

User's Guide

**TRENDNET<sup>®</sup>**



**4-Channel HD CCTV DVR Surveillance Kit  
8-Channel HD CCTV DVR Surveillance Kit**

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**TV-DVR104K / TV-DVR208K**

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## Product Overview



**TV-DVR104K**



**TV-DVR208K**

## Features

TRENDnet's 4 or 8 -Channel HD CCTV DVR Surveillance Kit, model TV-DVR104K or TV-DVR208K, offers a comprehensive video, storage, and management solution. The DVR kit comes with a pre-installed 1 TB hard drive plus four 1080p HD IR analog cameras, each with an IP66 outdoor weather rating. With a plug and play camera installation, the DVR is simple to use and conveniently powers all four or eight cameras. Connect your TRENDnet DVR kit to your network for local and remote access to your surveillance system. Record one week of continuous video and utilize the advanced video playback features from the intuitive user interface.

## Package Contents

TV-DVR104K / TV-DVR208K package includes:

- TV-DVR104 or TV-DVR208
- 4 or 8 x TV-AC100 cameras
- 4 or 8 x BNC/power cables
- 1TB HDD
- Camera power splitter cable (2 for TV-DVR208K)
- Network cable (1.8 m / 6 ft.)
- HDMI cable
- Optical mouse
- CD-ROM (Utility / User's Guide)
- Quick Installation Guide
- Power adapter for DVR (12 V DC, 1.5 A)
- Power adapter for cameras (12 V DC, 2 A) (2 for TV-DVR208K)

*If any package content is missing or damaged, please contact the retail store, online retailer, or reseller/distributor from which the product was purchased.*

## Back Panel



Picture showing TV-DVR208K as example

<b>Power:</b>	Power socket of DVR (12V DC) <i>Note: Use only the adapter that came with your DVR</i>
<b>Audio In:</b>	RCA connector to active microphone
<b>Audio Out:</b>	RCA connector to speaker
<b>VGA:</b>	Connect to VGA monitor with 1024 x 768 resolution or higher.
<b>HDMI:</b>	Connect to monitor or HDTV with HDMI interface
<b>USB:</b>	Connect to optical mouse and/or optional keyboard.
<b>Network Port:</b>	Connect to your office or home network for remote access and viewing.
<b>BNC:</b>	Connect Analog cameras.
<b>Grounding Point:</b>	Connect to grounding wire. This is especially important when you install your camera outdoor.

## Hardware installation

TV-DVR104K / TV-DVR208K comes with everything you need to set up a basic network surveillance system. Just connect to a monitor or HDTV (not included in this package), you can do the live view and settings on the DVR.

It is recommended to setup the system on your table before physically wiring and mounting the cameras.

### Wiring for System Setup

#### Connect DVR to your network (optional)

If you want to remote access the DVR and want to install the DVR on your home network, you can connect the DVR to the network in the first beginning, by connecting one end of your network cable to your home router or network switch, and then connect the other end of the cable to the network port on the DVR.

The DVR install cameras automatically after power up. If you decide the let the DVR gets its IP dynamically or setup the IP address to your network, please setup your DVR without camera connected. After the IP set up, power off the DVR and then going through the installation again.

#### Connect to the cameras

Using the included BNC cables connect the TV-AC100 camera's BNC port to any of the BNC ports on the DVR. And the camera power adapter will provide power to the cameras via the power splitter.

**Connect to the monitor or TV**

Connect a monitor to either the HDMI or VGA port.

**Connect the mouse**

Connect the included mouse to one of the USB ports.

**DVR Installation**

Setup a safe and secured place for your DVR. Place it in a locked or not easy accessed place can add more factors in the security. Connecting to a UPS (Uninterruptible Power Supply) is recommended.

Provide a good ventilation and away from clusters and damp environment is also important to the location of your DVR device. Make the DVR installation accessible for annual maintenance to clean up the fan or replace the hard drive is a decent consideration for maintenance.

**Camera Installation**

There are number of factors involved in a successful camera installation. Follow the suggested installation steps and go through the check lists. This guide will help you make your camera installation smoothly and easily.

***Viewing angle***

The TV-AC100 is a bullet camera with a focused viewing angle (83° horizontal) that provides non-distorted and detailed images. Choose the location where has good angle to shoot the image you expect to see. The motion detection area should also be considered when installing the camera.

***Weather conditions***

The TV-AC100 is a small bullet camera, which fits most installations indoor and outdoor. The camera can work under a wide range of weather conditions.

For severe weather conditions, a camera housing with temperature and moisture control is recommended. Using the camera in milder weather conditions will help extend the camera's product life and preserve the quality of the video image.

- **Moisture:** Avoid damp or moist environments whenever you can. The TV-AC100 is an IP66 grade water proof camera, and it will work in moist environments. However, rain may affect the picture quality, especially at night, water may reflect the light from the infra-red illumination and degrade picture quality.
- **Temperature:** TV-AC100 works within a specified temperature range. Areas with severe temperatures should be avoided when installing the camera. It's recommended that you use an enclosure with a heater and blower if you plan on using this camera outside of the specified temperature range.
- **Sunlight:** Avoid direct sun light exposure into the lens. Direct sun light will damage the image sensor. If sunlight is necessary for your viewing purposes, provide protection for the image sensor.
- **Lighting:** Consider installing your camera faces the same direction of the light sources. Shooting images with top-down position outdoor or next to the existing light source are good choices. Avoid the light source if it creates a shade that darkens the viewing area.

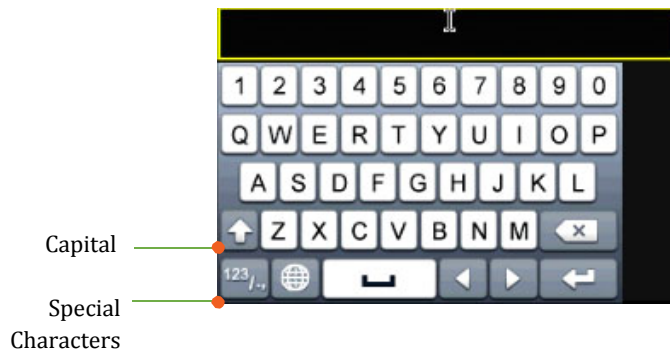


## Basic System Setup

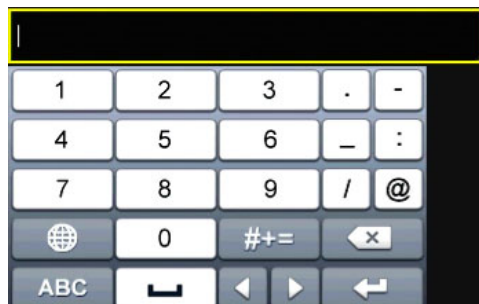
### Soft Keyboard Instruction

#### **Keyboard styles**

There are three keyboard styles available, English letter, numeric, and special characters. The default keyboard style is English letter keyboard in lower case letter mode. Click the keyboard style button if you want to change it into another style.



#### *Special characters*



Click on #++ key to the lower left corner to enable the special character menu.  
Click on the special character of your choice.

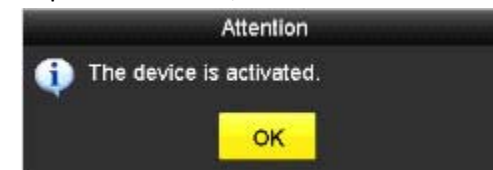
### Setup Wizard

If you are accessing the DVR for the first time, the device will go through these basic settings. Please follow the onscreen display to complete these information.

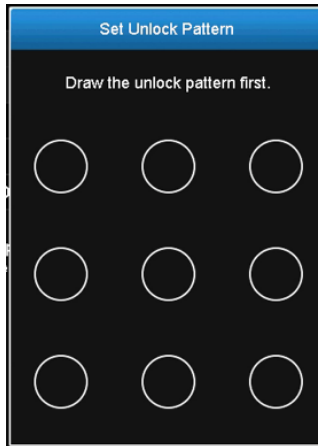
1. If you are accessing the DVR the first time, please activate the device by following the password setup.



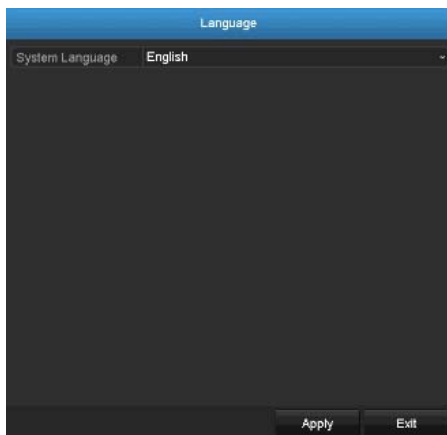
2. Once the new password is set, the device will be activated.



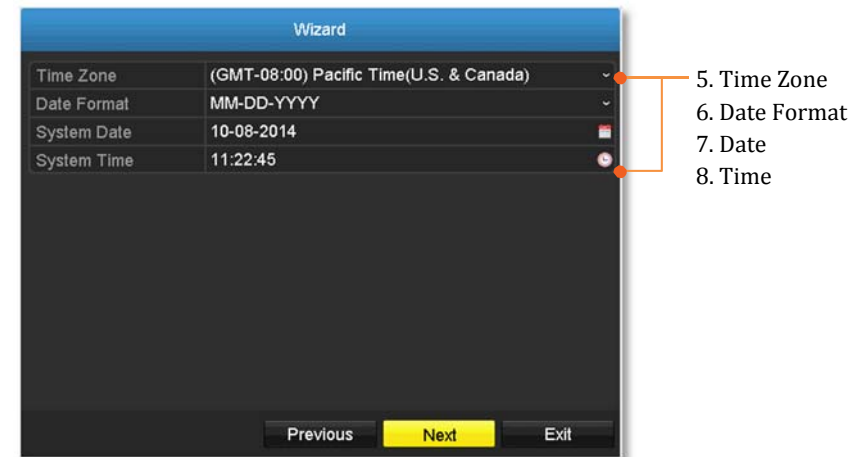
3. Create the unlock pattern for quick access later.



4. Setup wizard will show up after the DVR is powered up. Select the language and click **Next** to start the wizard.



5. Click the selection list to the right of **Time Zone**.



Select your time zone, click the selection list to the right of **Date Format** and then select a date format.

Click the selection list to the right of **System Date**.

- Select the year by clicking on left or right arrow.
- Select the month by clicking on left or right arrow.
- Select the day by clicking on the date.

Click the selection list to the right of **System Time** and then enter the time with 24-hour format.

Click **Next**.

6. Configure the IPv4 address of the DVR then click "Next".

Wizard	
Network Type	10/100/1000 Self-adaptive
Enable DHCP Client	<input checked="" type="checkbox"/>
IPv4 Address	10 .18 .4 .25
IPv4 Subnet Mask	255 .255 .255 .0
IPv4 Default Gateway	10 .18 .4 .254
Primary DNS Server	10.1.7.88
Secondary DNS Se...	10.1.7.77
Internal NIC IPv4 Ad...	192.168.254.1
<div style="text-align: right;"> <span>Previous</span> <span style="background-color: yellow;">Next</span> <span>Exit</span> </div>	

7. Configure the desired port values and dynamic DNS account information then click "Next".

Wizard	
Server Port	8000
HTTP Port	80
RTSP Port	554
Enable UPnP	<input checked="" type="checkbox"/>
Enable DDNS	<input type="checkbox"/>
DDNS Type	dyn.com
Server Address	
Device Domain Name	
Status	DDNS is not enabled.
Username	
Password	
<div style="text-align: right;"> <span>Previous</span> <span style="background-color: yellow;">Next</span> <span>Exit</span> </div>	

8. Select the hard drive and then click **Init** to initiate your hard drive if you are running the setup wizard in later time and want to clean up the video on the hard drive. Then click "OK".

Wizard					
<input type="checkbox"/> Label	Capacity	Status	Property	Type	Free Space
<input checked="" type="checkbox"/> 1	931.51GB	Normal	R/W	Local	927GB
					Init
					<span>Previous</span> <span style="background-color: yellow;">OK</span> <span>Exit</span>

9. Configure the DVR to continuously record at all times or to record only motion detected events

Wizard	
Continuous	<input type="radio"/>
Motion Detection	<input type="radio"/>
<div style="text-align: right;"> <span>Previous</span> <span style="background-color: yellow;">OK</span> <span>Exit</span> </div>	

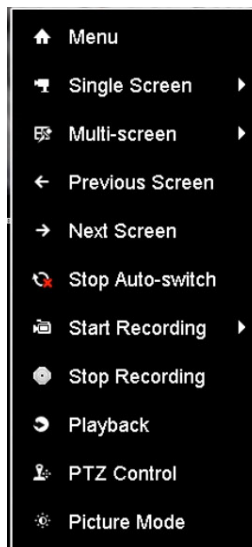
10. Congratulations! You have completed the configuration of the DVR. You can now view live cameras and access additional options by right clicking on the display to bring up the configuration menu.

## System Management (local)

With the basic system setup, your system is now up and running. Now, you can use your mouse pointer and monitor to view, set up, and manage your network video recorder.

### Using the Short Menu

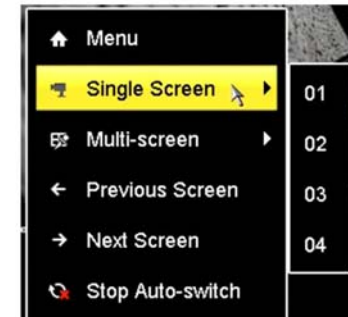
Right click your mouse while you are viewing the live video. The short menu will be popped out.



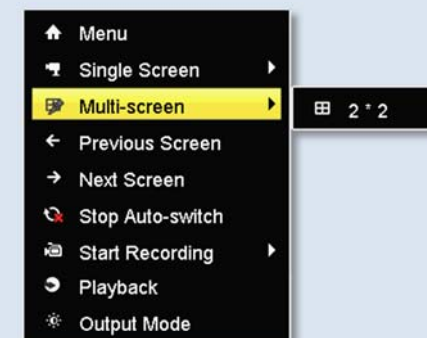
### Short Menu

**Menu:** Click to show the main menu

**Single Screen:** Display video live view one at a time. Click on **Single Screen** and then choose the camera you want. (The video you choose will be replaced with other video if the **auto-switch** is on, and the auto-switch is on by default.)



**Multi-screen:** Display all four video live views at the same time. By default, the video live view is set in the **Multi-screen** mode. If you are now in **Single Screen** mode, click on **Multi-Screen** and then choose **2 x 2** to switch to multi-screen live view mode.

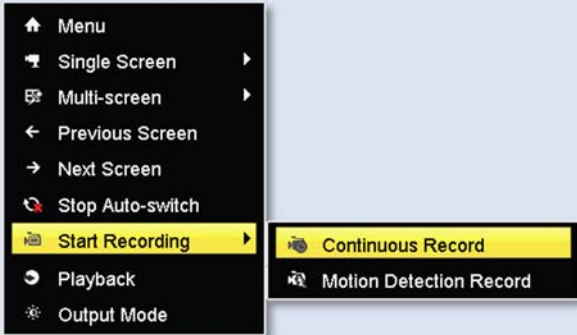


**Previous Screen:** In **Single Screen** mode, you can manually switch the video to the previous channel.

**Next Screen:** In **Single Screen** mode, you can manually switch the video to the next channel.

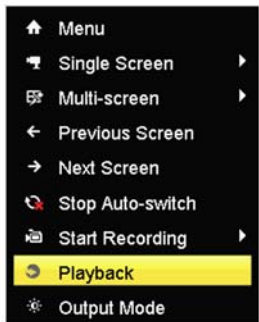
**Stop/ Start Auto-switch:** Start (default) or stop automatic live view switch. The live view video will be changed by channel sequence.

**Start Recording:** Start **Continuous** or **Motion Detection** recording.

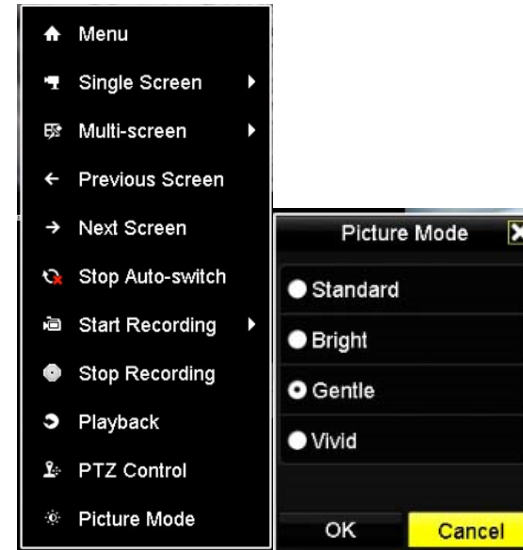


To set up motion detection area, or stop continuous and motion detection recordings, you need to navigate to the detailed settings through the main menu.

**Playback:** Click **Playback** to go full playback menu. For more information, please reference the please see the **Video** playback on page 51 for more details.



**Picture Mode:** Select a monitor display setting from **Standard**, **Bright**, **Gentle**, and **Vivid** of your choice. Click **OK** to confirm your choice




*Note: PTZ cameras are not included in the package, therefore the PTZ control is not supported.*

## Shortcut Menu



Each video in live view has a short cut menu to perform the frequent adjustments of the video. Move your mouse pointer over the camera display you want to bring up the **Shortcut Menu**. Click on the video. The frame of the video shows active (yellow frame). And then click on the button of the selected jobs.




### **Instant playback**

Click on  to playback the last 5 minutes of recording.


### **Audio**

Click on  to enable the audio on selected channel. Click  to mute the audio.


### **PTZ control**

Click on  to proceed PTZ operations. *PTZ cameras are not included in the package, therefore the PTZ control is not supported.*

### **Digital zoom**

Click on  to enable digital zoom. The digital zoom is not supported with the included cameras

### Image settings

Click on  to adjust the video display settings.



Use the slider to adjust the brightness.



Use the slider to adjust the contrast.



Use the slider to adjust the saturation.



Use the slider to adjust color hue.




Use the slider to adjust the sharpness.



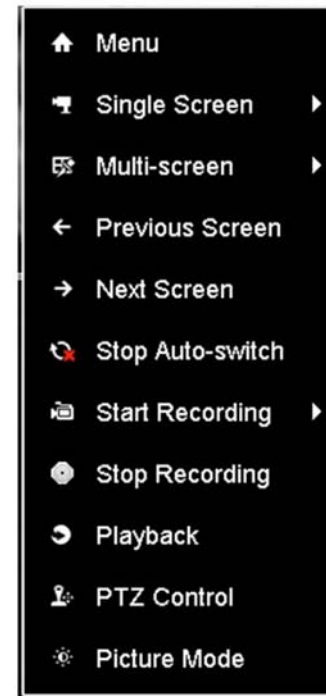
Use slider to adjust to noise level.

### Close

Click on  to close the shortcut menu.

## Using the Main Menu

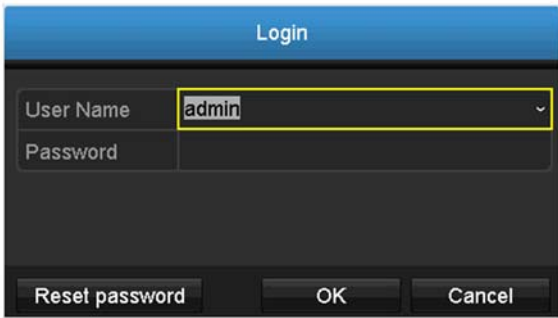
Right click your mouse while you are viewing the live video. The short menu will be popped out. Mouse over the **Menu** and click the button to bring up the **Main Menu**.





## Login to the Management Pages

The DVR will ask you to enter the password every time you want to login to the management page. Enter the password and then click on **OK** to bring up the main menu.



## Logout, start up, or shut down the DVR

When you want to change the DVR settings, manage the cameras proceed system maintenance or software upgrade, you need to log in, log out, restart, or shut down your DVR gently.

Pulling out the power source may cause unexpected hard drive damage and system malfunction which is not a suggested way to power down your DVR.

### Startup your DVR


Make sure the power supply is plugged into an electrical outlet. It is highly recommended that an uninterruptible power supply (UPS) to be used in conjunction with the unit.

### Shutdown your DVR

Bring up the main menu. Click on **Shutdown Menu**  icon. The Shutdown sub menu is showing up.







Click Shutdown  to gracefully end the recording sessions and prepare the hard drive for shutting down. Then click the **Yes** to confirm that you want to shut down the DVR.



## Rebooting your DVR

Click Reboot  to reboot your DVR without power down.

## Log out from DVR management

When you have done the DVR settings and managements, you'll want to lock your DVR before you leave. Click Logout  to exit the DVR management.

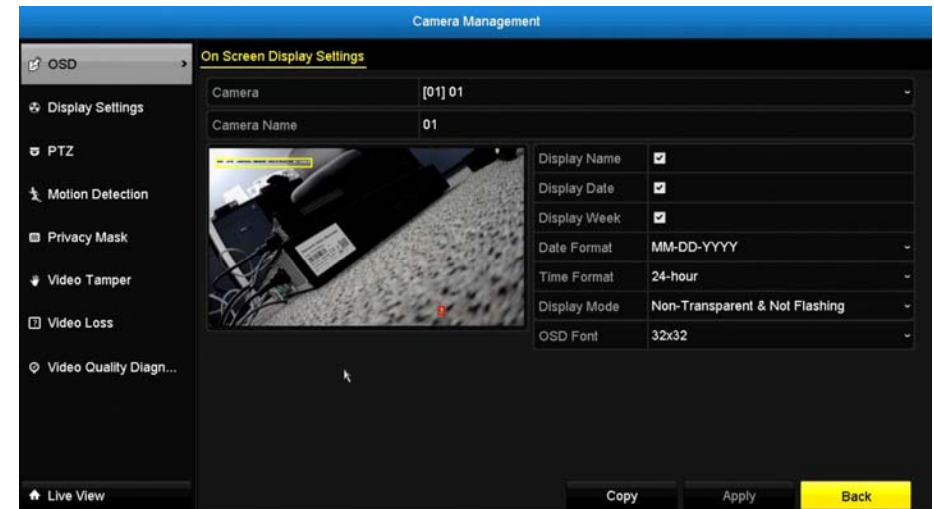
*Note: You can also set automatic time out. The default setting is 5 minutes without management interaction.*

## Camera Management

Setting and manage your cameras by bring up the main menu. Click on

Camera Management  icon.

## OSD



**Camera:** Display the current camera number.

**Status:** Enter a camera name.

**Display Name:** Enable this to display the camera name on the screen.

**Display Date:** Enable this to display the date on the screen.

**Display Week:** Enable this to display the week info on the screen.

**Date Format:** Select the date format you would like to use.

**Time Format:** Select the time format you would like to use.

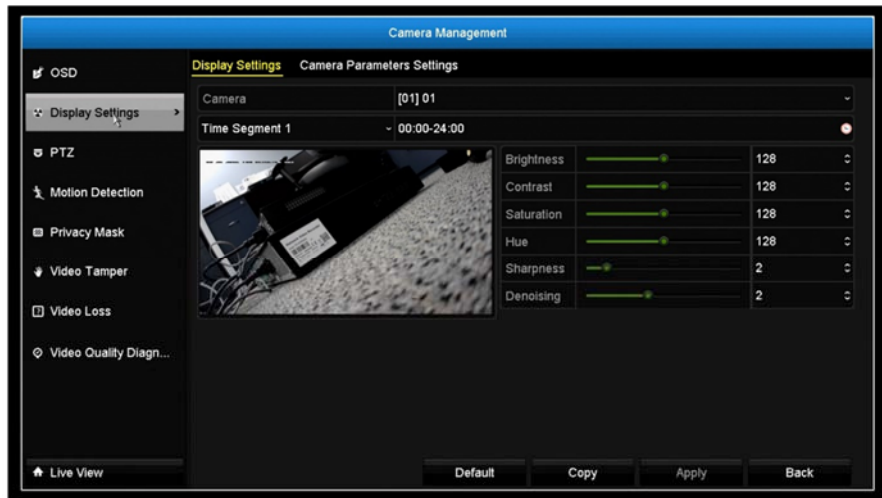
**Display Mode:** Select the ideal display style on the screen.

**OSD Font:** Select the font for the OSD, there are 16x16, 32x32 and 64x64 formats.

Click **Apply** to apply the settings.

## Display Settings

Adjust video image quality, lightness, and color settings here.



**Camera:** Click to choose the camera you want to change the settings.

**Time Segment:** The name of the chosen camera.

**Brightness:** Use the slider or enter a number (0-255) to adjust the image brightness. Default: 128

**Contrast:** Use the slider to adjust the image contrast. Default: 128

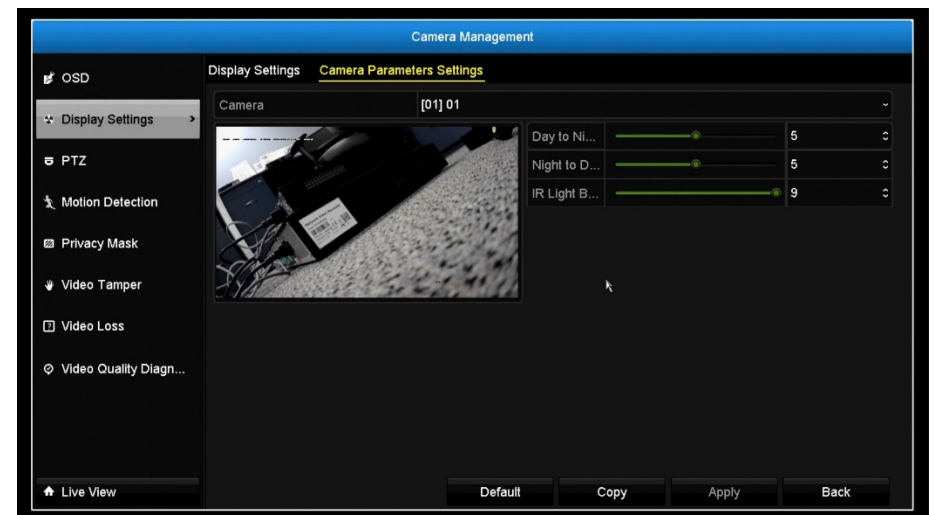
**Saturation:** Use the slider to adjust the color saturation. The greater number means the color will be more saturated. Default: 128

**Hue:** Use the slider to adjust the image HUE setting. Default: 128

**Sharpness:** Adjust the sharpness of the image.

**Denoising** Adjust the noise affect level.

Select the Camera Parameters Settings to adjust the sensitivity of the IR.



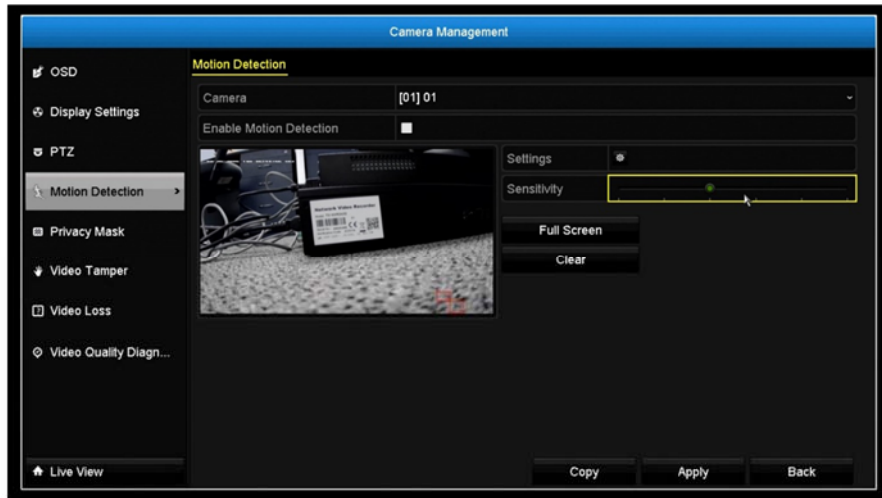
Click **Apply** to apply the settings.

## PTZ

TV-DVR104K / TV-DVR208K come with fixed cameras, this section do not apply to either models.

## Motion Detection

Set up how the motion detection event will be triggered and what actions will be triggered.



**Camera:** Click to choose the camera you want to change the settings.

**Enable Motion Detection:** Check this box to enable motion detection. Click **Apply** to apply the choice.

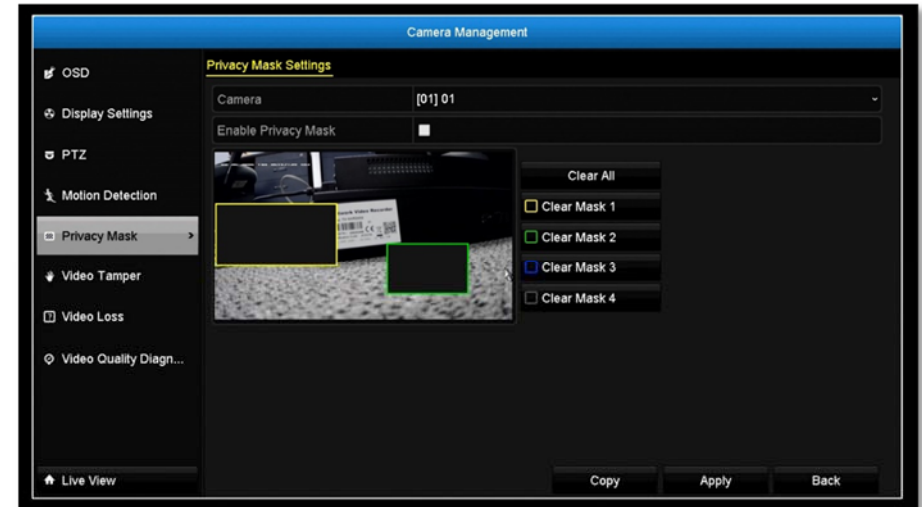
**Settings:** Setup the motion detection detail.

**Sensitivity:** Move the slider to adjust detection sensitivity. Sliding to the right means the motion event is easier to be triggered.

**Draw Area:** Click and drag on the area you want to set up the motion detection or click **Full Screen** for the whole image area. The red grids represent the motion detection area. Click **Clear** to clear the motion detection areas.

## Privacy Mask

Create a masking area to keep your privacy.



**Camera:** Click to choose the camera you want to change the settings.

**Enable Privacy Mask:** Check this box to enable privacy masking.

**Draw Area:** Click and drag on the area you want to set up the privacy mask.

**Clear All:** Click this button to clear all the masking area.

**Clear Zone 1 to 4:** Click this button to clear specific masking area.

Click **Apply** to apply the settings.

## Video Tamper

Detects if a camera has been tampered with and surveillance is compromised. You can set up video tamper notifications to alert the system manager to check the camera.



**Camera:** Click to choose the camera you want to change the settings.

**Enable Tamper-proof:** Check this box to enable video tamper.

**Draw Area:** Click and drag on the area you want to set up the video tamper.

**Clear:** Click this button to clear the video tamper area.

**Sensitivity:** Move the slider to adjust detection sensitivity. Sliding to the right means the motion event is easier to be triggered.

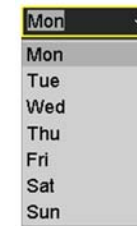
## Video tamper settings

Click **Settings** to bring out the detailed set up menu.

### Arming Schedule



1. Select day of the week you want to edit on the row of **Week**.

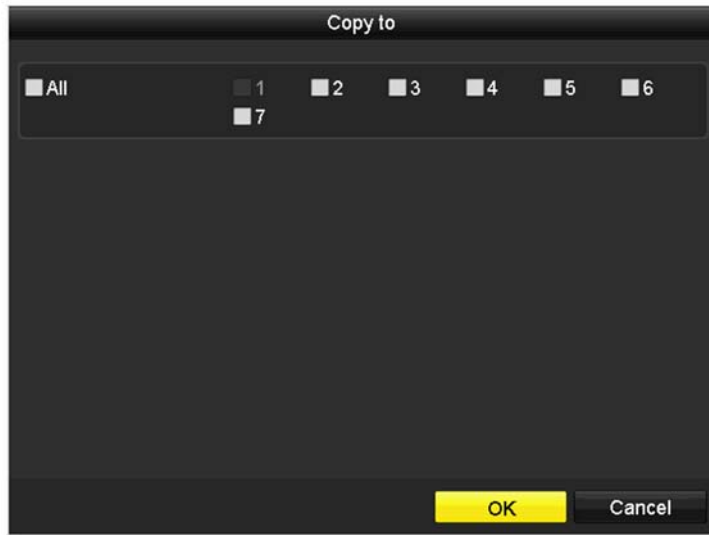


2. Enter the period of time you want to actively detect the motion events.



### Copy to:

To quickly setup the same schedule over the week, click **Copy**. Click another day of the week (1: Monday, 2: Tuesday, 3: Wednesday, 4: Thursday, 5: Friday, 6: Saturday and 7: Sunday). Click **All** to select the whole week. Click **OK** after you select the day of the week you want to copy to.



### Induced Action

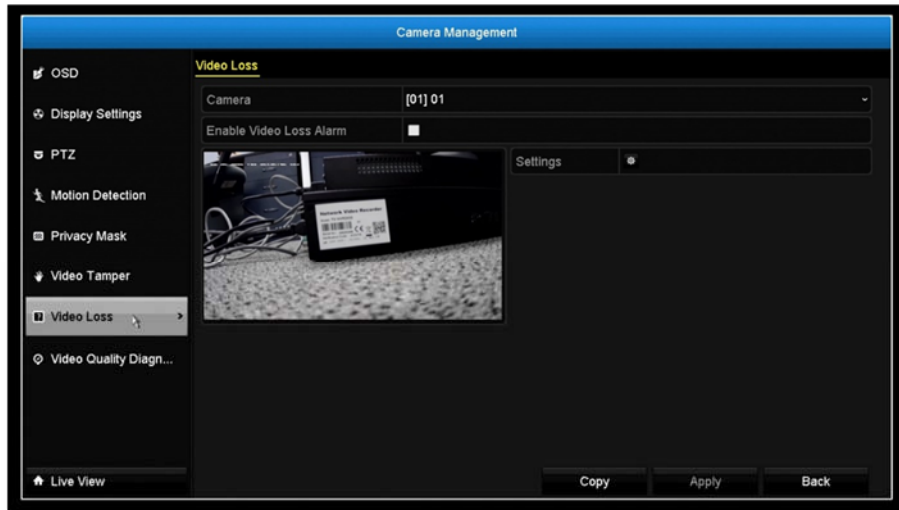
When motion event detected, the corresponding actions will be executed.



Select the options to enable the notification action and click **OK**.

## Video Loss

Detects if a camera has lost its video. You can set up video loss notifications to alert the system manager to check the camera.



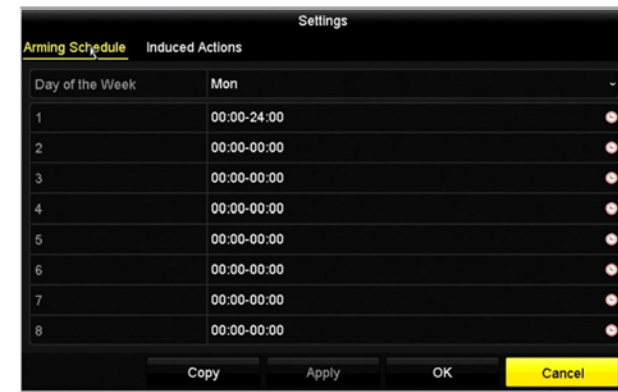
**Camera:** Click to choose the camera you want to change the settings.

Click **Apply** to apply the settings.

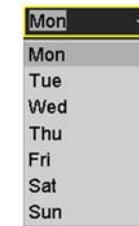
## Video loss settings

Click Settings to bring out the detailed set up menu.

### Arming Schedule



1. Select day of the week you want to edit on the row of Week.

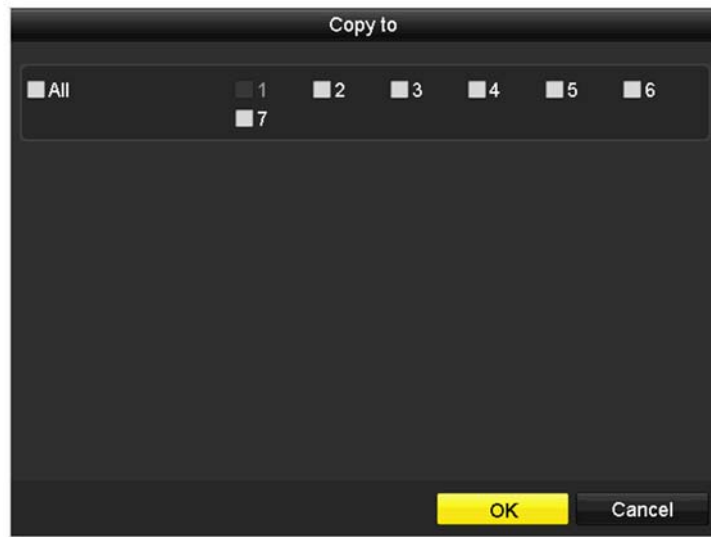


2. Enter the period of time you want to actively detect the motion events.



**Copy to:**

To quickly setup the same schedule over the week, click Copy. Click another day of the week (1: Monday, 2: Tuesday, 3: Wednesday, 4: Thursday, 5: Friday, 6: Saturday and 7: Sunday). Click All to select the whole week. Click OK after you select the day of the week you want to copy to.

**Induced Action**

When motion event detected, the corresponding actions will be executed.

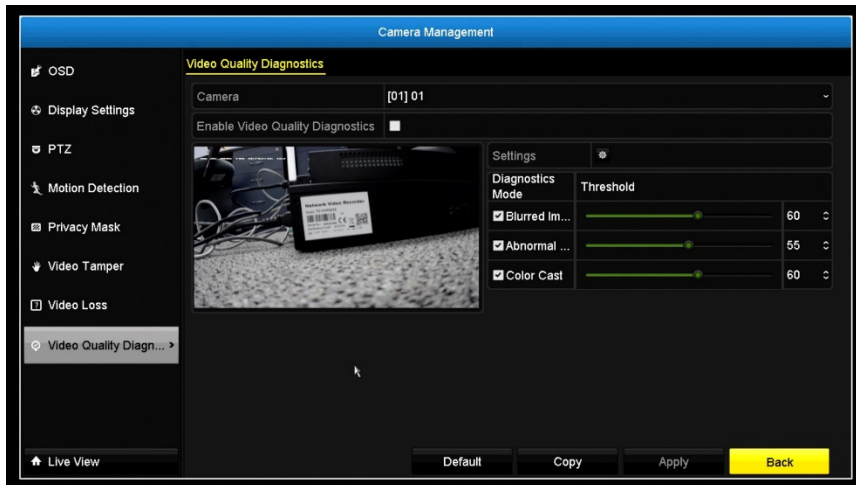


Select the options to enable the notification action and click OK.



## Video Quality Diagnostics

Detects if a camera's video quality. You can set up video quality notifications to alert the system manager to check the camera.



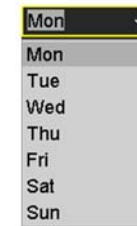
### Video Quality settings

Click **Settings** to bring out the detailed set up menu.

### Arming Schedule



1. Select day of the week you want to edit on the row of **Week**.



2. Enter the period of time you want to actively detect the motion events.

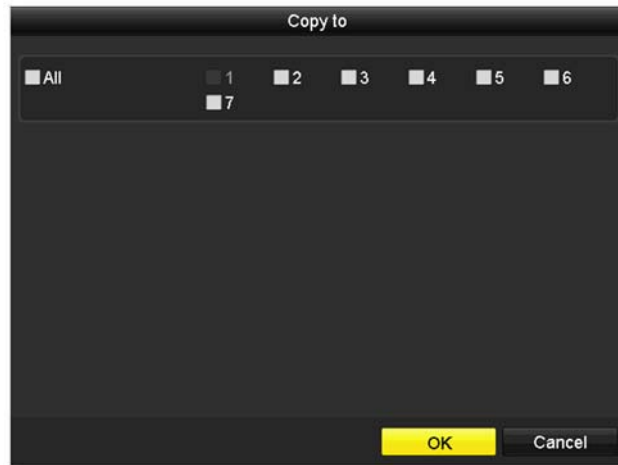


### Copy to:

To quickly setup the same schedule over the week, click **Copy**. Click another day of the week (1: Monday, 2: Tuesday, 3: Wednesday, 4: Thursday, 5: Friday, 6: Saturday and 7: Sunday). Click **All** to select the



whole week. Click **OK** after you select the day of the week you want to copy to.



### Induced Action

When motion event detected, the corresponding actions will be executed.



Select the options to enable the notification action and click **OK**.

## System Configuration Menu

Setting and manage your DVR system by bring up the main menu. Click on

**System Configuration Menu**  icon.

### Configuration

#### General

Set up the basic time, display resolution, and operation settings here.



## General

**Language:** DVR default language is setting to English.

**Resolution:** The default monitor resolution is set to the lowest option (1024 by 768) to maximize the monitor compatibility. Choose a better resolution for your monitor to see better quality video.

**Time Zone:** Click the selection list to the right of **Time Zone**.

**Date Format:** Click the selection list to the right of **Date Format** and then select a date format.

**System Date:** Click the selection list to the right of **System Date**.

**System Time:** Click the selection list to the right of **System Time** and then enter the time with 24-hour format.

**Mouse Pointer Speed:** Setting the mouse cursor moving speed. Adjusting to the right for faster speed.

**Enable Wizard:** Enable or disable setup wizard every time the system is boot up. Default: Enabled.

**Enable Password:** You need to login for system management. Enable password will ask entering password when login. Uncheck this box will set the management free to anyone physically access the DVR. Default: Enabled.

Click **Apply** to apply the changes.

## DST settings

Set up Daylight Saving Time.



## Daylight saving time

**Auto DST adjustment:** The daylight saving time adjustment is setting to automatic adjustment according to the time zone setting by default. If you want to set the daylight settings manually, uncheck this box to disable the automatic DST adjustment.

**Enable DST:** Manually enable or disable daylight saving time adjustment.

**From / To:** Enter the daylight saving time starting and end dates.

**Time Zone:** Click the selection list to the right of **Time Zone**.

**DST Bias:** Choose the amount of time shifting for daylight saving adjustment.

Click **Apply** to apply the changes.

## More settings



### More settings

- Device Name:** This is the name of the DVR. Default: TV-DVR104
- Auto logout:** Set up the timeout to logout DVR management after management inactive for a period of time.
- Menu Output Mode:** The video output is active for both HDMI and VGA interfaces.

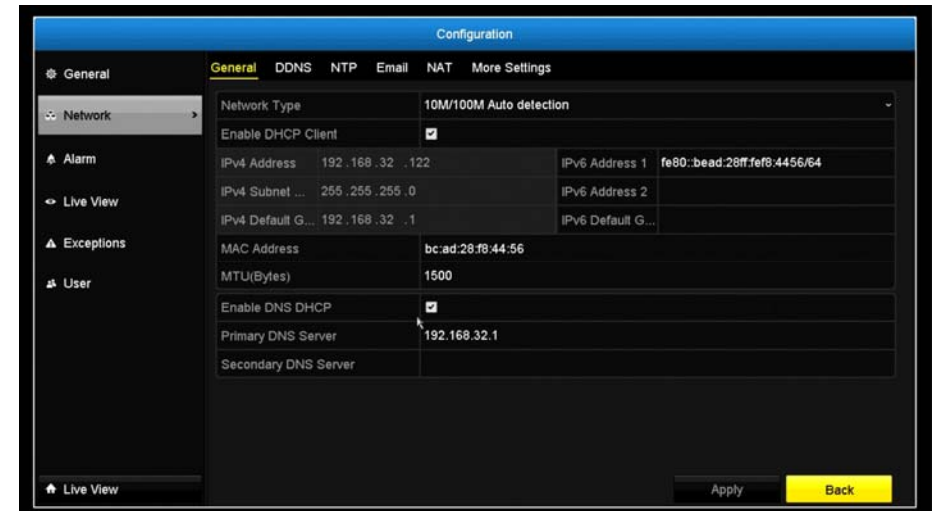
Click **Apply** to apply the changes.

## Network

Set up DVR network, DDNS, NTP, Email, and UPnP settings.

### General

Setup the network interface connecting to the Internet.



### Network General Settings

**NIC Type:** Choose one of the Ethernet duplex and speed to match your network. Default: 10/100M Auto detection.

**Enable DHCP:** Check this box if the IP address is assigned by DHCP server.

**IPv4 Address:** The IPv4 dynamic or static address

**IPv4 Subnet Mask:** Network range of the subnet

**IPv4 Default Gateway:** The default route going further from TV-AC100 IPv4 subnet

**IPv6 Address 1:** IPv6 self-assigned address including the subnet prefix expression in the end of the string.

**IPv6 Address 2:** IPv6 static address including the subnet prefix expression in the end of the string.

**IPv6 Default Gateway:** The default route going further from IPv6 subnet

**MAC Address:** The MAC address of the DVR network interface.

**MTU:** Maximum transmission unit. The maximum field size in the Ethernet packet. Default: 1500

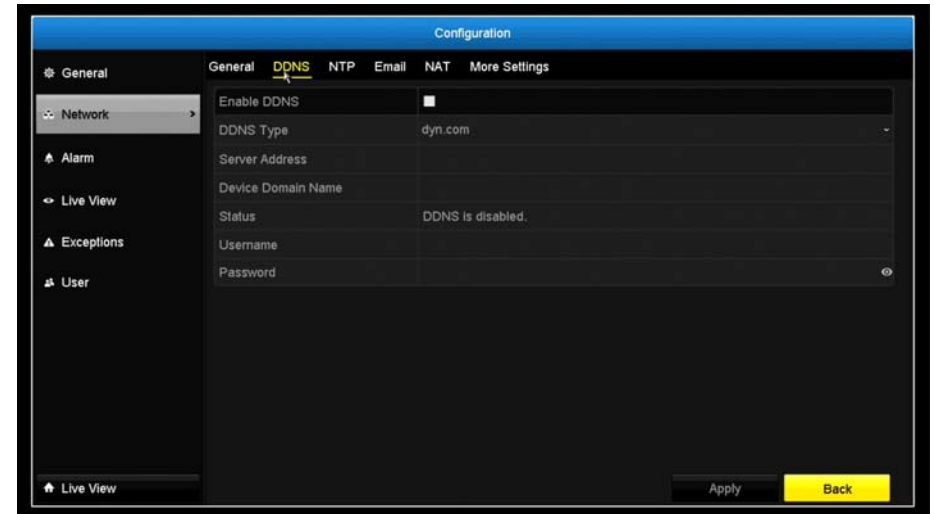
**Preferred DNS:** Enter your first IPv4 or IPv6 DNS server address

**Alternate DNS:** Enter your second IPv4 or IPv6 DNS server address

Click **Apply** to apply the changes.

## DDNS

Dynamic Domain Name Service, DDNS, allows you to find your DVR from the Internet with an easy to remember domain name.



## DDNS

**Enable DDNS:** Check this box to enable DDNS Service.

**DDNS Type:** Select a DDNS service provider: dyn.com or no-ip.com.

**Server Address:** Enter the DDNS server address.

**Device Domain Name:** Enter your registered domain/host name on selected DDNS service.

**Status:** The DDNS connection status.

**User Name:** Enter the account name.

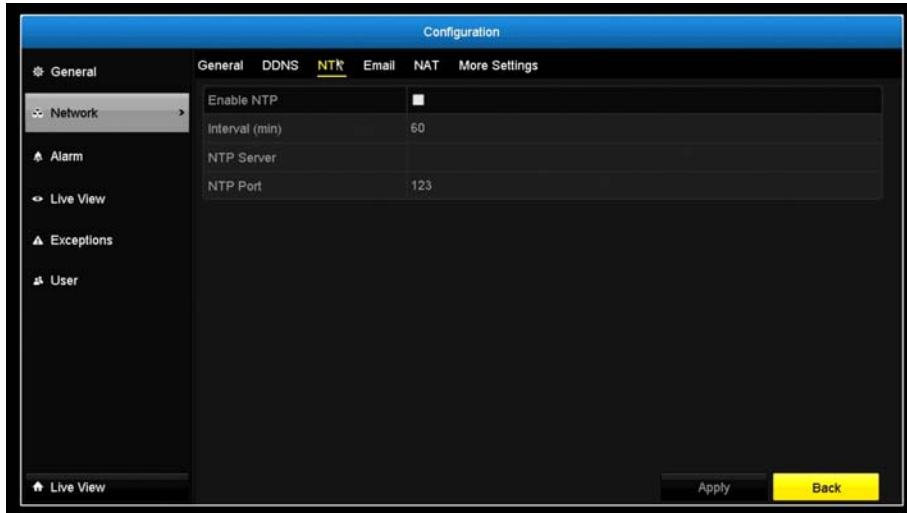
**Password:** Enter the password.

**Confirm:** Enter the password again.

Click **Apply** to apply the changes.

**NTP**

Network Time Protocol Service. The accuracy of the system clock is important for scheduling and accurate logging. You can automatically check the time accuracy with a network time server (NTP server).

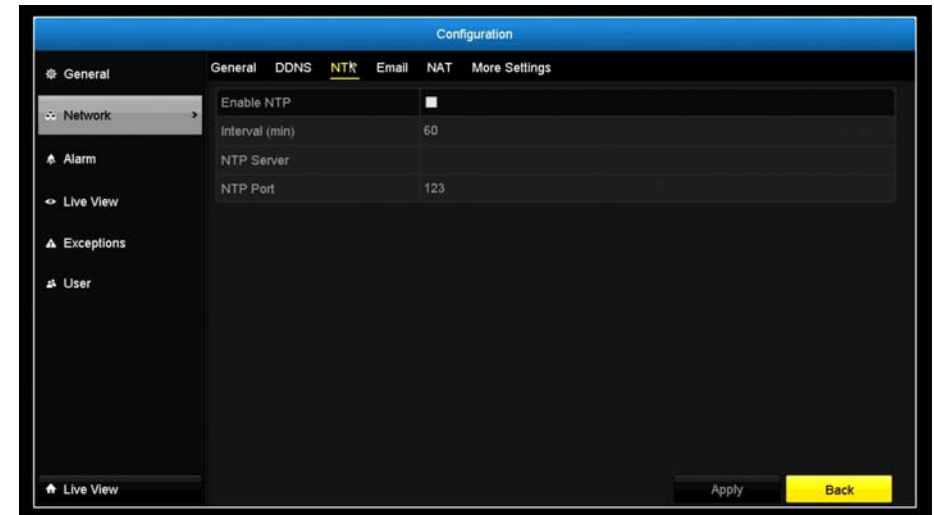
**NTP settings**

- Enable NTP:** Check this box to enable NTP Service.
- Interval:** The time interval that the TV-DVR104 will synchronize the time with NTP server. Default: 60 minutes
- NTP Server:** Specify a time server (NTP server) to synchronize with. (e.g. pool.ntp.org)
- NTP Port:** The server port number. Default: 123.

Click **Apply** to apply the changes.

**Email**

Set up email accounts for notifications.

**Email**

- Enable Server Authentication:** Check this box if your server requires a password in order to send email. Most email servers require authentication when sending an email.
- User name:** Enter the user name of outgoing email account
- Password:** Enter the password
- SMTP Server:** Simple Mail Transportation Protocol Server address, the outgoing email server address. It may has address the same as your incoming email server, maybe not. Please ask your email service provider for detail.
- SMTP Port:** Service port number for outgoing email.\*
- Sender:** Enter the name to be appeared as the email sender.
- Sender's Address:** Enter sender's email address.

**Select Receiver:** Select the pull down menu to select the receiver you want to set up the detail. You can send to 3 accounts at the same time, but just set up separately.

**Receiver:** The receiver's name.

**Receiver's Address:** The receiver's email address.

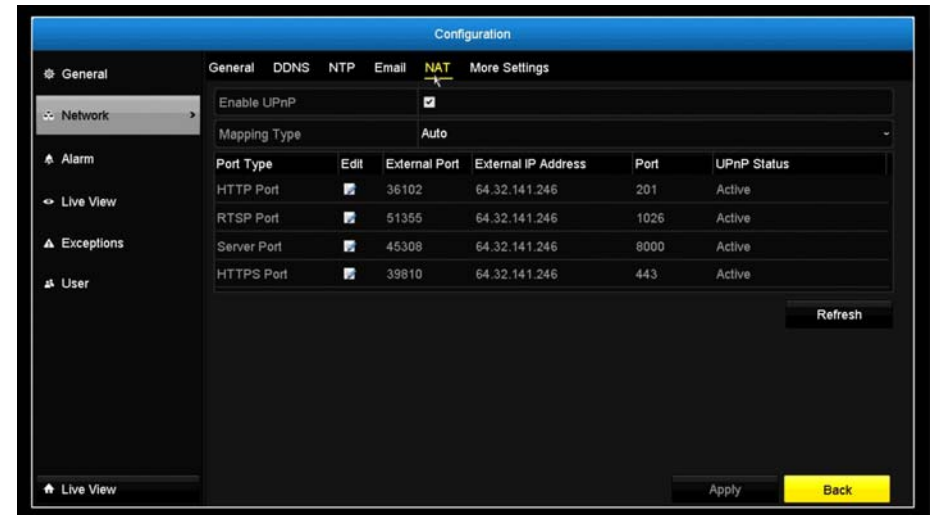
*\*Note: Many ISPs does not allow service port 25 going through their network. Please consult your email service provider and ISP for detail.*

Click **Apply** to apply the changes.

Click **Test** to test if all the information are entered correctly.

## NAT

To adjust the port settings for the DVR.



## Ports

**Port Type:** The service type for each port.

**Http Port:** The port to access the camera's configuration page. Default value is port 80.

**RTSP Port:** The Real-Time Streaming Protocol port for video streaming. You can change the port. The default port number is 554.

**Server Port:** The service port number for DVR management. The default service port is 8000.

**HTTPS Port:** Secured port to access the camera's configuration page. Default value is port 443.

Click **Apply** to apply the changes.

## More settings



### More Settings

**Server Port:** The service port number for DVR management. The default service port of TV-DVR104 is 8000.

**HTTP Port:** The default web access port. You can change the port number. The default port number is 80.

**RTSP Port:** The Real-Time Streaming Protocol port for video streaming. You can change the port. The default port number is 554.

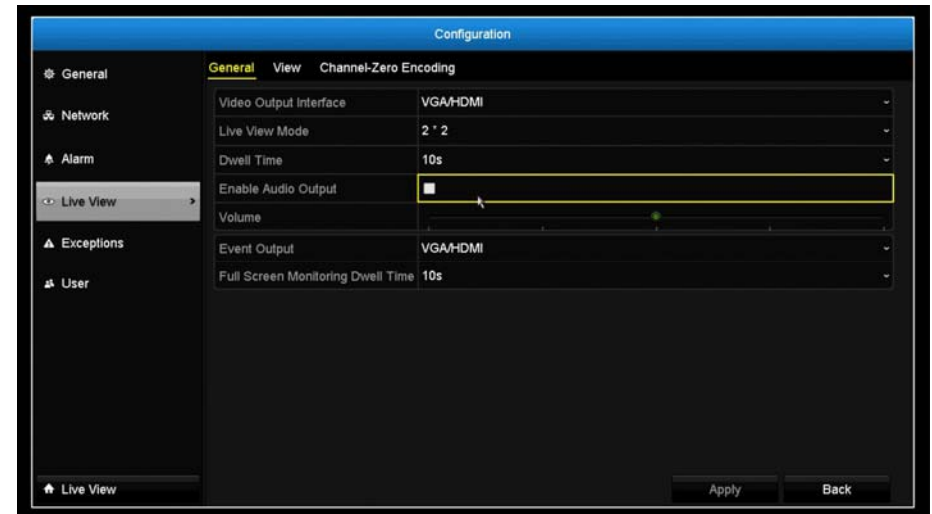
**Output Bandwidth Limit:** Enable the output bandwidth can limit the output bandwidth for remove live view and playback.

**Output Bandwidth (Mbps):** The minimum output bandwidth is 2Mbps

Click **Apply** to apply the changes.

## Live View

Change the live view settings.



### General

#### Live view general settings

**Video Output Interface:** The video output interface is VGA or HDMI

**Live View Mode:** Choose the default **Live View** mode to be **1x1** single video on the screen or **2x2** four video on the screen at the same time. Default: 2x2.

**Dwell Time:** Set up how long each display will be showed up on the screen. There's no effect on 2x2 display mode. On 1x1 mode, each video will be shown on the screen for **Dwell Time** and then change to the next video. Default: 10 seconds.

**Enable Audio Output:** Enable or disable audio output on the DVR. Default: disabled

**Event Output:** Define where the video is going out when event triggered. The TV-DVR104 is set to both VGA and HDMI.

**Full Screen Monitoring Dwelling Time:** When event triggered full screen display, how long the video is going to stay on the screen. Default: 10 seconds.

Click **Apply** to apply the changes.

## View

Setting live view display arrangement and sequence.



### Live View Layout and Sequence Settings

**Video Output Interface:** The video output interface is VGA or HDMI

**Camera List:** Installed cameras will be listed here by channel.

**Layout Panel:** Preview how the layout the video display.

**To remove a camera** from the display, just click **X** on the selected cell **D3 X** to remove the channel number. **X X**

**To assign a channel to a display cell**, choose the **Missing Video**: If you assign a channel to a display cell and there's no video stream, the cell will be **blank**.

**Control Panel:**  : Single channel display

 : Quad channel display

 : Automatic channel assignment

 : Remove all channel assignments



< : Previous page

> : Next Page

P: 1/1 : Current page / Total page

*Note: In single channel display, you can set up the display sequence with the page numbers.*

Click **Apply** to apply the changes.

### Channel-Zero Encoding

Settings to improve remote multi-channel live view quality, it helps to decrease the bandwidth without affecting the image.



**Enable Encoding:** Enable the service

**Frame Rate:** Configure the frame rate from 1/16fps to full fps.

**Max. Bitrate (Kbps):** Adjust the number between 448 to 2048. Default value is 1024.

Click **Apply** to apply the changes.

### Exceptions

Setup the action when exception happened. Select the exception you want to monitor and then choose the audible warning or email notification. Click **Apply** to apply the changes and remember to setup your email account if you choose the email notification



#### Exception Type

**All:** Any of the following exceptions will trigger the notification.

**HDD Full:** By default, the recording video does not overwrite when the hard drive is full. You can set up an audio warning or send email to system manager to remove the recording. (You can also setup the DVR for automatic overwrite the recordings when the disk is full. Please see page 48 for more detail.)

**HDD Error:** When the hard drive reading or writing error, the DVR can make audible sound or send email to system manager for the error. You can use the hard

drive maintenance tools on the DVR checking and managing your hard drive. See page 43 for more detail.)

**Network Disconnected:** The exception is triggered when network port is disconnected.

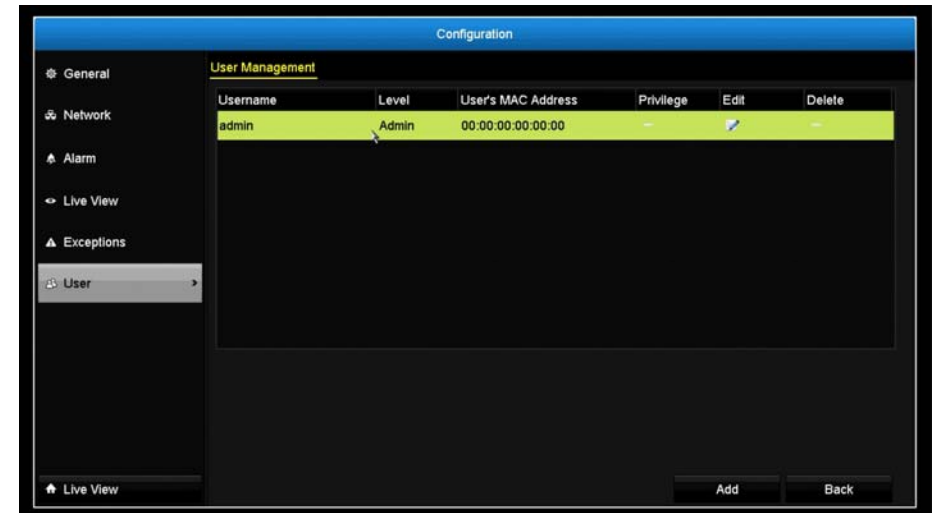
**IP Conflicted:** The DVR is constantly monitoring if there's an IP conflict is happening. Exception is triggered when there's an IP conflict.

**Illegal Login:** Exception is triggered when DVR detect the attempt login with wrong credential.

**Record Exception:** Exception will be triggered when anything goes wrong during video recording process.

## User Accounts

You can setup multiple user accounts to access the camera's video stream with a web browser or real time video stream (RTSP). Only one administrator account (username: **admin**) can be setup to configure DVR and cannot be deleted.



### **Add**

Click **Add** button to add an account

### Add account

**User:** Enter the user name.


**Password:** Enter the password.

**Confirm:** Enter the password again.

**Level:** Select the user's level from **Guest** or **Operator** for the preset permissions. By default, an operator can view the video and operate the camera pan, tilt, and zoom. Guest can only view the video. DVR settings are only allowed to be changes with administrator account.

**User's MAC Address:** Enter the user's MAC address limit the access to add on security. Leave it 00:00:00:00:00:00 as wild card address if you don't limit the access.

### Edit

Click **Edit**  on user to change the account settings.

## System Maintenance Menu

Manage your DVR system by bring up the main menu. Click on **System**

**Maintenance Menu**  icon.

### System information

System Information is displaying here for system maintenance.

### DVR information

### DVR Information

**Device Name:** Human readable device name for easy identification. You can change this name in System configuration > More settings on page 27.

**Model:** The model name of the TV-DVR104.

**Serial Number:** The unique identification number of this device.

**Firmware Version:** Firmware version

**Encoding Version:** Encoding version

## Camera Information

Channel	Camera Name	Status	Motion Deflection	Video Tamper	Video Loss
01	01	Enabled	N/A	N/A	N/A
02	02	Enabled	N/A	N/A	N/A
03	03	Enabled	N/A	N/A	N/A
04	04	Enabled	N/A	N/A	N/A

### Camera Information

**Camera No.:** The channel number camera assigned into.

**Camera Name:** Camera device name

**Status:** Showing the camera is connected or disconnected.

**Motion Detection:** Showing the status and setup of the camera motion detection.

**Tamper-proof:** Showing the status and setup of the camera video tamper detection.

**Video Loss:** Showing the status and setup of the video loss detection.

## Recording Information

Channel	Recording Status	Stream Type	Frame Rate	Bitrate(Kbps)	Resolution	Record Type	Encoding P...
01	N/A	Video & Audio	12fps	2056/2048	1920*1080(10...	Continuous	
02	N/A	Video	12fps	2100/2048	1920*1080(10...	Continuous	
03	N/A	Video	12fps	140/2048	1920*1080(10...	Continuous	
04	N/A	Video	12fps	138/2048	1920*1080(10...	Continuous	

### Recording Status Information

**Camera No.:** The channel number camera assigned into.

**Recording Status:** Showing the status and setup of the video recording.

**Frame Rate:** Showing the camera recording frame rate.

**Bitrate:** Showing the camera recording video stream bitrate in thousands bits per second.

**Resolution:** Showing the camera recording video resolution.

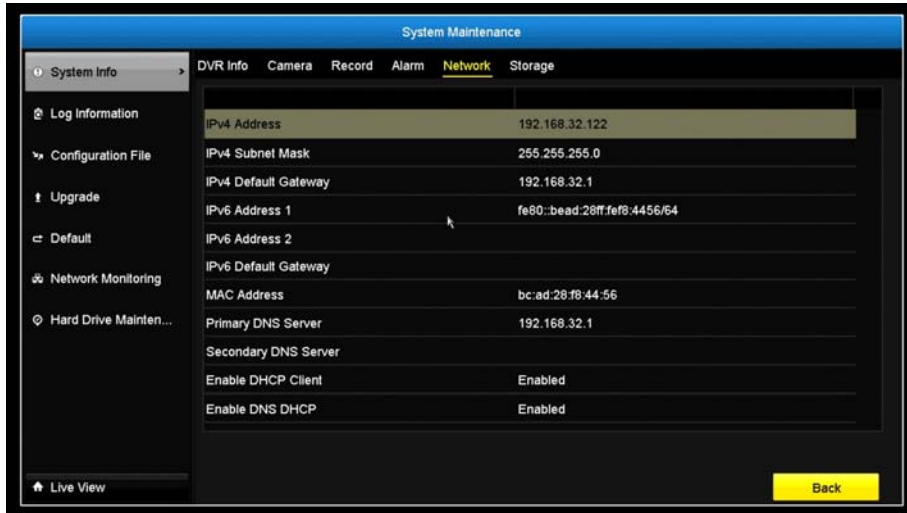
**Record Type:** Showing the type of recording.

**Encoding Parameters:** Showing the encoding parameters.

## Alarm Information

Alarm function is not supported on these DVRs.

## Network Information



### Network Interface Information

**NIC:** Network Interface Card. LAN1 is the assigned network interface which represent to the non-PoE network port.

**IPv4 Address:** The IPv4 address on this interface

**IPv4 Subnet Mask:** Network range of the subnet

**IPv4 Default Gateway:** The default route going further from TV-AC100 IPv4 subnet

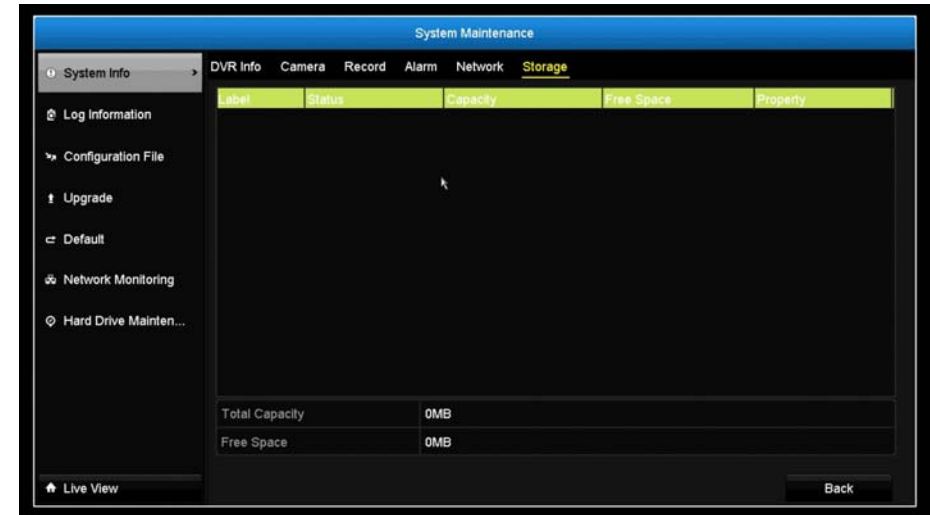
**IPv6 Address 1:** IPv6 self-assigned address including the subnet prefix expression in the end of the string.

**IPv6 Address 2:** IPv6 static address including the subnet prefix expression in the end of the string.

**IPv6 Default Gateway:** The default route going further from IPv6 subnet

**Enable DHCP:** The IP address is assigned by DHCP server or not.

## Storage Information



### HDD Status Information

**Label:** Index of the HDD. DVR has only one hard drive which is assigned on number one.

**Status:** Showing the hard drive working condition.

**Capacity:** The total hard drive storage capacity after formatting.

**Free space:** Displays how much space is available free for video recordings.

**Property:** R/W: Allow read and write.

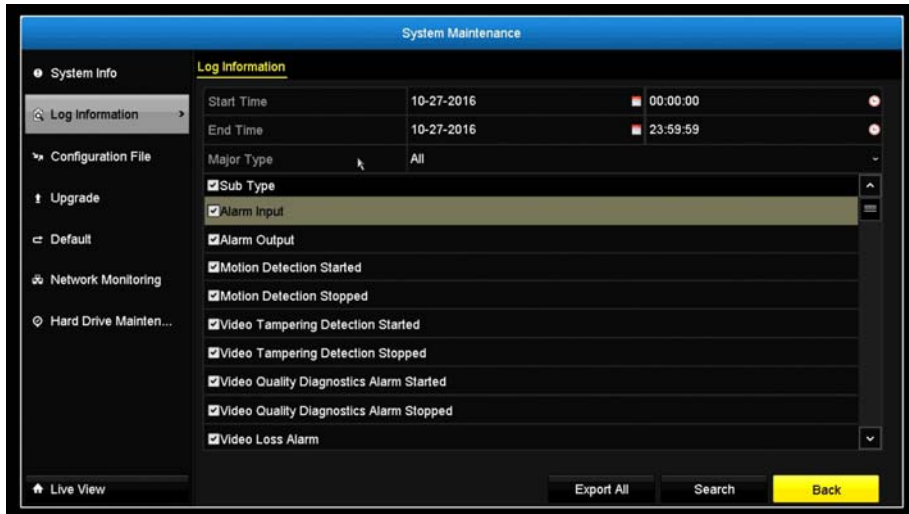
**Type:** Local: The hard drive is installed on the DVR.

**Group:** The HDD on DVR is assigned to the group 1.

## Log Information

All DVR activities are registered on the log. Find the activity by searching with time range and log type. Click **Search** to start the search.

### Log Search



### Log Search

**Start Time:** The starting time of a log search.

**End Time:** The end time of the time range for the log search.

**Major Type:** Filter the search by type of logs: all, alarm, exceptions, operation, and information.

**Minor Type:** Filter the search by type of logs. Select the major type and then choose the minor type.

**Alarm:** Start motion detection, stop motion detection, start temper-proof, stop temper-proof, and IP Camera Alarm.

**Exception:** video loss, illegal login, HDD full, HDD error, IP conflict, network disconnect, recording exception, IP camera disconnection,

IP camera address conflict, recording buffer overflow.

#### Operation:

- power on, abnormal shutdown
- **Local operations:** shutdown, reboot, login, logout, configure parameters, upgrade, start recording, stop recording, PTZ control, lock file, unlock file, initialize HDD, add IP camera, delete IP camera, set IP camera, playback by file, playback by time, export configuration file, import configuration file, export recordings, restore administrator's password, operate tag, and HDD detect.
- **Remote operations:** reboot, login, logout, configure parameters, upgrade, start recording, stop recording, PTZ control, lock file, unlock file, initialize HDD, add IP camera, delete IP camera, set IP camera, playback / download by file, playback / download by time, export configuration file, import configuration file, export recordings, interrogate parameters, interrogate working status, start-two way audio, stop two-way audio, alarm arming, alarm disarming, and operate tag.

**Information:** local HDD information, HDD S.M.A.R.T. start recording, stop recording, delete expired recording, and system running status.

### Export

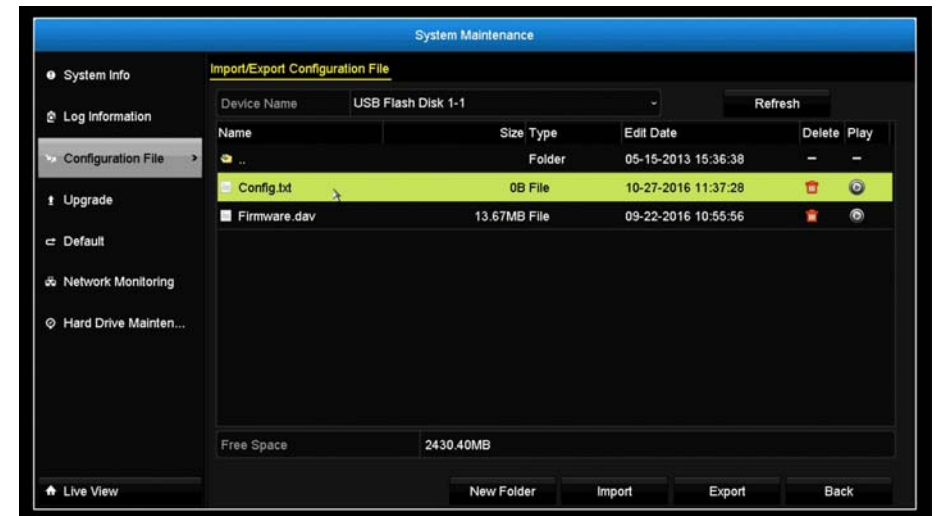
Click **Export** on this page to export log on the list.



Click **Export** again to export the log to the USB drive of your choice. Select the USB drive on the **Device Name** and then click **Refresh** if you want to change the drive. Click **New Folder** to create a new folder on current directory. Click **Format** to format this USB storage.

### Configuration File

To save current or load previous DVR settings, choose the **Configuration File** page and then export the file to the USB drive or import the file.



Click **Export** to export the settings to a file on the USB drive of your choice. Select the USB drive on the **Device Name** and then click **Refresh** if you want to change the drive. Click **New Folder** to create a new folder on current directory. Click **Format** to format this USB storage.



## Upgrade

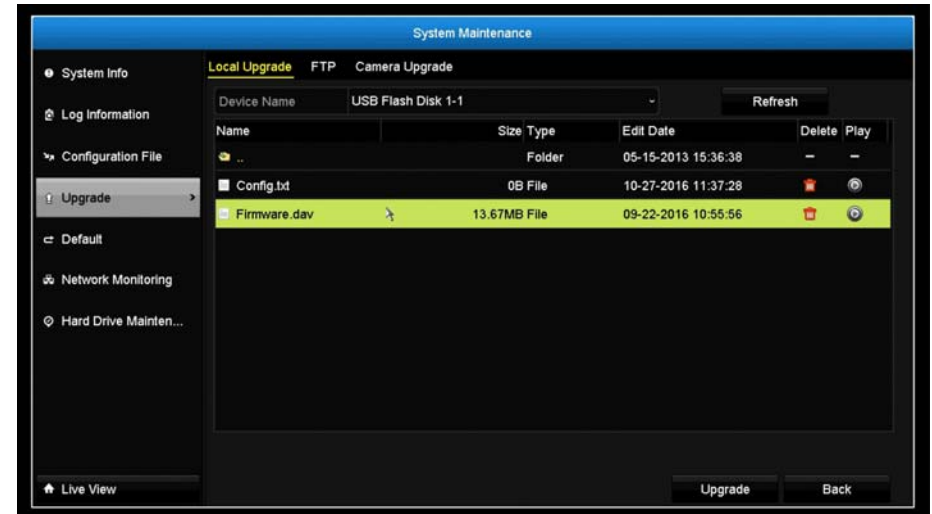
### Local Upgrade

TRENDnet may periodically release firmware upgrades that might add features or fix problems associated with your TRENDnet model and version. To find out if there is a firmware upgrade available for your device, please check your TRENDnet model and version using the link.

<http://www.trendnet.com/downloads/>

1. If a firmware upgrade is available, download the firmware to your computer.
2. Unzip the file to a folder on your computer.
3. Read the firmware upgrade instruction for specific version update information.
4. Log into the TV-DVR104K / TV-DVR208K.
5. Getting to this Maintenance page to upgrade firmware.

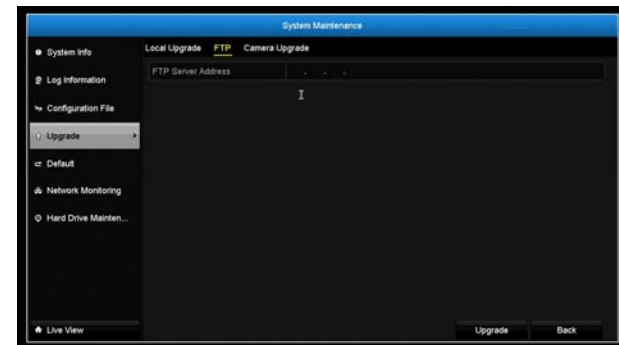
Extract the firmware file from the downloaded zip file and then save it to the USB drive. Plug in the USB drive to one of the available USB slot on the DVR. Choose **Upgrade** page and then click on **Upgrade**.



### Remote Upgrade

You can setup the upgrade over the network with FTP protocol. To proceed FTP upgrade, you need to prepare a FTP server on the local network with username: **ftp** and password: **ftp**. Place the firmware file on the root directory when the **ftp** account is logging in the FTP server.

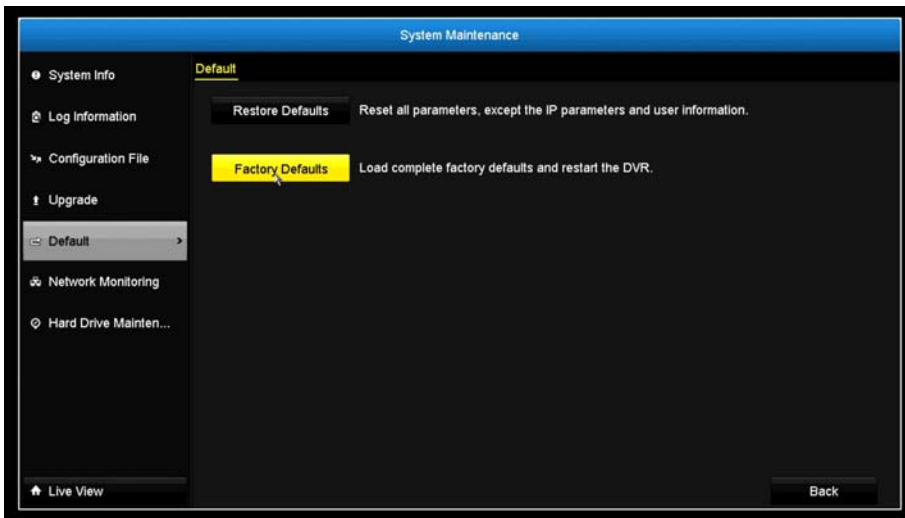
Navigate to the remote upgrade (**FTP**) page. Enter the FTP server address, and then click on **Upgrade**.





## Factory Default

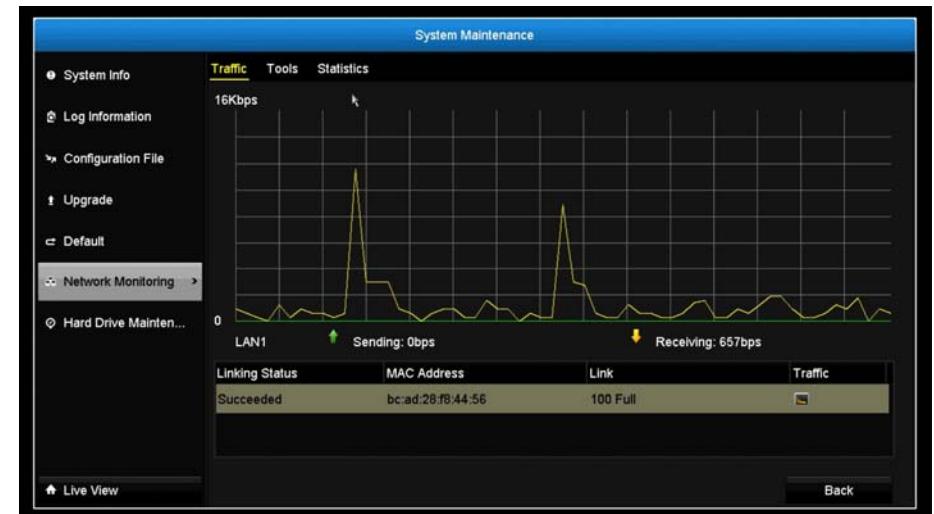
To reset your DVR to the factory default, navigate to this **Default** page and then click on **OK** to reset all DVR settings back to factory default.



## Network Monitoring

### Traffic

To monitor the network traffic, navigate to the traffic chart.



### Traffic

**Link Status:** The network linking status.

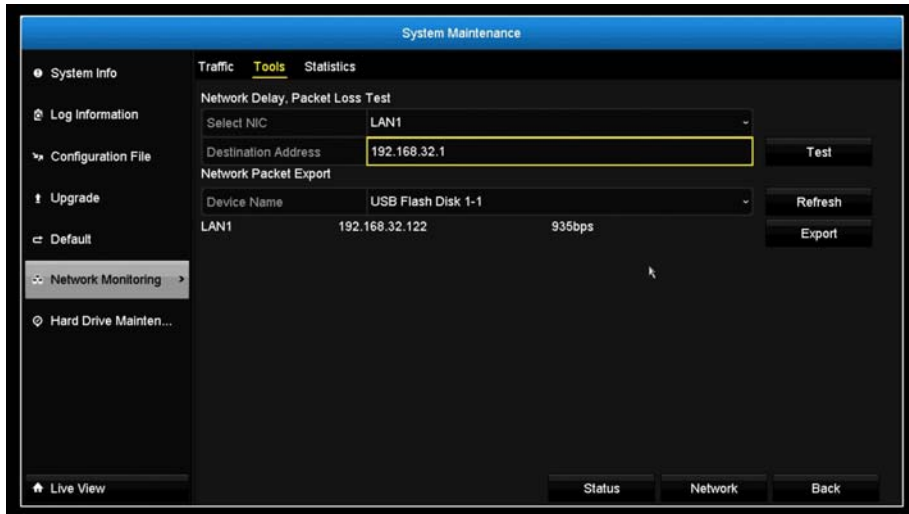
**Type:** Type of network, Ethernet.

**MAC Address:** Media Access Address of the network interface.

**Link:** Maximum Link Speed.

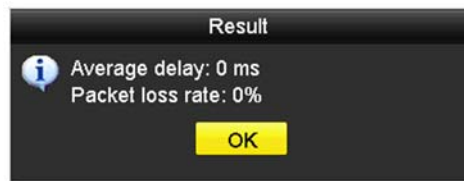
## Tools

Use Tools on the DVR to test the network status.



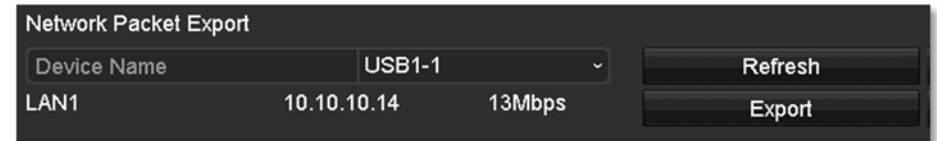
### Network delay and packet loss test

The basic PING test tool. Enter the testing destination IP address and then click on the **Test**.



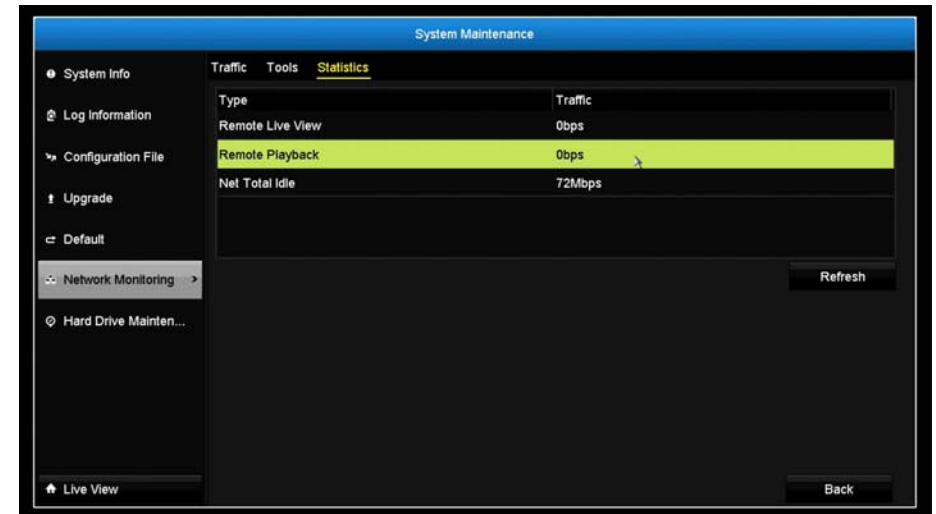
### Network packet export

Capture packets and save to external USB storage for network analysis. Plug in your USB network drive and then click Export to export the packet capture files. Click Refresh to list the directory on your USB storage again.



### Network Statistics

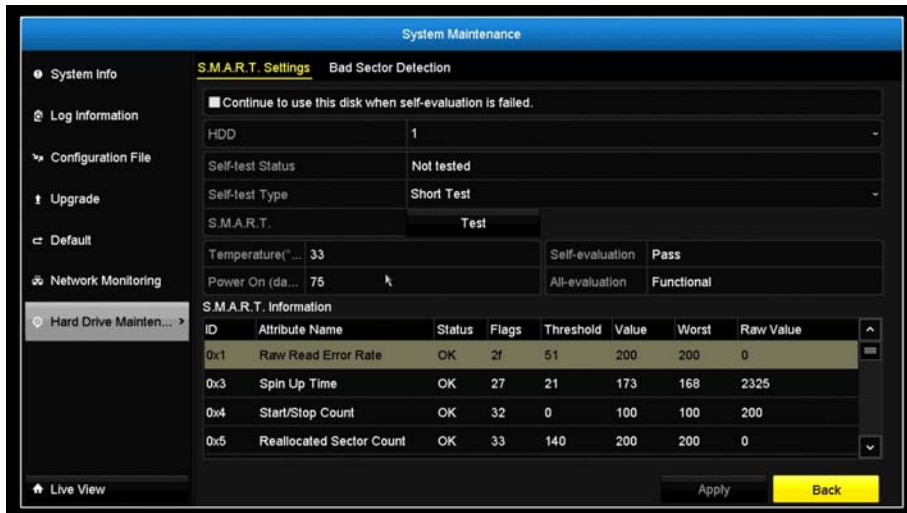
To review the network statistic information, navigate to the **Network Statistics** page. Click **Refresh** to update the information.



## Hard Drive Maintenance

### S.M.A.R.T Settings

The S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is a monitoring technology to detect and report on various performance and reliability factors to help predict and prevent disk failures.



### S.M.A.R.T. Settings

**Continue to use:** Check the **Continue to use this disk when self-evaluation is failed** if you want it to do so. Click **Apply** if you change this setting.

**HDD:** The Disk number. The NVR has one HDD.

**Capacity:** The total hard drive storage capacity after formatting.

**Self-test Status:** Showing the self-testing status.

**Self-test Type:** Choose a type of S.M.A.R.T. test: short, expanded, and conveyance tests.

**S.M.A.R.T.:** Click  to start S.M.A.R.T. test.

**Temperature:** The temperature of the hard drive in Celsius.

**Power on days:** Days the hard drive is on.

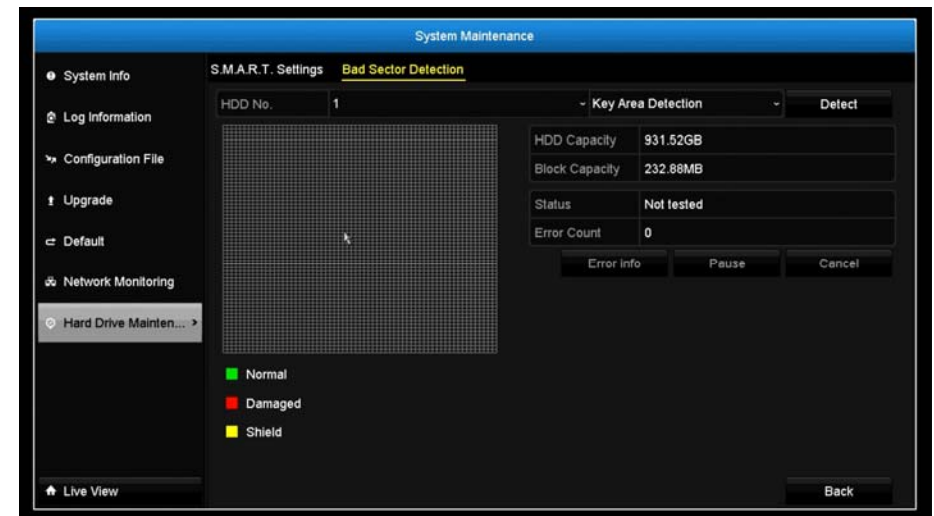
**Self-evaluation:** The result of self-evaluation.

**All-evaluation:** Functional evaluations.

**S.M.A.R.T. Information:** Detailed S.M.A.R.T. hard drive information.

### Bad Sector Detection

Detect if there's any bad sector on the disk drive.



**Bad Sector Detection**

**HDD No.:** The Disk number. The NVR has one HDD.

**Capacity:** The total hard drive storage capacity after formatting.

**Type of Detections:** Select key area detection or full detection.

**Detect:** Click this button to start bad sector detection.

**HDD Capacity:** The storage capacity of the hard drive.

**Block Capacity:** The block capacity.

**Status:** The status of bad sector detection.

**Error count:** The total error count detected.

**Error Info.** Detailed sector damage or shield information.

**Pause:** Pause the bad sector detection once it start running.

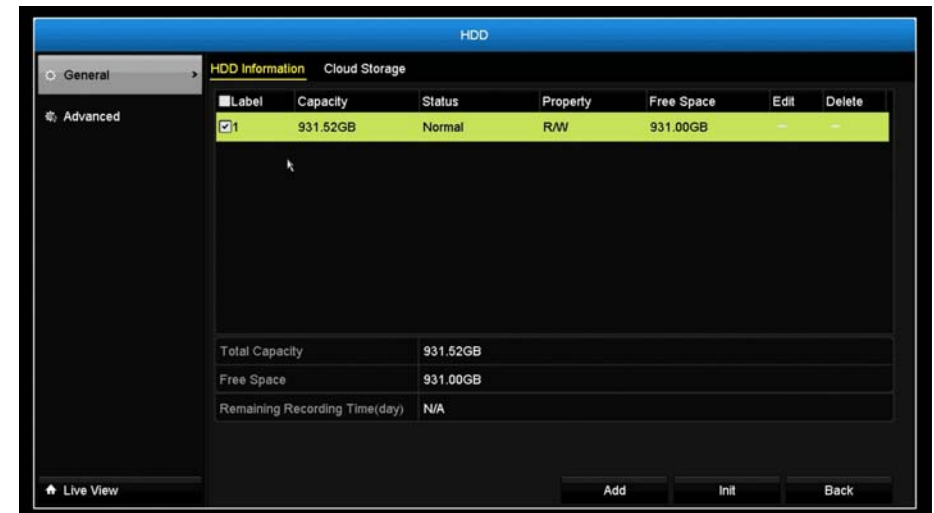
## Hard Drive Management

Manage and allocate your storage space by bring up the main menu. Click on

**HDD Maintenance Menu**  icon.

### Format/Initiate the Hard Drive

Select the hard drive and then click on **Init** to format and initialize the hard drive.



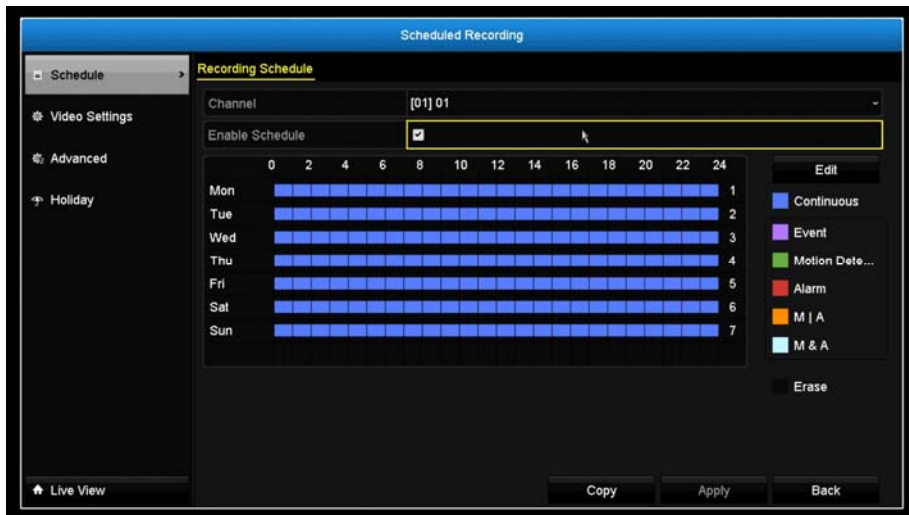
## Scheduled Recording

Setup the video recording settings by bring up the main menu. Click on

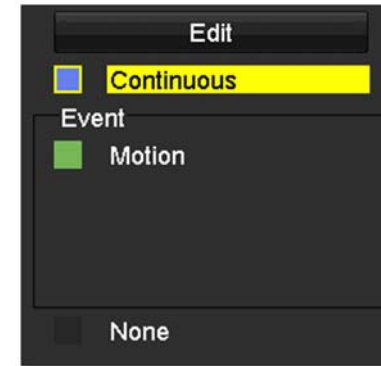
Scheduled Recording Menu  icon.

## Schedule

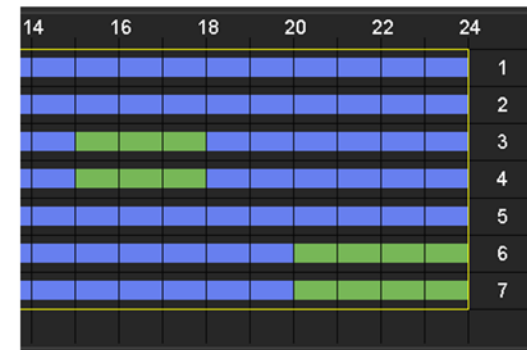
Select the video channel, type of recording, and then click and drag on the weekly schedule. Click **Edit** to bring up the detailed schedule setting table or click **Copy** to copy the same schedule to other channel.



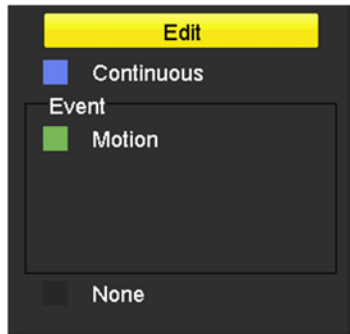
1. Select channel.
2. Select recording type. Choose from **Continuous** or **Motion** recording. If you want to clear out some scheduled recording time, choose **None**.



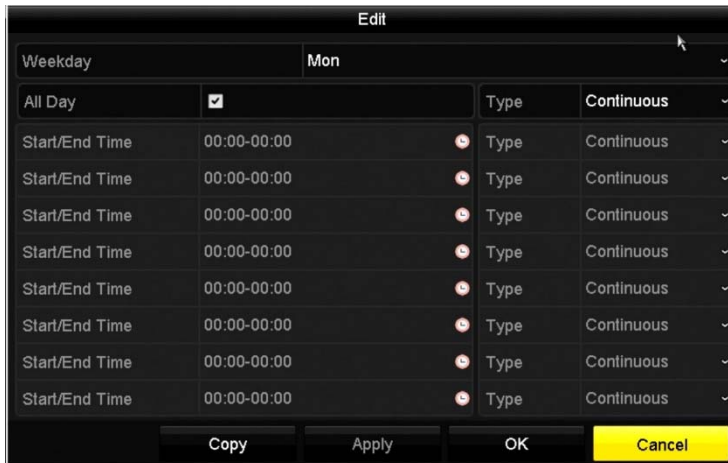
3. Select the time slots you want to make the scheduled recording. Each time slot represents a half hour interval. The row number represents the week of the day starting from Monday.



4. If you want to define the schedule in finer intervals, click on **Edit** button.



5. Make your selection and then click **Apply** to apply the changes.



**Schedule:** Select the day of the week

**All Day:** Select if you want to setup the all-day recording.

**Start/End Time:** Specify the starting and end of recording time in 24-hour format.

**Type:** Select **Continuous** or **Motion Detection** recording

#### Copy to:

To quickly setup the same schedule over the week, click **Copy**. Select the camera you would like to copy the settings to then click **OK**. By selecting the Analog option, the settings will copy to all cameras.

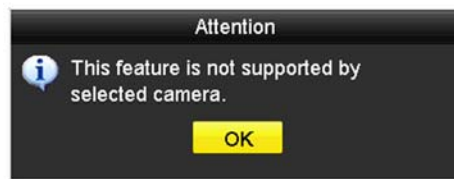


## Video Settings

Set up the video quality for recording (main stream), the higher video quality require larger storage space and better network condition. Please choose the best profile of your choice.



Note: Settings in this section are not available all cameras. The DVR will prompt the message to remind you the setting is not available on selected camera.



### Main Stream (Record) Settings

**Camera:** Select the camera you want to change the recording video quality.

**Encoding Parameters:** The type of video from the camera.

**Stream Type:** Select you want to stream video only or video and audio.

**Resolution:** Select the video resolution.

**Bitrate type:** The bitrate is the rate of information generated from the video. The higher bitrate means more data and more traffic and better video quality. **Constant** bitrate generates same amount of information over the same period of time. **Variable** bite rate takes one step further to compress the information whenever it can, therefore, generates the same or lower amount of information compare to the constant bitrate.

**Video Quality:** Select the video compression algorithm.

**Frame rate:** Select the frame rate to decide how many pictures you want to take in each second.

**Max. Bitrate Mode:** Select **General** to set the maximum bitrate in certain brackets. Choose **Customized** to set the maximum bitrate on your own.

**Max. Bitrate:** The maximum information allowed to record on the DVR in thousands of bits per second.

**Max. Bitrate Range Recommended:** Recommended bitrate setting.

**Pre-Record:** If the recording is triggered by the motion event, this value specifies to start recording some period of time before the motion event happened.

**Post-Record:** If the recording is triggered by the motion event, this value specifies to record video some period of time after the motion event happened.

**Expired Time:** Lock the recording video for some period of time (in days) to prevent accidentally been overwrite or delete.

**Record Audio:** Recording audio or not.



### Sub Stream

The sub stream video is mainly for DVR live view. Change your camera option to lower resolution if your camera generates too much information to the DVR for live view.



### Sub Stream

**Camera:** Select the camera you want to change the recording video quality.

**Stream Type:** Streaming type is video only.

**Resolution:** Select the video resolution.

**Bitrate type:** The bitrate is the rate of information generated from the video. The higher bitrate means more data and more traffic and better video quality. **Constant** bitrate generates same amount of information over the same period of time. **Variable** bite rate takes one step further to compress the information whenever it can, therefore, generates the same or lower amount of information compare to the constant bitrate.

**Video Quality:** Select the video compression algorithm.

**Frame rate:** Select the frame rate to decide how many pictures you want to take in each second.

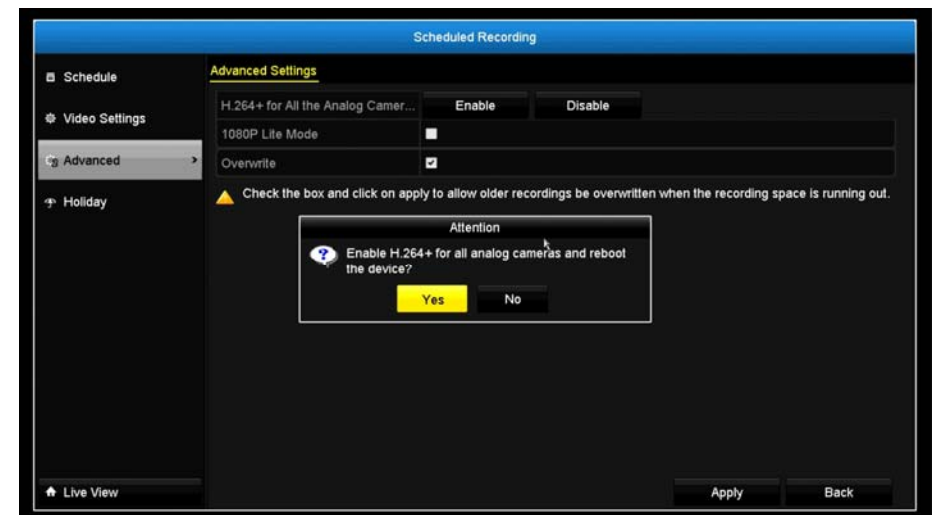
**Max. Bitrate Mode:** Select **General** to set the maximum bitrate in certain brackets. Choose **Customized** to set the maximum bitrate on your own.

**Max. Bitrate:** The maximum information allowed to record on the DVR in thousands of bits per second.

**Max. Bitrate Range Recommended:** Recommended bitrate setting.

### Advanced


When the Lite mode is enabled, the encoding resolution is 1080p lite in real-time.

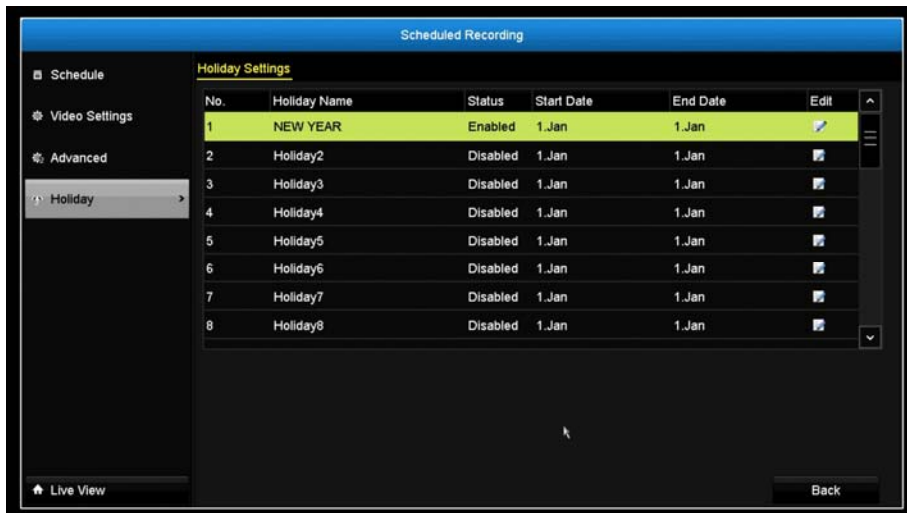




## Holiday scheduling

Recording video in holidays may have different requirements. You can set up to 11 holidays of a year sharing the same holiday profile.

Set up the holiday schedule by clicking on  button.



### Edit Holiday Schedule

**Holiday Name:** Change the holiday name to a meaningful name instead of index numbers.

**Enable:** Enable or disable this holiday rule.

**Mode:** Select the holiday is for a day, a week, or a month.  
**Day mode:** Select the start and end dates to specify the period of holidays. This setting is good for one time only. It does not repeat periodically.  
**Week mode:** Select the start and end dates of the week to specify the period of holidays. This setting is repeating every year.

**Month mode:** Select the start and end dates to specify the period of holidays. This setting is repeating every year.

**Start Date:** Select the day when the holiday starts.

**End Date:** Select the day when the holiday ends.

Click **Apply** button to apply the change and click the **OK** button to finish the editing.

## Backup Video Recordings

Quickly and backup and export your video recordings with the file exporting

menu. Bring up the main menu then click on **Export Menu** icon.



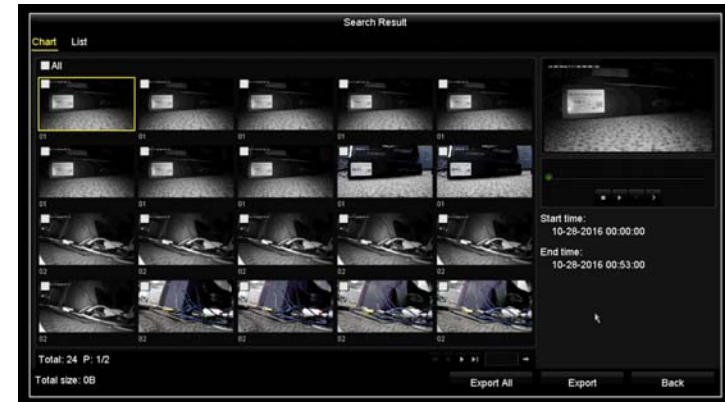
### Export

Select the video channel and range of time and then click on **Search** to search the video you want to export.



### Export with search

Select the video clips you want to export by check or uncheck the video clip. Then click **Export** to export the video recordings.



Click  to preview the video clip.

Click **Export** again to export the video recordings to the USB drive of your choice. Select the USB drive on the **Device Name** and then click **Refresh** if you want to change the drive. Click **New Folder** to create a new folder on current directory. Click **Format** to format this USB storage.



## Video playback

Bring up the main menu then click on **Export Menu** icon.



### Playback screen

The screenshot shows the video playback interface with the following components labeled:



- Type of Playback:** Points to the 'Normal' dropdown menu at the top left.
- Main Stream:** Points to the 'Main Stream' dropdown menu at the top center.
- Channel Selection:** Points to the channel selection list on the right, which includes 'All', 'Clear', and checkboxes for channels 01, 02, 03, and 04.
- Recording search:** Points to the calendar interface on the right, showing the month of October 2016.
- Scale Buttons:** Points to the zoom controls (fit, full, etc.) at the bottom right of the video window.
- Time Line:** Points to the horizontal timeline at the bottom of the interface, showing a duration from 10-27-2016 17:00:49 to 10-28-2016 11:08:08.
- Playback Buttons:** Points to the playback control buttons (play, pause, stop, etc.) at the bottom center.
- Action Buttons:** Points to the action buttons (mute, volume, etc.) at the bottom left.
- Live View:** Points to a smaller inset video window on the left side of the main video area.

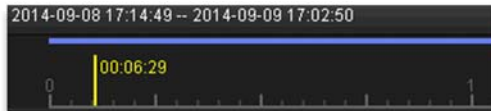
### Search for video recordings

Check on the camera you want to see the playback or check on **Camera** to select all channels. Then, choose the date for the recording. If there are video recording in selected channel, the date on the calendar will show blue. Double click the date to start playback.



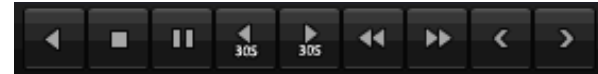
### Time line


There is a play back head in the center of the time line represented in a yellow vertical line. To look for a specific video recording, move the play head by clicking and dragging it. If the recording is short, zoom in by clicking  button. Click  to zoom out the time scale.



### Playback buttons

Use playback controls to play back the video recording.




 Click this button to play the video backward.

 Click this button to play the video.

 Click this button to pause video playback.

 Click this button to stop playback.

 Click this button to skip forward 30 seconds.

 Click this button to skip backward 30 seconds.

 Click this button increase playback speed\*.

 Click this button decrease playback speed\*.

 Click this button to jump to the next day.


 Click this button to jump to the previous day.

\* Note: There are 5 steps of playback speed you can choose from: 1/4, 1/2, 1, 2, and 4 times of original speed.

### Playback operations


More playback operations such as mute the audio, clip a customized video, add and manage tags, and zoom in the viewing are available on the action buttons section.

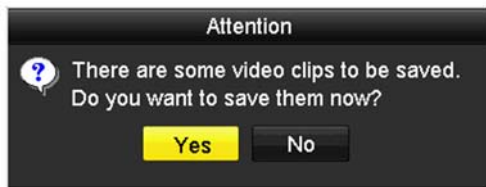



 The audio is on. Click this button to mute the audio.

 The audio is muted. Click this button to enable audio.

 Click this button to start video clipping.

 Click this button to stop video clipping. You can make multiple video clips. When you finish all clipping and exit the live view, the DVR will prompt and asking you to save the video clips.





 Click this button to add a tag with default tag name.

 Click this button to add a tag with customized tag name.


 Click this button to manage the tags

 Click this button to zoom in the live view.

### Tagging

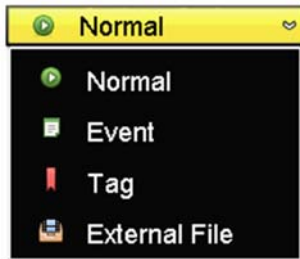
Tagging on video recordings help you to mark the critical time of video recording and easier tracking and editing. Find the video is critical and click on  to make the tag with default tag name "tag". Click on  to make the tag with customized tag name. Search the video on **Tagged video playback mode** explained in following sections.

### Zoom

Click  to zoom the playback. A navigate window will showed up on right lower screen corner. Drag and drop or double click to define the area you want to zoom in. The defined area is showed in red rectangular. Right click to exit the zoom mode.

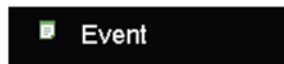
**Playback modes**

The video playback not only can playback the video recorded on the hard drive indexed by the time. You can also search the video with motion detection event, tag, or playback the video stored on the USB external hard drive.

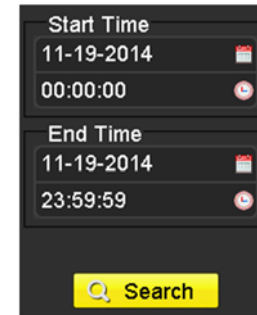



*Event*

To search video with motion detection event, click and select the **Event** playback mode.

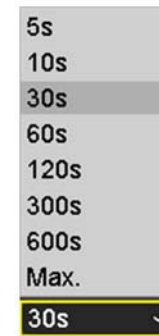


Select the channel you want to search the motion detection. Enter the start and stop time. And, then click on **Search**.



The motion recording events are showed on the list. Click  to view the video.

Use the scroll bar to browse the recordings and adjust the pre-play and post-play between 5 seconds and the maximum amount of a single section of recording to decide the length of playback before and after the motion event.

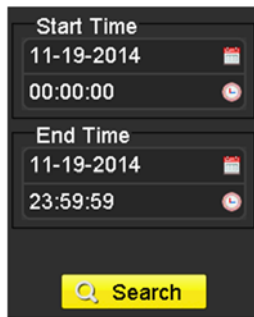



### Tag

If you set up the tags and want to search video with the tags, click and select the **Tag** playback mode.

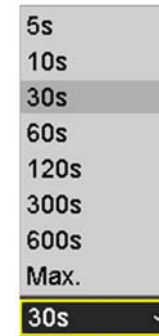


Select the channel you want to search the tags. Enter the start and stop time. If you want to search for specific tag name, enter the tag name or leave it blank for all tags. And, then click on **Search**.



The tags searched are showed on the list. Click  to view the video.

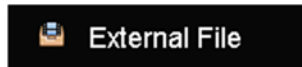
Use the scroll bar to browse the recordings and adjust the pre-play and post-play between 5 seconds and the maximum amount of a single section of recording to decide the length of playback before and after the motion event.






### External file

To playback the video files saved on the USB drive, click and select the **External File** playback mode.



Select the USB device to browse the files. Click **Refresh** to update the list when necessary.



Click  to view the video and use the playback control to control the playback.



## Access your DVR with the Web Browser

### Default Settings and Factory Reset

To manage your DVR through the web browser, you have to setup the network connection first. If you didn't set up your DVR attaching to your home/business network, please enable DVR's DHCP client. Click **Apply** and then restart the DVR. If you have already installed your cameras, you have to manually change their settings. When necessary to make sure the DVR gets the IP address from your network.

Here's the list of your DVR's factory default settings:

System Default	
Management IP:	192.168.10.60.
Administrator name:	admin
Administrator password:	admin

### System Requirement

To access you DVR with the browser, you need a Windows or OS X based computer and up-to-date browser (Internet Explorer, Safari, Chrome, or Firefox). A web browser plug-in must be installed to supported computer and browser to watch the video.

You need to setup the IP address in the same network of DVR. (192.168.10.x network or your home network). For example, setup your computer with 192.168.10.2 static IP address.

For **Windows** system, please go to the next paragraph.

For **OS X** system, please go directly to page 60.

## Logging-in to the DVR for the First Time (Windows)

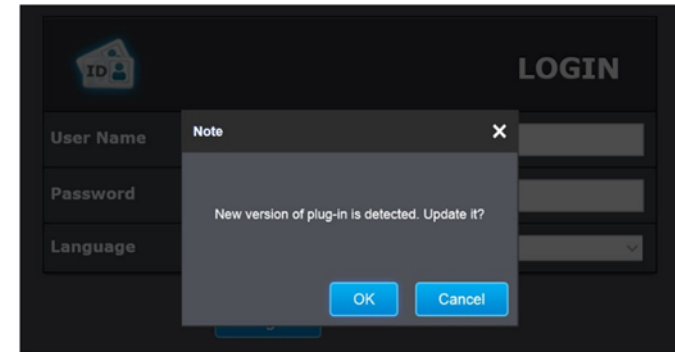
1. Connect your computer to your home network and look for the DVR by browsing your **Network** in **File Explorer** and then double click the icon to visit the DVR. Or, you can find the DVR IP address assigned by your home gateway by visiting home gateway's web management page, and then press **Enter**.



2. Enter the user name, **admin**, and the password you setup through the basic setup. If you didn't setup your password, the change password window will pop up on step 9 to guide you through the password changing. The default password is **admin**.

 A screenshot of the DVR's LOGIN page. The 'User Name' field contains 'admin', the 'Password' field is masked with dots, and the 'Language' dropdown is set to 'English'. A 'Login' button is at the bottom.

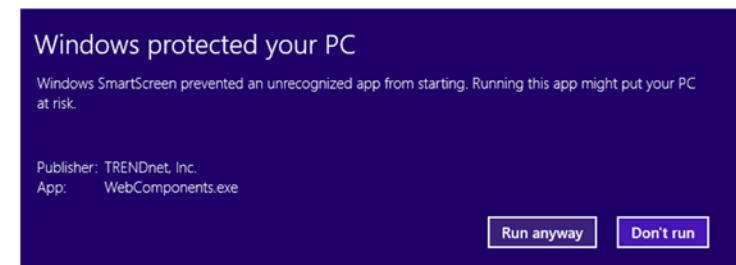
3. The DVR management page will detect if you installed the camera video streaming plug-in or not. Click **OK** to download the plug-in from the DVR.



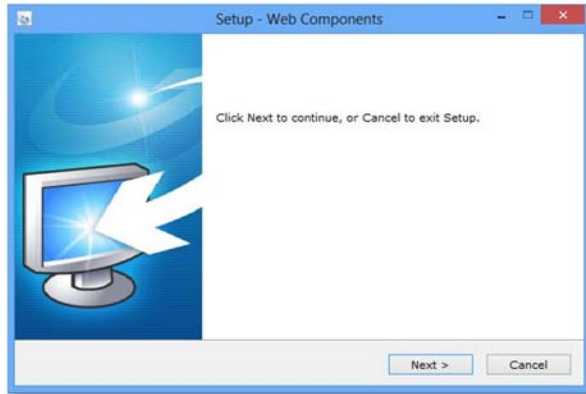
4. Download the plug-in to your computer and then close your browser. Click **Run** to install the plug-in.



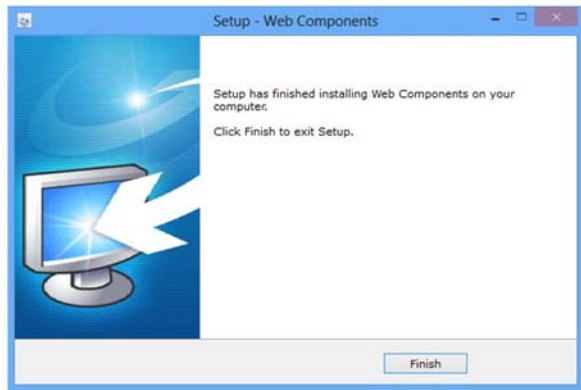
5. Permission request may show up depends on the Internet security settings on your computer. Click **More Info** and then **Run anyway** to install the plug-in.



6. Click **Next** to install the plug-in.



7. Click **Finish** to finish the installation.



8. Open the browser and login again.



9. DVR will ask you to change your password from default setting. Please enter the new password twice and click **OK**. The password must be between 8 and 16 characters. (Alphanumeric: a-z, A-Z, 0-9, !, @, #, \$).

PLEASE ENTER YOUR NEW ADMINISTRATOR PASSWORD	
User Name	admin
Password	*****
Confirm	*****
<input type="button" value="OK"/>	

10. Enter the user name **admin** and new password again to start secured session.

Windows Security	
iexplore The server 192.168.10.60 at TV-NVR104 requires a username and password.	
<input type="text" value="User name"/>	<input type="password" value="Password"/>
<input type="checkbox"/> Remember my credentials	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

11. The **Live View** page will show up and begin streaming video.

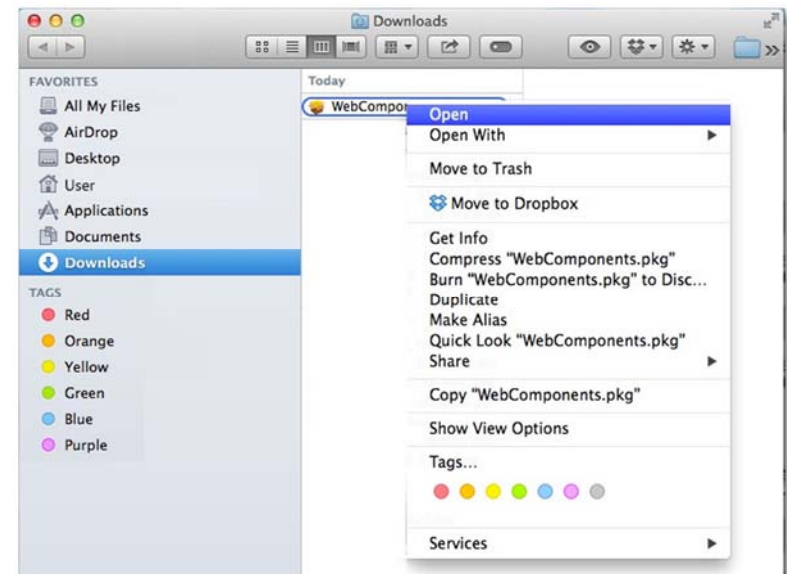


*Note: If you were not go through the basic setup, the camera plug-and-play process will begin after you setup the password. Wait a few minutes and press F5 to refresh the browser for the live video.*

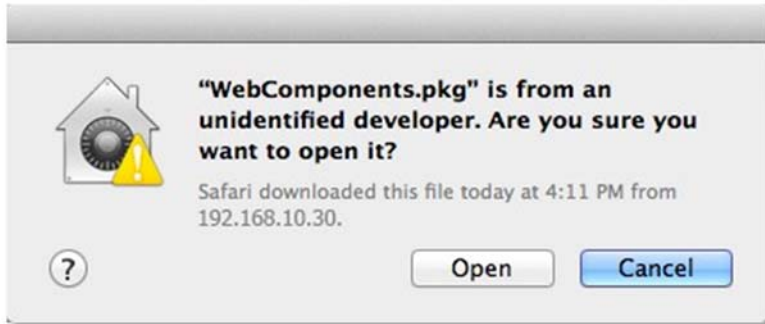
## Logging-in to the Camera for the First Time (OS X)

It is recommended to setup the device using Windows PC and Camera Utility first before accessing the camera with Mac. Mac plug-in needs to be installed first before accessing the camera, you can run the file from the CD or download from [www.trendnet.com](http://www.trendnet.com)

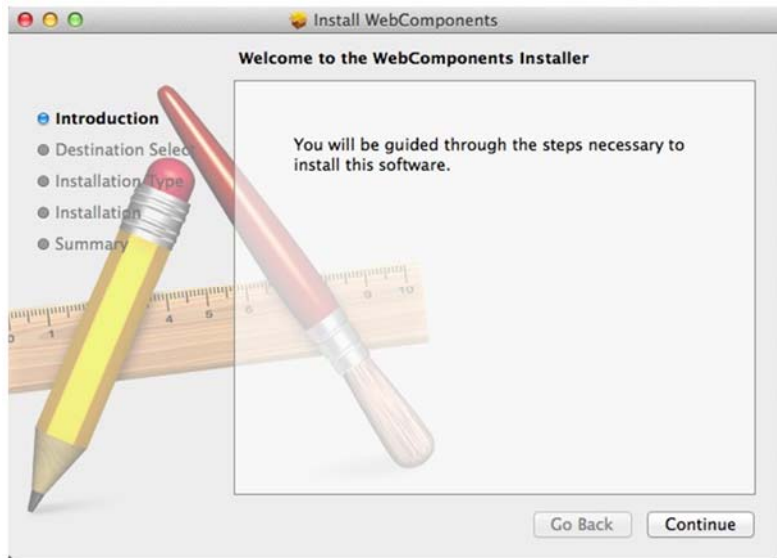
1. Go to the **Finder** and navigate to the **Download** folder. **Command-Click** the **WebComponents.pkg** and then click **Open**. (If you are install the plug-in from the CD, just browse to /Mac folder and double click the **WebComponents.pkg** file.)



- Click **Open** to start installation.



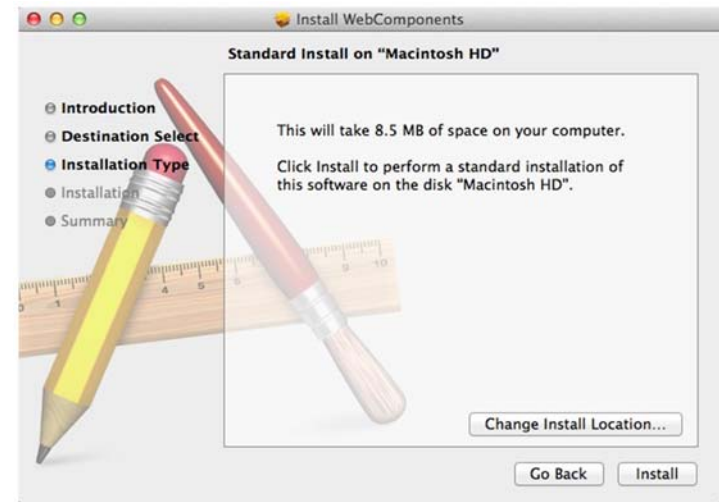
- Click **Continue** to install the plug-in.



- Select a destination to install the plug-in. Then click **Continue**.

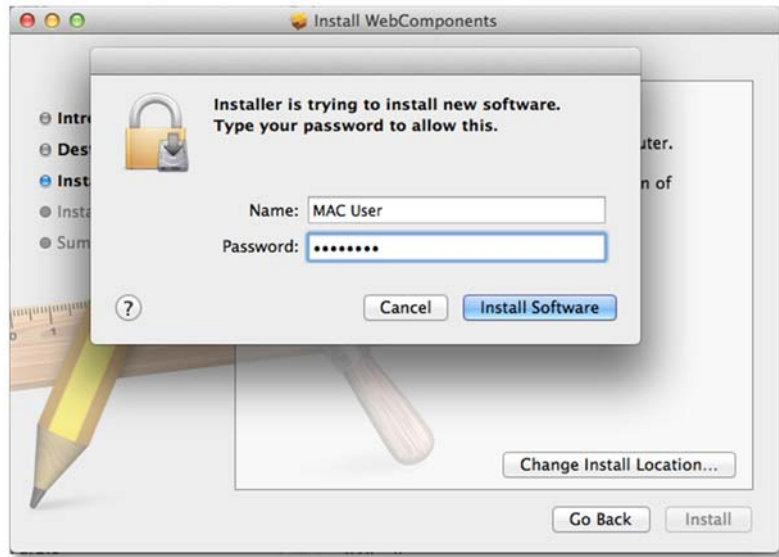


- Use the default location and click **Install**.

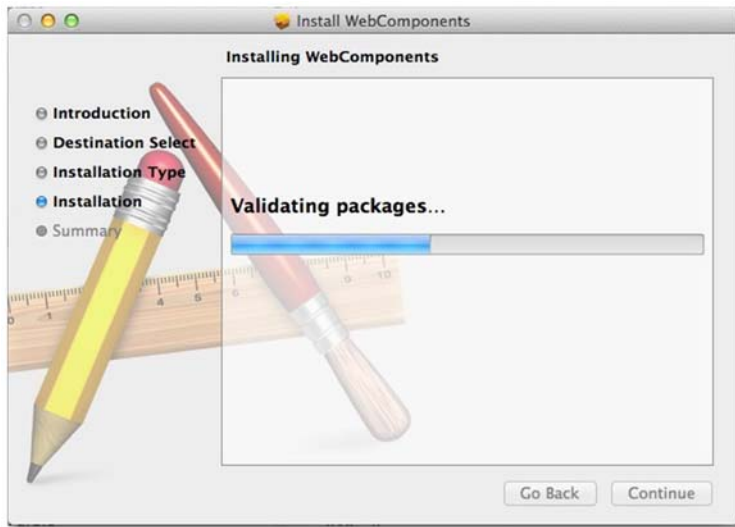




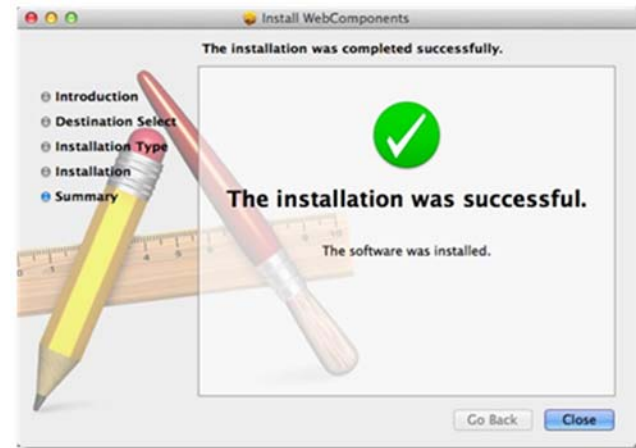
6. Enter your password and click **Install Software**



7. Installation will process automatically.



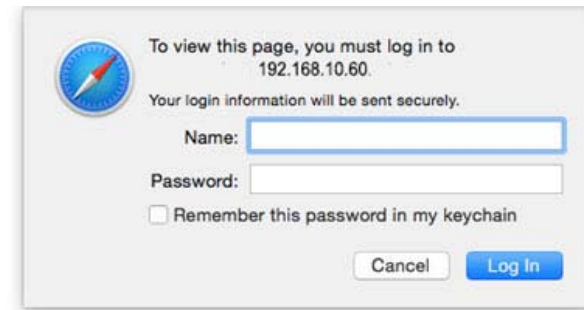
8. Click **Close** to exit the installation.



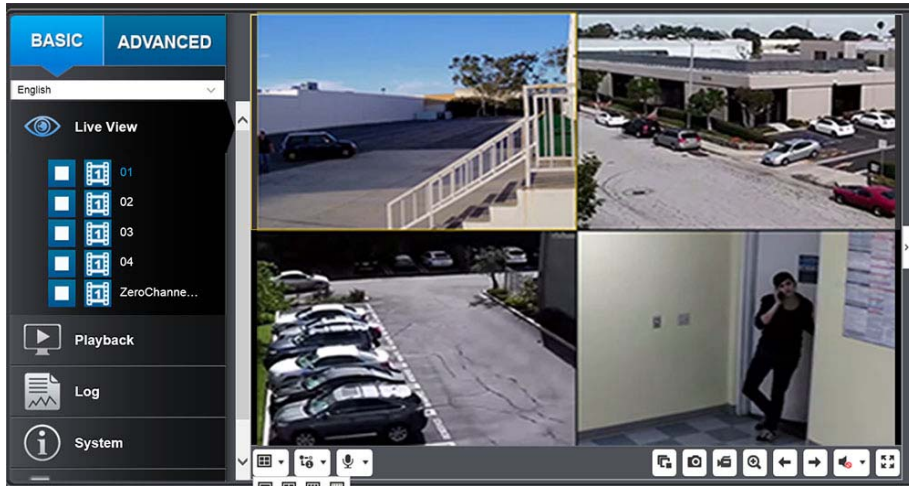
9. Open the browser and login again with the default IP 192.168.10.60 or the IP that was dynamically assigned by your router.



10. Enter the user name, **admin**, and the password, and then click **OK**.



11. The **Live View** page shows up and the video starts to stream.



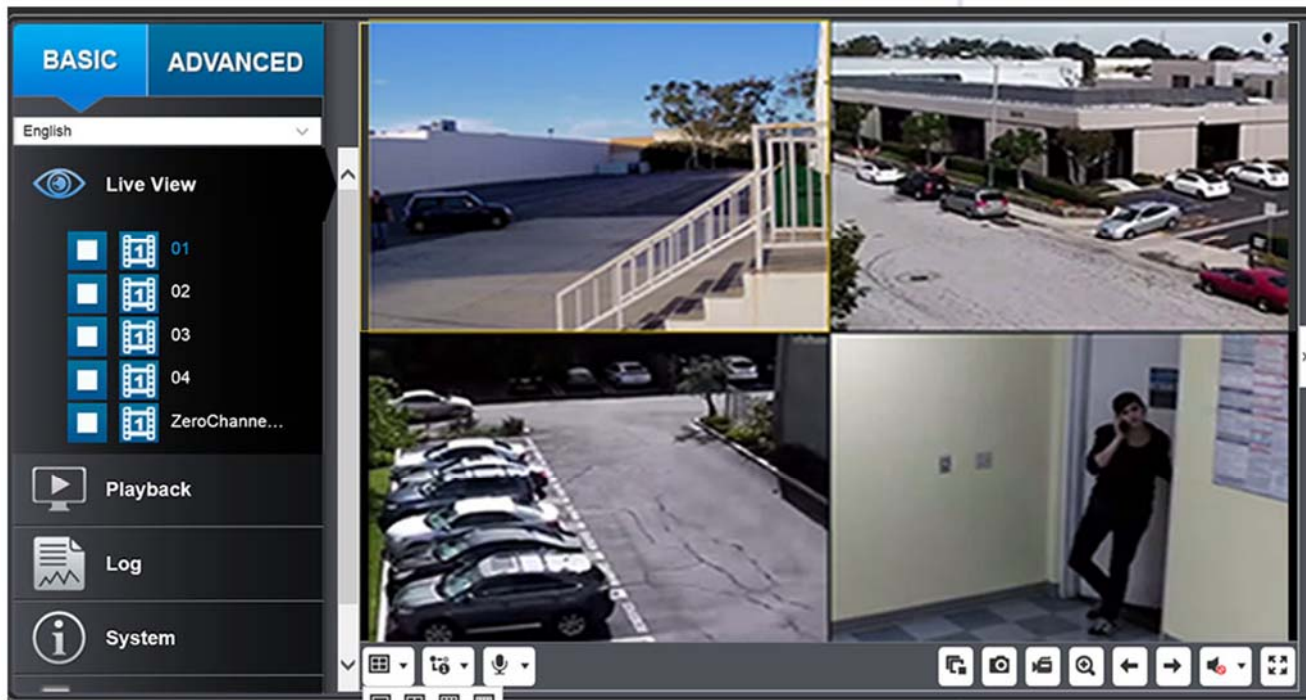
*Note: If you were not go through the basic setup, the camera plug-and-play process will begin after you setup the password. Wait a few minutes and press **command-R** to refresh the browser for the live video.*



## Basic Settings

### Live View

After you log-in into the camera management page, you'll see the Live View page.



-  Start/Stop Streaming
-  Video Stream
-  Display Mode
-  Start/Stop All Streams
-  Snapshot
-  Start/Stop Recording
-  Zoom
-  Microphone
-  Speaker

### Start/Stop Streaming

Click this button to start or stop streaming. Select the display cell by click on it, (The yellow frame will wrap around the selected display cell.) then click on the icon of the stream you want. If the channel has been selected by others, stop that streaming before you change.

### Video Stream

Click this button to choose the video stream between main stream and sub stream. 1: main stream; 2: sub stream.

### Display Mode

Click this button to select the display mode to display a single video on the screen or display four videos on the screen at the same time.

### Start/Stop All Streams

Click this button to start or stop all video streams.

### Snapshot

Select the video you want to take a snapshot and then click this icon to take a video snapshot.

### Start/Stop Recording

Select the video you want to record and then click this icon to start or stop video recording.

### Zoom

Select single video display and then click once to enable zoom. When enabled, click and drag the area on the picture to zoom in. Right click to resume 100% zoom. Click the icon again to disable zoom. The zoom function works in full screen mode as well.

### Microphone

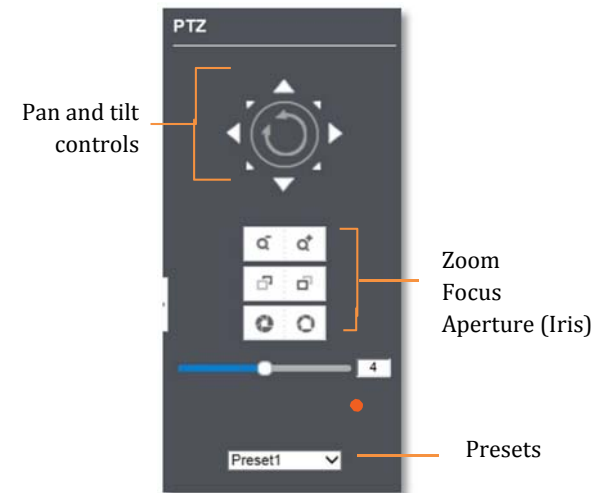
Select the video channel and then click on this button to start/stop talking through the camera.

### Speaker

Select the video channel and then click on this button to start/stop listening from the camera. Use the slide below to adjust the volume.

### PTZ Control

Click this button to bring up the PTZ user interface. (not supported with the included cameras)

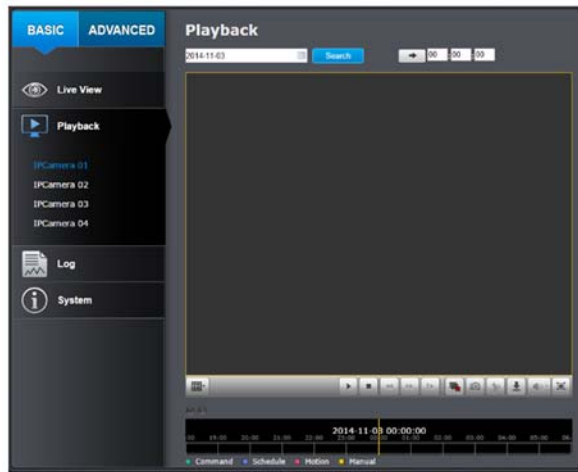


#### **Where can I find saved files?**

*Videos and snapshots captured from **Live View** will be saved to your computer.*

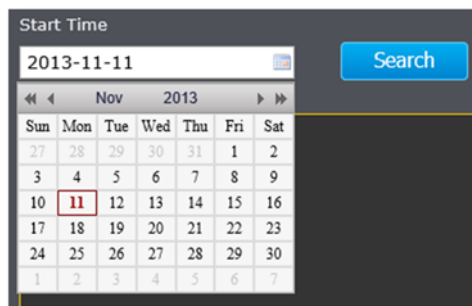
## Playback

You can playback the video recording one at a time at this page. You can also download the video clip and snapshots to your local computer. Select the video channel on the left hand side and then search for the video.



### Search for video recordings

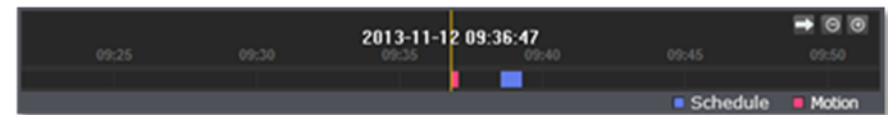
Click the date selection, and then choose a date as the date range of searching. Click **Search** to start searching.



## Time Line

There is a play back head in the center of the time line represented in a yellow vertical line. To look for a specific video recording, move the time line by clicking and dragging it. If the recording is short, zoom in by clicking button. Click to zoom out the time scale. If you know the exact time of the day you are looking for, click then enter the time you want to playback.

Different types of recordings are identified differently. The scheduled recordings are marked in blue, and the recordings triggered by motion detection are marked in red.



Click and drag the time line to move your time manually.



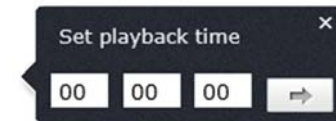
Click this button to zoom in the scale



Click this button to zoom out of the scale



Click this button to specify a specific time of the day.









and then click to confirm selection and then click X to close this dialog box.

**Play video**

Use playback controls to play back the video recording.










-  Click this button to play the video.
-  Click this button to pause video playback.
-  Click this button to stop playback.
-  Click this button increase playback speed\*.
-  Click this button decrease playback speed\*.
-  Click to playback video frame by frame. Click again for the next frame.

\* Note: There are 5 steps of playback speed you can choose from: 1/4, 1/2, 1, 2, and 4 times of original speed.

**Slice images from video playback**

You can take snapshots from playback video or make new video clips from the video you are playing back.




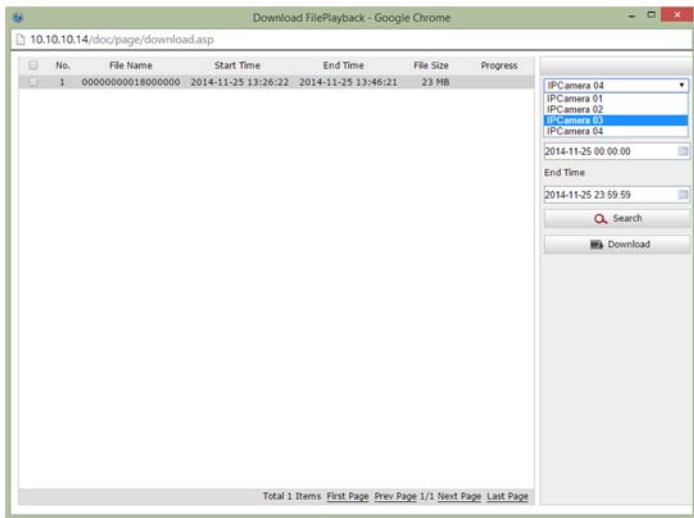
-  Click this button to stop video playback streams.
-  Click this button to take a snapshot of current playback.
-  Click this button to start clipping a video from playback.
-  Click this button or anywhere on the timeline to stop clipping a video from playback.
-  Click this button to download the files.
-  Click this button to enable or disable the audio playback.
-  Click this button for full screen playback.

### Download recorded videos

To save complete video sections, you can download the files directly.



Click  button to download files.



Check the time of the recording, select the videos you want to download, and then click **Download**.

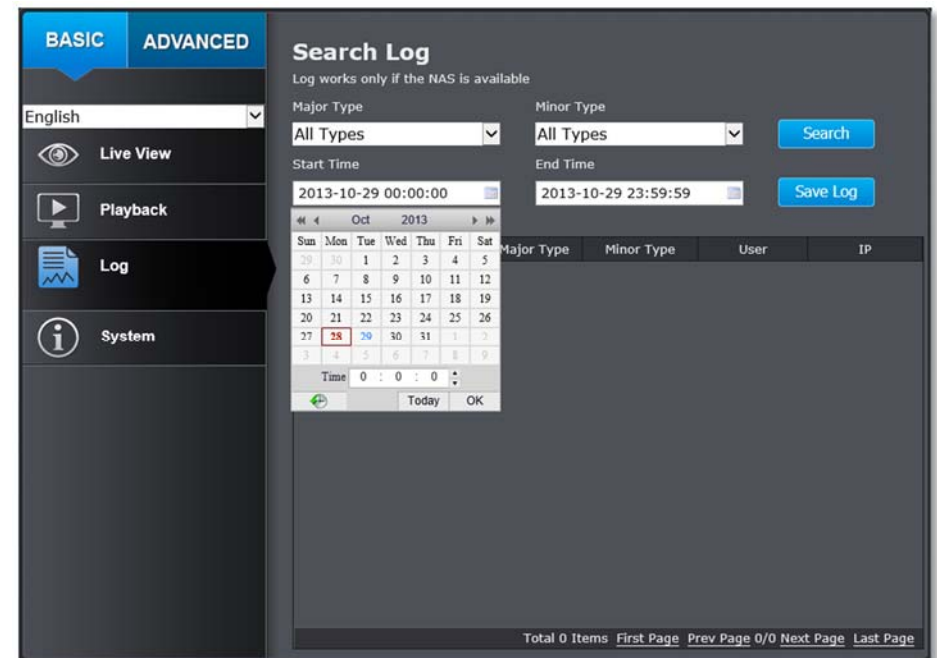
### Where can I find saved files?

Videos and snapshots captured from Playback will be saved to your computer. See

Live View Settings on page 72 for details.

### Log

The log of the TV-DVR104 is saving on the hard disk drive. You can search the relevant records and save to your local computer.



Live View Settings on page 72 for details.

### ***Search for logs***

Click the type of log and then the Start Time and End Time. Click **Search** to start searching.

Total 129 Items [First Page](#) [Prev Page](#) 1/2 [Next Page](#) [Last Page](#)

Click **First Page**, **Prev Page**, **Next Page**, and **Last Page** to show the logs. Click **Save Log** to save the logs to your computer.

### ***Where can I find saved files?***

Videos and snapshots captured from Playback will be saved to your computer.  
See

## System Information

System Information page shows the TV-DVR104's basic information. Click **System** then click **System Info** to show the page.



### Basic Information

**Device Name:** Human readable device name for easy identification.

**Firmware Version:** Firmware version

**MAC Address:** The MAC address of Ethernet Interface

**System Time:** The system time setup in the camera. Keeping this time correct is important for recording, scheduled control and logging accurately.

### Network Information

**IP Address:** IP address of the TV-DVR104

**Subnet Mask:** Network range of IP address

**Default Gateway:** The default route going from the TV-DVR104 subnet.

**Primary DNS:** Primary DNS server address

**Secondary DNS:** Secondary DNS server address

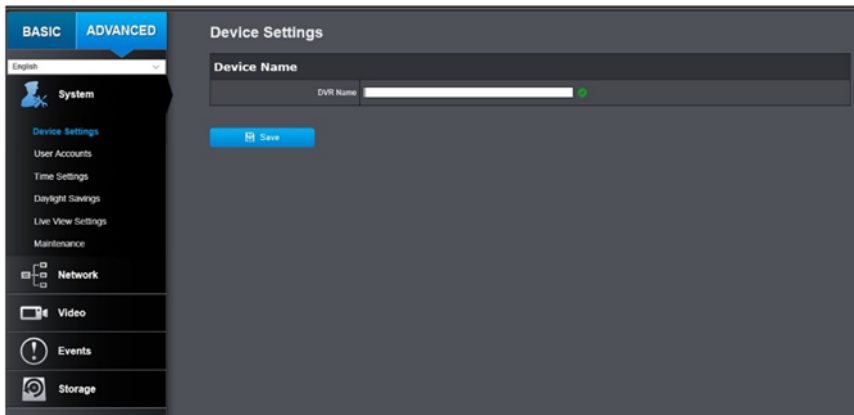


## Advanced Settings

### System

#### Device Settings

Setup your system name for easy identification. This device name will also be recognized by other network camera software as the name of this camera. OSD, On Screen Display, camera name is referring to this setting as well.



Enter the customized device name and the click on **Save** to save the settings.

#### User Accounts

You can setup up to 16 user accounts to access the DVR's video stream with a web browser or real time video stream (RTSP). Only one administrator account can be setup to configure the DVR and cannot be deleted.



#### User Accounts

**Add:** Click **Add** button to add one user account

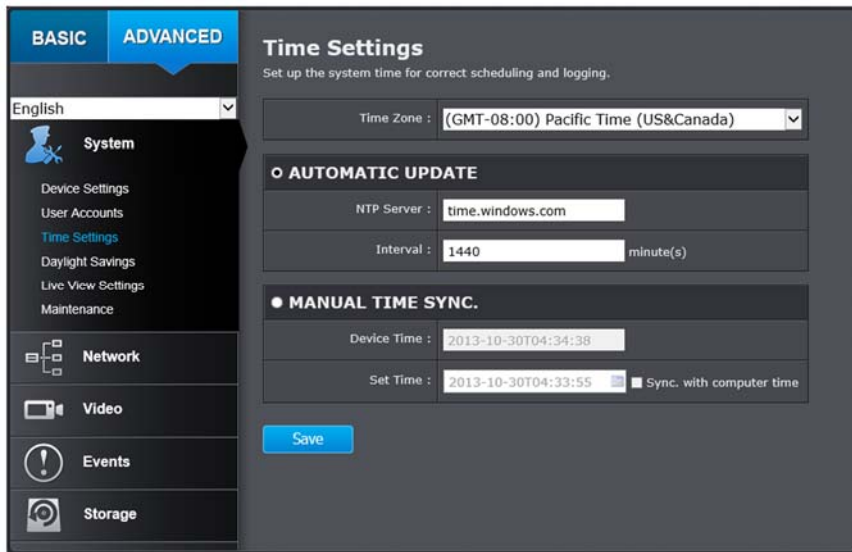
**Modify:** To change a user's name and password, highlight the user by clicking on it. Then, click **Modify** button. You can change the user's name and password. You can also change the administrator's password here. But, the administrator's name is fixed, you cannot change that.

The screenshot shows a 'MODIFY USER' dialog box. It has three input fields: 'User Name' (containing 'user'), 'Password' (masked with dots), and 'Confirm' (masked with dots). There are 'OK' and 'Cancel' buttons at the bottom right.

Click **OK** to save the changes.

## Time Settings

The accuracy of the system clock is important for scheduling and accurate logging. You can synchronize the system time with your computer, or automatically check the time accuracy with a network time server (NTP server).

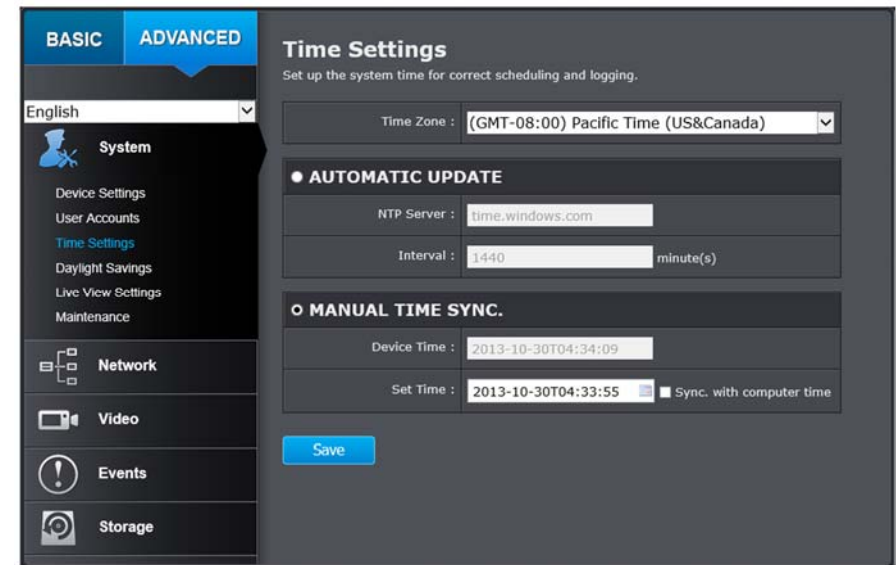


### Automatic Update

**NTP Server:** Specify a time server (NTP server) to synchronize with. (e.g. pool.ntp.org)

**Interval:** The time interval that the DVR will synchronize the time with NTP server. Default: 1440 minutes (24 hours)

Click **Save** to save the changes



### Manual Time Sync

**Device Time:** The system time of this camera.

**Set Time:** Click the calendar icon and manually select the date. Check the **Sync. with computer time** to copy the time from your computer.

Click **Save** to save the changes

## Daylight Savings

Setup daylight savings.

**BASIC** **ADVANCED** **Daylight Savings**  
Set daylight savings time.

English

**System**

- Device Settings
- User Accounts
- Time Settings
- Daylight Savings
- Live View Settings
- Maintenance

Enable DST :

Start Time : Apr First Sun 02 o'clock

End Time : Oct Last Sun 02 o'clock

DST Bias : 60min

Save

## Live View Settings

Setup the live view video quality, file size and file saving directories.

**BASIC** **ADVANCED** **Live View Settings**

**System**

- Device Settings
- User Accounts
- Time Settings
- Daylight Savings
- Live View Settings
- Maintenance

**Network**

**Video**

**Events**

**Storage**

**Live View Parameters**

Live View Buffer  Low  Medium  High

**Record File Settings**

Record File Size  256M  512M  1G

Save record files to C:\Users\User\Web\RecordFiles [Browse](#)

Save downloaded files to C:\Users\User\Web\DownloadFiles [Browse](#)

**Picture and Clip Settings**

Save snapshots in live view to C:\Users\User\Web\CaptureFiles [Browse](#)

Save snapshots when playback to C:\Users\User\Web\PlaybackPics [Browse](#)

Save clips to C:\Users\User\Web\PlaybackFiles [Browse](#)

Save

### Automatic Update

**Enable DST:** Check this box if your time zone has daylight savings.

**Start Time:** Enter the date that daylight savings starts

**End Time:** Enter the date that daylight savings ends

**DST Bias** Enter how much time the daylight saving adjusted by daylight savings.

Click **Save** to save the changes

### Live View Parameters

**Live View Buffer:** Configure the buffer size for live view video stream. With low buffer size setting, you can get real-time video stream, but the video may be stop and go if the network is congested. With high buffer setting, you can have smooth video streaming, but the video is delayed from the time happening. Medium size can have moderate video stream smoothness and time delay.

### Record File Settings

**Record file size:** This size of live view video recording. You can choose 256MB, 512MB, or 1GB a file. Smaller file size is good for many short recordings.

**Save record files to:** By default, files will be saved under the folder with your user name, under the subdirectory TRENDnet/RecordFiles. Click **Browse** and then choose a new destination if you want to save the file somewhere else.

**Save downloaded files to:** By default, files will be saved under the folder with your user name, under the subdirectory TRENDnet/DownloadFiles. Click **Browse** and then choose a new destination if you want to save the file somewhere else.

### Picture and Clip Settings

**Save snapshots in live view to:** By default, files will be saved under the folder with your user name, under the subdirectory TRENDnet/SnapshotFiles. Click **Browse** and then choose a new destination if you want to save the file somewhere else.

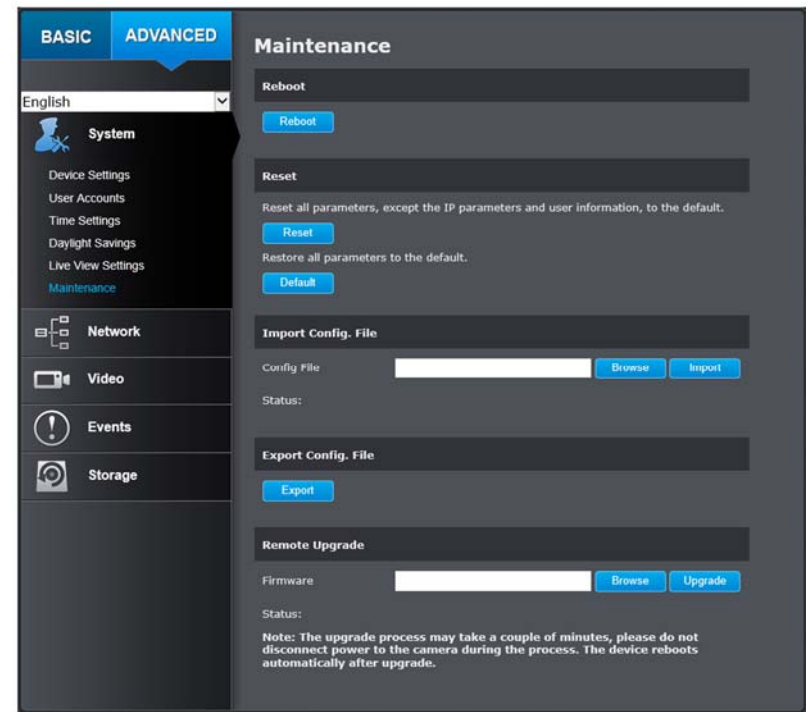
**Save snapshots when playback to:** By default, files will be saved under the folder with your user name, under the subdirectory TRENDnet/PlaybackPics. Click **Browse** and then choose a new destination if you want to save the file somewhere else.

**Save clips to:** By default, files will be saved under the folder with your user name, under the subdirectory TRENDnet/PlaybackFiles. Click **Browse** and then choose a new destination if you want to save the file somewhere else.

Click **Save** to save the changes

### Maintenance

You can restart, load camera settings and upgrade the camera firmware on this page.



#### Reboot

**Reboot:** Click this button to reboot this camera.

#### Reset

**Reset:** Reset all DVR settings, except the IP network settings and user information.

**Default:** Load complete factory default to the camera.

**Import Config. File**

**Config File:** To load previously saved settings, click **Browse** to find the configuration file and then click **Import**.

**Status:** Shows the status in loading configuration file.

**Export Config. File**

**Export:** Click Export to download configuration file. The file will be downloaded to the Download folder by default.

**Remote Upgrade**

**Firmware:** Click Browse to find the latest firmware and then click Upgrade.

**Status:** Shows the status in firmware upgrade.

TRENDnet may periodically release firmware upgrades that might add features or fix problems associated with your TRENDnet model and version. To find out if there is a firmware upgrade available for your device, please check your TRENDnet model and version using the link.

<http://www.trendnet.com/downloads/>

1. If a firmware upgrade is available, download the firmware to your computer.
2. Unzip the file to a folder on your computer.
3. Read the firmware upgrade instruction for specific version update information.
4. Log into the DVR.
5. Getting to this Maintenance page to upgrade firmware.

**Network Settings****TCP/IP**

Setup your basic IPv4 network settings on this page.

### Network Interface

**Duplex and Speed:** Choose one of the Ethernet duplex and speed to match your network. Default: auto.

**MAC Address:** Click this button to reboot this camera.

**MTU:** Maximum transmission unit. The maximum field size in the Ethernet packet.

**Primary DNS:** Enter your first IPv4 or IPv6 DNS server address

**Secondary DNS:** Enter your second IPv4 or IPv6 DNS server address

### IPv4

**DHCP:** Check this box if the IP address is assigned by DHCP server.

**IPv4 Address:** The IPv4 dynamic or static address

**Subnet Mask:** Network range of the subnet

**Default Gateway:** The default route going further from TV-AC100 IPv4 subnet

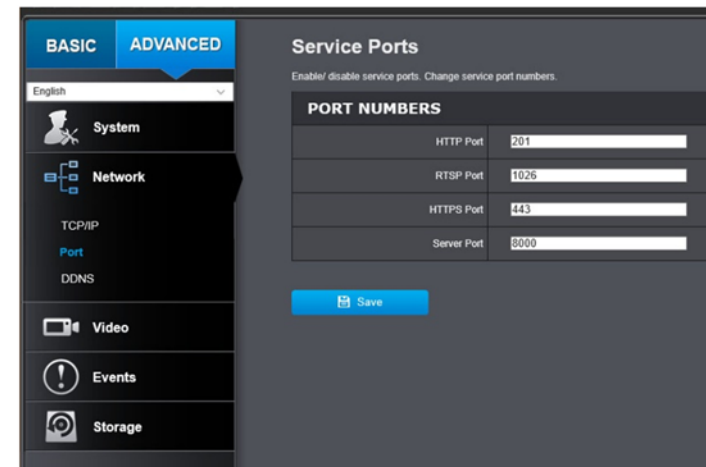
### IPv6

**IPv6 Address:** IPv6 self-assigned address of TV-DVR104

**IPv6 Default Gateway:** The default route going further from TV-DVR104 IPv6 subnet

### Port

You can change the service port numbers of TV-DVR104 and enable/disable RTSP or HTTP services.



### Port Numbers

**HTTP Port:** The default web access port. You can change the port number. However, you cannot disable the web service. The default port number is 80.

**RTSP Port:** The Real-Time Streaming Protocol port for video streaming. You can change the port number or disable the service by uncheck the box. The default port number is 554.

**HTTPS Port:** You can use https secured login with the default port number of 443 or you can change to another desire port.

Click **Save** to save the changes

## DDNS

Dynamic Domain Name Service, DDNS, allows you to find your camera from the Internet with an easy to remember domain name.

## Video Settings

### Video Format

Adjust the settings of video streams.

## DDNS

**Enable DDNS:** Check this box to enable DDNS Service.

**DDNS Type:** Select a DDNS service provider.

**Server Address:** Enter the DDNS server address.

**Domain:** Enter your registered domain/host name on selected DDNS service.

**User Name:** Enter the account name.

**Password:** Enter the password.

**Confirm:** Enter the password again.

Click **Save** to save the changes

**Channel:** Select which video stream for video format changes.

**Stream Type:** Choose the main stream or sub stream of the video channel to change its video formats.

**Video Encoding:** H.264 is the used for the DVR.



**Resolution:** Resolution of the video stream.

**Bitrate Type:** Choose between variable bit rate and constant bit rate for video compression. The default is variable rate.

**Video Quality:** Choose the video quality. The default is medium quality.

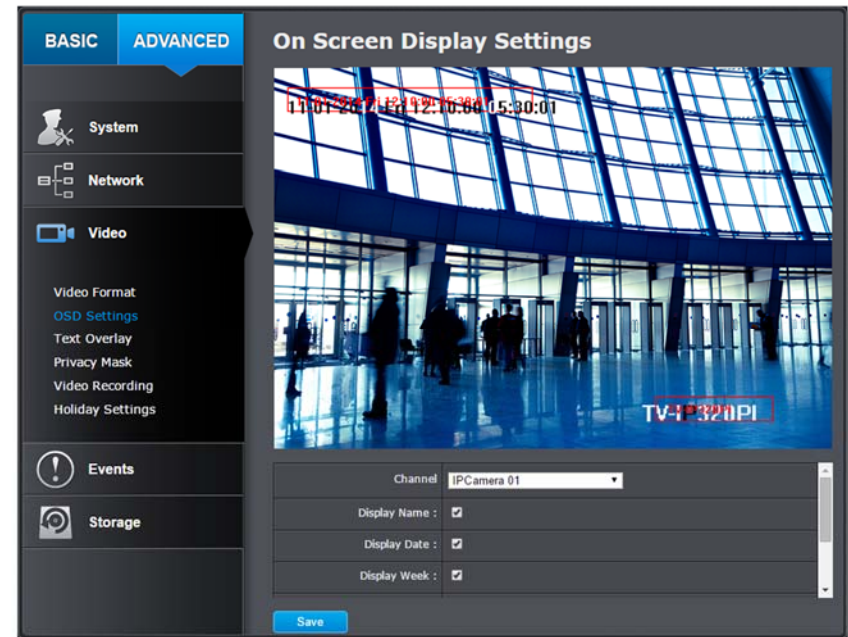
**Frame Rate:** Choose the capturing frame rate. Reduce the frame rate to reduce the capture file size.

**Max. Bitrate:** Choose the maximum video sampling bit rate.

Click **Save** to save the changes

### On Screen Display (OSD) Settings

Display the camera name and the time the video. Select the video channel you want to change the setting, then change the settings. Move the red box to position the text. Click on **Save** to save the changes.



**Channel:** Select the video channel you want to edit.

**Display Name:** Check this box to display the product name that was setup in the device settings.

**Display Date:** Check this box to display system time.

**Display Week:** Check this box to display time of the week.

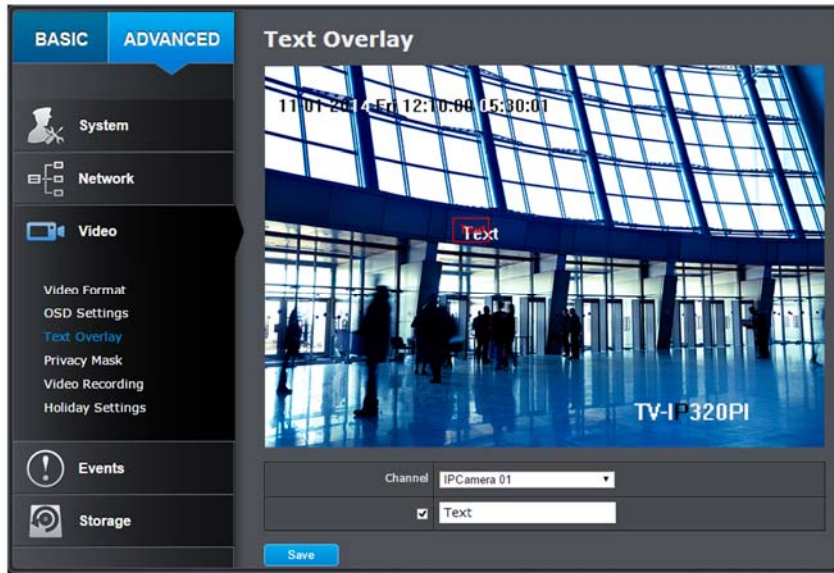
**Time Format:** Select 12 or 24-hour time format.

**Date Format:** Select the date format

**Display Mode:** Choose how the text will show on the screen.

### Text Overlay

Display extra information on the screen over the image. Move the red box to position the text. Click on **Save** to save the changes.



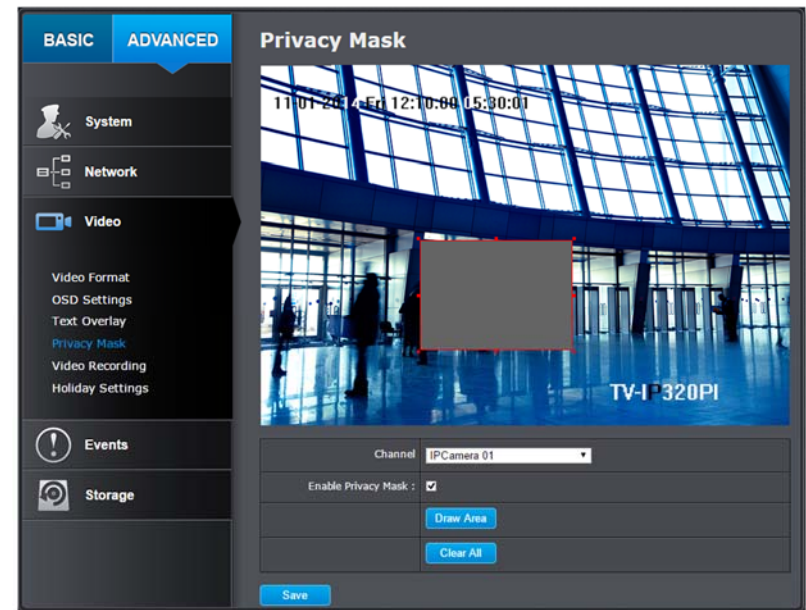
**Channel:** Select the video channel you want to edit.

**Check Box:** Check this box to enable text overlay.

**Text Field:** Enter the text you want to display. The length of the text is decided by limitation of the camera.

### Privacy Mask

Create a masking area to keep your privacy. You can create up to four independent masking areas by clicking and dragging on the screen.



**Channel:** Select the video channel you want to edit.

**Enable Privacy Mask:** Check this box to enable privacy masking.

**Stop Drawing:** Click this button to stop drawing.

**Clear All:** Click this button to clear all the masking areas.

Click **Save** to save the changes

## Recording Schedule

**Edit:** Click **Day** to edit the recording schedule and types

1. Select day of the week you want to edit.
2. Select Recording type
3. Set the time period and the event you want to trigger the video recording **continuous** (always recording) or **motion detection**.
4. Click **Select All** or the weekday you want to have the same schedule on different day.
5. Click another day of the week by clicking on its tab to set the next schedule. Click **OK** when you have finished your settings.

## Holiday Settings

Recording video in holidays may has different requirements. You can set up to 11 holidays of a year sharing the same holiday profile.

Set up the holiday schedule by click on button.

Enable	No	Holiday Name	Type	Start Date	End Date	Edit
<input checked="" type="checkbox"/>	1	NEW YEAR	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	2	Holiday2	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	3	Holiday3	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	4	Holiday4	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	5	Holiday5	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	6	Holiday6	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	7	Holiday7	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	8	Holiday8	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	9	Holiday9	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	10	Holiday10	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	11	Holiday11	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	12	Holiday12	Repeat yearly	1.Jan	1.Jan	
<input type="checkbox"/>	13	Holiday13	Repeat yearly	1.Jan	1.Jan	

### Edit Holiday Schedule

**Holiday Name:** Change the holiday name to meaningful name instead of index numbers.

**Enable:** Enable or disable this holiday rule.

**Type:** Select the holiday is for a day, a week or a month.  
**Day mode:** Select the start and end dates to specify the period of holidays. This setting is good for one time only. It does not repeat periodically.  
**Week mode:** Select the start and end dates of the week to specify the period of holidays. This setting is repeating every year.  
**Month mode:** Select the start and end dates to specify the period of holidays. This setting is repeating every year.

**Start Date:** Select the day when the holiday starts.

**End Date:** Select the day when the holiday ends.

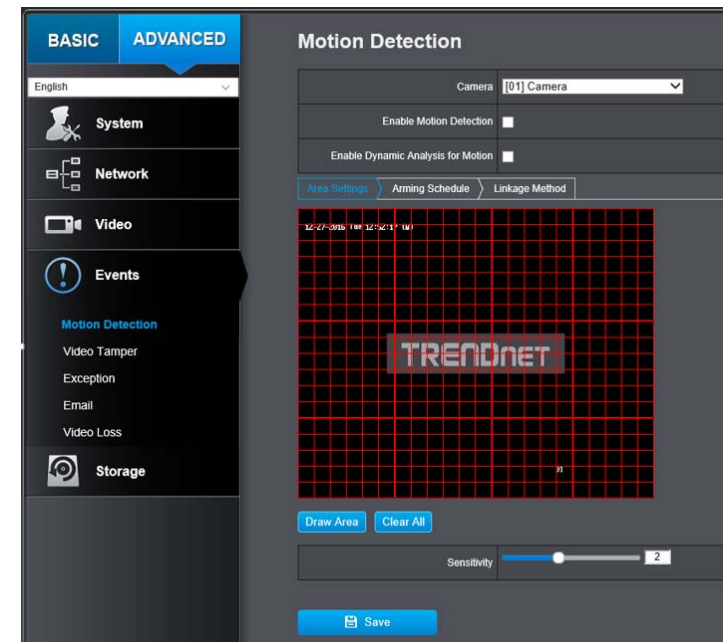
Click **OK** to save the changes

## Events

### Motion Detection

Set up how the motion detection event will be triggered and what actions will be triggered.

*Note: This feature is camera dependent.*



**Channel:** Select the video channel you want to edit.

**Enable:** Check this box to enable motion detection. Click

**Motion:** **Save** to save the choice.

**Detection:**

**Draw Area:** Click **Draw Area** button to start drawing. Click and drag on the area you want to set up the motion

detection. The number of areas you can set up depends on camera models. Click **Stop Drawing** to stop drawing motion detection areas. The red grids represent the motion detection area.

**Sensitivity:** Move the slider to adjust detection sensitivity.

**Clear All:** Click this button to clear all the set up areas.

### Arming Schedule

**Edit:** Click **Day/Time** to edit the arming schedule.



3. Click Save when finish.

### Linkage Method

Area Settings	Arming Schedule	Linkage Method																											
<table border="1"> <thead> <tr> <th>Normal Linkage</th> <th>Trigger Alarm Output</th> <th>Trigger Channel</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Audible Warning</td> <td><input type="checkbox"/> D2-&gt;1</td> <td><input type="checkbox"/> D1</td> </tr> <tr> <td><input type="checkbox"/> Send Email</td> <td></td> <td><input type="checkbox"/> D2</td> </tr> <tr> <td><input type="checkbox"/> Full Screen Monitoring</td> <td></td> <td><input type="checkbox"/> D3</td> </tr> <tr> <td></td> <td></td> <td><input checked="" type="checkbox"/> D4</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> D5</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> D6</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> D7</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> D8</td> </tr> </tbody> </table>			Normal Linkage	Trigger Alarm Output	Trigger Channel	<input type="checkbox"/> Audible Warning	<input type="checkbox"/> D2->1	<input type="checkbox"/> D1	<input type="checkbox"/> Send Email		<input type="checkbox"/> D2	<input type="checkbox"/> Full Screen Monitoring		<input type="checkbox"/> D3			<input checked="" type="checkbox"/> D4			<input type="checkbox"/> D5			<input type="checkbox"/> D6			<input type="checkbox"/> D7			<input type="checkbox"/> D8
Normal Linkage	Trigger Alarm Output	Trigger Channel																											
<input type="checkbox"/> Audible Warning	<input type="checkbox"/> D2->1	<input type="checkbox"/> D1																											
<input type="checkbox"/> Send Email		<input type="checkbox"/> D2																											
<input type="checkbox"/> Full Screen Monitoring		<input type="checkbox"/> D3																											
		<input checked="" type="checkbox"/> D4																											
		<input type="checkbox"/> D5																											
		<input type="checkbox"/> D6																											
		<input type="checkbox"/> D7																											
		<input type="checkbox"/> D8																											
<input type="button" value="Save"/>																													

You can send alerts when event trigger by sound, email or jump to full screen monitoring by selecting the options above.

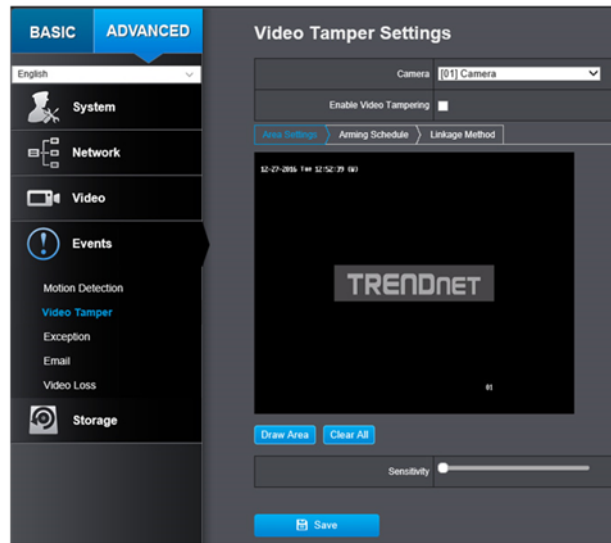
*Note: Alarm is not supported for this model.*

Click **Save** to save the changes



### Video Tampering

Set up how the video tampering detection event will be triggered and what actions will be triggered. When video is suddenly blocked or blacken, tampered, the video tamper notifications will alert the system manager to check the camera.



**Channel:** Select the video channel you want to edit.  
**Enable Tamper Detection:** Check this box to enable tamper detection. Click **Save** to save the settings.

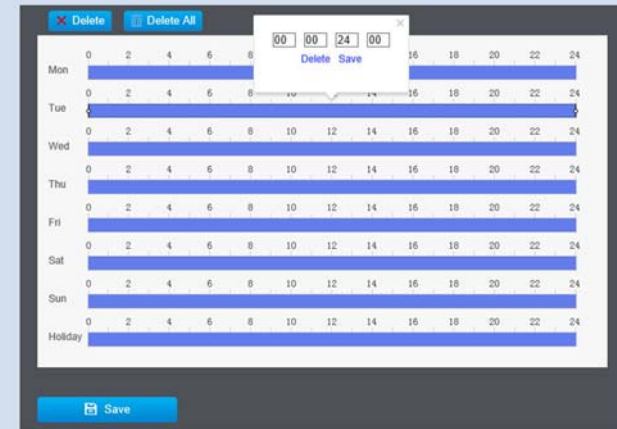
**Draw Area:** Click **Draw Area** button to start drawing. Click and drag on the area you want to set up the tamper detection. Click **Stop Drawing** to stop drawing motion detection areas. The gray block represents the detection area.

**Sensitivity:** Move the slider to adjust detection sensitivity.

**Clear All:** Click this button to clear all the set up areas.

### Arming Schedule

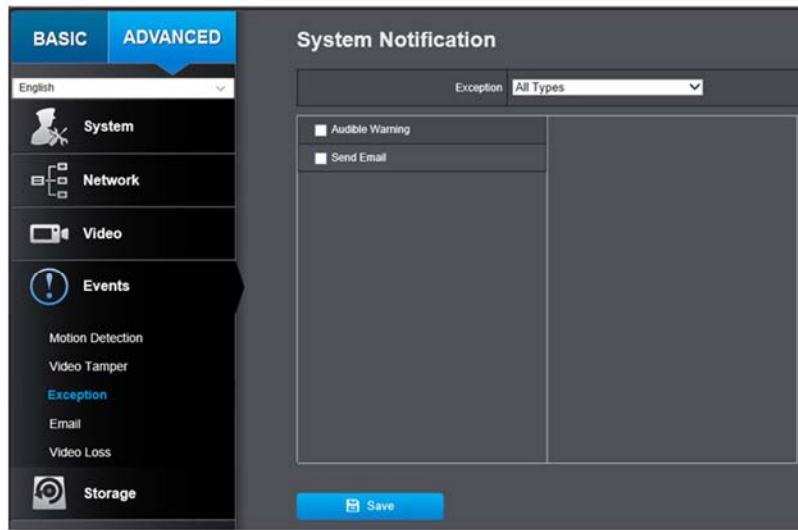
**Edit:** Click **Day/Time** to edit the arming schedule.



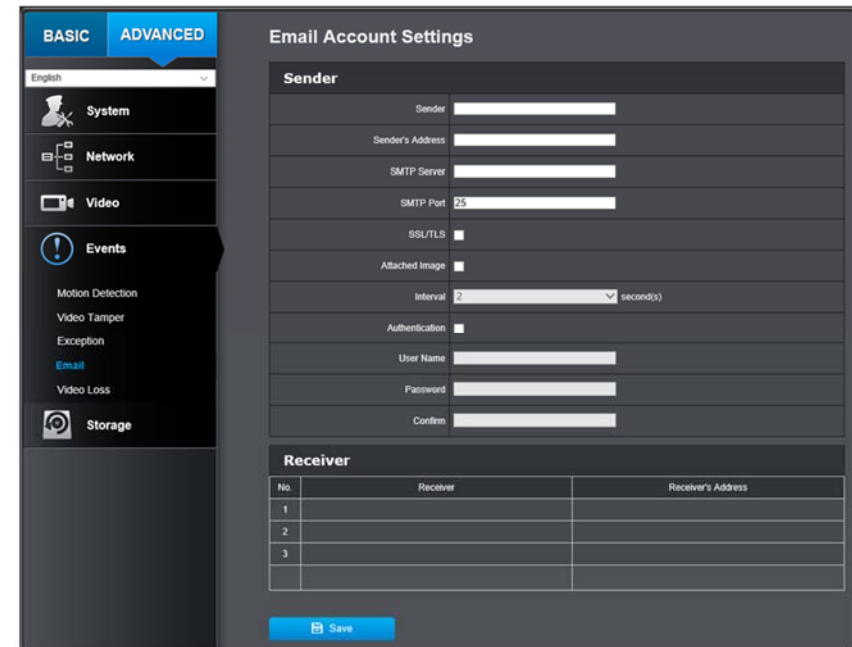
Click **Save** to save the changes

**Exception**

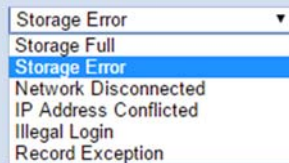
Provide notifications for other system events, set up your notifications here.

**Email**

Set up email accounts for notifications.

**Notification**

**Exception Type:** First, choose the exception type, and then choose the corresponding action.



**Audible Warning:** Activate the audible on board buzzer.

**Send Email:** Check this box to send an e-mail notification when motion is detected.

Click **Save** to save the changes

**Sender**

**Sender:** Enter the name to be appeared as the email sender.

**Sender's Address:** Enter sender's email address.

**SMTP Server:** Simple Mail Transportation Protocol Server address, the outgoing email server address. It may be has address as your incoming email server, maybe not. Please ask your email service provider for detail.

**SMTP Port:** Service port number for outgoing email.\*

**Authentication:** Check this box if your server requires a password in order to send email. Most email servers require authentication when sending an email.



- User name:** Enter the user name of outgoing email account
- Password:** Enter the password
- Confirm:** Enter the password again to confirm that the password was entered correctly.

Click **Save** to save the changes

### Receiver

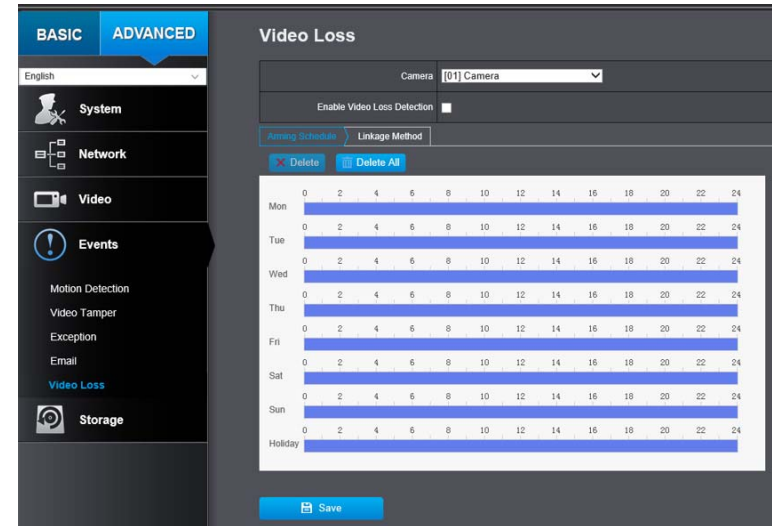
- Receiver 1:** The first receiver's name.
- Receiver 1's Address:** The first receiver's email address.
- Receiver 2:** The second receiver's name.
- Receiver 2's Address:** The second receiver's email address.
- Receiver 3:** The third receiver's name.
- Receiver 3's Address:** The third receiver's email address.

Click **Save** to save the changes

*\*Note: Many ISPs does not allow service port 25 going through their network. Please consult your email service provider and ISP for detail. DVR does not support SSL or TLS. Please select the right email service for the notifications.*

### Video Loss

Sends alert when video is lost.



- Channel:** Select the video channel you want to edit.
- Enable Video Loss Detection:** Check this box to enable video loss detection. Click **Save** to save the settings.
- Detection:**

Click **Save** to save the changes

## Storage

### Storage Management

To setup and initiate the hard drive remotely, check the hard disk drive and then click on **Format**.



**Format:** Select the storage volume and then click **Format** to format your hard disk drive. This action will format the volume for video recording. Placeholder files (formatting files) will be created to make sure disk allocation is appropriate and the file searching is optimized.

**Capacity:** The total capacity of the hard disk can be used for video recording and log.

**Free Space:** The free space left for video recording and log.

**Status:** The disk status.

**Property:** This network storage is read only or can be read and write.

### Network Storage

Network Storage must be setup before it can be managed. You can add up to 8 network storages for your DVR. The recordings will subsequently be stored in these spaces. Save video from the first storage and then the next when the first one is full. Click on the entry to change the settings and click Save to save the settings.



**Server Address:** Enter the IP address of your network storage.

**File Path:** Enter the shared folder as file path for network storage. You can create a folder under the shared folder and make it a network volume here. Just create the folder and enter the correct path name here.

**Type:** Choose between NAS or IP SAN for storage Type.

**Delete:** Click the delete x to remove the storage settings.

## Regulations

### **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 user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

### ***FCC Radiation Exposure Statement***

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

## **Europe – EU Declaration of Conformity**

TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.



### ***Safety***

EN 60590-1: 2006+A11: 2009+A1: 2010+A12: 2011+A2: 2013

### ***EMC***

EN 55022: 2010 + AC: 2011 Class A

EN 50130-4: 2011

This product is herewith confirmed to comply with the Directives.

### ***Directives***

Low Voltage Directive 2014/35/EU

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

WEEE Directive 2012/19/EU

REACH Regulation (EC) No. 1907/2006

Česky [Czech]	TRENDnet tímto prohlašuje, že tento TV-DVR104K / TV-DVR208K je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2004/108/ES, 2006/95/ES a 2009/125/ES.
Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TV-DVR104K / TV-DVR208K overholder de væsentlige krav og øvrige relevante krav i direktiv 2004/108/EF, 2006/95/EF og 2009/125/EF.
Deutsch [German]	Hiermit erkläre TRENDnet, dass sich das Gerät TV-DVR104K / TV-DVR208K in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2004/108/EG, 2006/95/EG und 2009/125/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TV-DVR104K / TV-DVR208K vastavust direktiivi 2004/108/ EÜ, 2006/95/ EÜ ja 2009/125/ EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, TRENDnet, declares that this TV-DVR104K / TV-DVR208K is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/CE2006/95/CE, and 2009/125/CE.
Español [Spanish]	Por medio de la presente TRENDnet declara que el TV-DVR104K / TV-DVR208K cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2004/108/CE, 2006/95/CE y 2009/125/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑΤRENDnet ΔΗΛΩΝΕΙ ΟΤΙ ΤΟ TV-DVR104K / TV-DVR208K ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2004/108/ΕΚ, 2006/95/ΕΚ, 2009/125/ΕΚ ΚΑΙ.
Français [French]	Par la présente TRENDnet déclare que l'appareil TV-DVR104K / TV-DVR208K est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2004/108/CE, 2006/95/CE et 2009/125/CE.
Italiano [Italian]	Con la presente TRENDnet dichiara che questo TV-DVR104K / TV-DVR208K è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2004/108/CE, 2006/95/CE e 2009/125/CE.
Latviski [Latvian]	Ar šo TRENDnet deklarē, ka TV-DVR104K / TV-DVR208K atbilst Direktīvas 2004/108/EK, 2006/95/EK un 2009/125/EK būtiskajām prasībām un citiemar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TV-DVR104K / TV-DVR208K atitinka esminius reikalavimus ir kitas 2004/108/EB, 2006/95/EB ir 2009/125/EB Direktyvos nuostatas.

Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TV-DVR104K / TV-DVR208K in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2004/108/EG, 2006/95/EG en 2009/125/EG.
Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TV-DVR104K / TV-DVR208K jikkonforma mal-ftigijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2004/108/KE, 2006/95/KE u 2009/125/KE.
Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TV-DVR104K / TV-DVR208K megfelel a vonatkozó alapvető követelményeknek és az 2004/108/EK, 2006/95/EK és a 2009/125/EK irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym TRENDnet oświadcza, że TV-DVR104K / TV-DVR208K jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2004/108/WE, 2006/95/WE i 2009/125/WE.
Português [Portuguese]	TRENDnet declara que este TV-DVR104K / TV-DVR208K está conforme com os requisitos essenciais e outras disposições da Directiva 2004/108/CE, 2006/95/CE e 2009/125/CE.
Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TV-DVR104K / TV-DVR208K v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2004/108/ES, 2006/95/ES in 2009/125/ES.
Slovensky [Slovak]	TRENDnet týmto vyhlasuje, že TV-DVR104K / TV-DVR208K spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2004/108/ES, 2006/95/ES a 2009/125/ES.
Suomi [Finnish]	TRENDnet vakuuttaa täten että TV-DVR104K / TV-DVR208K tyyppinen laite on direktiivin 2004/108/EY, 2006/95/EY ja 2009/125/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar TRENDnet att denna TV-DVR104K / TV-DVR208K står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2004/108/EG, 2006/95/EG och 2009/125/EG.



## **RoHS**

This product is RoHS compliant.

## Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

- DVR – 2 Years Warranty
- Camera – 2 Years Warranty
- Included 1TB Hard Disk Drive – Manufacturer's Warranty

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees.

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December 28, 2016

TV-DVR104K / TV-DVR208K 1.01

# TRENDnet<sup>®</sup>

## Product Warranty Registration

Please take a moment to register your product online.  
Go to TRENDnet's website at <http://www.trendnet.com/register>

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