value column.
- **Tour Run:** Press this key to start running the Tour number specified in the Value column.
- **Tour Stop:** Press this key to stop running the Tour number specified in the Value column.
- **Pattern Run:** Press this key to start running the Pattern number specified in the Value column.
- **Pattern Stop:** Press this key to stop running the Pattern number specified in the Value column.
- **Set Auto Tracking:** Press this key to switch On / Off the Auto-Tracking function.
- **Select Tracking Object:** Press the key to display the tracking crosshairs on the screen. Use the joystick on the keyboard to select the desired tracking object and press this key again to save the selection.
- **Toggle Full Screen:** Press this key to toggle between the full screen and current screen.

**【Value】** Type in the number for the selected Action item. For example, selecting **Go to Preset** from the Action drop-down list and typing in 2 in the Value column represents the Preset Position 2.

To activate the EKB200 keyboard on the PTZ Live View window, click the PTZ  icon on the Menu Bar, and then you are able to control the PTZ camera over the EKB200 keyboard (please refer to 7.3.12 PTZ).

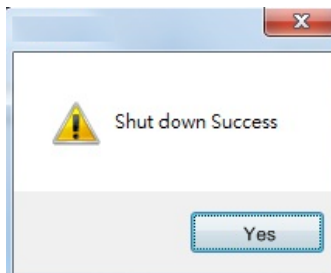
### 7.3.8.7 Miscellaneous

You can upgrade the latest firmware, restore the factory default settings to the mobile DVR, upload / save the mobile DVR configuration settings from / to the USB or change the language in this setup menu.

Date/Time	Remote Reboot	Reboot Now
Daylight Saving	Shutdown	Shutdown
User Group	Firmware	v1.0.1_170811
User Management	Firmware Upgrade	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="UPGRADE"/>
I/O Control	Configurations	
EKB200 Setting	Load Factory Default	<input type="button" value="Load"/>
Miscellaneous	Load From File	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Load"/>
	Save to File	<input type="button" value="Save"/>
	Snapshot/Copy Storage Path	C:\Documents and Settings\jo_kuo\Local Setting <input type="button" value="Change"/> <input type="button" value="Save"/>
	* Please make sure you have permission (check Windows UAC) to access this folder.	
	Language	<input type="button" value="v"/>

**Remote Reboot:** Click to restart the mobile DVR.

**Shutdown:** Click the **Shutdown** button if you need to turn off the mobile DVR. When the message as below pops up on the screen, you can now turn off the mobile DVR.



**Firmware:** Shows the current firmware version of the mobile DVR.

**Firmware Upgrade:** Click to select a firmware file and then click **UPGRADE** to upgrade the latest firmware.

#### Configurations

**Load Factory Default:** Click to restore the mobile DVR to factory default settings. The User Account, Network IP Settings, and Time settings will not be affected.

**Load From File:** Click to upload the mobile DVR configurations restored in the computer.

**Save To File:** Click to save the mobile DVR configurations to the computer.

**Snapshot/Copy Storage Path:** Click **Change** to select a storage path on your computer for the snapshot images and copy recordings, and then click **Save** to save the settings.

**Language:** Choose which language the mobile DVR uses.



### 7.3.9 Information

You can see the mobile DVR information and Log data in this menu. Or export the log data to your computer.

#### 7.3.9.1 System

In the System Menu, you can only see the information of the mobile DVR, Network or HDD. No configuration can be done in this menu.

System	System	LAN
Log	Version v1.0.1_170811 Model EMV800FHD NTSC/PAL NTSC Web Version 1.0.12.11_170809 S/N 1M9487310001 MCU1 106 MCU2 103	IP 1 192.168.31.66 MAC 1 00:11:14:18:21:90 IP 2 0.0.0.0 MAC 2 00:11:14:18:22:4e MVR Name EMV800FHDMCB Network ID 1001
	Status	
	1	
	Storage OK	

#### 【System】

**Version:** Displays the firmware version.

**Model:** Displays the model name of the mobile DVR.

**NTSC / PAL:** Displays the current video format automatically detected by the mobile DVR.

**S/N:** Display the serial number of the mobile DVR.

#### 【LAN】

**IP 1 / IP 2:** Displays the IP address of LAN 1 / LAN 2 set up in the Network or Express menu.

**MAC 1 / MAC 2:** Displays the MAC address of LAN 1 / LAN2. This option cannot be changed.

**mobile DVR Name:** Displays the DDNS name if configured.

**Network ID:** The ID number for EverFocus' CMS as set up in the Alarm Server menu.

#### 【Status】

**Storage:** Displays the status of the internal hard disks. Normal hard disk operation is indicated by "OK".

### 7.3.9.2 Log

You can choose, display or export log data using this menu.

System

Log

From

Date

2015/04/19

Time

17:48

To

Date

2015/04/20

Time

17:48

Log Type

Configurations ☐

Event ☐

Record ☐

Operation ☐

User ☐

View Log

Log

Export

Export Log to File

**Start Date / End Date:** Click to set up the start / end date.

**Start Time / End Time:** Click to set up the start / end time.

**Log Type:** Select the desired log types.

**View Log:** Click to bring up the Log List shown as below.

ID	Time	Status
1	2015/04/20 17:47:59	[E]GPS Loss.
2	2015/04/20 17:47:49	[O]Archive.
3	2015/04/20 17:47:28	[E]GPS Loss.
4	2015/04/20 17:47:17	[O]Archive.
5	2015/04/20 17:46:57	[E]GPS Loss.
6	2015/04/20 17:46:45	[O]Archive.
7	2015/04/20 17:46:25	[E]GPS Loss.
8	2015/04/20 17:46:13	[O]Archive.
9	2015/04/20 17:45:54	[E]GPS Loss.
10	2015/04/20 17:45:41	[O]Archive.

Log:1/2233, Total:22326


Close

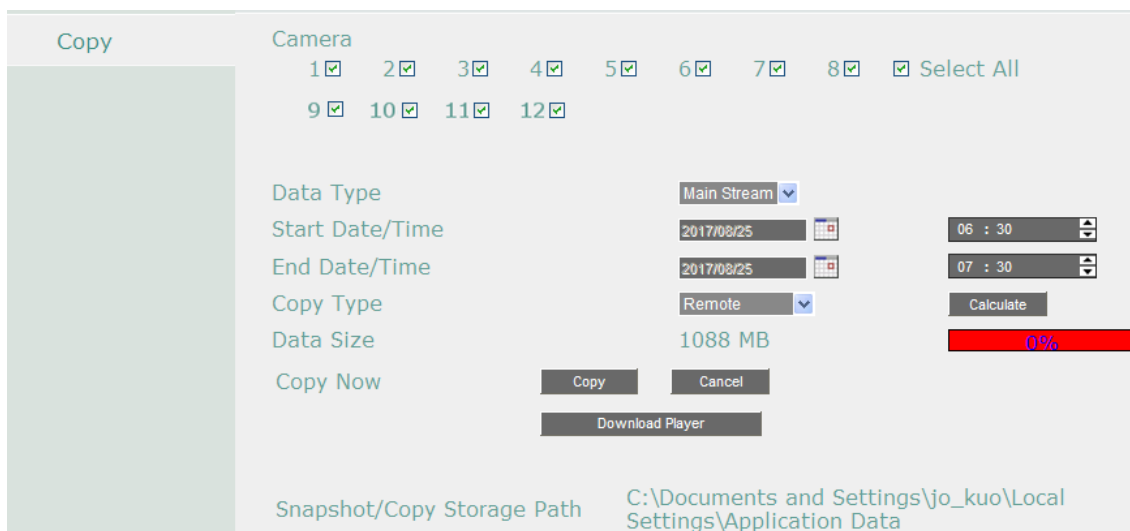
<< < 1 2 3 > >>

**Log:** Click to delete all the selected log data.

**Export Log to File:** Click the **Export** button to export the log data to the computer.

### 7.3.10 Copy

You can remotely archive the recordings to your computer. The archived recordings will be stored in .avr format. You can download EFPlayer through this menu to play back the recordings. On the Menu Bar, click the **Copy** icon , the following menu appears.



The screenshot shows the 'Copy' menu interface. On the left is a vertical 'Copy' sidebar. The main area contains the following elements:

- Camera:** A row of checkboxes for cameras 1 through 12, all of which are checked. A 'Select All' checkbox is also present and checked.
- Data Type:** A dropdown menu currently set to 'Main Stream'.
- Start Date/Time:** A date/time picker set to '2017/08/25' with a time of '06 : 30'.
- End Date/Time:** A date/time picker set to '2017/08/25' with a time of '07 : 30'.
- Copy Type:** A dropdown menu currently set to 'Remote'.
- Data Size:** Displays '1088 MB'.
- Copy Now:** A button labeled 'Copy' and a button labeled 'Cancel'.
- Download Player:** A button at the bottom.
- Snapshot/Copy Storage Path:** A text field showing the path 'C:\Documents and Settings\jo\_kuo\Local Settings\Application Data'.
- Progress Bar:** A red progress bar at the bottom right showing '0%'.

**Camera:** Select the desired cameras.

**Data Type:** You can copy the recordings of selected cameras from main stream, or sub stream.

**Start Date / Time:** Click to select the start date / time.

**End Date / Time:** Click to select the end date / time.

**Copy Type:** Select Remote to remotely archive the recordings to your computer.

#### Note:

1. If the Archiving Recording to the FTP server is working in progress, the **FTP Upload** function (refer to 7.3.3.1 Alarm and 7.3.3.3 Motion) will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. Once you have clicked the **Copy** button to start archiving, you can only wait until the copy process is done to start the next copy action.

**Data Size:** Indicates the data size of the selected camera recordings.

**Copy:** Click to select a storage path and start archiving.





**Cancel:** Click to cancel the archiving.




**Download Player:** Click to download the EFPlayer for playing back the archived recordings.

## EFPlayer:

Unzip the EFPlayer file and double-click to open it as below. The EFPlayer can only display up to 16 channels at one time.



No.	Name	Function Description
1	Information	Shows the recording information of the device, including model of the recorder, recording start time / date, current playback time, recording end time / date.
2	Load	Click to select a recording file and open it.
3	Save as AVI	Click to archive the recording file of 1 channel and save as AVI format.
4	Time Search	Click to search a recording from a selected time.
5	Channel Switch	Click to switch channel bar between CH1~16 and CH17~32.
6	Time Bar	Move the time bar to a desired time to play back the recording from that time.
7	Playback Controls	  : Click to fast reverse / fast forward.   : Click to reverse play /play.

		 : Click to pause play backing.
8	Snapshot	Click to take a snapshot of the channels displayed on the UI. You can save the snapshot file to a desired location.
9	Mute	Click to mute; click again to turn off the mute function.
10	Volume	Drag to increase or lower the volume.
11	Scale Out / In	Click to adjust time scale.
12	Screen Division	 : Click to display the channels to fit the screen.  : Click to select a desired screen division display mode (1, 4, 9, 16 screen division display modes). If the channels are more than the screen divisions, you can select the same screen division display mode to change the channels on the screen.
13	Speed	Shows the fast reverse / forward speed (up to 64X).

### 7.3.11 Search

You can search the recordings for playing back by using the **Search** menu.

### 7.3.11.1 Time Search

Select the Start Date and Time and then click the **Play** button to start playing back.


Time Search

Event Search

Smart Search

Start Date

2017/08/25



Start Time

06 : 33



Play

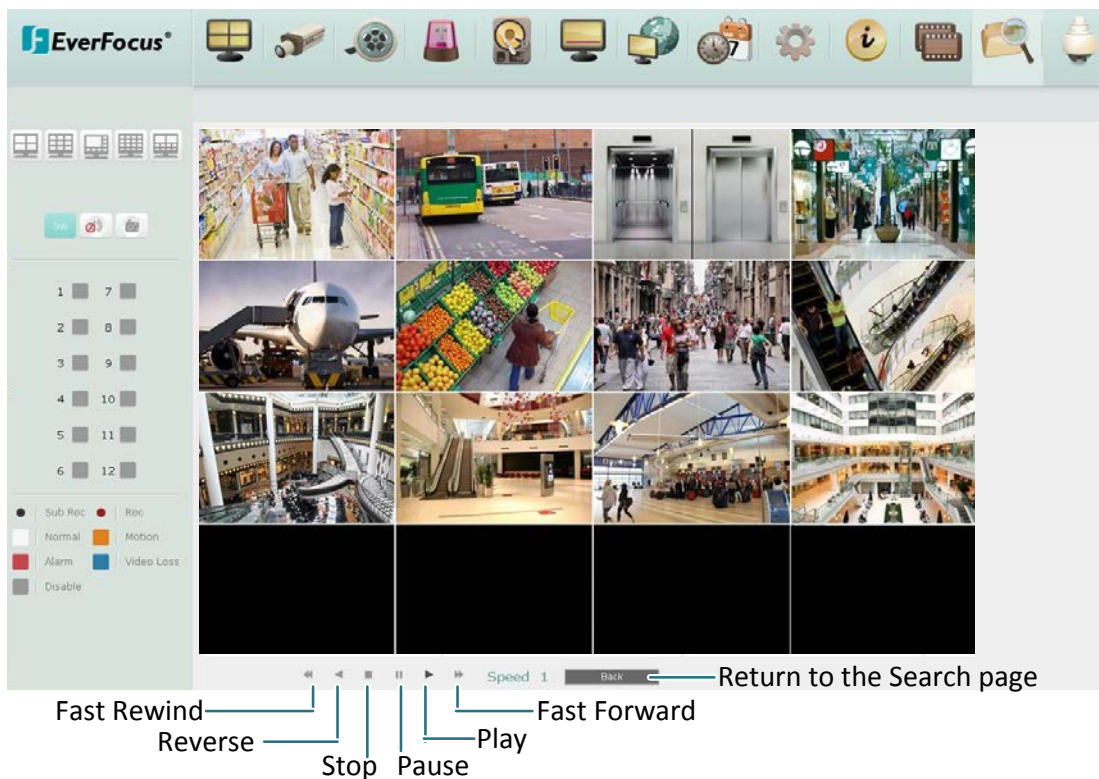
Record Time (Start)

2013/04/03 16:36

Record Time (End)

2017/08/25 07:32

After clicking the **Play** button, the following Remote Playback Window appears.





### 7.3.11.2 Event Search

Time Search
Event Search
Smart Search

Start Date
2017/08/25

End Date
2017/08/25

Start Time
06 : 33

End Time
07 : 33

Camera

1
2
3
4
5
6
7
8
Select All

9
10
11
12

Event

Alarm
Motion
Video Loss
GPS
G Sensor

Search

1. Select the Start/End Date/Time, select the desired cameras, select the desired event types and then click the **Search** button, the searched list appears.


Ch	Start Date / End Date	Lock	Type
1	2015/04/01 19:19:44 - 2015/04/02 17:46:34	N	Video Loss
2	2015/04/01 19:19:44 - 2015/04/02 17:46:34	N	Video Loss
1	2015/04/02 18:50:32 - 2015/04/02 19:02:19	N	Video Loss
2	2015/04/02 18:50:32 - 2015/04/02 19:02:19	N	Video Loss
1	2015/04/02 19:17:44 - 2015/04/02 19:45:28	N	Video Loss
2	2015/04/02 19:17:44 - 2015/04/02 19:45:28	N	Video Loss
1	2015/04/03 03:49:46 - 2015/04/10 05:46:24	N	Video Loss
2	2015/04/03 03:49:46 - 2015/04/10 05:46:24	N	Video Loss
1	2015/04/10 14:51:06 - 2015/04/10 18:14:41	N	Video Loss
2	2015/04/10 14:51:06 - 2015/04/10 18:14:41	N	Video Loss

The maximum select item is 50.

1/1 Total:10

Copy Play Back

<< < 1 > >>

2. To copy the selected event to your computer or FTP server, select **Remote** or **FTP** from the Copy Type drop-down list. Check the **Player** box if you want to include the **EFPlayer**  program in the copy. You can use the EFPlayer on a computer to play back the recordings. Please see the instruction the next page.

#### Note:

1. If the Archiving Recording to the FTP server is working in progress, the **FTP Upload** function (refer to 7.3.3.1 *Alarm* and 7.3.3.3 *Motion*) will stop. The system will start the FTP Upload function when the Archiving Recording to the FTP progress is complete.
2. Once you have clicked the **Copy** button to start archiving, you can only wait until the copy process is done to start the next copy action.

3. Select an event by clicking on the list and then click the **Copy** button.
4. To play back an event, select an event by clicking on the list and then click the **Play** button, the Remote Playback Window appears. You can now use the window to play back the recordings.





### 7.3.11.3 Smart Search

The Smart Search function allows users to search for the motion event recordings. You can set up the motion areas in this setup menu and then search for the motion events within the specified time.

Time Search	Start Date	2013/01/21	End Date	2013/01/21
Event Search	Start Time	02 : 34	End Time	03 : 34
Smart Search	Camera	1	Grid Setting	Search

**Start Date / End Date:** Click to bring up the on-screen keyboard to select the start / end date.

**Start Time / End Time:** Click to bring up the on-screen clock to select the start / end time.

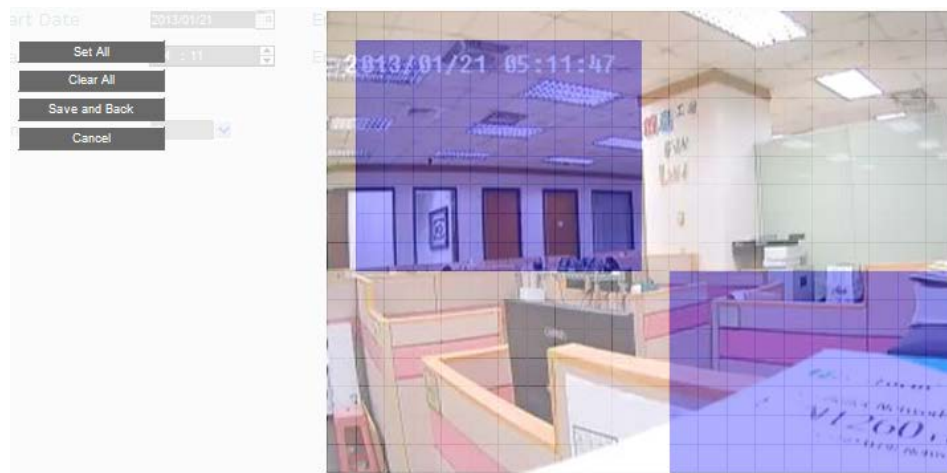
**Camera:** Select a desired camera to be searched.

**Grid Setting:** Click to set up the motion areas. The Motion Grid Setup menu appears.

**Search:** Click to start searching. The search results will be listed in the Event List menu.

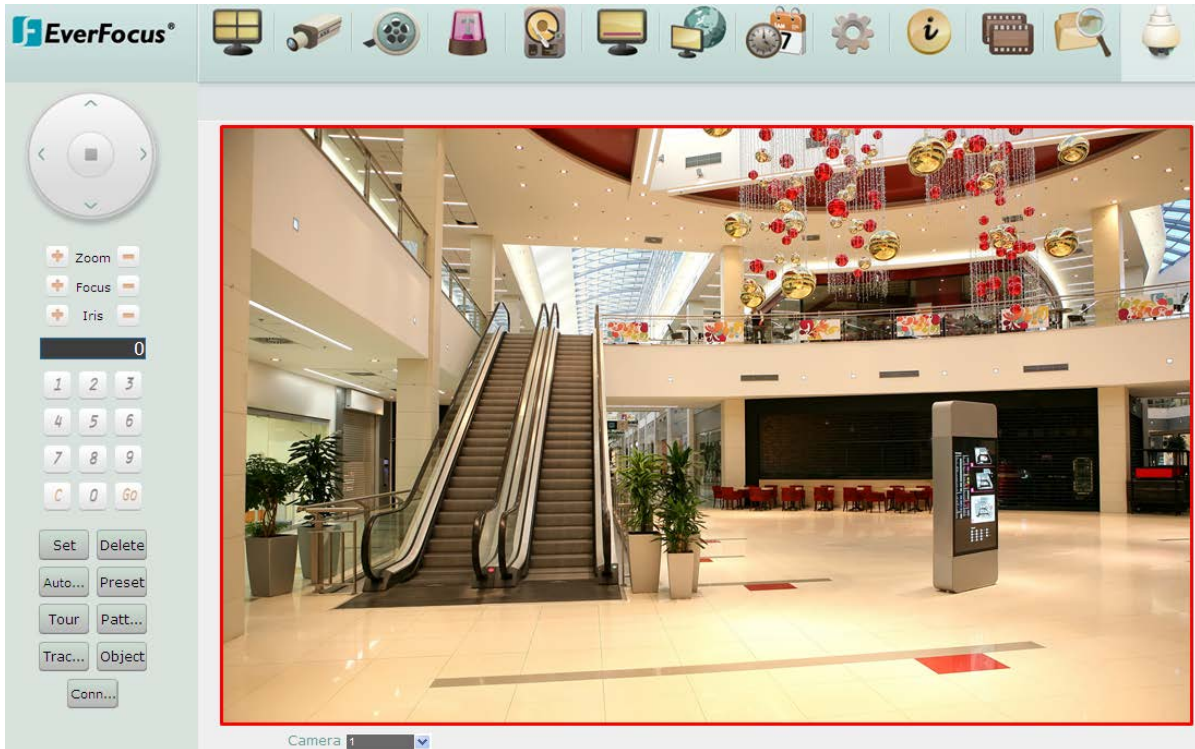
To set up the Motion Grid:

1. To set up a motion area, drag a rectangle with your mouse (from top to bottom / upper-left to lower-right). The selected areas will be highlighted in purple (see image below). You can also click the **Set All** button to select all grids.
2. To delete a motion area, drag a rectangle with your mouse (from bottom to top / lower-right to upper-left). You can also click the **Clear All** button to erase all grids.
3. Follow Step 1 and 2 to set up multiple motion areas if necessary.
4. Click the **Save & Back** button to save the settings and then return to the Smart Search menu.



### 7.3.12 PTZ

You can use the PTZ Control Panel to control the connected PTZ cameras, to set **Preset** setting and to activate the configured PTZ settings. You can also connect to an EverFocus' EKB200 keyboard to a computer to control the PTZ camera.



#### To control the PTZ camera:

1. Select a connected PTZ camera in the **Camera** drop-down list first.
2. To move the camera to the desired direction and angle, click the **Direction** buttons.
3. To zoom in / out the camera view, click the **Zoom** buttons.
4. To adjust the camera focus, click the **Focus** buttons.
5. To adjust the Iris open to increase / decrease the amount of light in, click the **Iris** buttons.
6. To program a Preset Position (if supported by the camera):
  - a. Move the PTZ camera to the desired position.
  - b. Click the **Preset** button.
  - c. Set up a preset number for the current position by clicking the number buttons. The number will be displayed in the number box.
  - d. Click the **Set** button to save the settings.
7. To jump to a Preset Position:
  - a. Click the **Preset** button.
  - b. Click the desired Preset number.
  - c. Click the **Go** button.

8. Shortcut for Preset 1 ~ 9:
  - a. Click digit 1 ~ 9 button without clicking any other buttons.
  - b. The camera will seek that Preset Position.
9. To delete a Preset Position (if supported by the camera):
  - a. Click the **Preset** button.
  - b. Click the desired Preset number.
  - c. Click the **Delete** button.
10. To operate the Auto Pan function, click the **Auto Pan** button.
11. To operate the Pattern function, click the **Pattern** button. The Pattern is the "0" Tour in EverFocus and Pelco PTZ cameras.
12. To operate the Tour function:
  - a. Click the **Tour** button.
  - b. Click the desired Tour number.
  - c. Click the **Go** button.
13. To remove a pre-configured Tour (if supported by the camera):
  - a. Click the **Tour** button.
  - b. Click the desired Tour number.
  - c. Click the **Delete** button.
14. To start the auto-tracking function, click the **Track** button.
15. To start tracking an object on the screen, click the **Object** button. When the object selection box displays on the screen, click to select an object to start auto tracking. Once the PTZ camera loses track of the object, the camera will return to the auto tracking start point. Please select forward position in the object movement path to get better tracking result.

Click **C** to clear the entered number in the Number Box.

**Note:** Before start using the Auto Pan, Pattern, Tour, Tracking and Object functions, you have to configure the related settings for the connected PTZ cameras. Please refer to 7.3.12 PTZ or the User's Manual of your PTZ cameras.

#### Control PTZ Camera over EKB200 Keyboard:

When using an EKB200 keyboard, you need to click the **Connect** button on the PTZ Control Panel. Please note that you need to configure the PTZ control functions and define the function for each control key on the keyboard before controlling the PTZ camera over the EKB200 keyboard (see 7.3.12 PTZ and 7.3.8.6 EKB200 Setting). For information about the installation of the EKB200 keyboard, please refer to your EKB200 keyboard User's Manual.

# Chapter

# 8

## 8. Specifications

Model Name			EMV1200 FHD	EMV800 FHD
Video Input	Number of Channels		12 CH	8 CH
	Video Compression		H.264	
Audio	Audio Inputs		12	8
	Outputs		1 (RCA)	
Video Output	Main Monitor		VGA x 1	
	Call Monitor		BNC x 1 / RCA x 1	
Recording	Recording Resolution		1080p / 720p / D1 / 2CIF / CIF / QCIF	
	Recording Mode		Event, Normal + Event, Schedule	
	Recording Rate	NTSC	15fps @ 1080p, 30fps @ all other resolutions	30fps @ all resolutions
		PAL	12.5fps @ 1080p, 25fps @ all other resolutions	25fps @ all resolutions
	Pre Alarm Recording		Yes	
Playback	Playback Mode		Duplex	
	Playback Search		Time Search, Event Search, Snapshot Search	
Video Detection & Alarm	Alarm Inputs		8	
	Alarm Outputs		2	
	Video Loss Detection		Yes	
	Event Alarm		Yes	
Network	Ethernet		RJ-45 port x 1 (10/100/1000M), M12 port x 1 (10/100M)	
	Wi-Fi		Yes (Optional)	
	3G / 4G		Yes (Optional)	
	GPS		Yes (Optional)	
Storage	HDD		2.5" HDD x 1 (Max. 2TB) or SSD (Max. 4TB)	
	SD Card		SD/SDHC Card (Max. 128GB) – for alarm event backup recording only	

External Interface	Interfaces	RJ-45 x 1, RS-232 x 3, RS-485 x 1, USB x 3, USB(M12) x 1, LAN(M12) x 1
General	G-Sensor	3-Axis G-Sensor embedded
	System Control	IR Remote Control, Mouse, Web UI
	PTZ Control	Yes
	Power Source	9-36 VDC
	Power Consumption	20W / 60W (Heater On)
	Power Output	4 Sets (12VDC, 5A in total)
	Operating	-40°C~55°C / -40°F~131°F
	Dimensions (W x D x H)	229.6 x 218 x 63.4mm / 9.04" x 8.58" x 2.5"
	Weight	2.6kg / 5.73lb
	Certificates	CE, FCC, E-Mark, EN50155, SAE-J1455 (shock & vibration only)
<b>Remote Client System Minimum Requirements</b>		
Operating	Windows XP (32-bit) / Win7 (32 and 64-bit)	
CPU	Intel Core I3-2100	
RAM	2GB	
VGA	Intel HD 2000	
LAN Speed	10 / 100 / 1000 Mbps (RJ45)	
Web Browser	IE11 and later, Firefox 50 and earlier, Chrome 44 and earlier, EF browser	
Other Remote Application	1. EverFocus' Xfleet fleet management server system. 2. EverFocus' mobile app: MobileFocus (iOS and Android);	

# Chapter 9

## 9. Troubleshooting

If you have problems with the system, run through the following checklist to see if you can solve the problem.

- ❑ **The mobile DVR will not go into record mode.**
  - Bring up the mobile DVR's Menu and check under the Camera Menu. Verify that all connected cameras are checked as "Installed" and that Record Mode is set to "Continuous".
  - Check the Disk or Information Menus and verify that the internal hard drive is being detected.
- ❑ **The mobile DVR displays nothing on the main monitor.**
  - Make sure the monitor is connected to either BNC Main Monitor port or the VGA port. If the monitor has multiple inputs, make sure it is on the correct input source and display setting (1024x768).
  - Check that the monitor cables are good and power is on.
  - Verify the recorder is getting the correct supply power.
- ❑ **There is no display coming from one of the channels on the mobile DVR.**
  - In the mobile DVR's Camera Menu, make sure that all cameras are checked as "Installed" and unchecked for "Covert".
  - If there is still no picture, switch ports or connect a working camera to the port that has no picture. If you get an image, the problem is coming from the camera or cable.
- ❑ **I cannot connect to the recorder via the internet.**
  - Check that you can connect to the mobile DVR on the LAN.
  - Check that the mobile DVR has a static IP address and the port used by the mobile DVR is forwarded correctly to that IP address in the router.
  - Verify that your Internet Service Provider does not block the IP port being used
  - Make sure you are using the correct WAN IP address given by the ISP, or, if you have a Dynamic IP, check if the IP address has changed; use DDNS to avoid problems caused by changing ISP addresses.

## Appendix

# A

## Appendix A: Network Overview

This chapter will give you a basic instruction on how to set up the mobile DVR for network connection. It is highly recommended that you have a working knowledge of what a network is and how it works. This will be helpful in completing the networking process.

### Introduction to TCP / IP

TCP/IP is the group of protocols used by the Internet and most Local Area Networks (LANs) throughout the world. In TCP/IP, every computer or other communications device that is connected to the network has a unique IP address. By doing this you are giving your device a unique address similar to the address of your house. An IP address is composed of four octets (numbers in the range of 0 to 255) separated by decimal points. The IP address is used to uniquely identify a host or computer on the LAN. For example, one computer on a network could have an IP address of 192.168.1.127.

You should never give two or more devices the same exact IP address, but the first three octets of an IP address is often the same for all computers in the local area network. For example, if a total of 253 computers exist in a single LAN, the IP addresses could be assigned starting with 192.168.1.x, where x represents a number in the range of 2 to 254. An IP address could be compared with a telephone number.

### Subnet Masks

Each host in a LAN has a subnet mask. The subnet mask is a set of octets that is used to determine which LAN or class it belongs to. The number 255 is usually used to represent the network address portion of the IP address and a zero is placed at the end to identify the host portion of the address. Basically the subnet mask tells the devices how the network addresses are organized, and helps to determine which addresses are local and which are remote (on the other side of the router).

## Gateway Address

Addressees are either local or remote. A gateway address is composed of four octets separated by decimal points. The gateway address is used to uniquely identify the device on the LAN that has access to the communications links connecting to other LANs, WANs and/or the Internet (access to the 'remote' addresses).

## Virtual Ports

A **port number** represents a "channel" or entryway for network communications. Port numbers allow different computers to utilize network resources without interfering with each other. Port numbers most commonly appear in network programming, particularly socket programming. Sometimes, though, port numbers are made visible to the casual user. For example, some websites on the Internet use a URL like the following:  
`http://www.sitename.com:8100/`

In this example, the number 8100 refers to the port number used by the browser to connect to the web server. The standard port number used by web sites is 80, so this number does not need to be included with the URL (although it can be). In IP networking, port numbers can theoretically range from 0 to 65535. Most popular network applications, though, use port numbers at the lower end of the range (such as 80 for HTTP). Ports are similar to doors and windows of your house, with port 80 acting as the front door. If these are not open you could not enter the house. This is the same case with ports on a network. If the ports for a specific IP address are not open then you could not gain access to that IP address.

---

**Note:** The term port also refers to several other aspects of network technology. A port can refer to Ethernet connection points, such as those on a hub, switch, or router. The term port is also used to refer to a physical connection point for peripheral devices such as serial, parallel, and USB ports.

---

Another analogy would be: if a WAN IP address is similar to the phone number identify a site, IP ports are similar to telephone extensions, in that they allow communication with specific devices within a site that all share the same external (WAN) IP address. A router is a device which allows multiple computers and other IP enabled equipment to share that single WAN IP address. It functions like a "switchboard operator" – opening ports creates an association between those port numbers and the LAN IP address of specific equipment on the LAN behind the router. When the router sees a 'call' for a specific 'extension' (port), it directs that data stream to the (LAN IP address of the) equipment associated with that 'extension' (port).



## Pre-Installation

Before beginning the installation, please answer the following questions:

- Do you have Hi-speed Internet? \_\_\_\_\_

There are many types of high speed Internet available. The most common ones are T1, Cable, and DSL (in order of speed). The mobile DVR is not compatible with a dial-up connection.

**Note:** EverFocus suggests having a minimum upload speed of 256KBps. This can be addressed by your Internet Service Provider.

- What type of modem/router do you have? \_\_\_\_\_  
Modem/router model name/ #

The modem/router was either installed by your Internet service provider or purchased by you to establish a connection to the Internet. A router assigns different internal IP addresses to local computers; this allows multiple computers to access the Internet through the same external IP address.

- Do you have a static IP address? \_\_\_\_\_

A Static IP address means you use the same IP address every time you connect to the Internet. With a static IP address, other Internet users always know the address of your location and can easily connect with it. This makes it much simpler to host a website, email server, or other type of server connection. Everfocus suggests using a static IP address. If this is not available, you will need to use a dynamic IP address. This is explained below.

- Do you have a dynamic IP address? \_\_\_\_\_

A Dynamic IP address means your IP address changes each time you connect to the Internet. We recommend asking your Internet service provider for a Static IP address. If this is not a possibility, you may use the DDNS feature of the mobile DVR. DDNS stands for Dynamic Domain Name Server, a service that provides a central database where IP information can be stored and retrieved. It allows those using a dynamic IP address to be registered centrally so users can connect to it by name. See 7.3.6.5 DDNS for details on using EverFocus DDNS.

- What type of (mobile) DVR are you installing? \_\_\_\_\_

The default ports are

ECOR264: 80

Paragon: 80

ECOR: 80, 1600

EDR/Emobile DVR: 80, 1600, and 37260 – 37263

EMV: 80

ELUX: 80

If the ports were changed in the Network Setup, use those port numbers.

## Pre-Installation

EverFocus' mobile DVR can operate using one of three types of networking connections.

**Simple One to One Connection:** A simple one to one connection is the simplest type of network connection. It uses a cross-over cable to make a direct connection from one computer to another (or in this case a computer to a mobile DVR).

**Direct High Speed Modem Connection:** A direct modem connection uses a standard network cable to connect the modem directly to a computer (or in this case a modem to the mobile DVR). This type of connection only covers single-port modems. For a combination modem/router, use the setup described below.

**Router or LAN Connection –** A local area network connection requires either a router or a pre-existing LAN connection. This is the most common type of connection. A router allows multiple computers and mobile DVR's to access each other as well as the Internet. It assigns different internal IP addresses to the computers.

# Appendix B

## Appendix B: Linksys & D-Link Port Forwarding

### Typical Linksys Port Forwarding

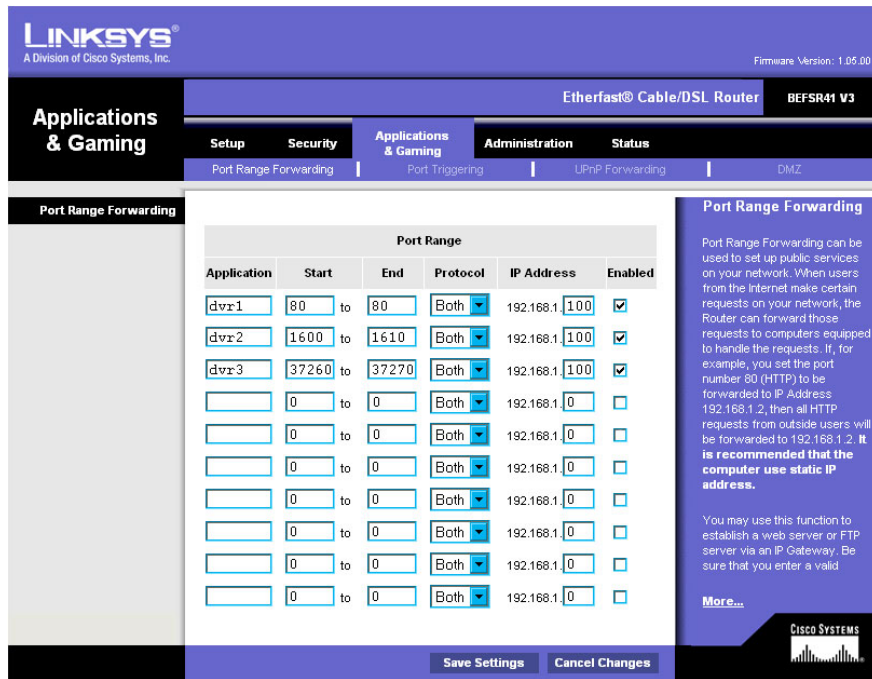
This section will cover a few simple configurations for the Linksys router. This chapter is only to offer some help to the installer and end user. Please understand we **DO NOT** support this product and will not give tech support on it. If you need additional technical support on this router you must call Linksys.

To access the Web-based Utility, launch a web browser and type the Router's IP address, typically **192.168.1.1**, in the address bar. Then press Enter. A password request page will appear. (Non-Windows XP users will see a similar screen.) Leave the User Name field blank. The first time you access the router, use the default password **admin**. Click the **OK** button to continue.



The first screen that appears displays the Setup tab. This allows you to change the Router's general settings. Change these settings as described here and click the **Save Settings** button to apply your changes or **Cancel Changes** to cancel your changes.

Click on the “Applications & Gaming” tab.



Application	Start	End	Protocol	IP Address	Enabled
dvr1	80	80	Both	192.168.1.100	<input checked="" type="checkbox"/>
dvr2	1600	1610	Both	192.168.1.100	<input checked="" type="checkbox"/>
dvr3	37260	37270	Both	192.168.1.100	<input checked="" type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>

Applications and Gaming allows you to set up public services on your network, such as web servers, ftp servers, e-mail servers, or other specialized Internet applications. (Some Internet applications may not require any forwarding) To forward a port, enter the information on each line for the criteria required. Descriptions of each criterion are described here.

**Application** - In this field, enter the name you wish to give the application.

**Start/End** - Enter the starting number of the range under **Start** and the ending number under **End**.

**Protocol** - Enter the protocol used for this application, either **TCP** or **UDP**, or **Both**.

**IP Address** - For each application, enter the IP Address of the PC running the specific application.

**Enable** - Click the **Enable** checkbox to enable port forwarding for the relevant application.

When finished making changes, click the **Save Settings** button to apply your changes or **Cancel Changes** to cancel them.

Here is an example for how the port information might look:

HTTP 80 to 80 Both 192.168.1.50 Enable

Where 192.168.1.50 is the IP address of the mobile DVR on the LAN, and the default port 80 is in use.

**Note:** If you changed port 80 in the mobile DVR’s Network Menu, open that port instead of 80.

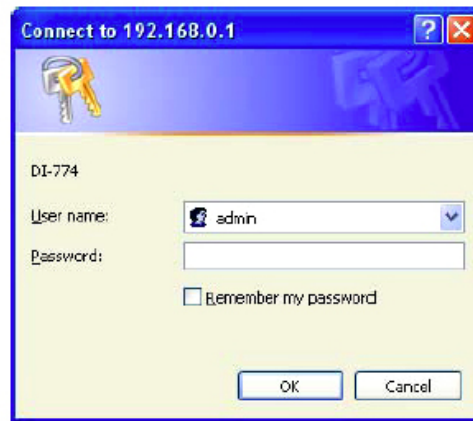
## Typical D-Link Port Forwarding

This section will cover a few simple configurations for the D-Link router. This chapter is only to offer some help to the installer and end user. Please understand we **DO NOT** support this product and will not give tech support on it. If you need additional technical support on this router you must call D-Link.

Whenever you want to configure your network or the DI-624, you can access the Configuration Menu by opening a web-browser and typing in the IP Address of the DI-264.

The DI-264 default IP Address is 192.168.0.1.

- Type “admin” in the **User Name** field
- Leave the **Password** blank
- Click **OK**



The first screen that shows up is the Home Tab. This is the starting point for all the router's settings and functions.

Click Virtual Servers on the left to bring up the following screen.



Virtual Servers allows users who are connecting remotely to access services on the router's Local Network. The functions of each field are described below.

**Virtual Server** - Select **Enabled** or **Disabled**

**Name** - Enter the name referencing the virtual service

**Private IP** - The IP address of the device running the local services.

**Protocol Type** - The protocol used for the virtual service.

**Private Port** - The port number that the service uses on the LAN (Local Area Network).

**Public Port** - The port number that the services uses on the WAN (Wide Area Network).

**Schedule** - The time period the virtual server will be active.

When you have input all the information for a virtual server, click on **Apply** to add it to the list at the bottom or **Cancel** to clear all fields.

Here is an example of the information for each service:

<u>Name</u>	<u>Private IP</u>	<u>Protocol</u>	<u>Private Port</u>	<u>Public Port</u>	<u>Schedule</u>
HTTP	192.168.1.50	Both	80	80	Enable

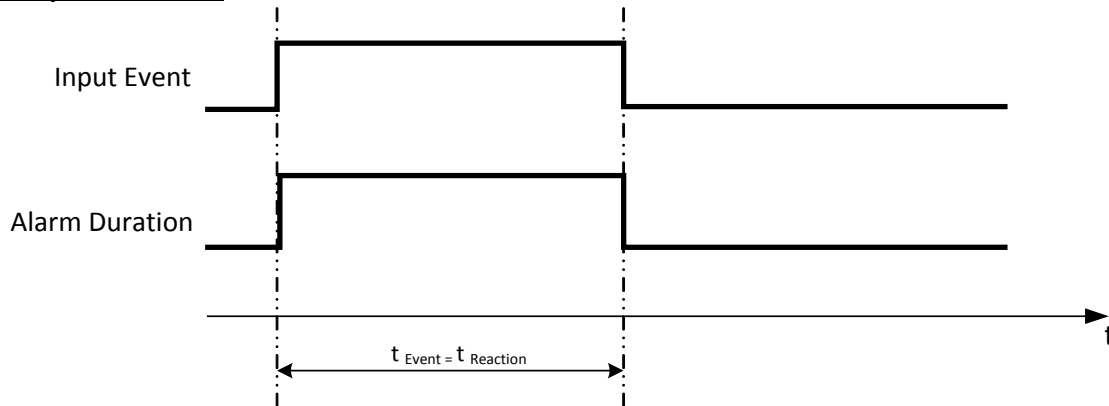
Where 192.168.1.50 is the IP address of the mobile DVR on the LAN, and the default port 80 is in use.

**Note:** If you changed port 80 in the mobile DVR's Network Menu, open that port instead of 80.

# Appendix C

## Appendix C: Timing of Alarm Modes

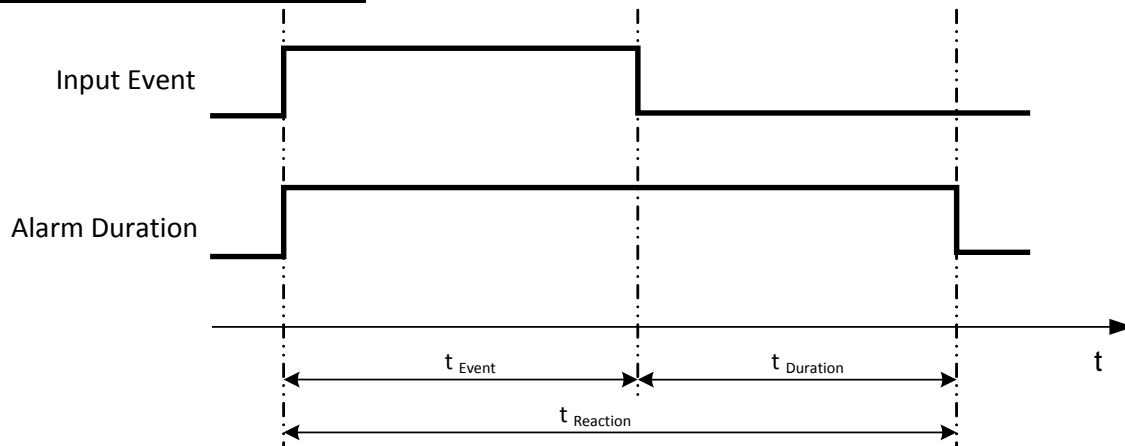
### Transparent Mode



$t_{\text{Event}}$ : Duration of alarm input source (contact, system events...)

$t_{\text{reaction}}$ : Resulting duration for this alarm mode, related to event record, alarm outputs, OSD message, buzzer

### Timeout + Transparent Mode

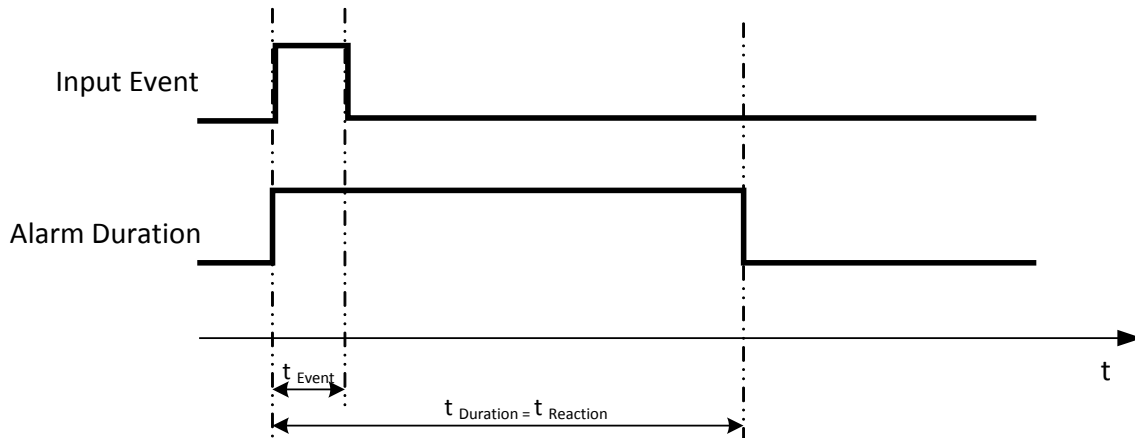


$t_{\text{Event}}$ : Duration of alarm input source (contact, system events...)

$t_{\text{Duration}}$ : Alarm duration for timeout, defined in the event setup menus

$t_{\text{reaction}}$ : Resulting duration for this alarm mode, related to event record, alarm outputs, OSD message, buzzer

### Timeout Mode

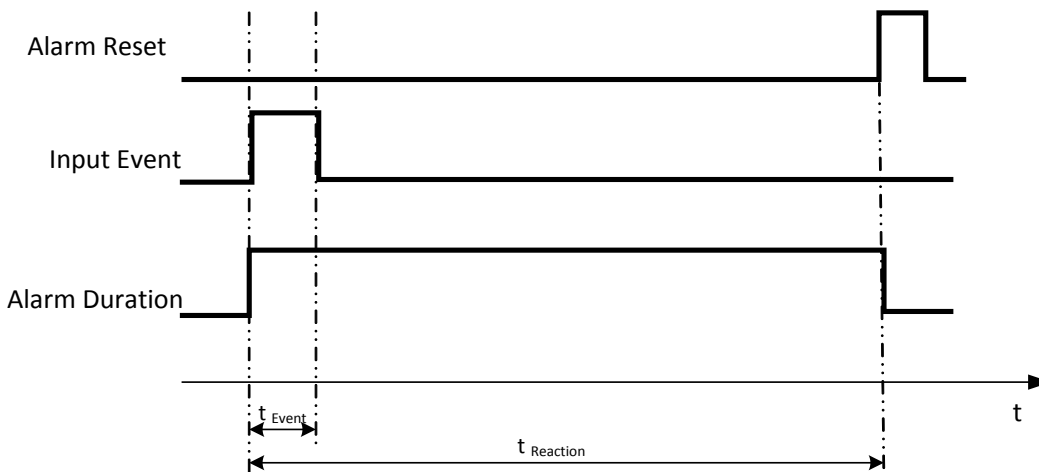


**$t_{Event}$ :** Duration of alarm input source (contact, system events...)

**$t_{Duration}$ :** Alarm duration for timeout, defined in the event setup menus

**$t_{reaction}$ :** Resulting duration for this alarm mode, related to event record, alarm outputs, OSD message, buzzer

### Permanent Mode



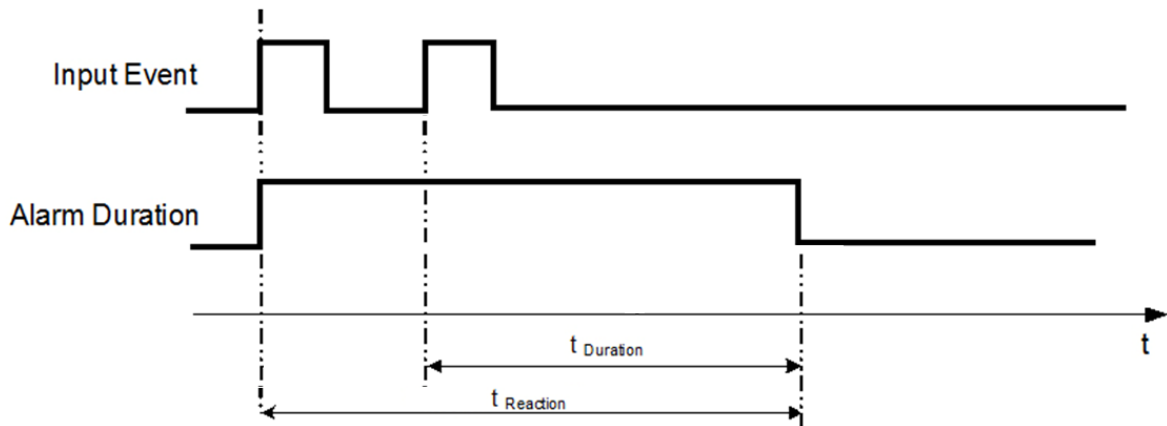
**$t_{Event}$ :** Duration of alarm input source (contact, system events...)

**$t_{Duration}$ :** Alarm duration for timeout, defined in the event setup menus

**$t_{reaction}$ :** Resulting duration for this alarm mode, related to event record, alarm outputs, OSD message, buzzer



### Timeout Mode: Retrigger of Alarms

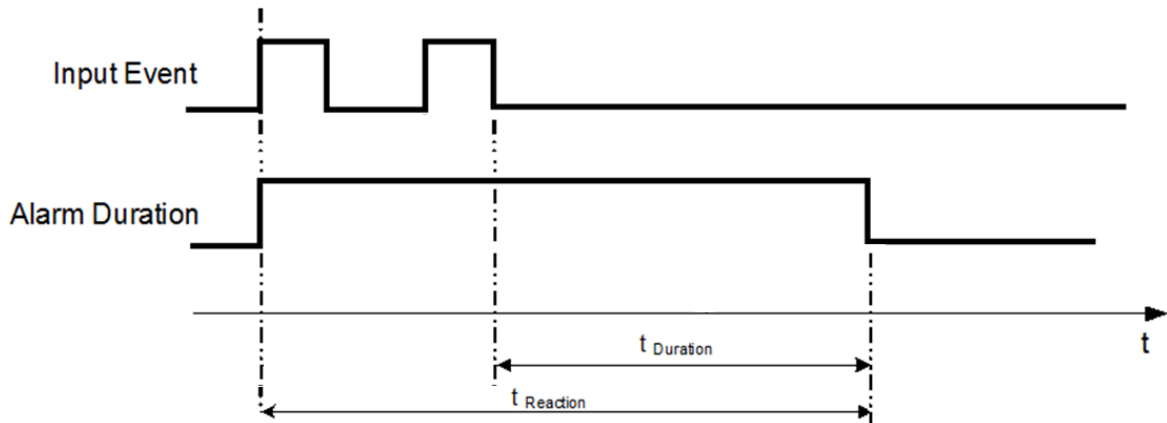


$t_{\text{Event}}$ : Duration of alarm input source (contact, system events...)

$t_{\text{Duration}}$ : Alarm duration for timeout, defined in the event setup menus

$t_{\text{reaction}}$ : Resulting duration for this alarm mode, related to event record, alarm outputs, OSD message, buzzer

### Timeout+Transparent Mode: Retrigger of Alarms



$t_{\text{Event}}$ : Duration of alarm input source (contact, system events...)

$t_{\text{Duration}}$ : Alarm duration for timeout, defined in the event setup menus

$t_{\text{reaction}}$ : Resulting duration for this alarm mode, related to event record, alarm outputs, OSD message, buzzer

# Appendix D

## Appendix D: Express Setup Recording Value Selection Rules

### Case 1:

**Record Mode: Normal + Event**

**Record With: Recording days**

The mobile DVR will Auto adjust image Quality and Event frame rate to match the number of Recording days which user selected:

According to resolution, event hours and other assumptions above, the mobile DVR will attempt to select one set of suitable quality and event frame rate by checking if set 1 meets the requirements, and proceed in order unit the requirements are met. If the mobile DVR can't match the required record days from one of the 8 sets, it will use set 8.

Checking Order	1	2	3	4	5	6	7	8
Normal Frame Rate	1	1	1	1	1	1	1	1
Quality	Superior	Standard	Low	Low	Low	Low	Low	Low
Event Frame Rate	30	30	30	15	10	7.5	5	1

### Case 2:

**Record Mode: Event Only**

**Record With: Recording days**

Mobile DVR will Auto adjust Quality and Event frame rate to match the Recording days which user need:

According to resolution, event hours and other assumptions above, the mobile DVR will attempt to select one set of suitable quality and event frame rate by checking if set 1 meets the requirements, and proceed in order unit the requirements are met. If the mobile DVR can't match the required record days from one of the 8 sets, it will use set 8.

Checking Order	1	2	3	4	5	6	7	8
Quality	Superior	Standard	Low	Low	Low	Low	Low	Low
Event Frame Rate	30	30	30	15	10	7.5	5	1

### Case 3:

**Record Mode: Normal + Event or Event Only**

**Record With: Preset Setting**

Mobile DVR will apply the settings in the table below to all cameras according to the Preset Settings.

Preset Setting Option	Camera Item	Apply Value
Best Quality	Quality	Superior
	Normal Frame Rate	Max recording frame rate of mobile DVR
	Event Frame Rate	30
Standard Quality	Quality	Standard
	Normal Frame Rate	Half of max recording frame rate of mobile DVR
	Event Frame Rate	30
Extended Quality	Quality	Basic
	Normal Frame Rate	1
	Event Frame Rate	10

# Appendix E

## Appendix E: IR Remote Control

The IR remote control is an accessory to enhance the convenient operation of the mobile DVR. You can perform all the settings and operations from the remote control. The effective distance is up to 33 feet line of sight.



**MDVR Device Number:** The ID number here must correspond to the “IR Remote ID” in “I/O Control Setup Menu”. The buttons are used to select a mobile DVR when there is more than one unit. Selecting an incorrect unit ID will prevent the mobile DVR from responding to commands from the remote.

**Channel keys:** #1~4 / #1~8 / #1~12. Press to display that channel in full screen.

### To use the IR remote control, you need to set up the setting as below:

1. On the OSD menu, go to **System > System Setting > IO Control**.
2. Set up an **IR Remote ID** (Range 1~4), for example, set up “2”.
3. Click **Save**.
4. Take the remote control to aim at the IR receiver of the mobile DVR.
5. Press the **MDVR Device Number** button “2”.
6. Now, you will be able to use this remote control to operate the mobile DVR.

# Appendix F

## Appendix F: RTSP URL Syntax

EverFocus provides 2 / 4 / 8 / 12 / 16 / 32 channels DVR, NVR or Mobile DVRs. The RTSP URL Syntax of EverFocus' DVR, NVR and Mobile DVR are listed as below:

### 2CH MDVR:

Main Stream	rtsp://[device-ip-address]/3GPP/[channel-number 0~1]  * [device-ip-address] is the IP address of the MDVR * [channel-number 0~1] is the channel number of the MDVR. 0 for channel 1, 1 for channel 2.
Sub Stream	rtsp://[device-ip-address]/3GPP/[channel-number 2~3]  * [device-ip-address] is the IP address of the MDVR * [channel-number 2~3] is the channel number of the MDVR. 2 for channel 1, 3 for channel 2, and so on.

### 4CH DVR / NVR / MDVR:

Main Stream	rtsp://[device-ip-address]/3GPP/[channel-number 0~3]  * [device-ip-address] is the IP address of the DVR/NVR/MDVR * [channel-number 0~3] is the channel number of the DVR/NVR/MDVR. 0 for channel 1, 1 for channel 2, and so on.
Sub Stream	rtsp://[device-ip-address]/3GPP/[channel-number 4~7]  * [device-ip-address] is the IP address of the DVR/NVR/MDVR * [channel-number 4~7] is the channel number of the DVR/NVR/MDVR. 4 for channel 1, 5 for channel 2, and so on.

**8CH DVR / NVR / MDVR:**

Main Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 0~7]</p> <p>* [device-ip-address] is the IP address of the DVR/NVR/MDVR</p> <p>* [channel-number 0~7] is the channel number of the DVR/NVR/MDVR. 0 for channel 1, 1 for channel 2, and so on.</p>
Sub Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 8~15]</p> <p>* [device-ip-address] is the IP address of the DVR/NVR/MDVR</p> <p>* [channel-number 8~15] is the channel number of the DVR/NVR/MDVR. 8 for channel 1, 9 for channel 2, and so on.</p>

**12CH MDVR:**

Main Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 0~11]</p> <p>* [device-ip-address] is the IP address of the MDVR</p> <p>* [channel-number 0~11] is the channel number of the MDVR. 0 for channel 1, 1 for channel 2, and so on.</p>
Sub Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 12~23]</p> <p>* [device-ip-address] is the IP address of the MDVR</p> <p>* [channel-number 12~23] is the channel number of the MDVR. 12 for channel 1, 13 for channel 2, and so on.</p>

**16CH DVR / NVR / MDVR:**

Main Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 0~15]</p> <p>* [device-ip-address] is the IP address of the DVR/NVR/MDVR</p> <p>* [channel-number 0~15] is the channel number of the DVR/NVR/MDVR. 0 for channel 1, 1 for channel 2, and so on.</p>
Sub Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 16~31]</p> <p>* [device-ip-address] is the IP address of the DVR/NVR/MDVR</p> <p>* [channel-number 16~31] is the channel number of the DVR/NVR/MDVR. 16 for channel 1, 17 for channel 2, and so on.</p>

**32CH DVR / NVR:**

Main Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 0~31]</p> <p>* [device-ip-address] is the IP address of the DVR/NVR</p> <p>* [channel-number 0~31] is the channel number of the DVR/NVR. 0 for channel 1, 1 for channel 2, and so on.</p>
Sub Stream	<p>rtsp://[device-ip-address]/3GPP/[channel-number 32~63]</p> <p>* [device-ip-address] is the IP address of the DVR/NVR</p> <p>* [channel-number 32~63] is the channel number of the DVR/NVR. 32 for channel 1, 33 for channel 2, and so on.</p>

# Appendix G

## Appendix G: Tested Card Brands

Please go to the EMV800 FHD / 1200 FHD Web page on our website <http://www.everfocus.com.tw> to see the latest SD Card Compatibility List. It's recommended to use the SD card models listed on the Storage Compatibility List to ensure your SD cards will be compatible.

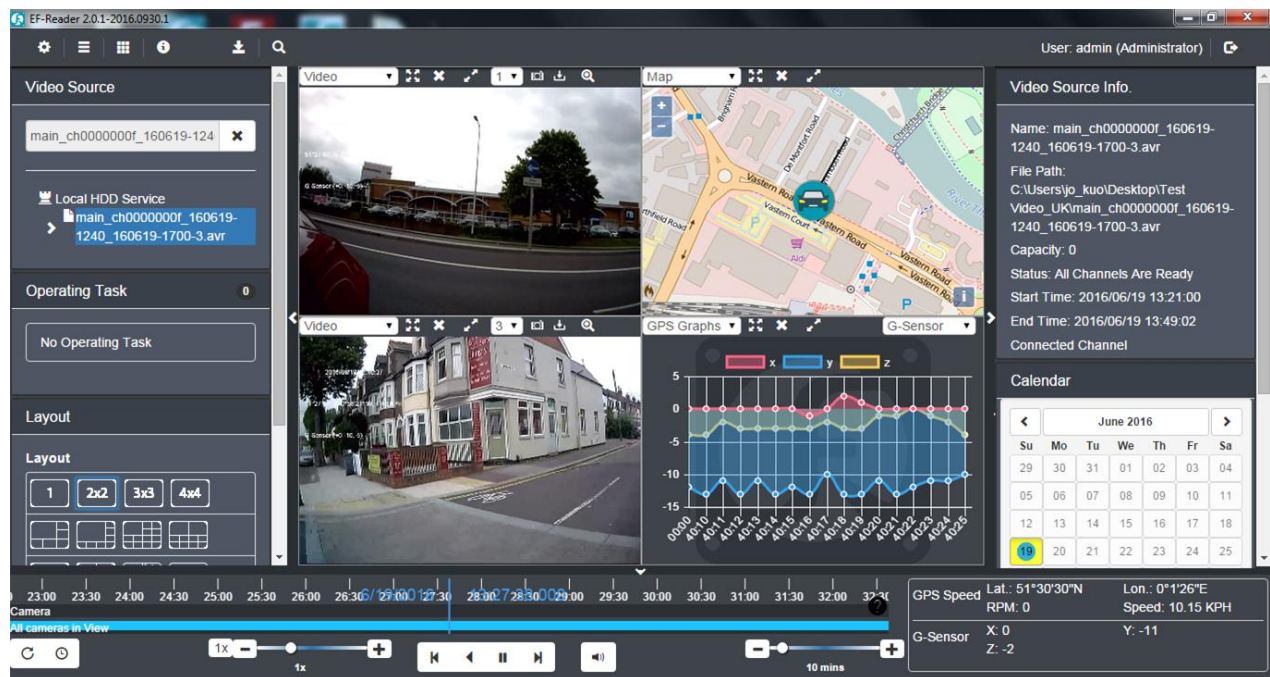


# Appendix H

## Appendix H: Recording Backup through EF-Reader

EverFocus EF-Reader is an enhanced HDD reader enabling users to access HDDs / SD cards locally or remotely and further play back the recordings. Users granted with privileges are allowed to log in the EF-Reader and operate the specific functions. The EF-Reader supports AVI, MP4 and AVR file formats. Moreover, the meta data or the GPS data from the source recordings can also be played back on the Playback Window graphically; or be exported in .kml (GPS data) files.

The EF-Reader supports various functions including Event Search, Archive, AB Repeat Playback, Format Convert, Mask, Watermark and etc.. To know more about EF-Reader, please refer to *EF-Reader User's Manual*.




# Appendix

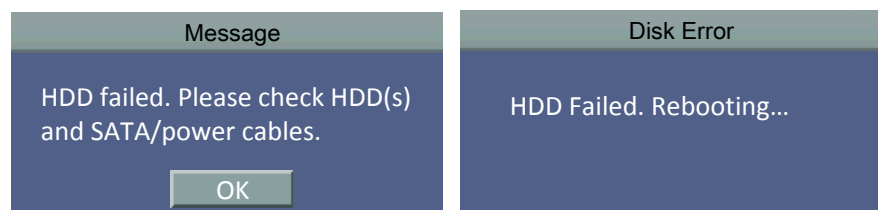


## Appendix I: Auto HDD Retry Mechanism

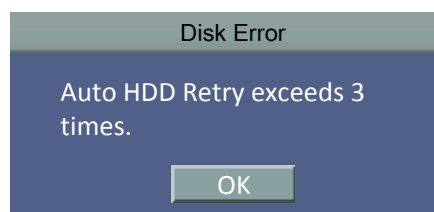
The eZ.HD DVR/MDVR features Auto HDD Retry mechanism, which is designed to automatically reboot to detect the installed HDDs when encounter HDD fail error.

**Note:** The Auto HDD Retry mechanism will only activate when all of the HDDs installed in the DVR/MDVR are failed simultaneously. For example, if your DVR/MDVR installed one HDD, when one HDD fails, the Auto HDD Retry mechanism activates; if your DVR/MDVR installed three HDDs, when all of the 3 HDDs fail simultaneously, the Auto HDD Retry mechanism activates.

When a HDD fail error occurs, a HDD Failure icon  will be displayed at the bottom of the monitor and a “HDD Failed. Please check HDD(s) and SATA/power cables.” message will pop-up. Owing to the Auto HDD Retry Mechanism, the DVR will then automatically reboot to detect the installed HDDs. If there is no HDD detected, the DVR will start rebooting to detect the HDDs again and again up to 3 times. During the rebooting process, a “HDD Failed. Rebooting...” message will be displayed. Once the HDDs have been detected, the recording function will automatically resume.



Note that the DVR/MDVR will automatically reboot to detect HDDs up to 3 times. If the Auto HDD Retry process exceeds 3 times and the DVR still cannot detect HDDs, an “Auto HDD Retry exceeds 3 times.” message will pop-up and a continuous beep sound will be played for notification. It’s recommended to check the SATA and power cables connected to the HDDs; or replace new HDDs if necessary.



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