TeleEye

GN8 Series

HD Digital Video Recorder

GN8916 / GN8932

User Guide

Contents

Notice:

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Version 3.01

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Section1: Introduction

TeleEye GN8916 and GN8932 is a range of HD digital video recorders, which is specially designed for dedicated and shared network architecture. All GN8 models support real-time 4K recording up to the maximum frame rate of 400/800 fps.

TeleEye GN8916 and GN8932 has developed special video streaming protocols that provide extra security during Internet transmission. The 5 protection layers incorporated in the TeleEye video surveillance solutions are able to shield off hacker's attacks via the Internet.

TeleEye GN8916 and GN8932 HD digital video recorder works with TeleEye cameras and third party ONVIF Profile S cameras, providing extra protection on the video data for safer transmission across any public networks.

1.1. Package Contents

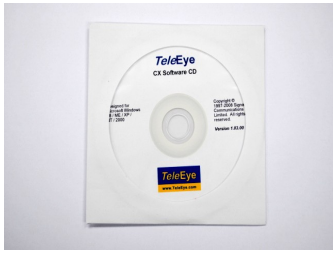
Make sure the following items are included within the package.

1. TeleEye GN8 4K digital video recorder

2. Registration code sheet

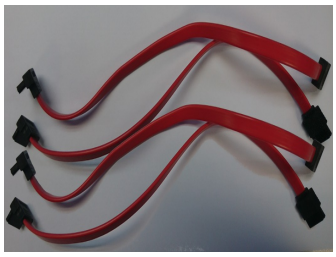
3. Mouse

4. Power Adaptor



5. Software CD

6. HDD screws



7. SATA cable x 8

1.2. Functional Features

- Independent & efficient HD recording stream
- 4K/3M/4M/1080p/720p HDTV resolution
- Support Video Coding : H.265, Enchaned H.264, H.264
- Support TeleEye MQ, MP series, IP cameras conform to ONVIF profile S
- Video recording up to 400/800 fps
- Configurable recording frame rate
- Supporting up to 8 SATA HDDs
- Support RAID5
- USB video extraction
- Flexible connections: LAN, broadband & mobile network
- Support both static & dynamic IP
- Dedicated video network: require only one IP for up to 16/32 MQ HD Video Cameras
- IP filtering
- Single point video throughput control
- Mobile video monitoring
- Triplex operation: simultaneous video monitoring, recording & playback
- 4K video output
- Multiple login accounts
- Compliance with BS 8418
- Sophisticated event management
- Multi-language OSD
- Mouse control

1.3. Convention Used in This Manual

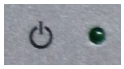
[ ]	Menu or buttons in On Screen Display (OSD) menu or software
“ “	Option in On Screen Display (OSD) menu or software
☞	Remarks

1.4. Hardware Feature

1.4.1. Front View

GN8932/GN8916

1. Notification LEDs

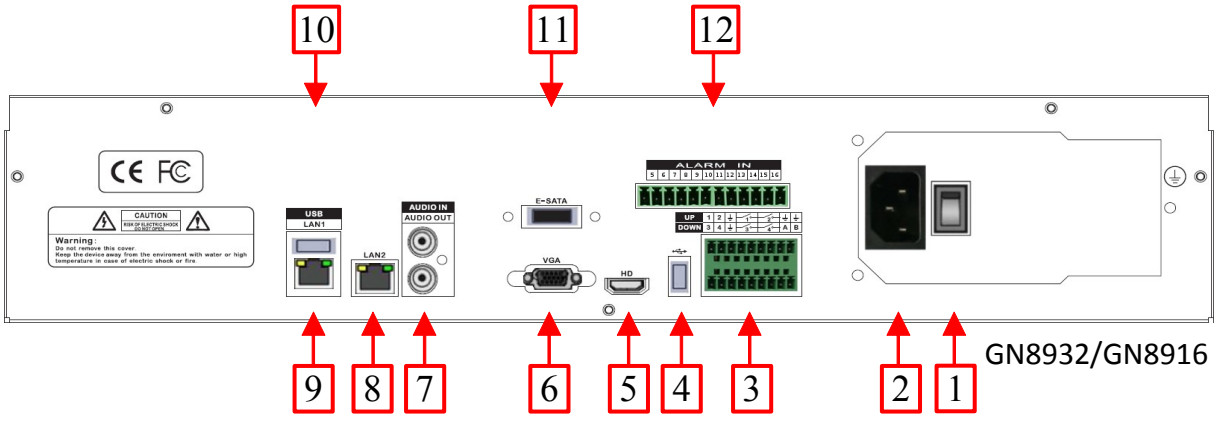
LED	Description
	Light up when power on
	Light up when performing recording Blink when event is triggered

2. Front USB port

   For mouse control, firmware upgrade, footage extraction, setting import/export

3.

1.4.2. Back View



GN8932/GN8916

1. Power switch
   - Switch on or off the TeleEye GN8 HD Digital Video Recorder

2. Power input (AC100-240V/3.5-2A)
   - Power supply to TeleEye GN8

3. Alarm/switch port and RS-485 in/out port
   - In : 4 special inputs/alarm inputs, Arm/disarm, security switch, system tamper, power failure
   - Out : 4 relay out
   - RS485 : 2-way terminal block for connecting a keyboard controller to control a PTZ camera

4. Rear USB port
   - For mouse control, firmware upgrade, footage extraction, setting import/export

5. TV output
   - HDTV output connector

6. VGA output
   - Standard VGA connector

7. Audio in/out port, PA
   - Audio In : Connect to audio input device (e.g. amplified microphone) for recording
   - Audio Out : Connect to audio output device (e.g. amplified speaker) to facilitate remote public addressing

8. Ethernet jack (10/100/1000 Base-T)
   - Connect to the corporate computer network (e.g. LAN)

9. Digital video input ports
   - RJ-45 connectors for video source input

10. Rear USB port
    - For mouse control, firmware upgrade, footage extraction, setting import/export

11. E-SATA
    - External SATA connector

12. Alarm/switch port
    - In : 12 alarm input

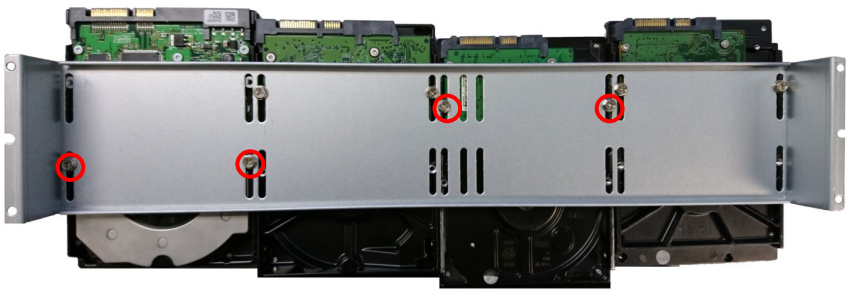
Section2: Hard Disk Installation, Formatting and Scanning

2.1. Hard Disk Installation

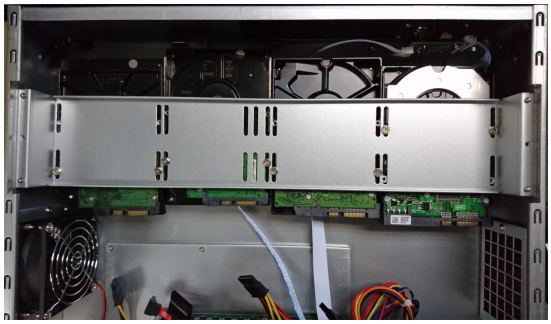
Hard disk is required in recording, video playback and keeping different types of log. Follow the steps below for disk installation. A hard disk recommendation list has been included in the package as a reference.

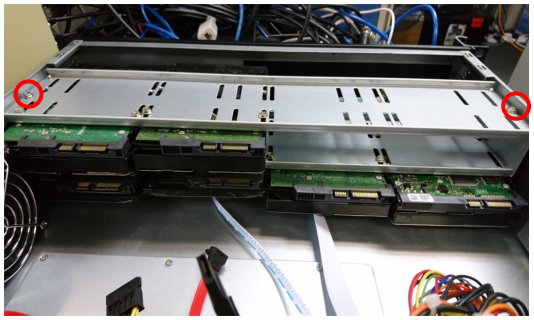
GN8916/GN8932

1. Loosen the screws of cover.
2. Pull off the cover and take out hard disk holder.
3. Mount the HDD on the hard disk holder with attached screws. Maximum 8HDD can be install.
4. Mount the hard disk holder to Teleeye GN8.
5. Connect the SATA and power cable to the HDD.

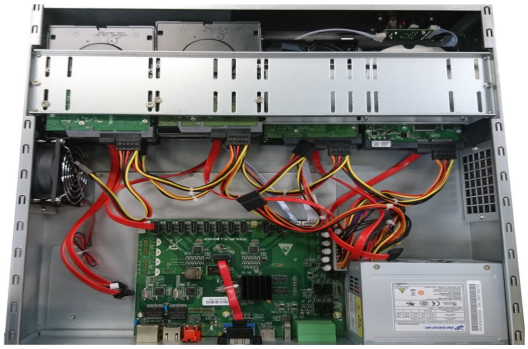


Step 3





Step 4



Step 5

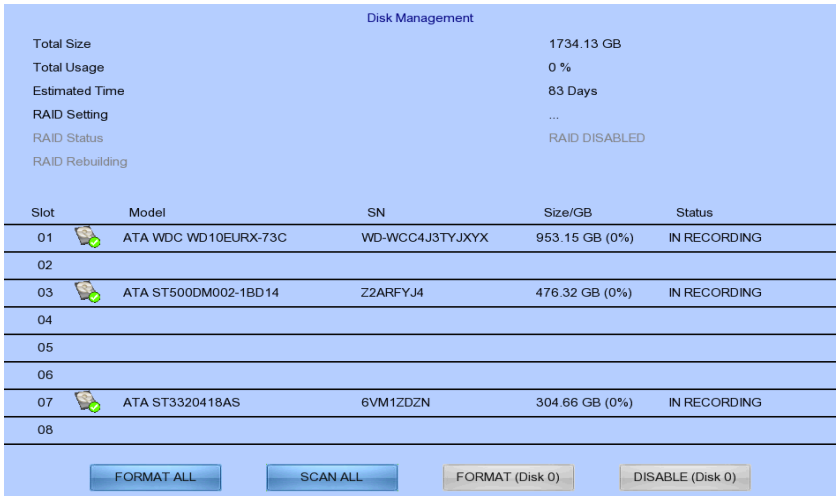
2.2. Hard Disk Formatting

Formatting is required when the format of an installed hard disk cannot be recognized by the digital video recorder, most likely a hard disk that has not been used by the video recorder. Another purpose of disk formatting is to clean up recording space and redeem the file allocation.

An unrecognized hard disk will be formatted automatically after TeleEye GN8 starts up. Formatting will erase all data inside the disk. Hence make sure that important data has been backed up before performing this function. Once it is reconstructed, it would be readable and writable by the digital video recorder.

User can also perform disk formatting manually. The function can be found in the OSD menu:

[Main Menu] → [HDD/Recording] → [Disk Management]



Format All	Format all installed hard disks
Scan All	Scan all installed hard disks
Format	Format the selected hard disk
Enable / Disable	Turn on hard disk for recording purpose

2.3. Hard Disk Scanning

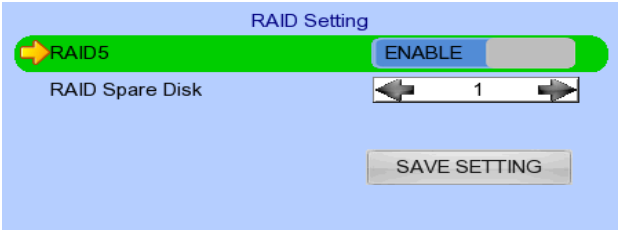
Hard disk scanning is a maintenance function similar to the Scan Disk function provided by the operating system of a personal computer. This function is provided in an attempt to rescue the hard disk in case errors are found, and to enhance its performance and reliability. The function can be found in the OSD menu:

[Main Menu] → [HDD/Recording] → [Disk Management].
Clicking on the **[Scan All]** button will start scanning all installed hard disk.

2.4. RAID Setting

RAID Setting allow user configure RAID in TeleEye GN8. All disks must have 200GB or larger and with similar disk size. The function can be found in the OSD menu:

[Main Menu] → [HDD/Recording] → [Disk Management] → [RAID Setting].



RAID5	Enable / Disable RAID
RAID Spare Disk	No. of spare disk
SAVE SETTING	Save setting

2.5. RAID Status

RAID status will be shown in **[Disk Management]** after restart. Recording data will have redundancy when RAID status is NORMAL.

RAID Status	Current RAID Status NORMAL : RAID is running normally DEGRADED : RAID is degraded, requires rebuild REBUILDING* : RAID is doing recover / re-sync
Disk Status	Current Disk Status RAID-RECORDING : this disk is doing recording in RAID SPARE : this disk is a spare for RAID REBUILDING : this disk is doing building

- *Time for rebuilding RAID is depending on HDD size. For HDD with 2TB size, typical rebuild time is about 1.5 days*

2.6. RAID Action Case

Action	Result	
	Rebuilding in progress	Rebuilding Complete
Remove 1 HDD: RAID-RECORDING	RAID Status: FAIL, not enough disk for raid RAID Rebuilding: RAID rec.: recording fail Playback: playback fail	RAID Status: REBUILDING, SPARE: 0/1 RAID Rebuilding: rebuilding start again RAID rec.: recording normal Playback: playback normal
Remove 1 HDD: REBUILDING	RAID Status: DEGRADED, SPARE: 0/1 RAID Rebuilding: rebuilding start again RAID rec.: recording normal Playback: playback normal	NA
Remove 1 HDD: SPARE	RAID Status: DEGRADED, SPARE: 0/1 RAID Rebuilding: continuous rebuilding RAID rec.: recording normal Playback: playback normal	RAID Status: NORMAL, SPARE: 0/1 RAID Rebuilding: 100% RAID rec.: recording normal Playback: playback normal

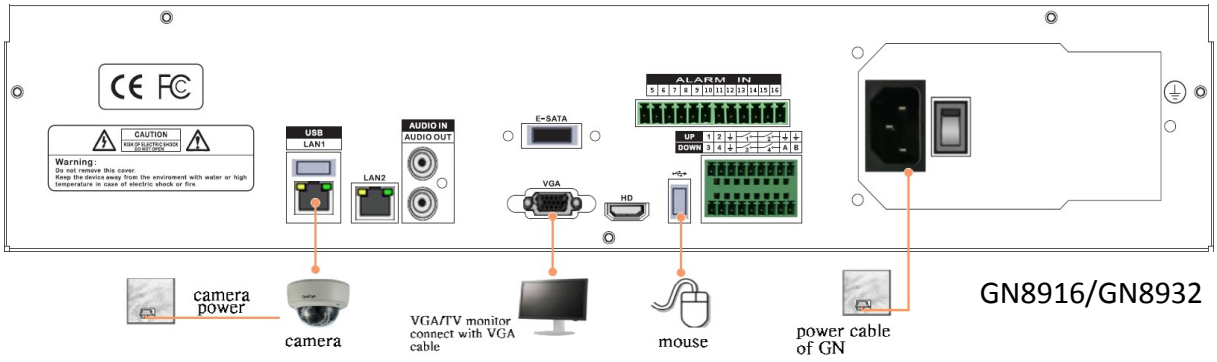
Section3: Camera

There are two video network mode: Dedicated Video Network and Shared IP Network.

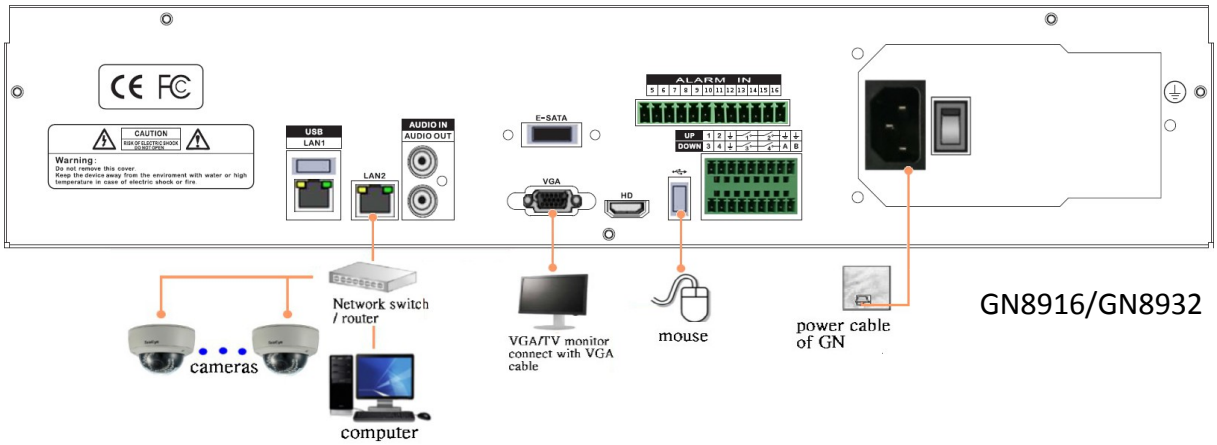
3.1. Camera Installation

3.1.1. Setup for Local and Remote Monitoring

Dedicated Video Network



Shared IP Network



1. Follow above to install cameras to the video ports of TeleEye GN8.
2. Power on TeleEye GN8. A startup screen will appear on the connected monitor.

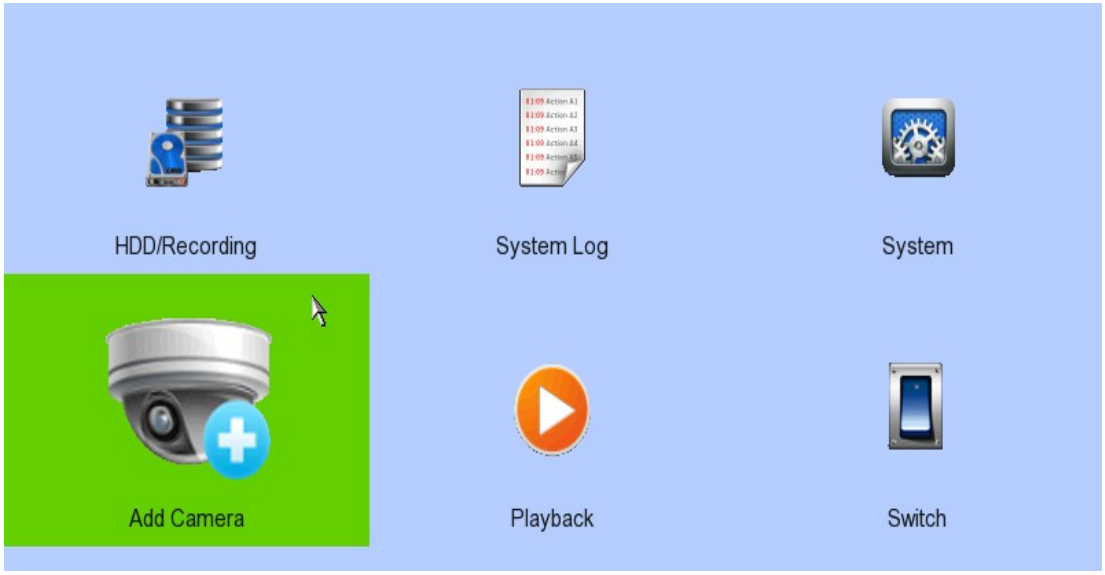
3.1.2. Adding New Camera

Dedicated Video Network

Cameras will be search automatically after install camera to the video ports of TeleEye GN8.

Shared IP Network

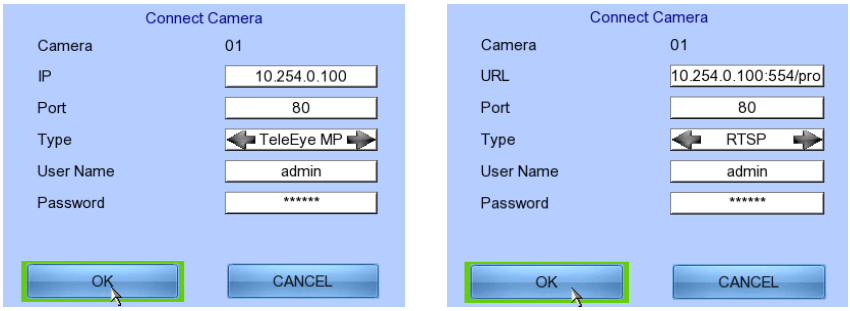
[Main Menu] → [Add Camera]



2. Click to search cameras. The details of cameras such as CAM number, IP port, Type, Model, Status will shown on the screen.

3. Select the camera you want to add, click to edit camera information.

4. Click **[OK]** to connect. There are 6 type of cameras: TeleEye MX, TeleEye MQ, TeleEye MP, ONVIF, RTSP and AX8. Please make sure that you have selected the corresponding type of cameras. *(Whatever the type of cameras you selected, you are requested to enter the username and password.)*



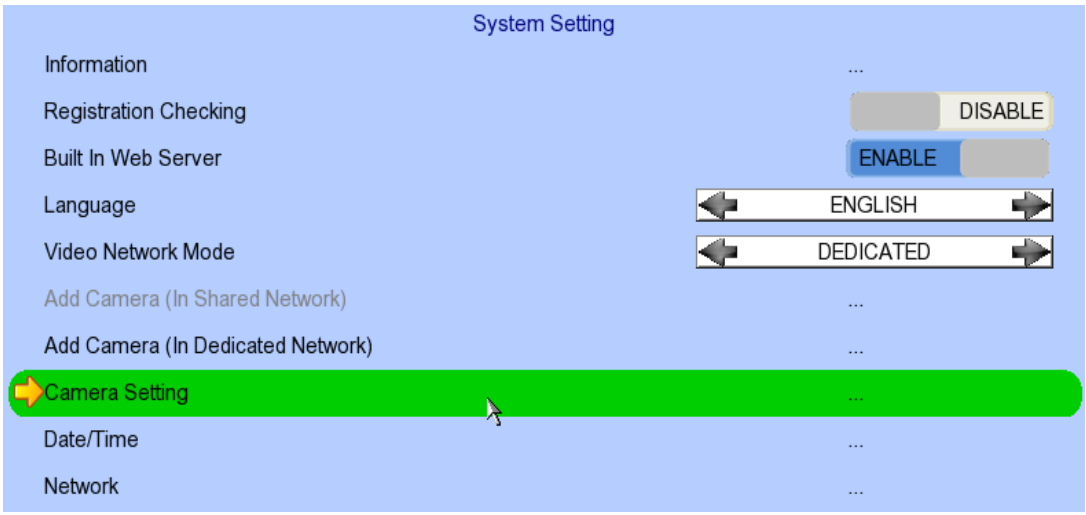
(For TeleEye MQ / MP, the default user name is "admin" and the password is "123456".)

3.2. Camera swapping

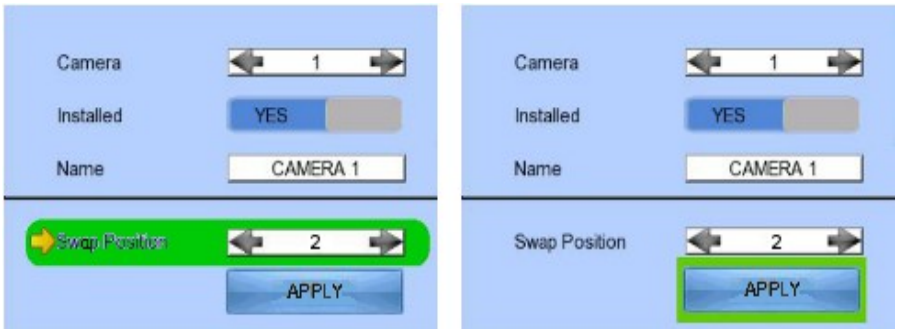
In Dedicated Video Network mode, the assigned camera numbers in digital video recorder are not dependent to the port number. It is dependent to the order of inserting camera to the recorder. For example, if the camera A is connected to the video port 2, and then camera B is connected to the video port 1, the CAM 1 is connecting with Camera A as it is the first camera to insert. Similarly, the CAM 2 is connecting with Camera B as it is the second one to insert. Therefore, “First come, First connected”. However, it is possible to swap the camera numbers you desired.

1. Switch on the video recorder. Open the main OSD menu by right click of mouse. Click the **[Menu]** and Select **[System].**

2. Select **[Camera Setting].**

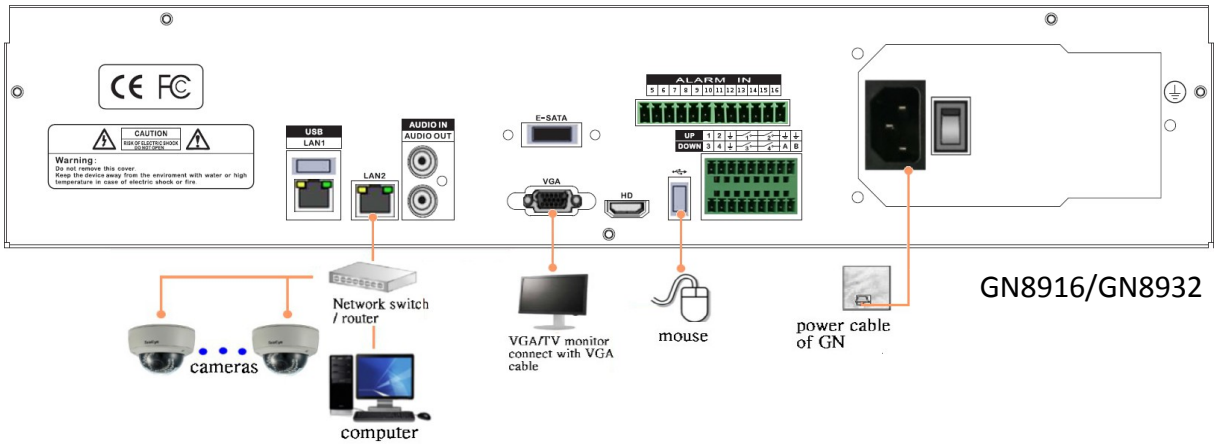


3. Click **[Camera]**, and select the original camera number of camera you want to swap. Then click **[Swap Position]**, and select the desired camera number. Click **[Apply]**.



Section4: Setup for Local and Remote Monitoring

4.1. Setup for LAN Connection



Equipment:

- TeleEye GN8 HD Digital Video Recorder and its power adaptor
- Cameras
- CAT-5 cable
- Network switch or router
- PC
- Mouse

PC Requirements:

- CPU : Intel ® Core i3 Processor
- RAM : 2 GB
- HDD : 10 GB free space
- Display : Direct 3D, Nvidia GeForce GT 220 / ATI Radeon HD 5450 or above
- OS : Windows XP, Windows Vista or Windows 7

Other Requirements:

- Java : Sun Microsystems Java 2 runtime Version 1.5.0 or above
- IE : Windows Internet Explorer Version 6 or above

Setup Procedures on GN8 Side:

1. Install a hard disk to the TeleEye GN8.
   ☞ *If there is no hard disk installed, Recording and Playback are not functional*

2. Connect cameras to the network switch or video ports of TeleEye GN8.

3. Connect TeleEye GN8 to the network switch.

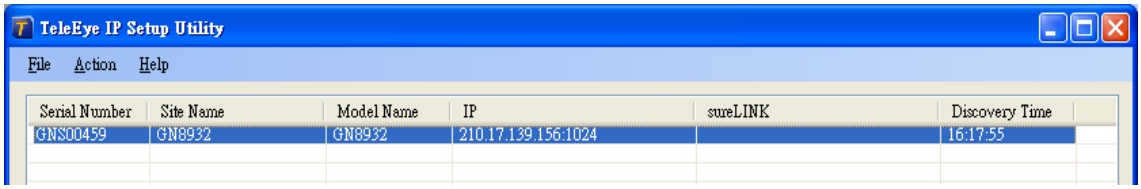
4. Plug in the power adaptors to TeleEye GN8.

5. If all installed hard disks are not in TeleEye GN8 recognized format, they would be formatted automatically when startup completes.

Setup Procedures on PC Side:

1. Install TeleEye IP Setup Utility. .NET framework is also needed for the operations. Both can be found in the included software CD.

2. Run IP Setup Utility.



3. Find the TeleEye GN8 according to the serial number provided by the provider.

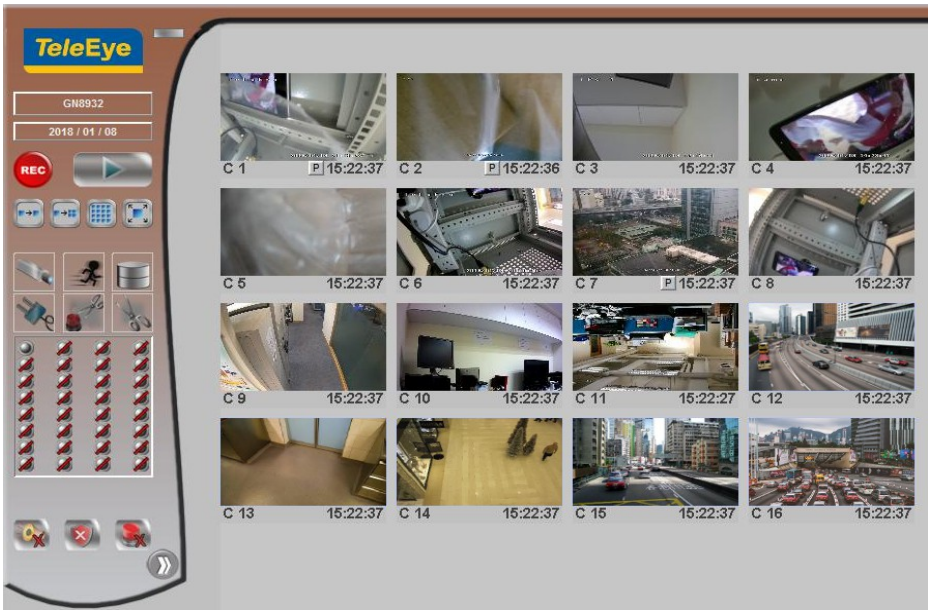
4. By default, TeleEye GN8 obtains the IP address, netmask and gateway automatically through DHCP. To assign a static value, deselect the *"Obtain an IP address automatically"* checkbox and enter the corresponding information. The gateway should be the IP address of the router.
   ☞ *The DNS setting is used for sureLINK, time synchronization and e-mail notification.*

5. To access the TeleEye GN8, double click the row representing the digital video recorder. A web browser should be opened automatically.
   ☞ *The first 3 fields of IP address of the PC should be the same as that of TeleEye GN.*

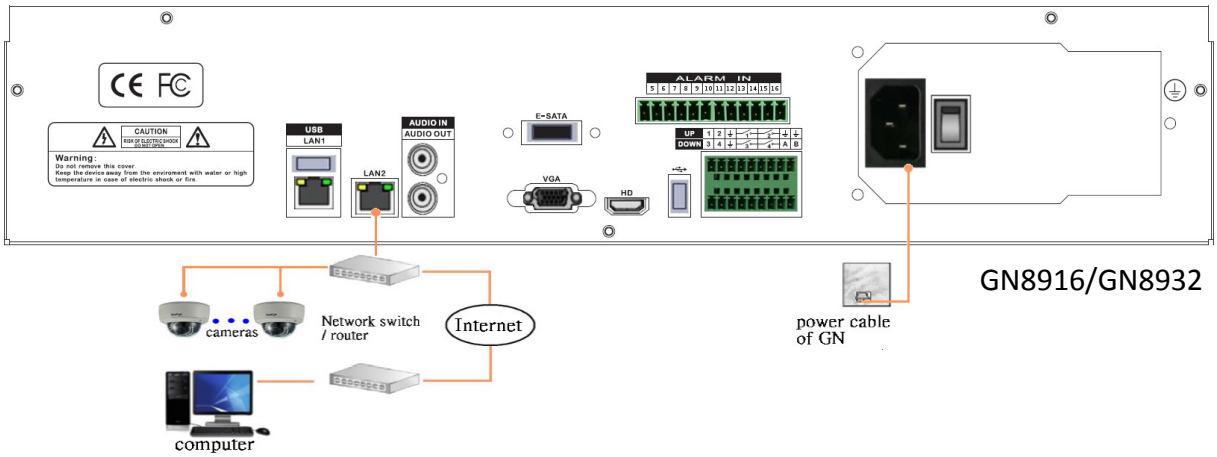
6. Besides accessing through IP Setup Utility, user can also open a web browser and type the IP address plus port number in the format http://IPAddress:PortNumber (e.g. http://192.168.0.12:1024) or *sure*LINK address in address bar directly.

7. By default, user name is *"admin"*. Enter password and press **[Connect]**.
   (The default administrator password is *"0"+"digits of serial number"*. There is an example:
   Serial Number :GNS11529
   User Name : admin
   Default Password : 011529
   Details can be found in the registration code sheet)

8. Live video is shown after successful connection.



4.2. Setup for Broadband Internet Connection



Equipment:

- TeleEye GN8 HD Digital Video Recorder and its power adaptor
- Cameras
- CAT-5 cable
- Network switch or router
- PC

PC Requirements:

- CPU: Intel ® Core i3 Processor
- RAM: 2 GB
- HDD: 10 GB free space
- Display:Direct 3D, Nvidia GeForce GT 220 / ATI Radeon HD 5450 or above
- OS: Windows XP, Windows Vista or Windows 7

Other Requirements:

- Java: Sun Microsystems Java 2 runtime Version 1.5.0 or above
- IE: Windows Internet Explorer Version 6 or above

Setup Procedures on GN8 Side:

1. Install a hard disk to the TeleEye GN8.

   ☞ *If there is no hard disk installed, Recording and Playback are not functional*

2. Connect cameras to the network switch or video ports of TeleEye GN8.

3. Connect TeleEye GN8 to the network switch.

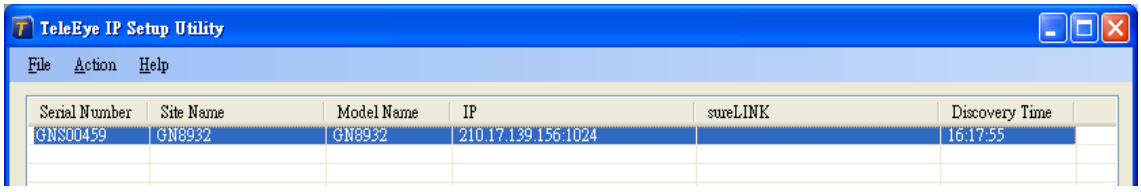
4. Plug in the power adaptors to TeleEye GN8 and cameras.
5. If all installed hard disks are not in TeleEye GN8 recognized format, they would be formatted automatically when startup completes.

Setup Procedures on PC Side:

1. Configure the network settings of TeleEye GN8 through PC with LAN connection.

2. Install TeleEye IP Setup Utility. .NET framework is also needed for the operations. Both can be found in the included software CD.

3. Run IP Setup Utility.



4. Find the TeleEye GN8 according to the serial number provided by the provider.

5. By default, TeleEye GN8 obtains the IP address, netmask and gateway automatically through DHCP. To assign a static value, deselect the *"Obtain an IP address automatically"* checkbox and

enter the corresponding information. The gateway should be the IP address of the router.

☞ *The DNS setting is used for sureLINK, time synchronization and e-mail notification.*

6. Reconnect the digital video recorder to the Internet network.

7. Configure other network settings for TeleEye GN8 and the PC if necessary, such as router port mapping, firewall, etc. Please refer to the manual of the router.

8. Open a web browser and type the IP address plus port number in the format http://IPAddress:PortNumber (e.g. http://192.168.0.12:1024) or *sure*LINK address in address bar directly.

9. By default, user name is *"admin"*. Enter password and press **[Connect]**. (The default administrator password is *"0"+"digits of serial number"*. There is an example:
   Serial Number :GNS11529
   User Name : admin
   Default Password : 011529
   Details can be found in the registration code sheet)

10. Live video is shown after successful connection.

Section5: Local Operation

5.1. Icons Description

When observing video from local monitor, icons may be shown on the screen. Each of the icons has its special meaning. A summary of their meanings can be found in the following table.

Icon	Representation		Icon	Representation
	Tamper event			Arm/disarm control
	Alarm event			Security switch control
	Motion event			Recording
	Video loss event			Playback
	Power failure event			Pause in playback
	HDD fault event			Fast Forward in playback
	Audio enabled			Backward in playback
	OSD object selection			Digital /Analog PTZ control
	PTZ tite up			PTZ tite down
	PTZ pan left			PTZ pan right
	PTZ function (only for analog PTZ)			PTZ command subtract (only for analog PTZ)
	PTZ command add (only for analog PTZ)			PTZ command up (only for analog PTZ)
	PTZ command down (only for analog PTZ)			PTZ command box (only for analog PTZ)
	Disk formatting			Disk scanning
	Recovering recording			

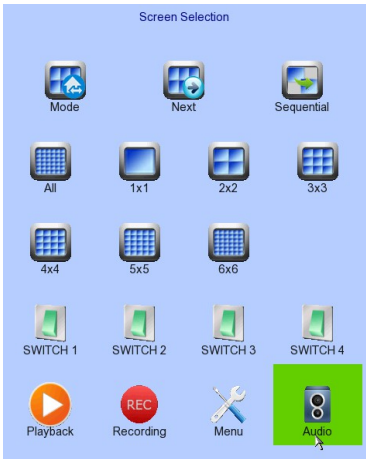
5.2. OSD Menu

Most local operations are controlled through the on screen display (OSD) menu. A detail explanation on its operation and structure will be given in this section.

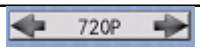
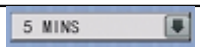
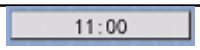
5.2.1. OSD Menu Operation

User can connect a mouse to the USB port or use the control buttons on the front panel to perform different operations.

A. By Mouse

 (Left click)	Enter a sub-menu. Select a value for menu option. Double click on a recording log to select playback cameras. Double click on a system log to perform searching. Double click on an IP filtering entry to edit.
 (Right click)	Used to open and close the OSD menu, or navigate backward to previous menu. 

When getting through the OSD, user will see different types of item. Their properties are listed below:

Item	Name	Description
	Yes/No box:	2 options only Click on it to toggle the option
	Spin box:	3 or more options available Click on the arrows to choose another option
	Drop down box:	Multiple options available Click on it to show all available options Click on an option to select it
	Edit box:	Require user to enter a value Click on it to prompt a virtual keypad for inputting
	Link:	Click on it to enter a sub-men
	Tick box	Click on it to toggle the option

5.2.2. OSD Menu Structure

Local operations are performed through the OSD Menu. The menu architecture and brief description on each option will be given in this section.

[Screen Selection]

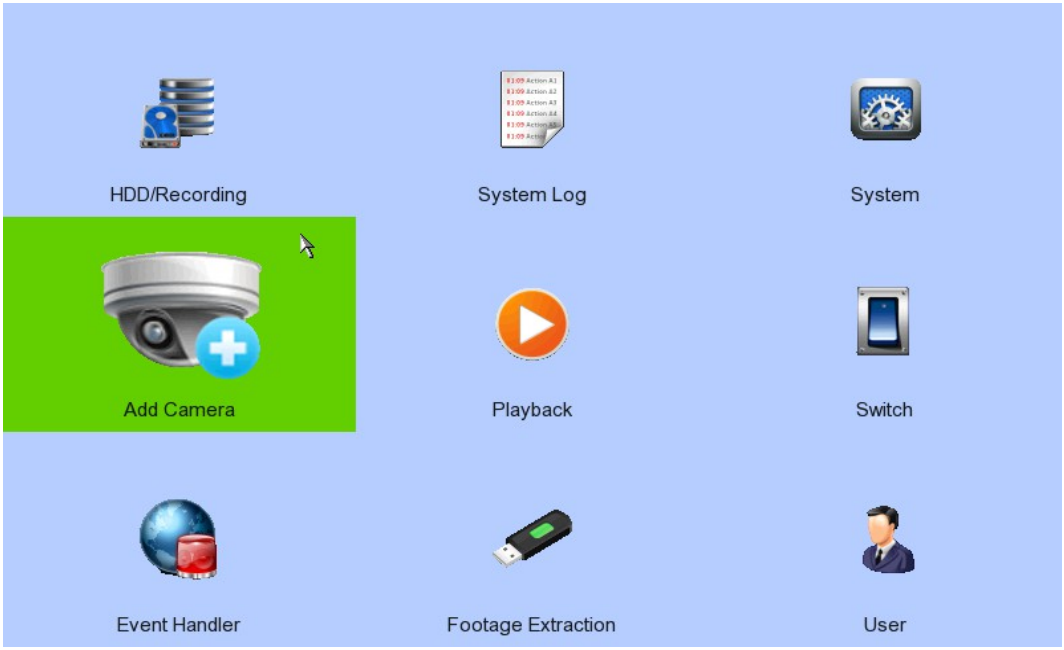
This menu is for mouse operations and can only be opened by right clicking the mouse.

Mode	Select the display mode
Next	Display next camera
Sequential	Start sequential mode
All	Display all cameras
1x1	1x1 screen mode
2x2	2x2 screen mode
3x3	3x3 screen mode
4x4	4x4 screen mode
5x5	5x5 screen mode
6x6	6x6 screen mode
Switch 1 – Switch 4	Toggle the status of the switch
Playback	Display recording log
Recording	Change recording to on, off or schedule
OSD Menu	Open main OSD menu
Audio	Select audio channel

[Screen Selection] → [Recording]

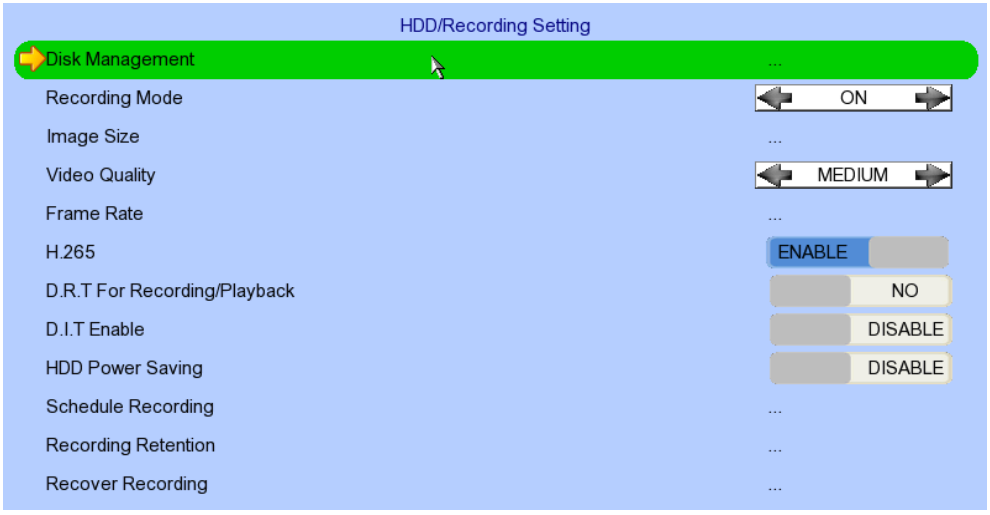
Recording	Quick menu for selecting recording mode • Off :Disable recording • On :Enable recording of all cameras • Schedule :Enable schedule recording

[Main Menu]



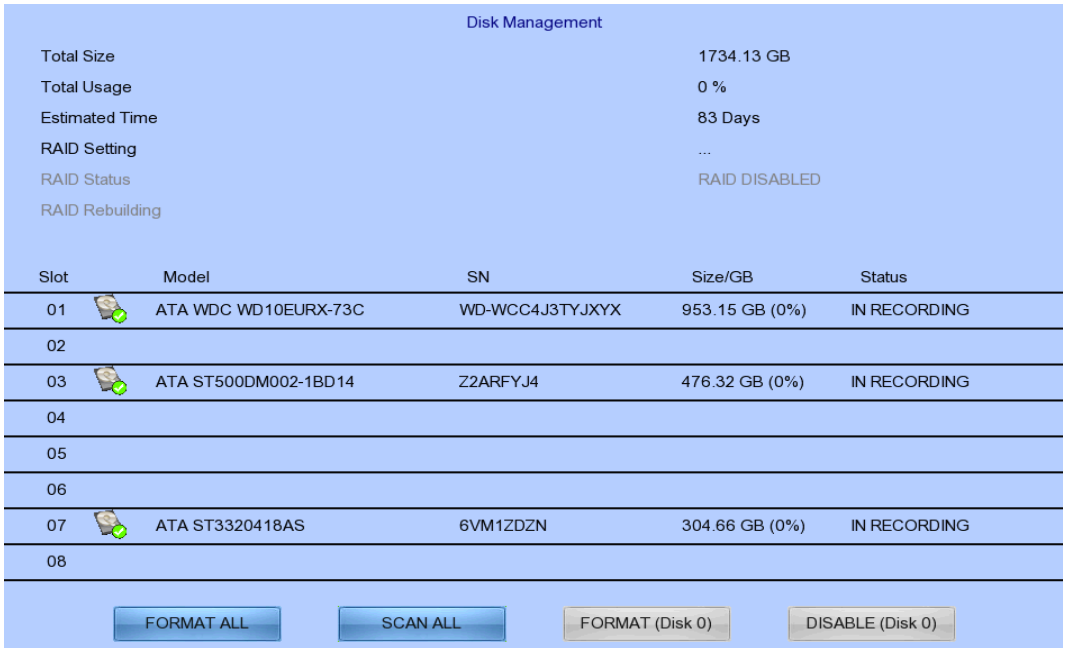
HDD/Recording	Change recording and hard disk settings
System Log	Display event, connection, operation and setting log
System	View server information Change system settings (e.g. IP, date time, language)
Add Camera	Search camera Connect camera
Playback	Display recording log Start video playback
Switch	Control the switches Change switch settings
Event Handler	Change event settings
Footage Extraction	Extract recorded video to USB flash device
User	Change security mode Change user settings

[Main Menu] → [HDD/Recording]



Disk Management	View hard disk information Format, scan or enable/disable disk Enable/disable RAID
Recording Mode	Select recording mode • Off :Disable recording • On :Enable recording of all cameras • Schedule :Enable schedule recording
Image Size	Set recording resolution • 4K : 3840x2160 • WQHD :2048 x 1536 • 1080p :1920 x 1080 • 720p :1080 x 720
Video Quality	Set video quality
Frame Rate	Set recording frame rate, applied to all cameras • Auto :Record at highest achievable frame rate • X fps :Record at X frames per second • Custom :Enable custom frame rate for individual camera
H.265	Set video compression format to H.265
D.R.T For Recording/Playback	Set dynamic resolution
D.I.T Enable	Set dynamic I-frame
HDD Power Saving	Enable/disable HDD power saving
Schedule Recording	View or change recording schedules
Recording Retention	Set recording retention settings
Recover Recording	Recover damaged recorded video

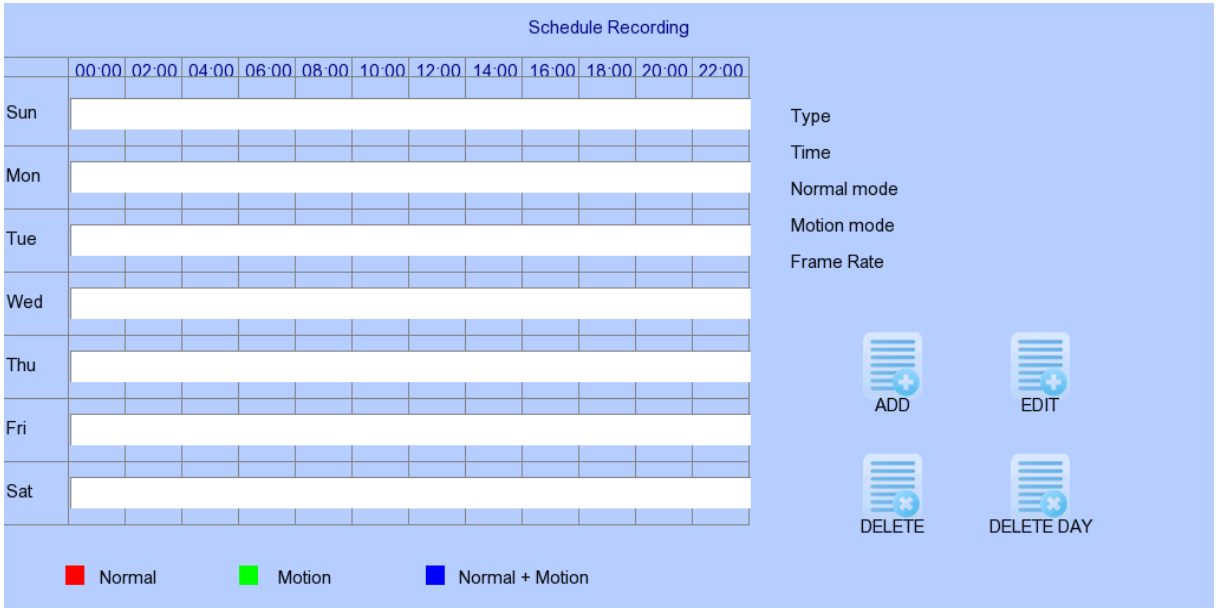
[Main Menu] → [HDD/Recording] → [Disk Management]



Format	Format the selected hard disk *
Enable/Disable	Enable hard disk for recording purpose *
Scan All	Scan all installed hard disks *
Format All	Format all installed hard disks *

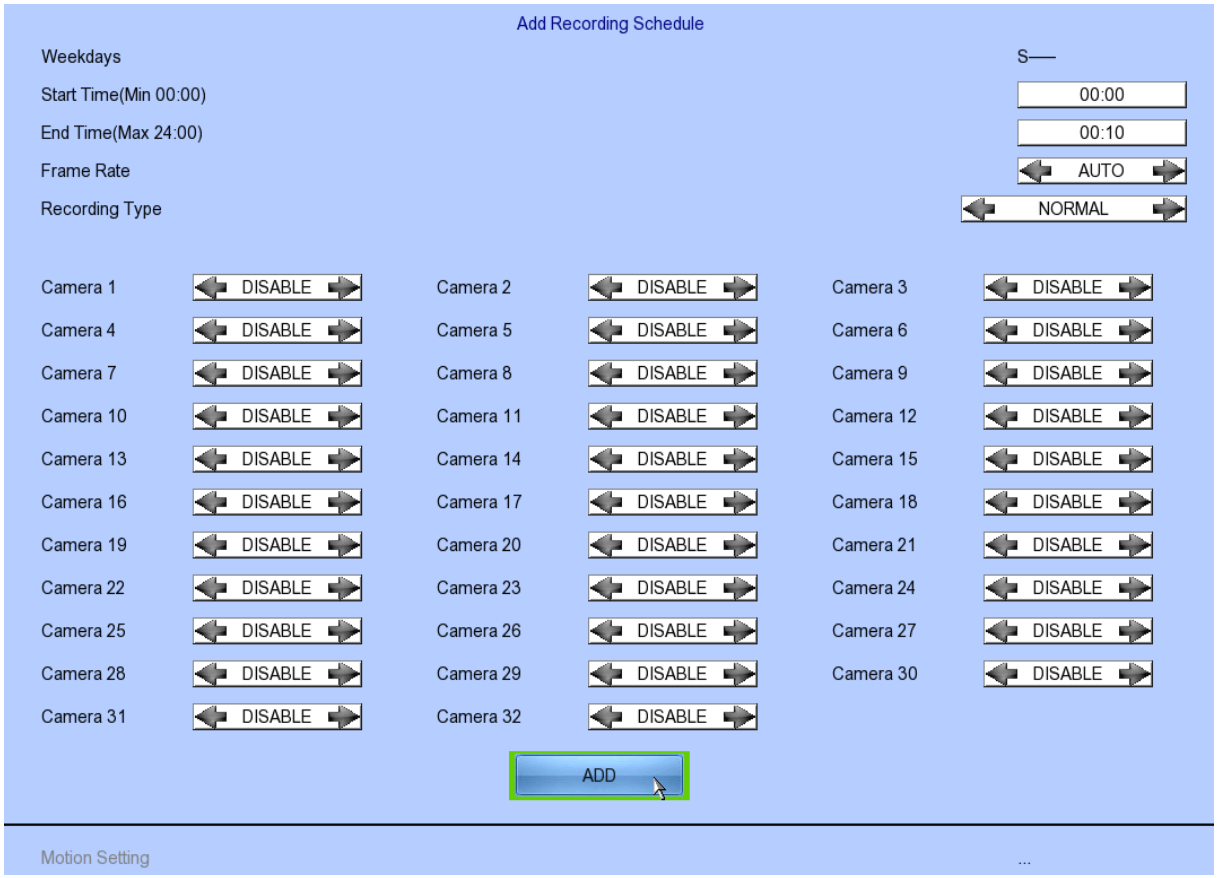
- *For execution, a local password of current user is required in advanced mode*

[Main Menu] → [HDD/Recording] → [Schedule Recording]



Add	Add a new recording schedule
Edit	Edit the selected schedule
Delete	Delete selected schedule
Delete Day	Delete all schedules of a day as the selected schedule

[Main Menu] → [HDD/Recording] → [Schedule Recording] → [Add]



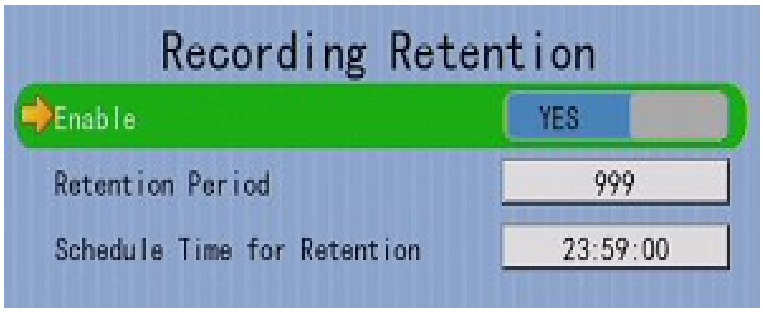
Weekdays	Select the weekdays to apply the schedule
Start Time	Set the start time of the schedule
End Time	Set the end time of the schedule
Camera	Select the cameras to apply the schedule
Frame Rate	Set recording frame rate of the schedule (not applicable for Custom frame rate)
Recording Type	Type of recording schedule • Normal :Record when within schedule • Motion :Record when motion detected and within schedule • Custom :Record based on individual camera setting
ADD	Confirm add the schedule setting
Motion Setting	Set motion detection settings

[Main Menu] → [HDD/Recording] → [Schedule Recording] → [EDIT]

Most settings are the same as **[Add]** menu.

SAVE	Confirm EDIT the schedule setting

[Main Menu] → [HDD/Recording] → [Recording Retention]



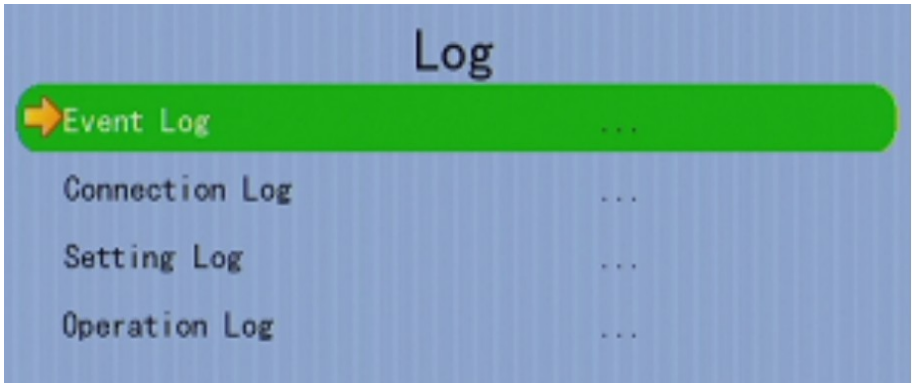
Enable	Enable / disable recording retention
Retention Period	Remove recorded video after selected days
Schedule Time for Retention	Remove recorded video at selected time

[Main Menu] → [HDD/Recording] → [Recording Recording]

Press “MENU” button can hide or display progress bar during recovering.

OK	Start recover (local password of current user is required in advanced mode)
CANCEL	Back to previous page

[Main Menu] → [System Log]

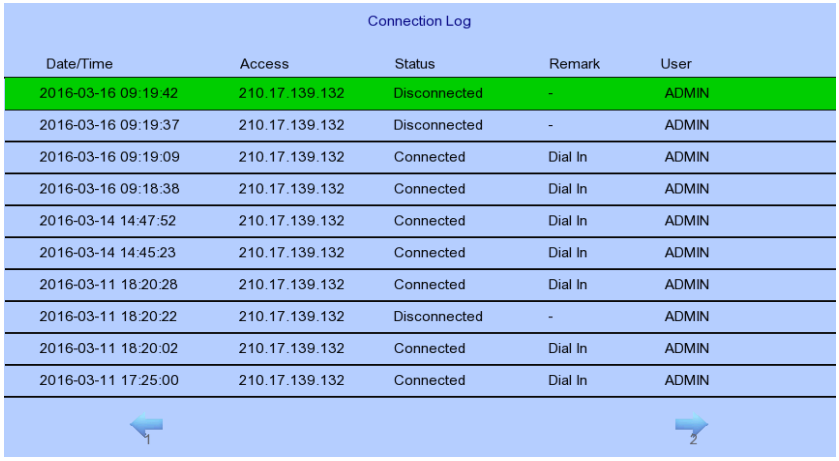


Event Log	Display event log
Connection Log	Display remote connection log
Setting Log	Display setting log
Operation Log	Display operation log

[Main Menu] → [System Log] → [Event Log]

Date/Time	Show event date and time
Ch	Show event channel number
Status	Show event status • Trigger :Event triggered • Reset :Event reset • Tamper :Event tampered • Arm :System armed • Disarm :System disarmed • Secu Switch On :Security switch turned on • Secu Switch Off :Security switch turned off • Entry :Event trigger within entry delay • Exit :Event trigger within exit delay
Action	Show event associated actions
	Show previous / next page of log
	Show different types of event log

[Main Menu] → [System Log] → [Connection Log]

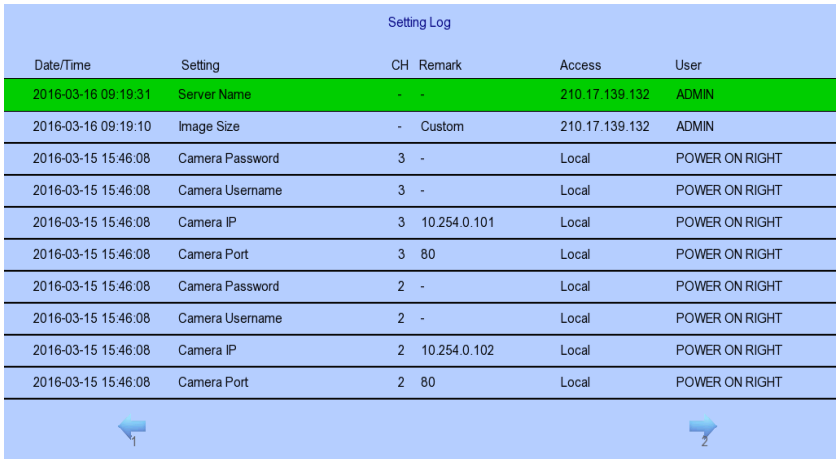


Connection Log

Date/Time	Access	Status	Remark	User
2016-03-16 09:19:42	210.17.139.132	Disconnected	-	ADMIN
2016-03-16 09:19:37	210.17.139.132	Disconnected	-	ADMIN
2016-03-16 09:19:09	210.17.139.132	Connected	Dial In	ADMIN
2016-03-16 09:18:38	210.17.139.132	Connected	Dial In	ADMIN
2016-03-14 14:47:52	210.17.139.132	Connected	Dial In	ADMIN
2016-03-14 14:45:23	210.17.139.132	Connected	Dial In	ADMIN
2016-03-11 18:20:28	210.17.139.132	Connected	Dial In	ADMIN
2016-03-11 18:20:22	210.17.139.132	Disconnected	-	ADMIN
2016-03-11 18:20:02	210.17.139.132	Connected	Dial In	ADMIN
2016-03-11 17:25:00	210.17.139.132	Connected	Dial In	ADMIN

Date/Time	Show connection date and time
Access	Show IP of the remote host
Status	Show connection status
Remark	Show type of connection • Dial in :Triggered by user • Dial back :Triggered by dialback action
User	Show the user connected to video server through remote software
	Show previous / next page of log

[Main Menu] → [System Log] → [Setting Log]

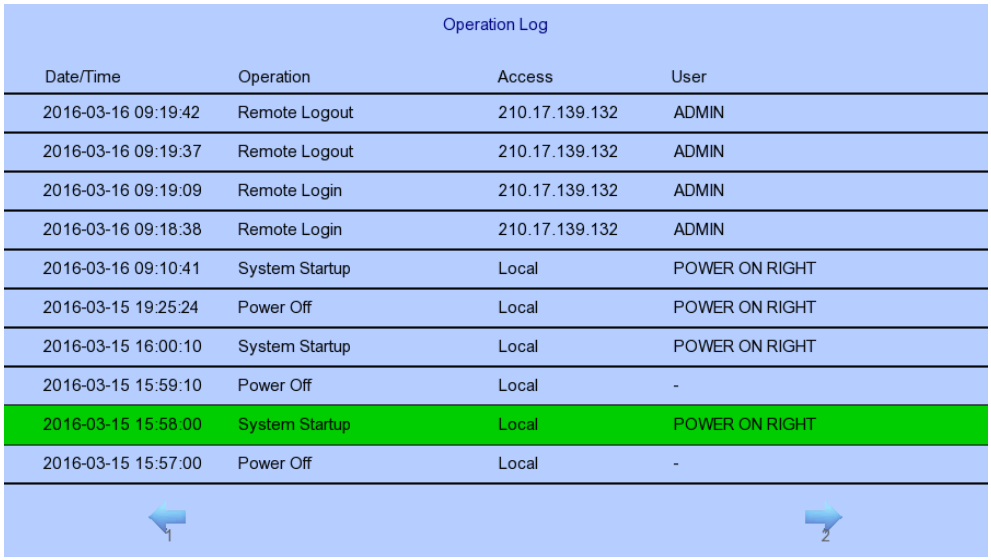


Setting Log

Date/Time	Setting	CH	Remark	Access	User
2016-03-16 09:19:31	Server Name	-	-	210.17.139.132	ADMIN
2016-03-16 09:19:10	Image Size	-	Custom	210.17.139.132	ADMIN
2016-03-15 15:46:08	Camera Password	3	-	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera Username	3	-	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera IP	3	10.254.0.101	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera Port	3	80	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera Password	2	-	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera Username	2	-	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera IP	2	10.254.0.102	Local	POWER ON RIGHT
2016-03-15 15:46:08	Camera Port	2	80	Local	POWER ON RIGHT

Date/Time	Show date and time of the change
Setting	Show setting that is changed
Ch	Show channel number of setting if available
Remark	Show new value of the setting
Access	Show IP of the remote host or “Local” for local host
User	Show the user performed the change
	Show previous / next page of log

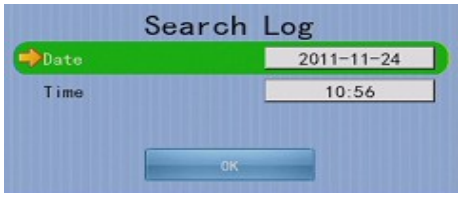
[Main Menu] → [System Log] → [Operation Log]



Date/Time	Show date and time of the operation
Operation	Show operation that is done
Access	Show IP of the remote host or “Local” for local host
User	Show the user performed the operation
	Show previous / next page of log

[Main Menu] → [System Log] → Any Log → [Search Log]

Press enter or double click on any log entry to enter **[Search Log]** menu.



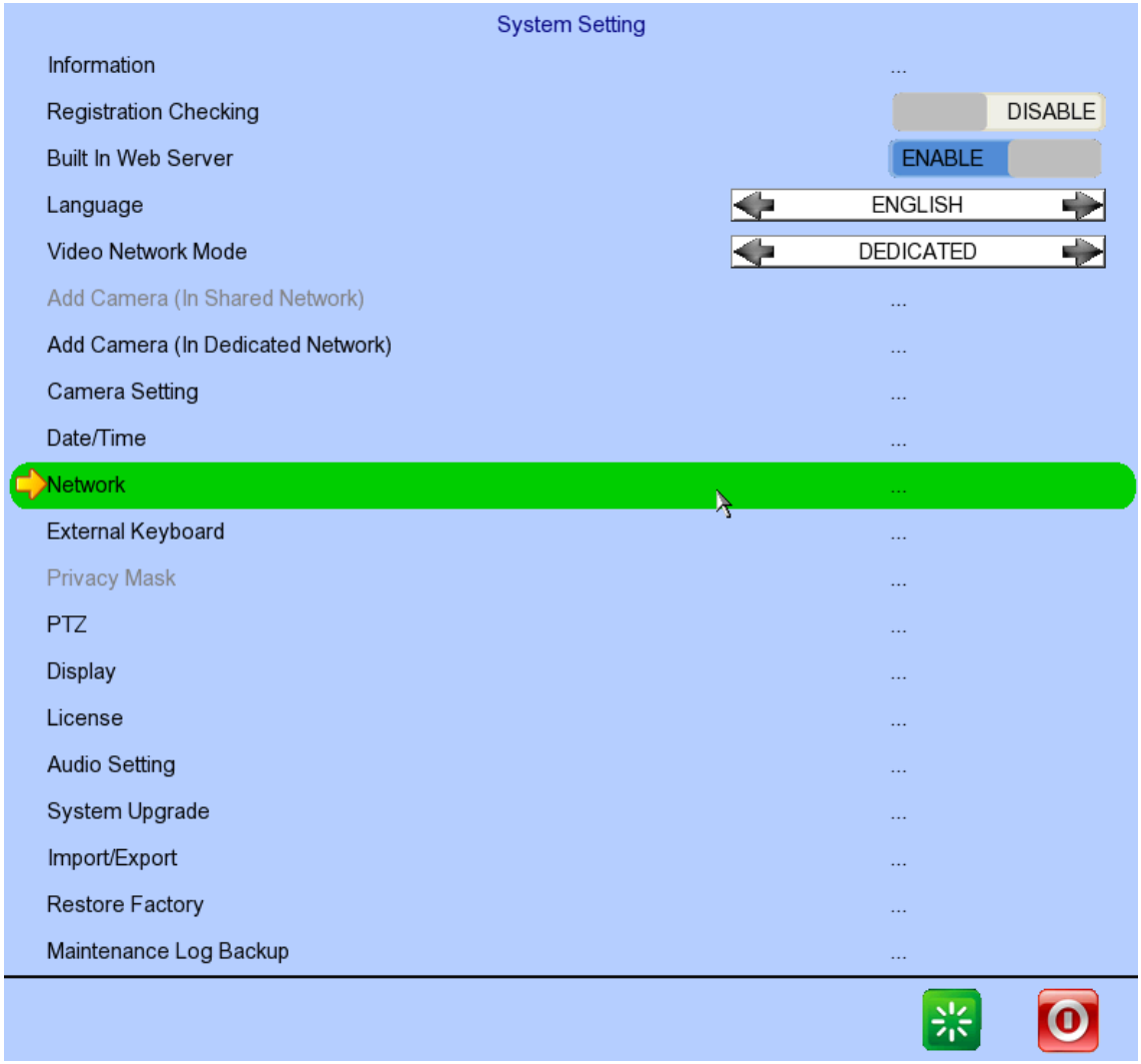
Date	Set the search date
Time	Set the search time
OK	Search for log closest to the date and time

[Main Menu] → [System Log] → [Event Log] → [Log Option]

If an event log entry is associated with the recording action, pressing enter or double clicking will enter **[Log Option]** menu.

	Enter [**Search Log**] menu
	Enter [**Recording Log**] menu with date and time of event log

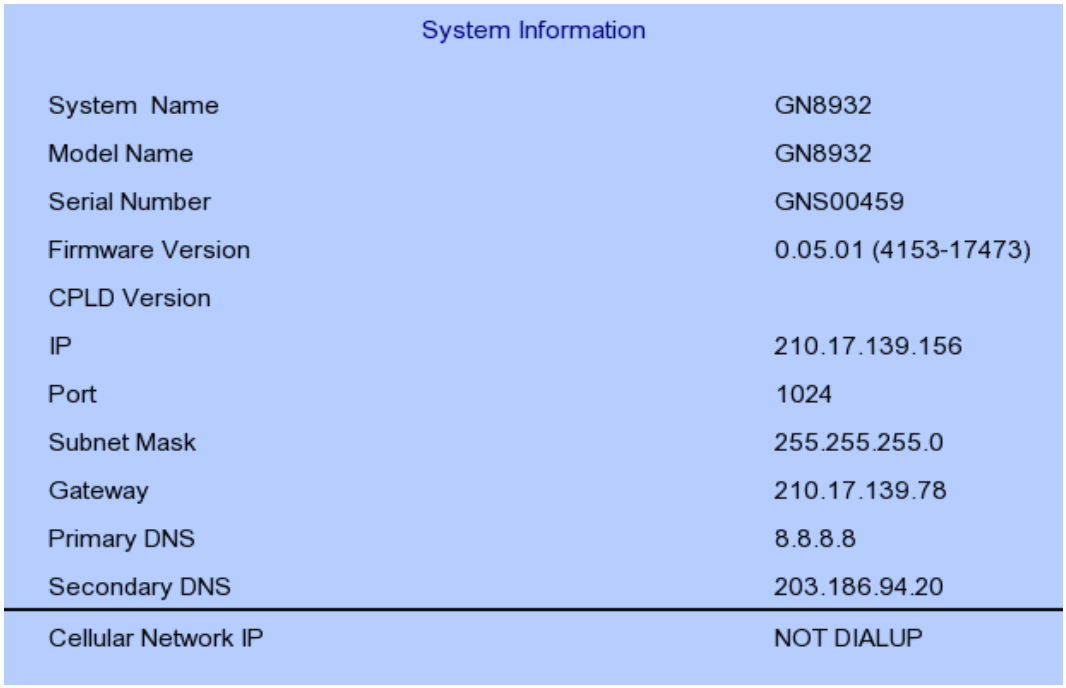
[Main Menu] → [System]



Information	Display general information of the digital video recorder
Registration Checking	Enable / disable remote registration check
Built In Web Server	Enable / disable built in web server
Language	Set display language
Video Network Mode	Change video network mode
Add Camera (In Shared Network)	Change shared network mode settings
Add Camera (In Dedicated Network)	Change dedicated network settings
Camera Setting	Change camera settings
Date /Time	Change date and time settings
Network	Change connection, throughput and 3G modem settings
External Keyboard	Set external keyboard settings
Privacy Mask	Set PTZ privacy mask
PTZ	Set PTZ arguments
Display	Change local monitoring and audio settings
License	Check server license

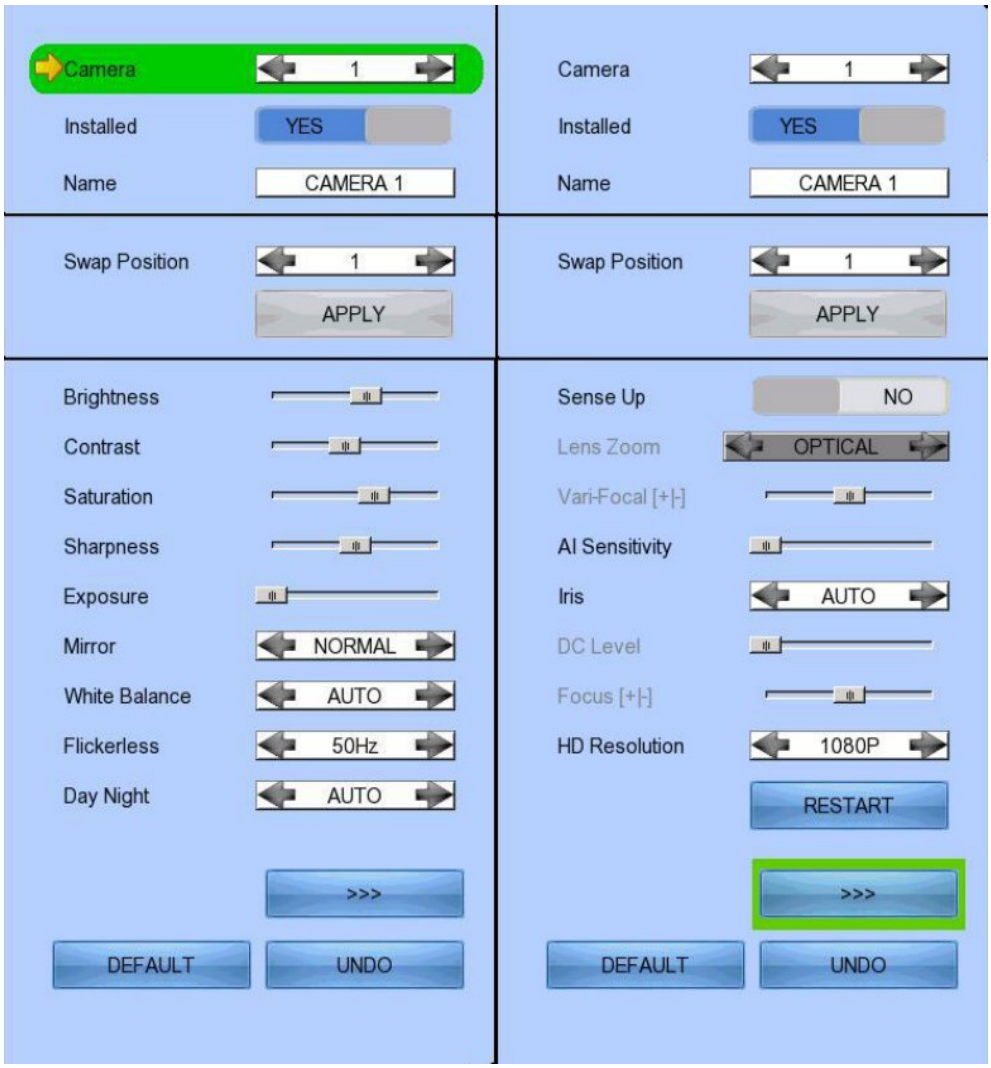
Audio Setting	Set audio input and output
System Upgrade	Upgrade system from USB device
Import /Export	Import or export setting files
Restore Factory	Restore default settings
Maintenance Log Backup	Extract digital video recorder log
Restart System Button	Restart the system
Shutdown System Button	Safe shutdown the system

[Main Menu] → [System] → [Server Information]



Server Name	Display name of the digital video recorder
Model Name	Display model of the digital video recorder
Serial Number	Display serial number of the digital video recorder
Firmware Version	Display firmware version of the digital video recorder
CPLD Version	Display CPLD version
IP	Display IP address of the digital video recorder
Port	Display port number of the digital video recorder
Subnet Mask	Display subnet mask of the digital video recorder
Gateway	Display gateway of the digital video recorder
Primary DNS	Display primary DNS of the digital video recorder
Secondary DNS	Display secondary DNS of the digital video recorder

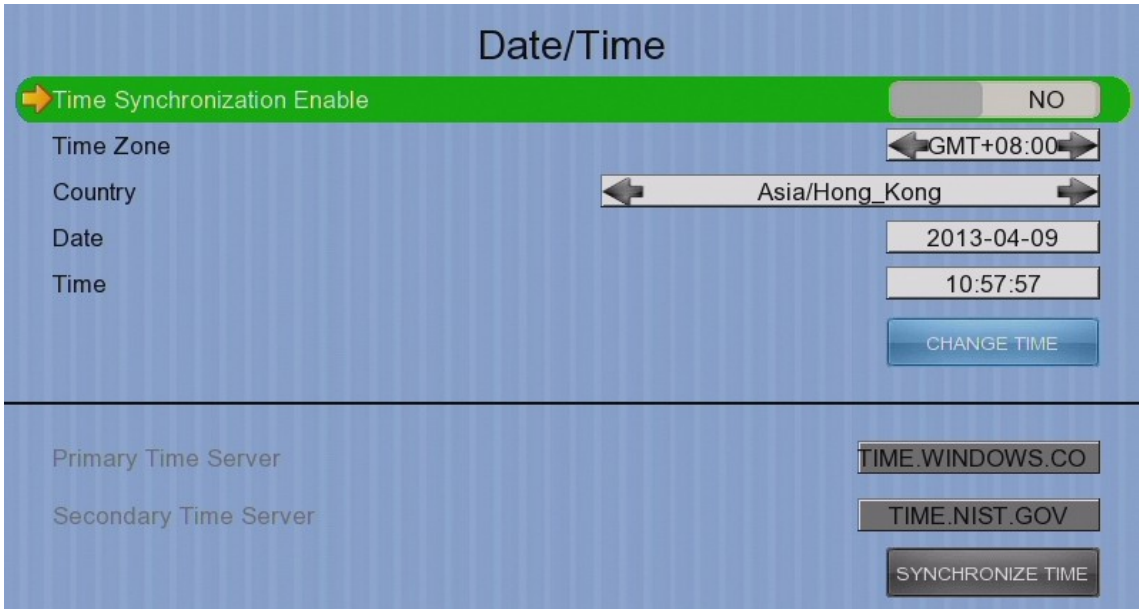
[Main Menu] → [System] → [Camera Setting]



Camera	Select a camera
Installed	Enable / disable the video channel
Name	Change the name of camera
Swap Position	Adjust the swap position
Brightness	Set video brightness
Contrast	Set video contrast
Saturation	Set video saturation
Sharpness	Set the sharpness to make video more sharp
Exposure	Set the exposure when video is too dark
Mirror	Set video mirroring to display image in different way • Normal :Normal display • H Flip :Left/right flip • V Flip :Top/down flip • HV Flip :Left/right flip + top/down flip
White Balance	Set the white balance when video color displayed is not correct

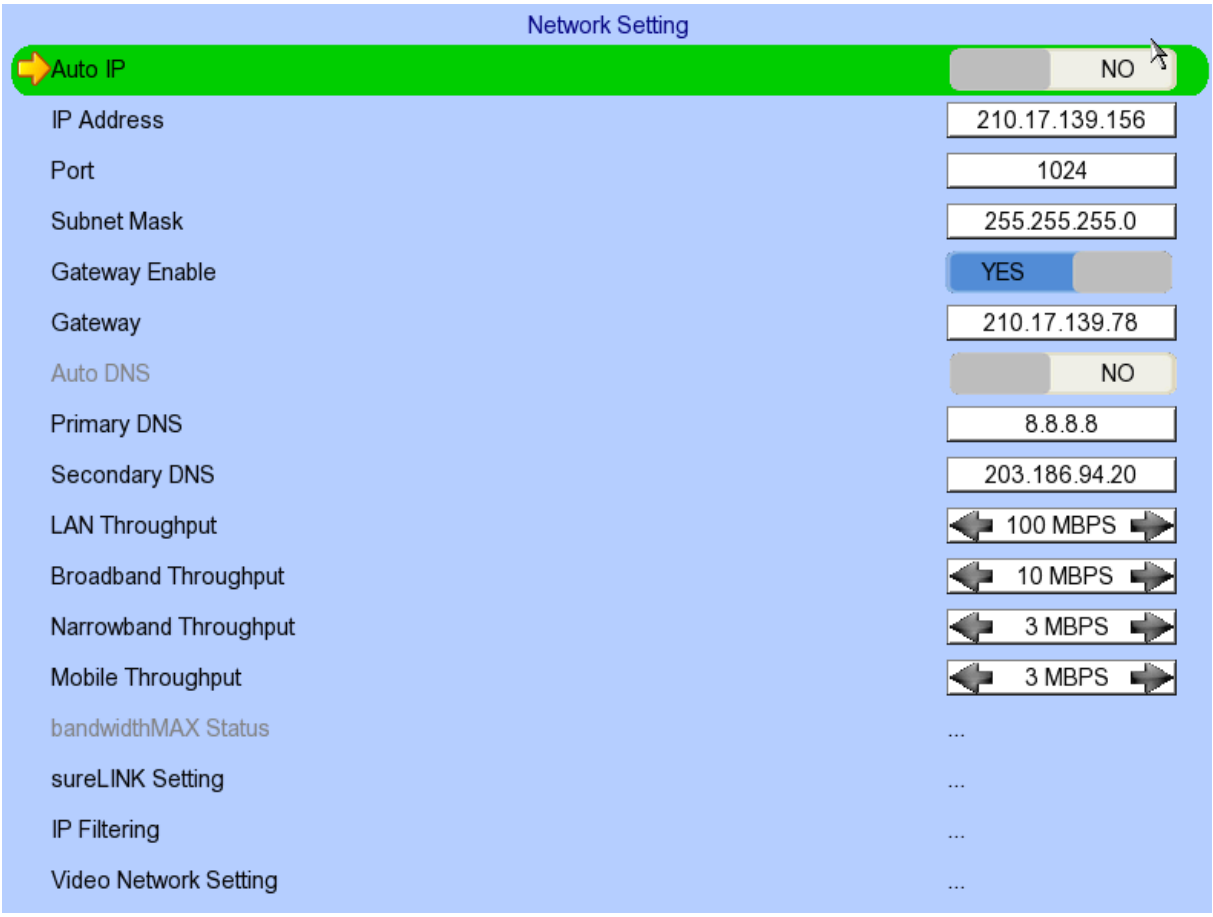
Flickerless	Set the flickerless to match the environment
Day Night	Set the day night mode to match the environment • Auto :Auto adjustment • Day :Day mode only (color) • Night :Night mode only (black and white)
Sense Up	Set video to sense up
Lens Zoom	Set camera lens zoom • OPTICAL ZOOM :support optical zoom only • OPTI & DIGI ZOOM :support optical and digital zoom
Vari-Focal [+/-]	Adjust the focal
AI Sensitivity	Set AI sensitivity
Iris	Set video iris
DC Level	Adjust the DC level
Focus [+/-]	Adjust the focus
HD Resolution	Adjust the resolution (720p/1080p)
Restore Default	Restore camera factory settings
Undo	Undo current change

[Main Menu] → [System] → [Date/Time]



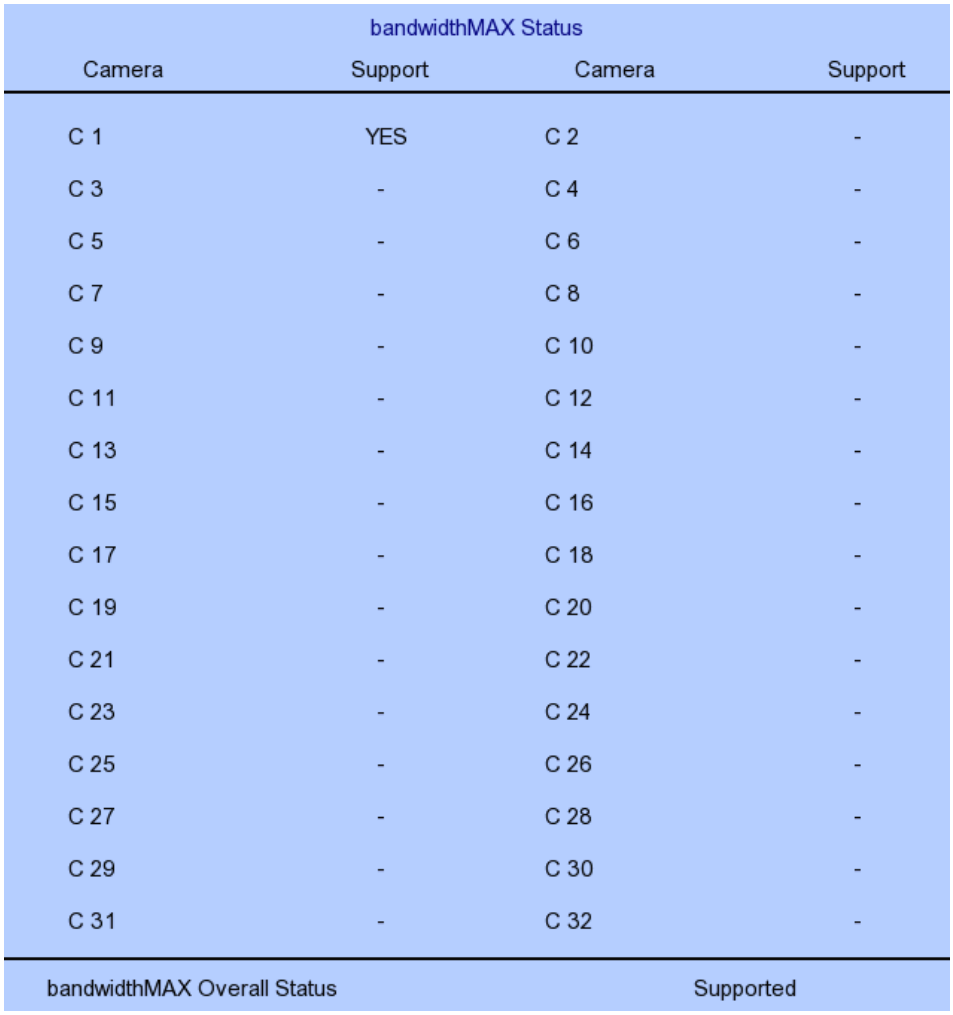
Time Synchronization Enable	Enable / disable time synchronization
Time Zone	Set the time zone
Country	Select a country
Date	Set system date (Time sync disabled only)
Time	Set system time (Time sync disabled only)
CHANGE TIME	Save the time settings(Time sync disabled only)
Primary Time Server	Set the primary time server(Time sync enabled only)
Secondary Time Server	Set the secondary time server(Time sync enabled only)
Synchronize Time	Perform time synchronization(Time sync enabled only)

[Main Menu] → [System] → [Network Setting]



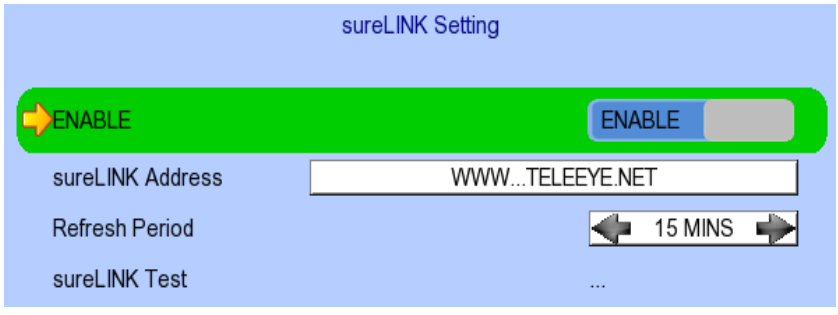
Auto IP	Enable / disable auto IP from DHCP
IP Address	Set IP address of the digital video recorder
Port	Set port number of the digital video recorder
Subnet Mask	Set subnet mask of the digital video recorder
Gateway Enable	Enable / disable the gateway
Gateway	Set gateway of the digital video recorder
Auto DNS	Enable / disable auto DNS
Primary DNS	Set primary DNS of the digital video recorder
Secondary DNS	Set secondary DNS of the digital video recorder
LAN Throughout	Set the data rate of LAN connection
Broadband Throughput	Set the data rate of broadband connection
Narrowband Throughput	Set the data rate of narrowband connection
Mobile Throughput	Set the data rate of mobile connection
bandwidthMAX Status	Show camera is support D.R.T
sureLINK Setting	Change sureLINK settings
IP Filtering	Change IP filtering settings
Video Network Setting	Change video network setting

[Main Menu] → [System] → [Network Setting] → [bandwidthMAX Status]



bandwidthMAX Status	Camera is support D.R.T status
bandwidthMAX Overall Status	bandwidthMAX support status

[Main Menu] → [System] → [Network Setting] → [sureLINK Setting]

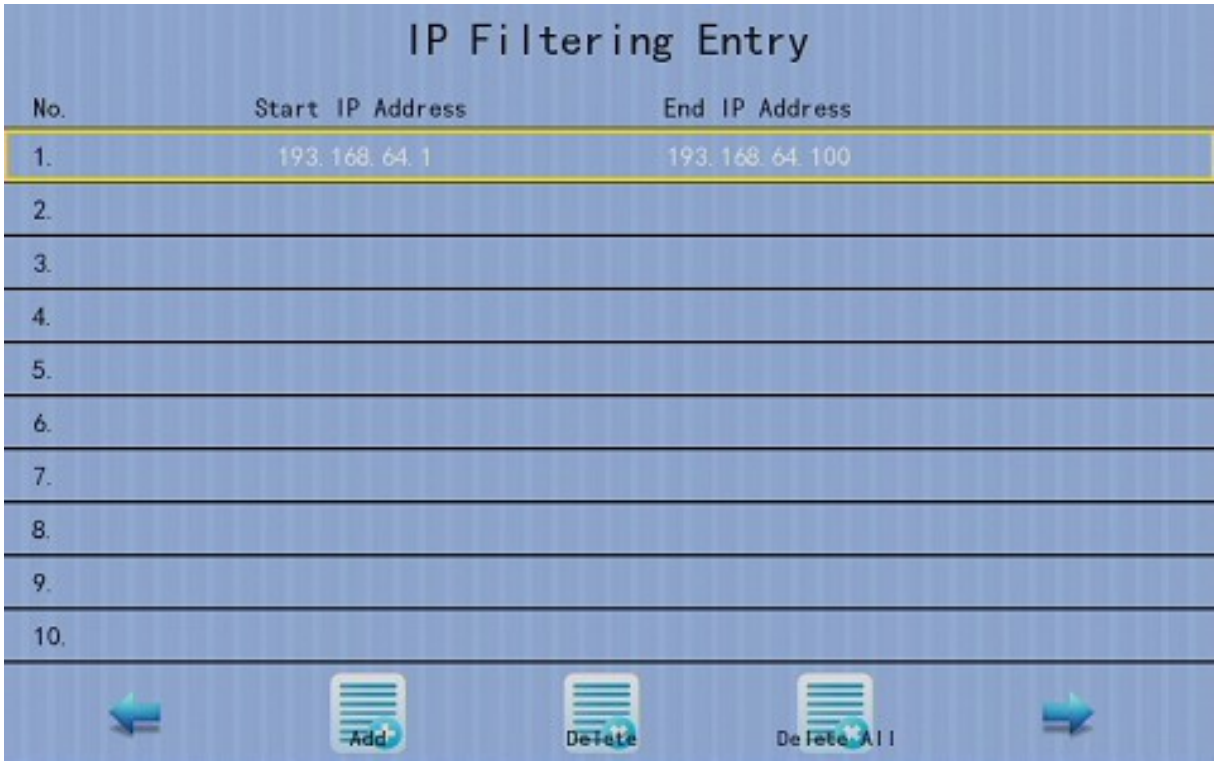


Enable	Enable / disable sureLINK function
sureLINK Address	Set the sureLINK address of the digital video recorder
Refresh Period	Set the sureLINK refresh rate
SureLINK Test	SureLINK test

[Main Menu] → [System] → [Network Setting] → [IP Filtering]

Mode	Set the IP filtering mode • Disable :Disable IP filtering • Allow :Only allow selected IP address to connect • Deny :Disallow selected IP address to connect
Filtered IP Address	Set the IP range to be filtered

[Main Menu] → [System] → [Network Setting] → [IP Filtering] → [Filtered IP Address]



No.	Show the IP filtering entry number
Start IP Address	Show starting IP of the filtered IP range
End IP Address	Show ending IP of the filtered IP range
Add	Add an IP filtering entry
Delete	Delete the selected IP filtering entry
Delete All	Delete all IP filtering entries
	Show previous / next page of filtered IP address

[Main Menu] → [System] → [Network Setting] → [IP Filtering] → [Filtered IP Address] → [Add]

Start IP Address	Set starting IP to be filtered
End IP Address	Set ending IP to be filtered
Add	Add the filter entry

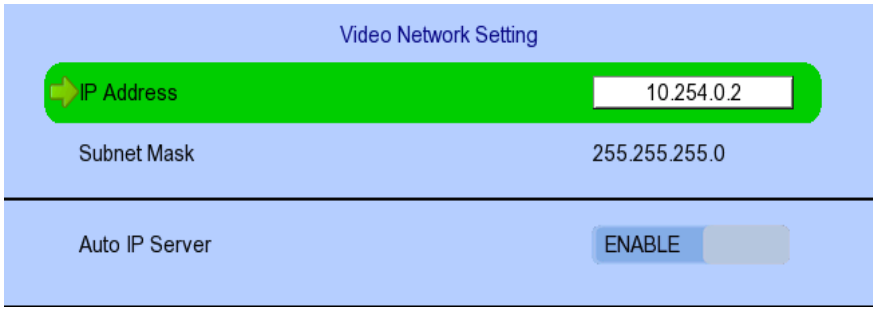
[Main Menu] → [System] → [Network Setting] → [IP Filtering] →

[Filtered IP Address] → [Edit IP Filter]

Press enter or double click on an existing entry to enter **[Edit IP Filter]** menu.

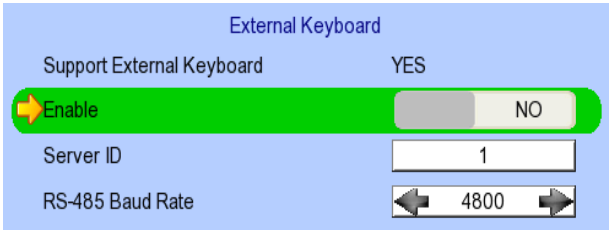
Start IP Address	Change starting IP of the filtering range
End IP Address	Change ending IP of the filtered range
Edit	Edit the filter entry

[Main Menu] → [System] → [Network Setting] → [Video Network Setting]



IP Address	Set the IP address
Subnet Mask	Display subnet mask of the digital video recorder
Auto Server IP	Enable / Disable the video network setting

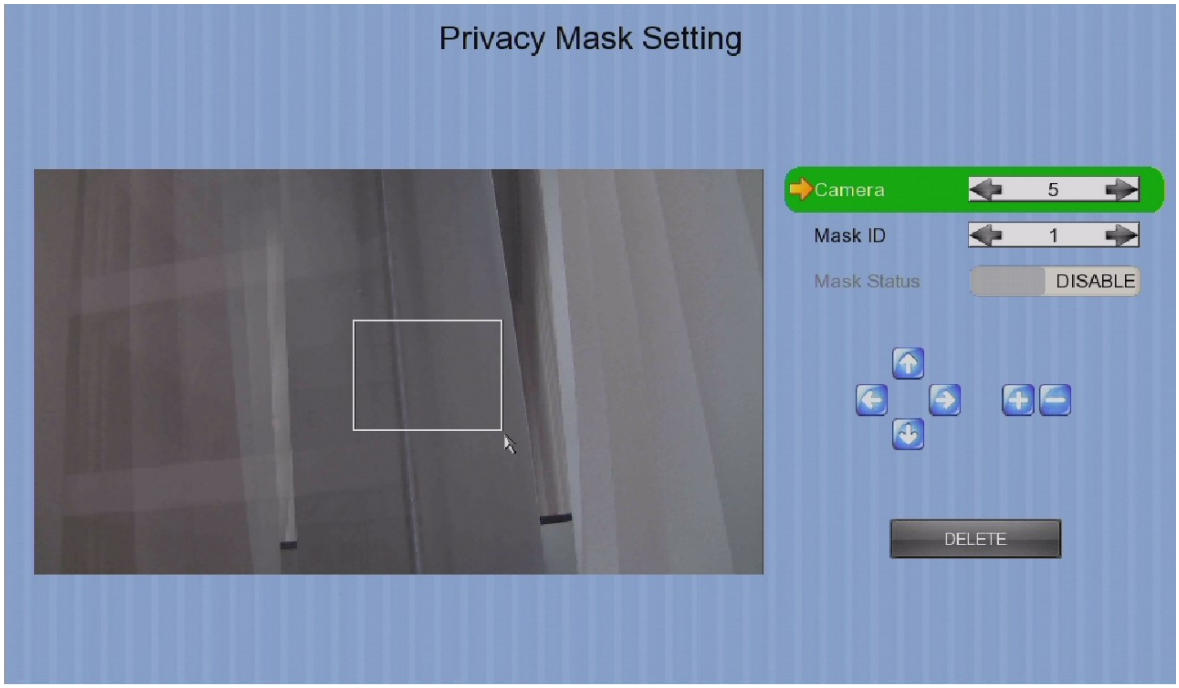
[Main Menu] → [System] → [External Keyboard]



Support External Keyboard	Display support of external keyboard
Enable	Enable external keyboard
Server ID	Set DVR id for PTZ control
RS-485 Baud Rate	Set RS-485 input baud rate

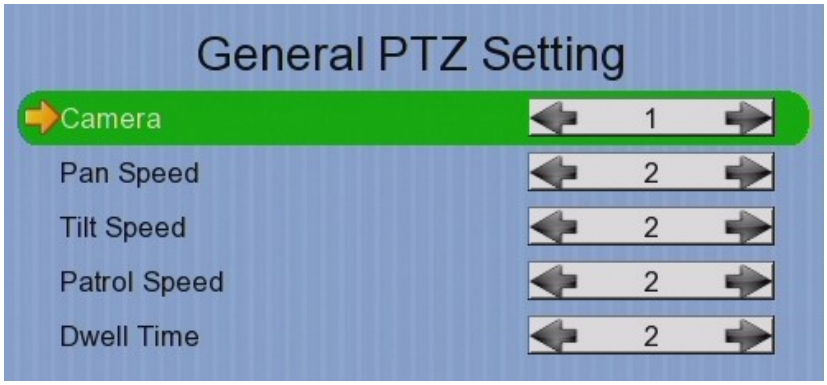
[Main Menu] → [System] → [Privacy Mask]

User can draw privacy mask by mouse or  buttons



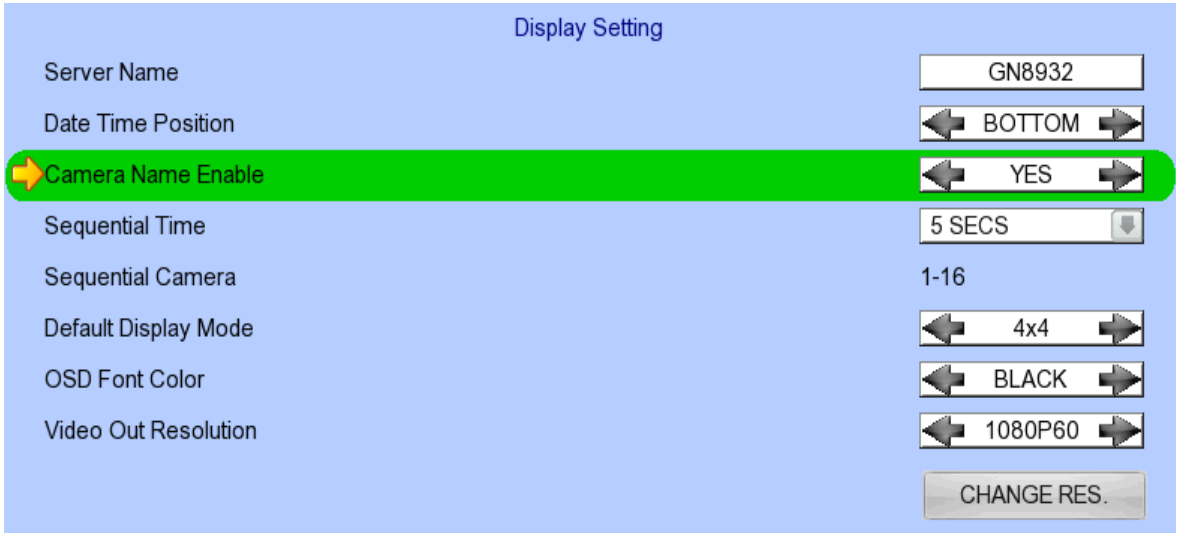
Camera	Selected video channel
Mask ID	Selected privacy mask id
Mask Status	Enable /disable current privacy mask
	change current camera center
	Edit size of selected privacy mask
DELETE	Delete current privacy mask

[Main Menu] → [System] → [General PTZ Setting]



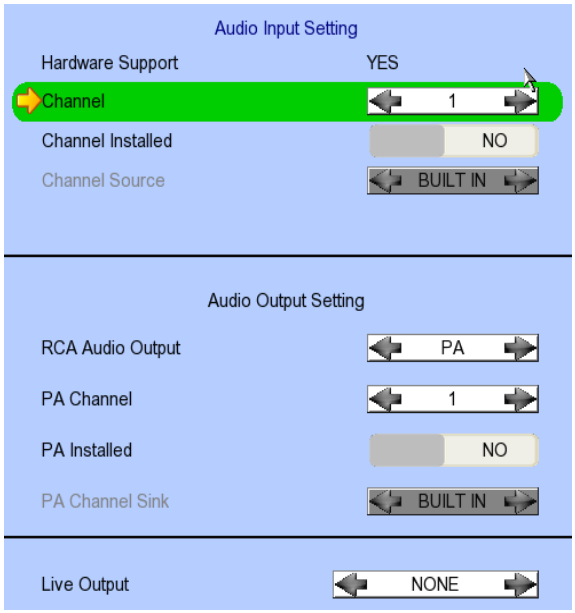
Camera	Selected video channel
Pan Speed	Set pan speed
Tit Speed	Set tilt speed
Patrol Speed	Set patrol speed
Dwell Time	Set dwell time for patrol

[Main Menu] → [System] → [Display Setting]



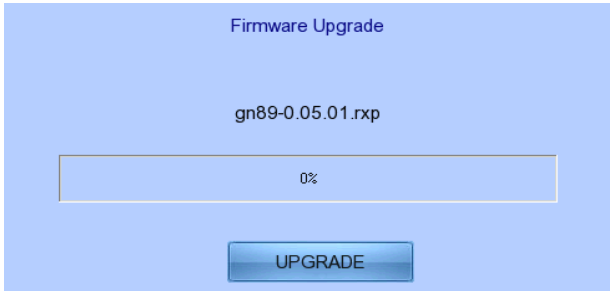
Server Name	Set name of video server
Date Time Position	Set the position for displaying system time
Camera Name Enable	Display / hide camera name
Sequential Time	Set the switch time between cameras in sequential mode
Sequential Camera	Choose cameras displayed in full screen sequential mode
Default Display Mode	Set the default display mode
OSD Font Color	Set the font color of OSD items
Video Out Resolution	Set the output display resolution
Change Resolution	Confirm the change in output resolution

[Main Menu] → [System] → [Audio Setting]



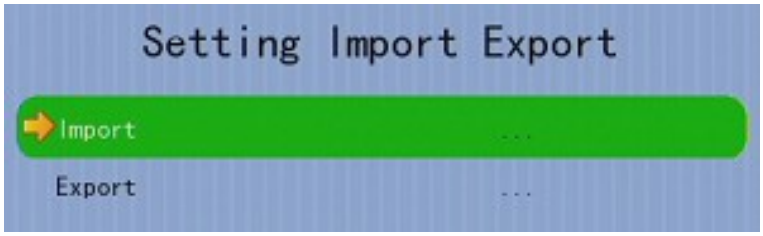
Hardware Support	Display audio feature is supported by video server
Channel	Set input audio channel
Channel Installed	Enable /disable audio selected input channel
Channel Source	Select source of audio • BUILT IN : use video server on board audio input • CAMERA : use external camera audio input
RCA Audio Output	Select RCA output • PA : RCA output for PA • LIVE/PB : RCA output for LIVE/PB
PA Channel	Set PA channel
PA Installed	Enable /disable PA channel
PA Channel Sink	Select PA channel source • BUILT IN : use video server on board audio output • CAMERA : use external camera audio output
Live Output	Select audio live output channel

[Main Menu] → [System] → [System Upgrade]



Progress Bar	Display the upgrade progress
Upgrade	Upgrade the firmware from USB flash device

[Main Menu] → [System] → [Import /Export]

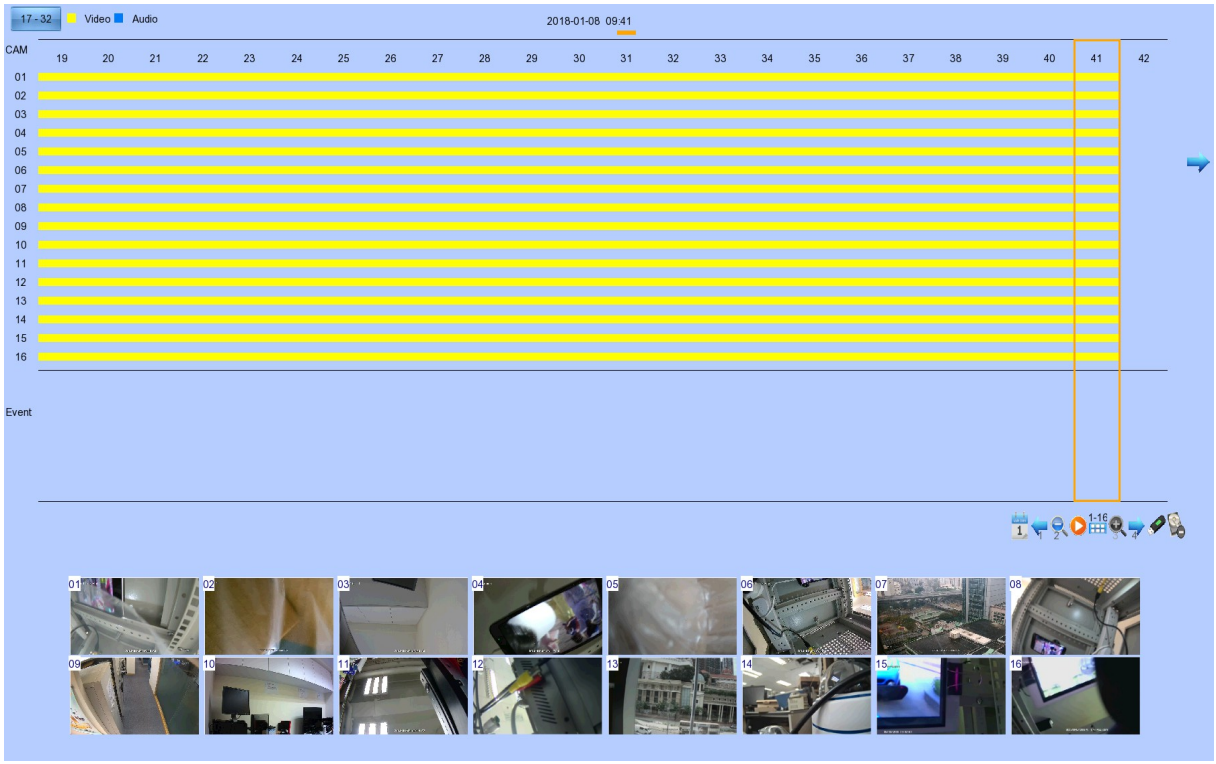


Import	Import settings from USB flash device
Export	Export settings to USB flash device

[Main Menu] → [System] → [Import /Export] → [Export]

Video	Export camera settings if selected
Recording	Export recording settings if selected
Switch	Export switch settings if selected
Date/Time	Export date/time settings if selected
Connection	Export network settings if selected
Event Handler	Export event settings if selected
E-mail/Dialback	Export e-mail and dialback settings if selected
Server	Export server settings if selected
OSD	Export OSD settings if selected
Select All	Select / deselect all settings
Export	Export the selected settings to USB flash device

[Main Menu] → [Playback]



Date	Show date of recording log
Time	Show time of recording log
1, 2, ... 16	Show cameras that performed recording in yellow bars
17 - 32	Switch Camera 1 – 16 to 17 – 32
Event Select	Display detail of the selected event
	Show previous / next page of recording log
	Display recording log in smaller time scale
	Display recording log in bigger time scale
	Search recording log by date and time
	Extract video from selected time slot
1-4	Search a camera record

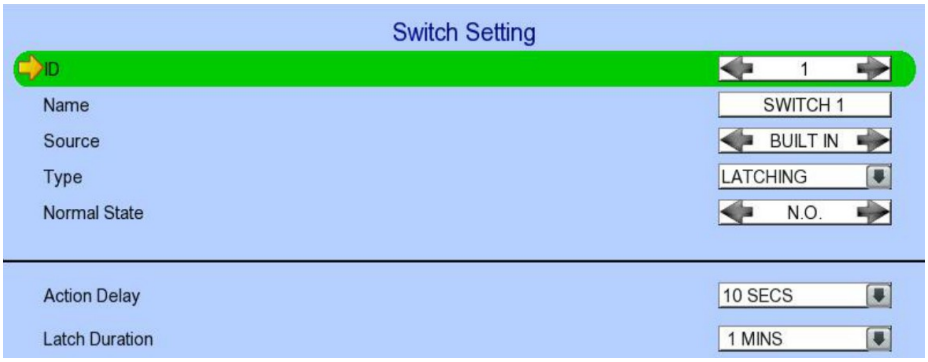
[Main Menu] → [Playback] → [Search By Date]

Date	Set the search date
Time	Set the search time
Today	Set date and time to current time
OK	Search for log closest to the date and time

[Main Menu] → [Switch]

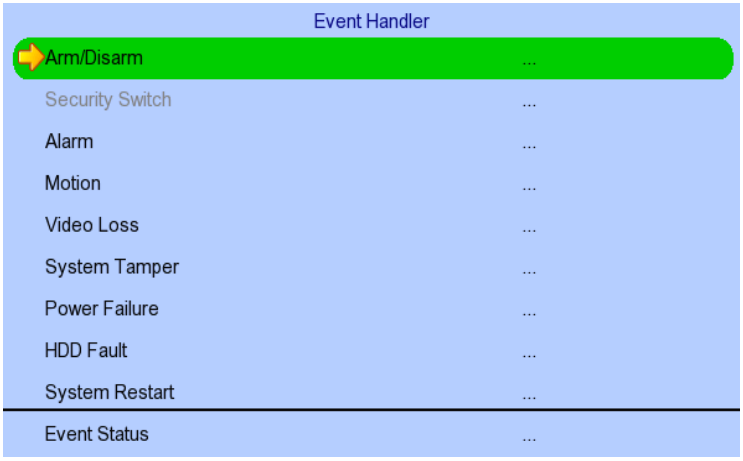
Switch 1 – Switch 4	Toggle the status of the switch
Switch Setting	Change switch settings
 (NA)	Switch disable
 ASSOCIATE	Associate switch
	Latch normal for build in mode
	Latch click for build in mode
	Latch normal for external mode
	Latch click for external mode

[Main Menu] → [Switch] → [Switch Setting]



ID	Select the switch
Name	Name Change the name of switch X
Source	Select source of switch • BUILT IN : use video server relay • CAMERA : use external camera switch
Type	Change the type of switch • Latching : Turn on for a period of time • Push button : Turn off 1 second after it is turned on
Normal State	Select circuit open/close as normal
Action Delay	Action setting - set the time between turning off and on
Latch Duration	Action setting - set the time for turning on the switch

[Main Menu] → [Event Handler]

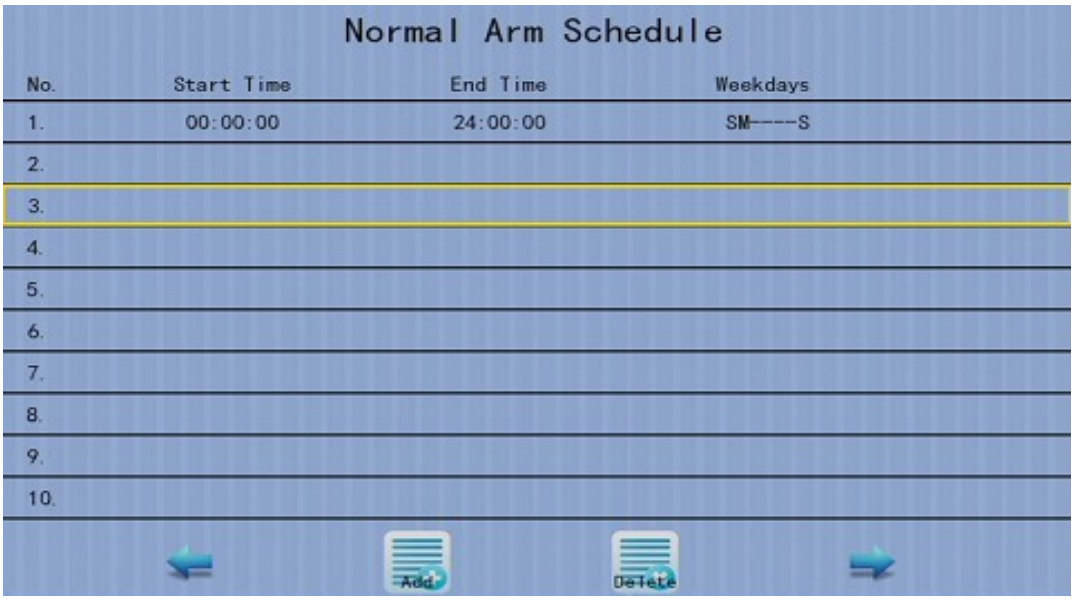


Arm/Disarm	Change arm/disarm settings
Security Switch	Change security switch settings (Arm/Disarm enabled with Hardware Arm mode only)
Alarm	Change individual alarm settings
Motion	Change motion detection settings
Video Loss	Change video loss event settings
System Tamper	Change system tamper event settings
Power Failure	Change power failure event settings
HDD Fault	Change HDD fault event settings
System Restart	Change system restart event settings
Event Status	Show all event status

[Main Menu] → [Event Handler] → [Arm/Disarm]

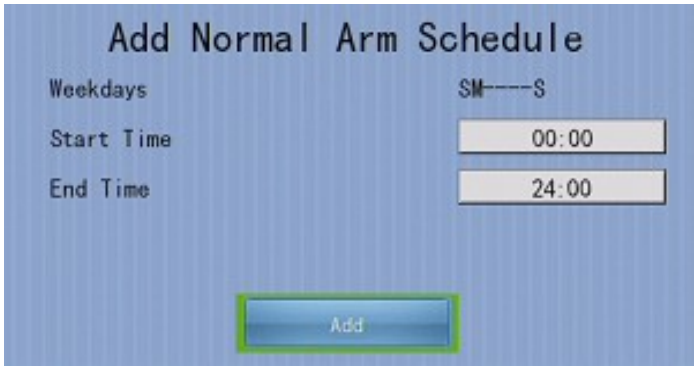
Enable	Enable / disable the arm/disarm control
Mode	Select the arm/disarm mode
Arm State	Select circuit open/close as system armed(Hardware Arm only)
Associate Switch	Associate switch 1 to arm/disarm control status
Schedule Arm/Disarm	Enable / disable schedule arm/disarm (Schedule Arm only)
Normal Arm Schedule	Set weekly arm/disarm schedule (Schedule Arm only)
Holiday Arm Schedule	Set holiday arm/disarm schedule (Schedule Arm only)

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Normal Arm Schedule]



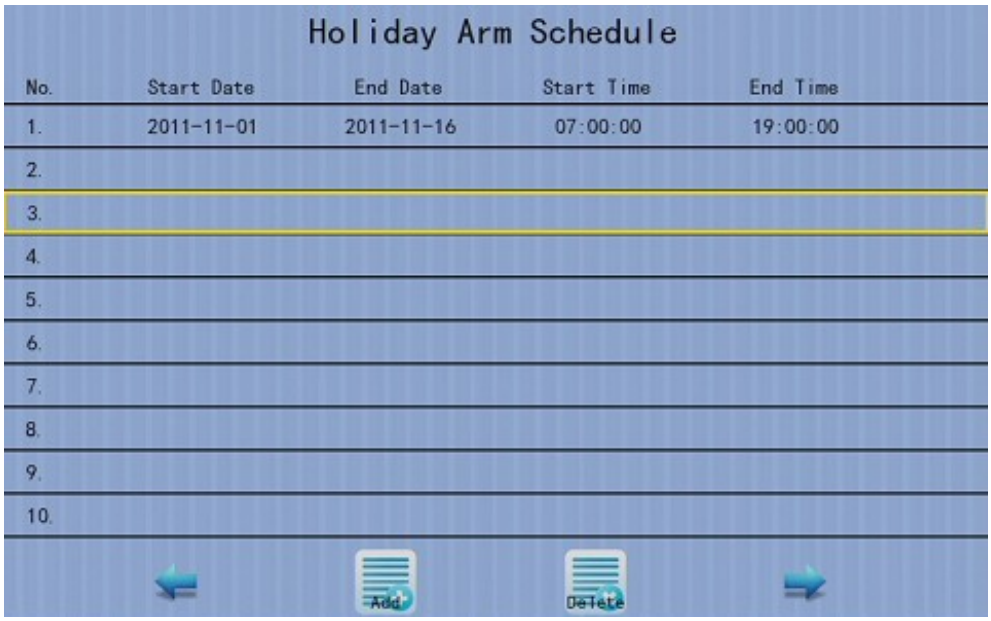
No.	Show the schedule number
Start Time	Show the start time of system armed
End Time	Show the end time of system armed
Weekdays	Show the weekdays the schedule applied to
Add	Add a normal arm schedule
Delete	Delete the selected normal arm schedule
	Show previous / next page of schedules

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Normal Arm Schedule] → [Add]



Weekdays	Set the weekdays the new schedule applied to
Start Time	Set the start time of new schedule
End Time	Set the end time of new schedule
Add	Add the new normal arm schedule

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Holiday Arm Schedule]

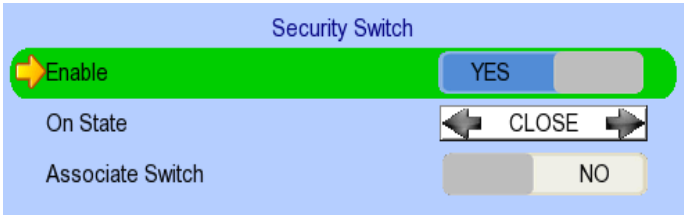


No.	Show the schedule number
Start Date	Show the start date of schedule
End Date	Show the end date of schedule
Start Time	Show the start time of system armed
End Time	Show the end time of system armed
Add	Add a holiday arm schedule
Delete	Delete the selected holiday arm schedule
	Show previous / next page of schedules

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Holiday Arm Schedule] → [Add]

Start Date	Set the start date of new schedule
End Date	Set the end date of new schedule
Start Time	Set the start time of new schedule
End Time	Set the end time of new schedule
Add	Add the new holiday arm schedule

[Main Menu] → [Event Handler] → [Security Switch]

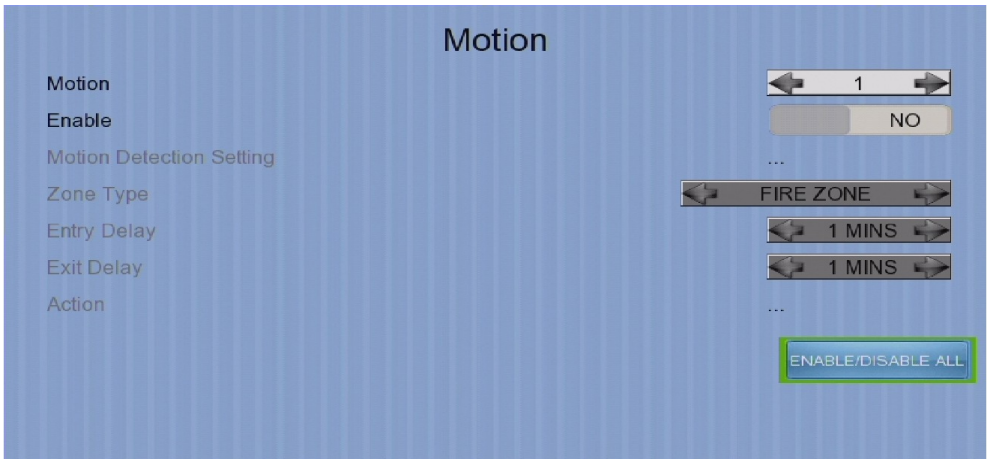


Enable	Enable / disable the security switch
On State	Select circuit open/close as security switch on
Associate Switch	Associate switch 2 to security switch status

[Main Menu] → [Event Handler] → [Alarm]

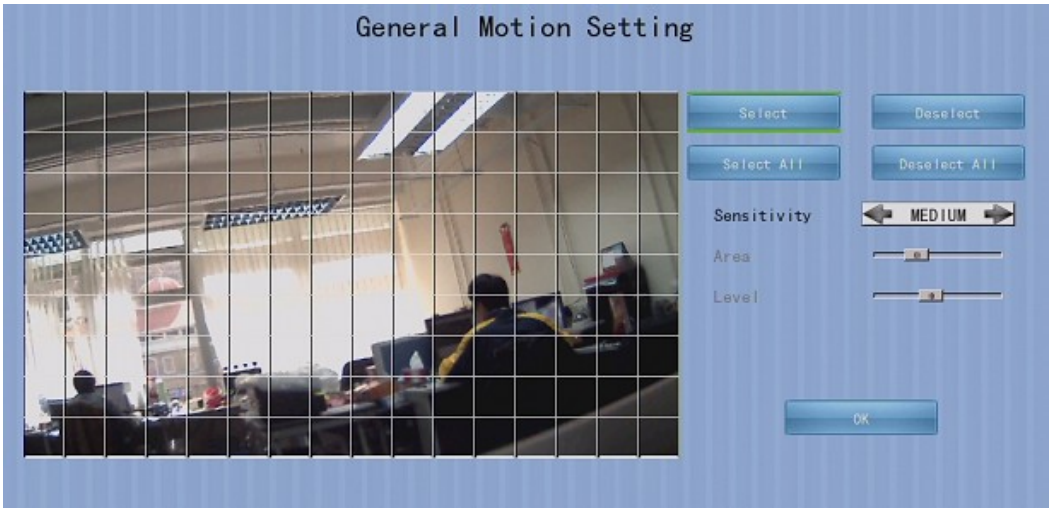
Alarm	Select an alarm
Enable	Enable / disable selected alarm
Name	Change the name of alarm
Source Type	Select source of alarm • BUILT IN : use video server on board alarm • CAMERA : use external camera alarm
Sensor Type	Select circuit open/close as normal alarm state
Zone Type	Set the zone type:
Entry Delay	Set the entry delay time (Entry/Exit Zone only)
Exit Delay	Set the exit delay time (Entry/Exit Zone only)
Action	Set actions taken when alarm is triggered or tampered
ENABLE/DISABLE ALL	Enable / disable all alarm

[Main Menu] → [Event Handler] → [Motion]



Camera	Select a camera
Enable	Enable / disable motion event
Motion Detection Setting	Set motion detection settings
Zone	Set the zone type:
Entry Delay	Set the entry delay time (Entry/Exit Zone only)
Exit Delay	Set the exit delay time (Entry/Exit Zone only)
Action	Set actions taken when motion is detected
ENABLE/DISABLE ALL	Enable / disable all motion

[Main Menu] → [Event Handler] → [Motion] → [Motion Detection Setting]

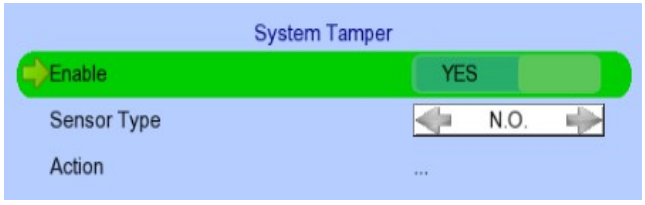


Select	Select motion blocks
Deselect	Deselect motion blocks
Select All	Select all motion blocks
Deselect All	Deselect all motion blocks
Sensitivity	Set the sensitivity level
Area	Set the area sensitivity (Custom sensitivity only)
Level	Set the light sensitivity (Custom sensitivity only)
OK	Save the motion detection settings

[Main Menu] → [Event Handler] → [Video Loss]

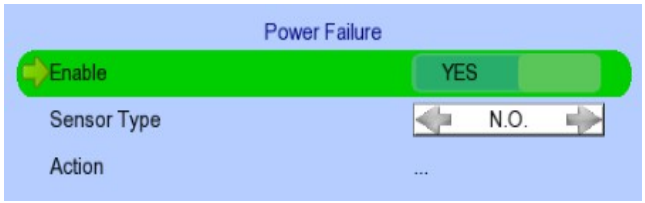
Camera	Select a camera
Enable	Enable / disable video loss event
Action	Set actions taken when video loss is detected

[Main Menu] → [Event Handler] → [System Tamper]



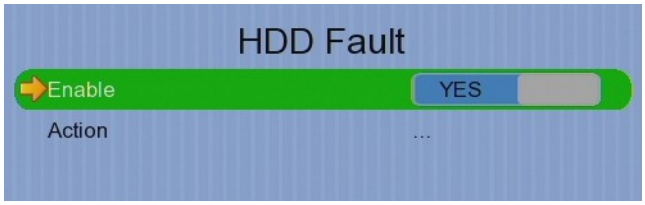
Enable	Enable / disable system tamper event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when system tamper is triggered

[Main Menu] → [Event Handler] → [Power Failure]



Enable	Enable / disable power failure event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when power failure is detected

[Main Menu] → [Event Handler] → [HDD Fault]



Enable	Enable / disable the HDD Fault event
Action	Set actions taken when disk failure or lost

[Main Menu] → [Event Handler] → [System Restart]

Enable	Enable / disable the system restart available event
Action	Set actions taken when system restart abnormally

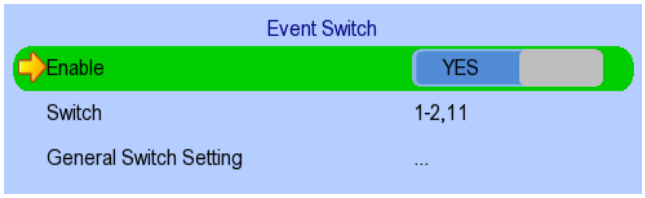
[Main Menu] → [Event Handler] → Any Event → [Action]

Recording	Change event recording settings
Switch	Change event switch settings
Dial Back	Change dialback settings
E-mail	Change e-mail settings
Mobile Notification	Change mobile notification settings
Buzzer	Change buzzer settings
Event LED	Change event LED settings
Live Camera	Change event associated live camera settings
PTZ	Change event associated PTZ camera settings

[Main Menu] → [Event Handler] → Any Event → [Action] → [Recording]

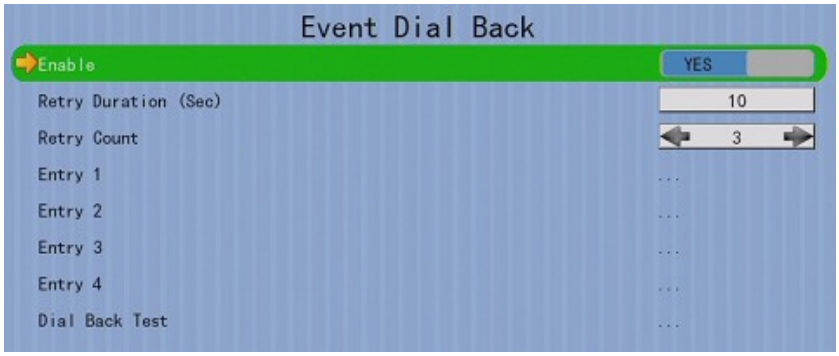
Enable	Enable / disable event recording of that event
Recording Mode	Set event recording frame rate • Auto :Record at highest achievable frame rate. The storage size is large. • 1 fps :Record at 1 frame per second. Storage size is comparably small
Duration After Event Clear	Set the post-event recording time
Recording Camera	Select cameras performing event recording

[Main Menu] → [Event Handler] → Any Event → [Action] → [Switch]



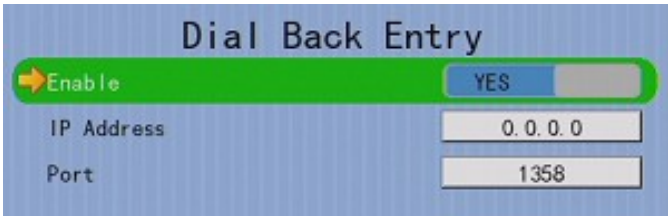
Enable	Enable / disable switch action of that event
Switch	Select switches turning on when event triggers
General Switch Setting	Set the latch duration and action delay

[Main Menu] → [Event Handler] → Any Event → [Action] → [Dial Back]



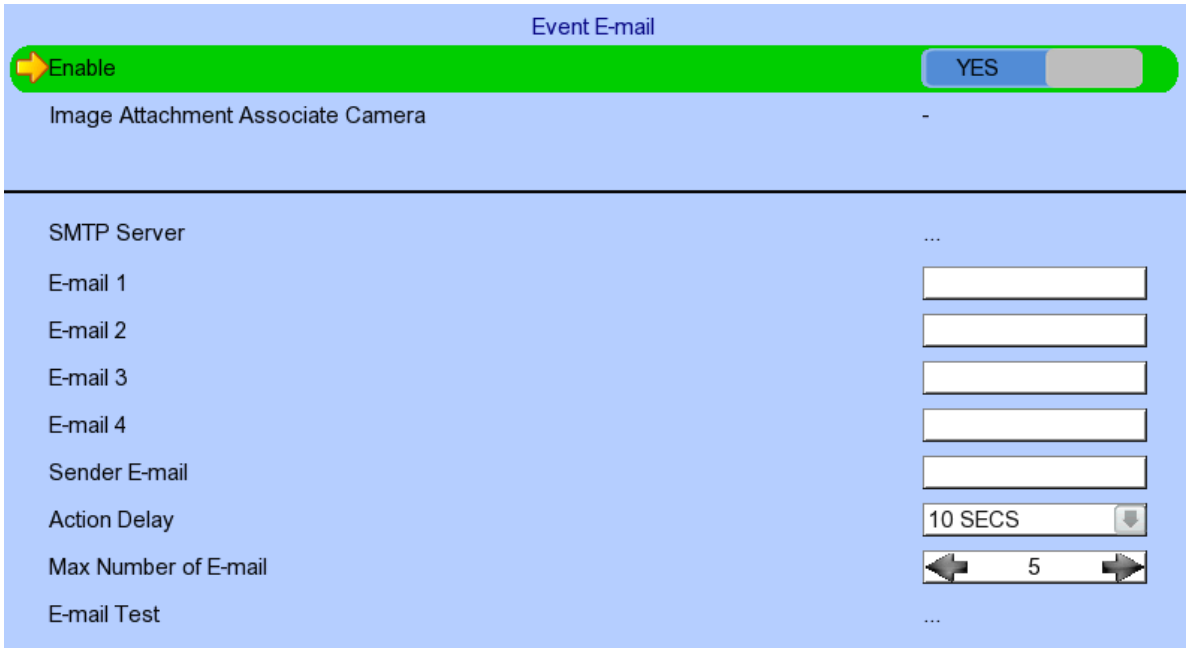
Enable	Enable / disable dialback action of that event
Retry Duration (Sec)	Set the time between each dialback retrial
Retry Count	Set the number of retrial if dialback fails
Entry X	Change the settings of dialback entry X
Dial Back Test	Start the dial back test

[Main Menu] → [Event Handler] → Any Event → [Action] → [Dial Back] → [Dial Back Entry]



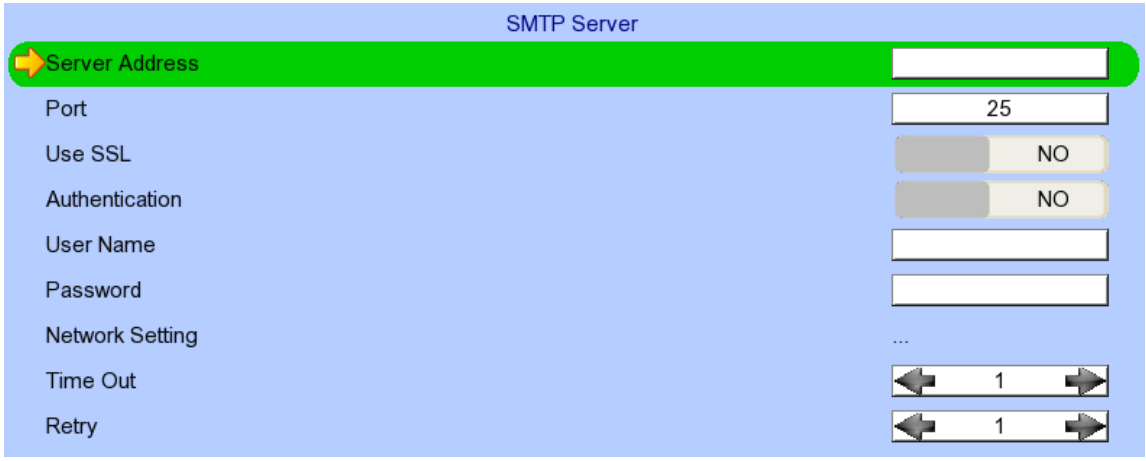
Enable	Enable / disable the dialback entry
IP Address	Set the dialback IP address when event triggers
Port	Set the dialback port when event triggers

[Main Menu] → [Event Handler] → Any Event → [Action] → [E-mail]



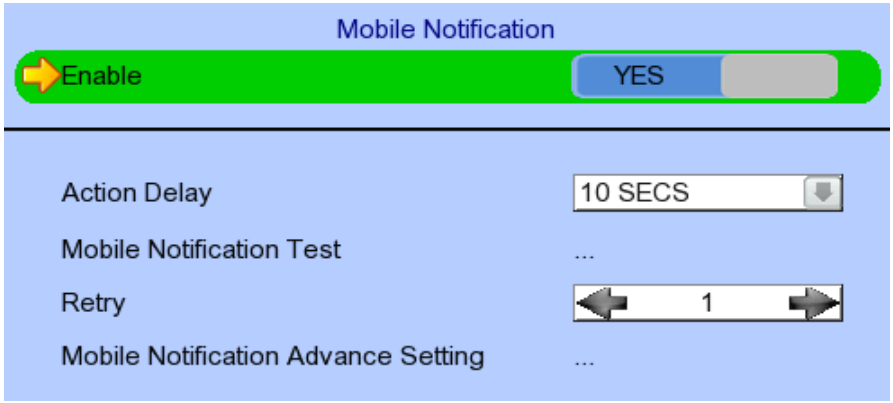
Enable	Enable / disable e-mail action of that event
Image Attachment Associate Camera	Change event associated camera for image attachment
SMTP Server	Change SMTP settings
E-mail X	Set the e-mail address of recipient X
Sender E-mail	Set the e-mail address of sender
Action Delay	Set the minimum time between 2 e-mails of the same event
Max Number of E-mail	Set the maximum e-mails of an event until event clear
E-mail Test	Start the e-mail test

[Main Menu] → [Event Handler] → Any Event → [Action] → [E-mail] → [SMTP Server]



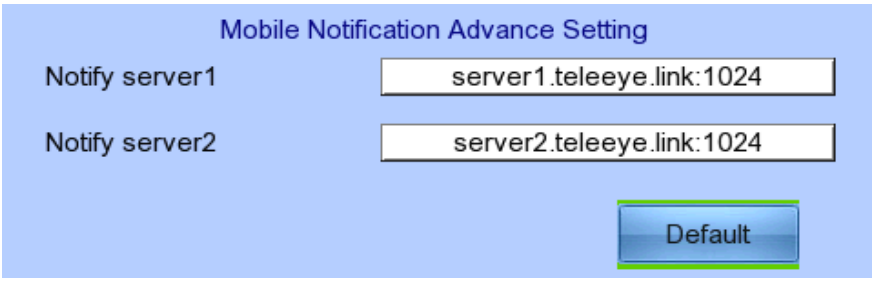
Server Address	Set the SMTP server address
Port	Set the SMTP server port
Use SSL	Is SSL required for the SMTP server
Authentication	Is authentication required for the SMTP server
User Name	Set user name used in authentication
Password	Set password used in authentication
Network Setting	Change the network settings
Time Out	Set the allowed time of sending an e-mail in each trial (in minute)
Retry	Set the number of retrial if fails to send the mail

[Main Menu] → [Event Handler] → Any Event → [Action] → [Mobile Notification]



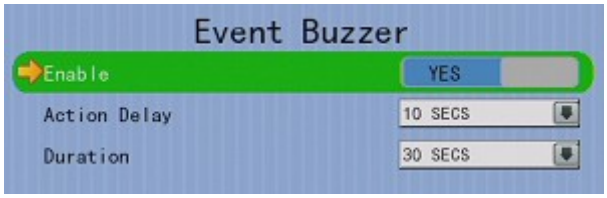
Enable	Enable / disable mobile notification action of that event
Action Delay	Set the minimum time between 2 message of the same event
Mobile Notification Test	Start the mobile notification test
Retry	Set the number of retrial if fails to send the message
Mobile Notification Advance Setting	Set mobile notification server

[Main Menu] → [Event Handler] → Any Event → [Action] →
[Mobile Notification] → [Mobile Notification Advance Setting]



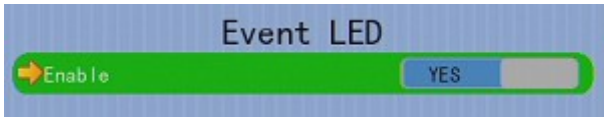
Notify server X	Mobile notify server address
Default	Restore server address to default mobile notify server

[Main Menu] → [Event Handler] → Any Event → [Action] → [Buzzer]



Enable	Enable / disable buzzer action of that event
Action Delay	Set the time between turning off and next turning on
Duration	Set the time for turning on the buzzer

[Main Menu] → [Event Handler] → Any Event → [Action] → [Event LED]



Enable	Enable / disable LED action of that event

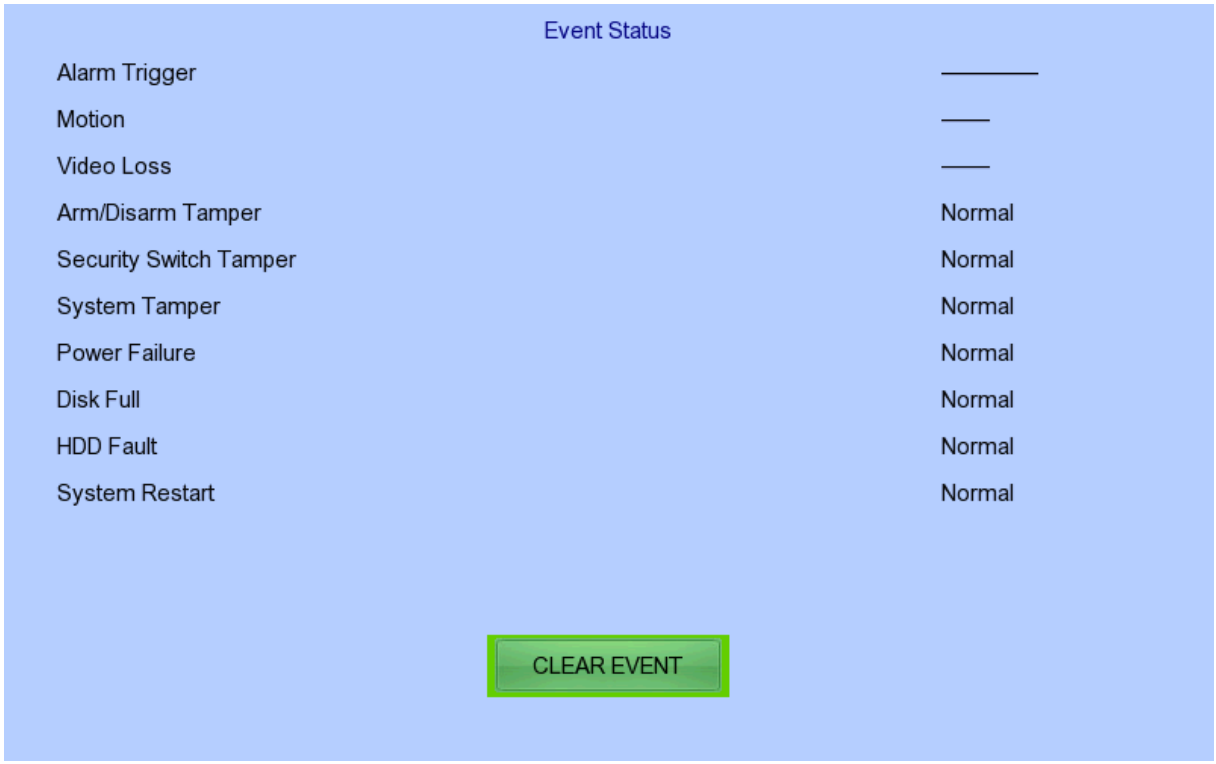
[Main Menu] → [Event Handler] → Any Event → [Action] → [Live Camera]

Enable	Enable / disable live camera action of that event
Local Associate Camera	Select cameras to be displayed in local monitor when event triggers
Remote Associated Camera	Select cameras to be displayed in remote monitor when event triggers

[Main Menu] → [Event Handler] → Any Event → [Action] → [PTZ]

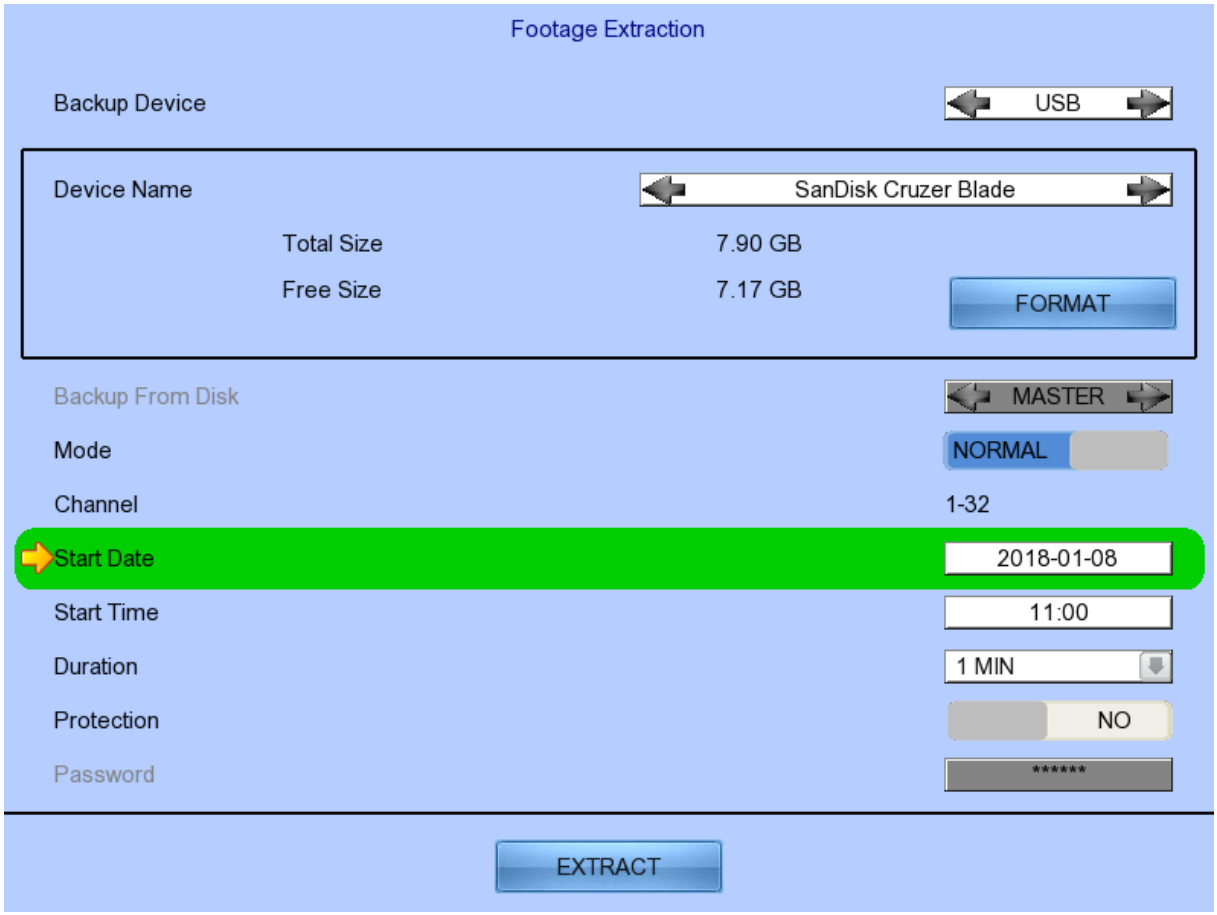
Enable	Enable / disable live camera action of that event
Associate Camera	Select PTZ cameras to be displayed when event triggers
Preset Number	Select preset position of PTZ camera when event triggers

[Main Menu] → [Event Handler] → [Event Status]



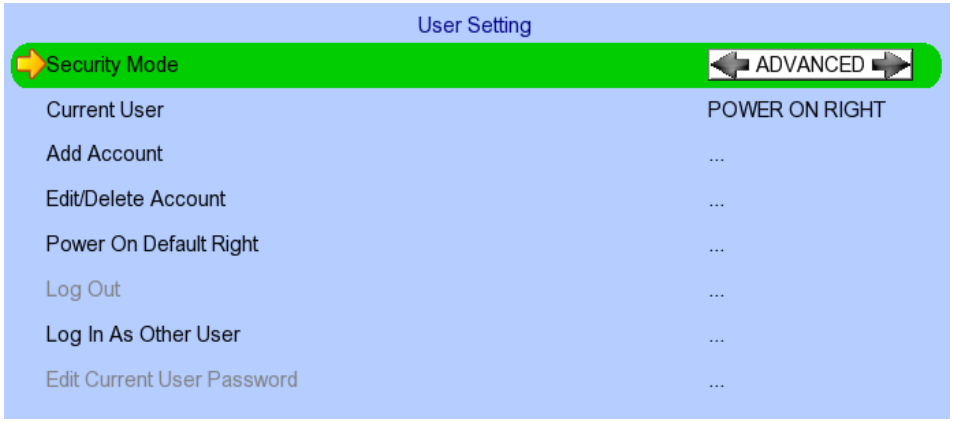
Alarm Trigger	Show alarm trigger status
Motion	Show motion status
Video Loss	Show video loss status
Arm/Disarm Tamper	Show arm/disarm tamper status
Security Switch Tamper	Show security switch tamper status
System Tamper	Show system tamper status
Power Failure	Show power failure input status
Disk Full	Show hard disk usage status
HDD Fault	Show hard disk available status
System Restart	Show system restart status
Clear Event	Clear event that has already reset

[Main Menu] → [Footage Extraction]



Backup Device	Select device for saving the footage
Device Name	Show the name for selected device
FORMAT	Format the selected USB device
Backup From Disk	Select the source directory -MASTER: Source from master hard disk -MIRROR: Source from mirror hard disk
Mode	Set extraction mode -Normal: Extract at the same recording frame rate, with audio -Quick: Extract selected cameras at low frame rate, no audio
Channel	Choose video channels to extract(Select or Quick mode only)
Start Date	Set start date of the footage
Start Time	Set start time of the footage
Duration	Set video length of the footage
Protection	Enable / disable password protection
Password	Set extraction password(Password protection enabled only)
EXTRACT	Start backup using above settings

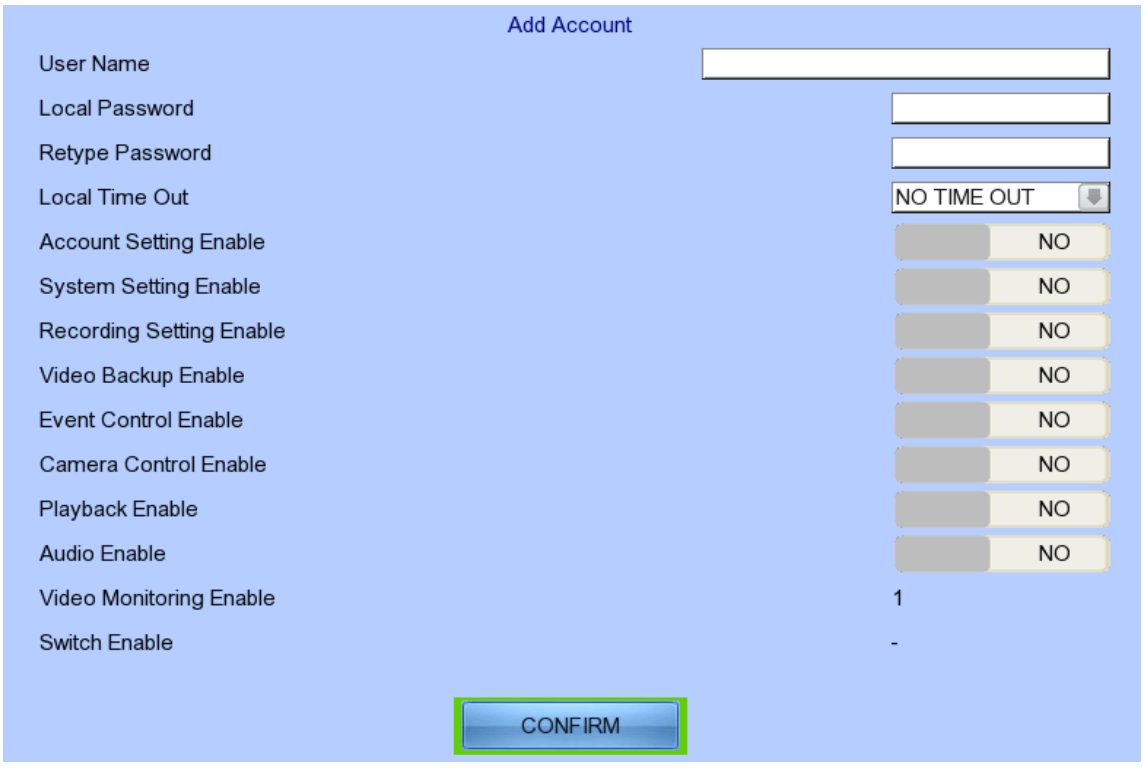
[Main Menu] → [User]



Security Mode	Select security mode Advanced :Log in and access right required
Current User	Display current log in user
Add Account	Add new account (Advanced mode only)
Edit/Delete Account	Edit or remove an account (Advanced mode only)
Power On Default Right	Access right when not logged in (Advanced mode only)
Log out	User log out (Advanced mode only)
Log In As Other User	User log in (Advanced mode only)
Edit Current User Password	Edit current user password

(* For execution, local password of current user is required in advanced mode)

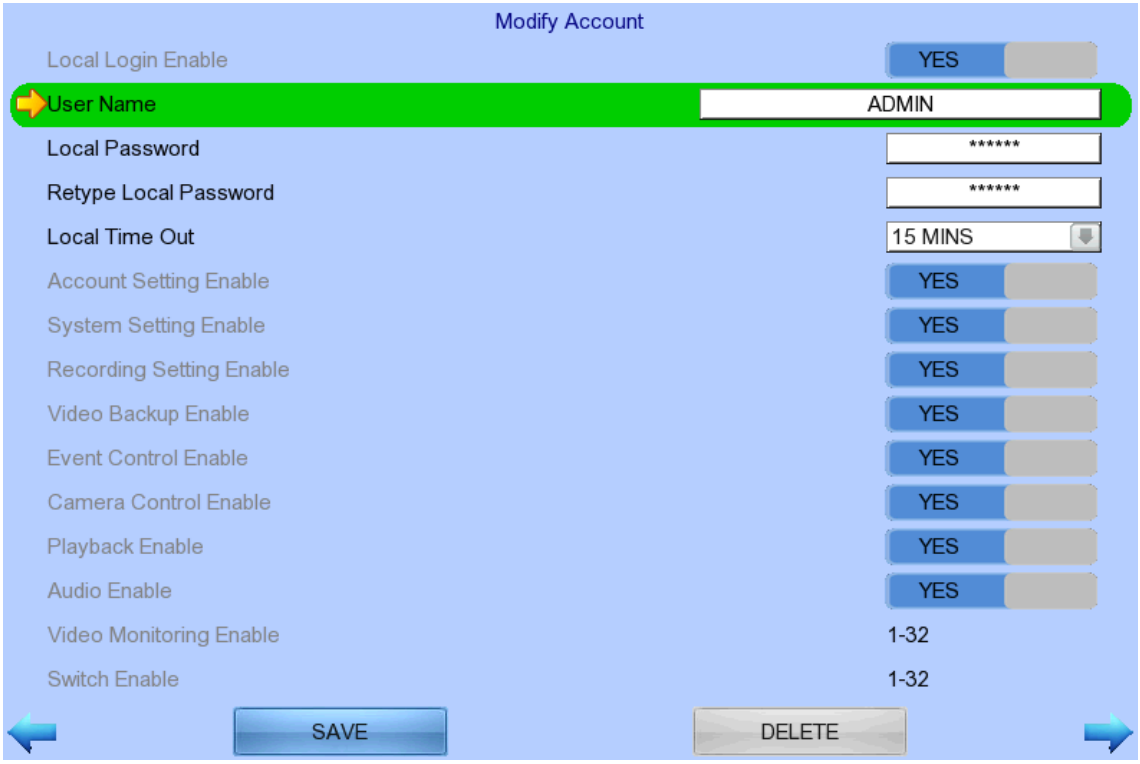
[Main Menu] → [User] → [Add Account]



User Name	User name of new account (4 – 16 characters)
Local Password	Password for local log in (4 – 10 characters)
Retype Local Password	Confirming the password
Local Time Out	Set the auto logout time when no local operation
Account Setting Enable	Access right setting
System Setting Enable	Access right setting
Recording Setting Enable	Access right setting
Video Backup Enable	Access right setting
Event Control Enable	Access right setting
Camera Control Enable	Access right setting
Playback Enable	Access right setting
Audio Enable	Access right setting
Video Monitoring Enable	Access right setting
Switch Enable	Access right setting
CONFIRM	Create the account

[Main Menu] → [User] → [Edit/Delete Account]

Most settings are the same as **[Add Account]** menu.



Local Login Enable	Enable / disable local log in (with remote log in right only)
SAVE	Save the account settings
DELETE	Delete the account
◀ ▶	Show settings of previous / next account

[Main Menu] → [User] → [Power On Default Right]

Most settings are the same as **[Add Account]** menu.

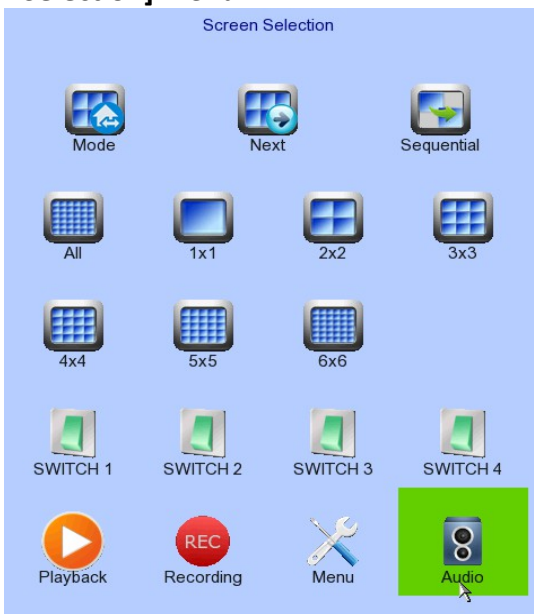
SAVE Save the access rights when server startup or local user log out

5.3. Basic Operation

5.3.1. View Live Video

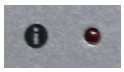
Depends on the model of the TeleEye GN8 HD Digital Video Recorder, user can view up to 16/32 live videos at the same time. User can also choose to supervise the video channel one by one using the sequential mode function.

A. By Mouse

 (Right click)	Open the **[Screen Selection]** menu 

 (Left click)	Click on **[All]**, **[Mode]** and **[next]** to display in different modes or other sets of cameras. Click on **[1x1]**, **[2x2]**, **[3x3]**, **[4x4]**, **[5x5]**, **[6x6]** to change the screen mode Click on **[Sequential]** to start sequential mode.

5.3.2. Recording

To suit different situations, TeleEye GN8 supports 3 recording modes: manual recording, schedule recording and event recording. When a camera is recording, the icon  will be shown next to its name and the LED  will light up in red color.

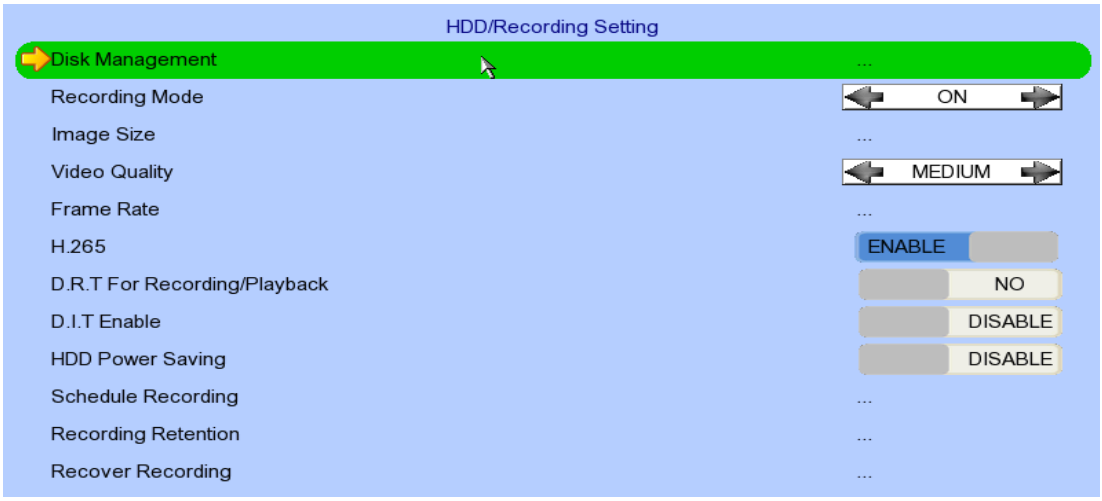
- **Manual Recording** The start/stop operation is controlled manually by operator. Recording will be performed on all cameras once started. When manual recording is on, schedule recording will be disabled.
- **Schedule Recording** Recording will be started and stopped according to user defined schedules. Schedules are set on a weekly basis. When schedule recording is enabled, manual recording will be disabled.
- **Event Recording** Event recording will be activated if an event is triggered with its recording action enabled. It can be performed with manual recording or schedule recording simultaneously. Detail description and setup procedure will be given later in the Advanced Operation section.

To change recording mode quickly, right click mouse to open **[Screen Selection]** and click **[Recording]**.

Recording — Quick menu for selecting recording mode
- Off :Disable recording
- On :Enable recording of all cameras
- Schedule:Enable schedule recording

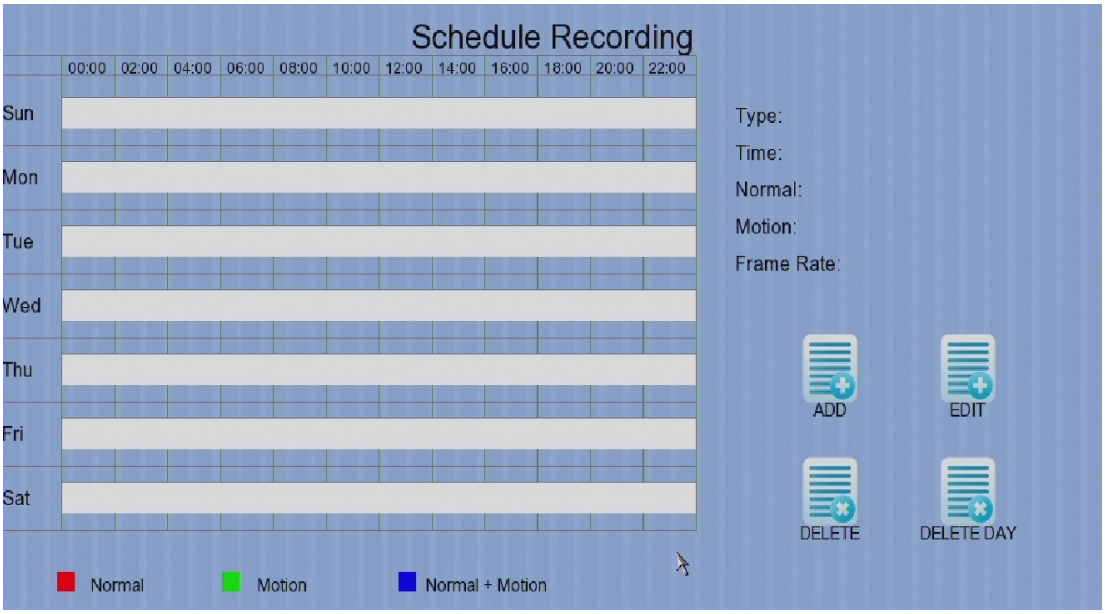
To change other recording settings or edit recording schedules, go to the following menus:

[Main Menu] → [HDD/Recording]



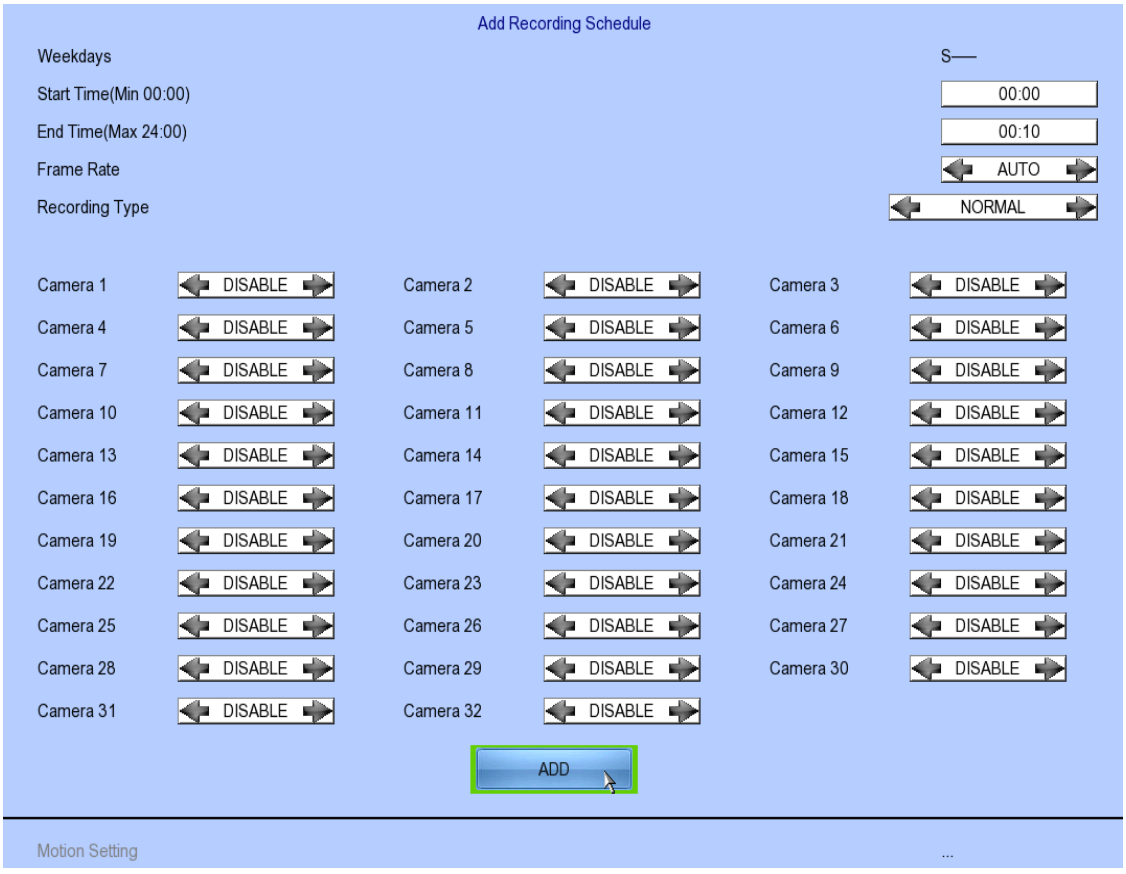
Disk Management	View hard disk information Format, scan or enable/disable disk Enable/disable RAID
Recording Mode	Select recording mode • Off :Disable recording • On :Enable recording of all cameras • Schedule :Enable schedule recording
Image Size	Set recording resolution • 4K : 3840x2160 • WQHD :2048 x 1536 • 1080p :1920 x 1080 • 720p :1080 x 720
Video Quality	Set video quality
Frame Rate	Set recording frame rate, applied to all cameras • Auto :Record at highest achievable frame rate • X fps :Record at X frames per second • Custom :Enable custom frame rate for individual camera
H.265	Set video compression format to H.265
D.R.T For Recording/Playback	Set dynamic resolution
D.I.T Enable	Set dynamic I-frame
HDD Power Saving	Enable/disable HDD power saving
Schedule Recording	View or change recording schedules
Recording Retention	Set recording retention settings
Recover Recording	Recover damaged recorded video

[Main Menu] → [HDD/Recording] → [Schedule Recording]



Add	Add a new recording schedule
Edit	Edit the selected schedule
Delete	Delete selected schedule
Delete Day	Delete all schedules on the same day as the selected schedule

[Main Menu] → [HDD/Recording] → [Schedule Recording] → [Add]



Recording Type	Type of recording schedule • Normal :Record when within schedule • Motion :Record when motion detected and within schedule • Custom :Record based on individual camera setting
Weekdays	Select the weekdays to apply the schedule
Start Time	Set the start time of the schedule
End Time	Set the end time of the schedule
Camera	Select the cameras to apply the schedule
Frame Rate	Set recording frame rate of the schedule (not applicable for Custom frame rate)
ADD	Confirm add the schedule setting
Motion Setting	Set motion detection settings

[Main Menu] → [HDD/Recording] → [Schedule Recording] → [EDIT]

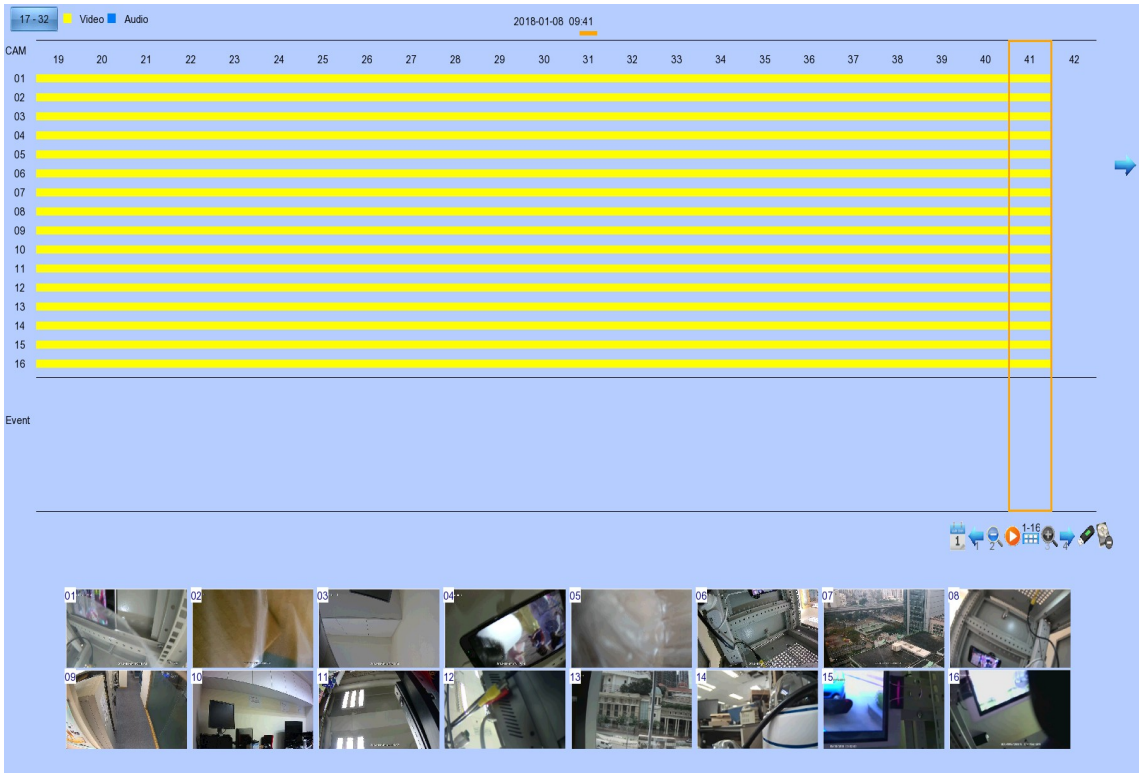
Most settings are the same as **[Add]** menu.

EDIT	Confirm EDIT the schedule setting

5.3.3. Playback

TeleEye GN8 supports user to view recorded video while not affecting the recording process. A maximum of 4 video channels can be played at the same time.

[Main Menu] → [Playback]



Date	Show date of recording log
Time	Show time of recording log
1, 2, ... 16	Show cameras that performed recording in yellow bars
17 - 32	Switch Camera 1 – 16 to 17 – 32
Event Select	Display detail of the selected event
	Show previous / next page of recording log
	Display recording log in smaller time scale
	Display recording log in bigger time scale
	Search recording log by date and time
	Extract video from selected time slot
1-4	Search a camera record

[Main Menu] → [Playback] → [Search By Date]

Date	Set the search date
Time	Set the search time
Today	Set date and time to current time
OK	Search for log closest to the date and time

5.3.4. PTZ

When observing video from local monitor, user can select individual video channel by using (mouse left click). Selected video channel will be pointed by icon. User can press (mouse left click) to take PTZ control, then the selected channel will be highlighted by icon. For analog PTZ supported channel, User can click for taking PTZ command after the command box pop-up on video monitoring screen. User can deselect the PTZ control channel by using , then the video channel will be pointed by icon.

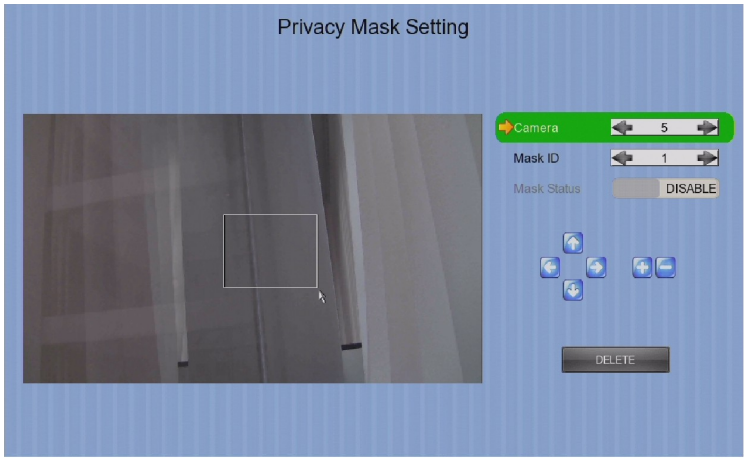
	OSD object selection			Digital /Analog PTZ control
	PTZ tite up			PTZ tite down
	PTZ pan left			PTZ pan right
	PTZ function (only for analog PTZ)			PTZ command subtract (only for analog PTZ)
	PTZ command add (only for analog PTZ)			PTZ command box (only for analog PTZ)
	PTZ command down (only for analog PTZ)			PTZ command up (only for analog PTZ)

For analog PTZ control, user can select different PTZ command by buttons, and control the value by buttons.

ZOOM	Control zoom in or out
RECALL PRESET:X	Recall saved preset position
PROGRAM PRESET:X	Edit preset position
AUTO PAN	Start auto pan
FOCUS	Control focus near or far
IRIS	Control iris on or off
RECALL PATROL:X	Recall saved patrol
STOP PATROL	Stop patrol
CLEAR PATROL	Clear patrol 1
START TOUR REC	Start tour recording
STOP TORU REC	Stop tour recording
SET LIFT LIMIT	Set life limit position for auto pan
SET RIGHT LIMIT	Set right limit position for auto pan
SHOW CAMERA OSD	Camera OSD menu

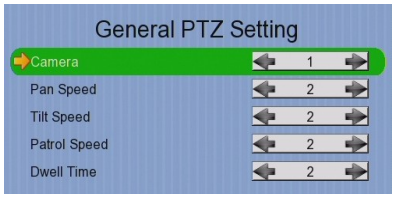
[Main Menu] → [System] → [Privacy Mask Setting]

User can draw privacy mask by mouse or  buttons.



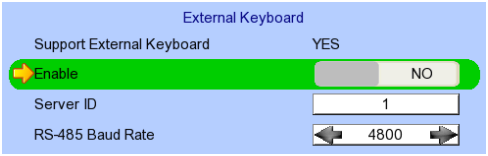
Camera	Selected video channel
Mask ID	Selected privacy mask id
Mask Status	Enable /disable current privacy mask
	change current camera center
	Edit size of selected privacy mask
DELETE	Delete current privacy mask

[Main Menu] → [System] → [General PTZ Setting]



Camera	Selected video channel
Pan Speed	Set pan speed
Tit Speed	Set tilt speed
Patrol Speed	Set patrol speed
Dwell Time	Set dwell time for patrol

[Main Menu] → [System] → [External Keyboard]

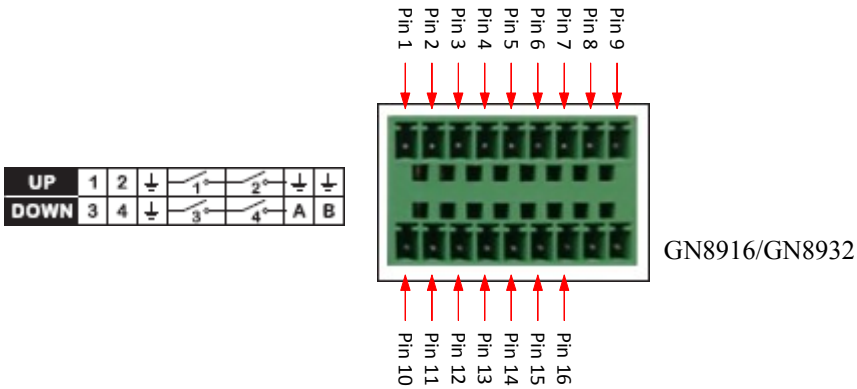


Support External Keyboard	Display support of external keyboard
Enable	Enable external keyboard
Server ID	Set DVR id for PTZ control
RS-485 Baud Rate	Set RS-485 input baud rate

5.4. Advanced Operation

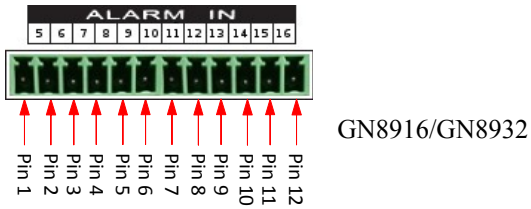
5.4.1. Install Alarm Sensors and Relay Control Port

TeleEye GN8 supports up to 16 alarm for connecting with alarm sensors, 4 additional input sensors and 4 relay ports for control. The definitions of alarm and relay control ports are shown in the following diagram.



Pin assignment for TeleEye GN8916/GN8932

PIN	Function	PIN	Function
Pin 1	Arm/Disarm or Alarm 1	Pin 10	Power Failure or Alarm 3
Pin 2	Security Switch or Alarm 2	Pin 11	System Tamper or Alarm 4
Pin 3	GND	Pin 12	GND
Pin 4	Alarm1 out	Pin 13	Alarm3 out
Pin 5		Pin 14	
Pin 6	Alarm2 out	Pin 15	Alarm4 out
Pin 7		Pin 16	
Pin 8	GND		
Pin 9	GND		



Pin assignment for TeleEye GN8916/GN8932

PIN	Function	PIN	Function
Pin 1	Alarm 5	Pin 7	Alarm 11
Pin 2	Alarm 6	Pin 8	Alarm 12
Pin 3	Alarm 7	Pin 9	Alarm 13
Pin 4	Alarm 8	Pin 10	Alarm 14
Pin 5	Alarm 9	Pin 11	Alarm 15
Pin 6	Alarm 10	Pin 12	Alarm 16

5.4.2. Circuit Detection

TeleEye GN8 supports two type of circuit detection on all alarm inputs including arm/disarm input, security switch input, system tamper and power failure input.

NC/NO : Select circuit open/close as system

5.4.3. Event Handling

TeleEye GN8 HD Digital Video Recorder supports 9 types of event detection and their icons are as follows.

1. Arm/Disarm	
2. Security Switch	
3. Alarm	
4. Motion	
5. Video loss	
6. System Tamper	
7. Power Failure	
8. HDD Fault	
9. System Restart	

Event Icons in Local Monitor

If an event is triggering, its respective icon will be flashing next to the camera name (for motion, video loss) or at the bottom of the screen (for all other event types). If an event has reset and the event status is not yet cleared, the icon will remain static on its original position.

5.4.3.1. Arm/Disarm 

Arm/Disarm input is used for enhancing security level of the surveillance area. This input introduces the concept of 3 zone types of alarm and motion: fire zone, normal and entry/exit zone.

Armed 

If the system is armed, alarm sensor and motion that is set as normal zone can be triggered immediately if someone triggers the sensor or motion detected. It is usually used when there is no operator at surveillance area.

Disarmed

If the system is disarmed, alarm and motion events detected from sensors will not result in an alarm and motion except the fire zone type alarm, motion and arm/disarm tamper. If there are operators at surveillance area, it is usually disarmed.

Arm/Disarm Mode

TeleEye GN8 supports 3 different modes of arm/disarm operation:

- Hardware: Use Arm input to arm/disarm, suitable for local operation
- Software: Use software to arm/disarm, suitable for remote operation
- Schedule: Follow preset schedule to arm/disarm, suitable for unmanned location

☞ *Under software and schedule mode, the security switch is not applicable.*

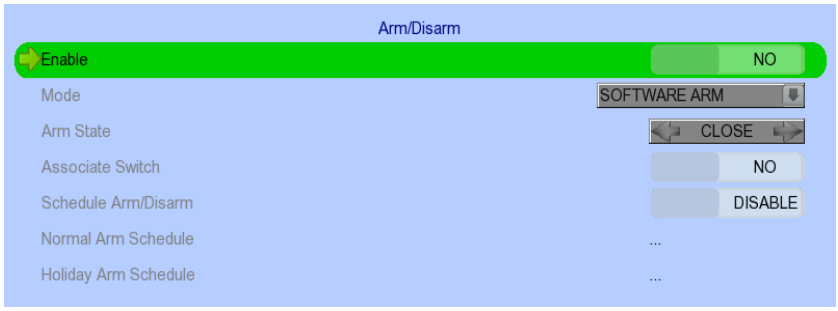
There are 2 types of arm schedules:

Normal Schedule	User can set the arm period in terms of weekday. The system would arm according to this weekly schedule.
Holiday Schedule	User can set the arm date and period for specially handled holiday. If the date is set to holiday schedule, it will follow holiday schedule instead of normal schedule.

Physical Configuration for Arm/Disarm

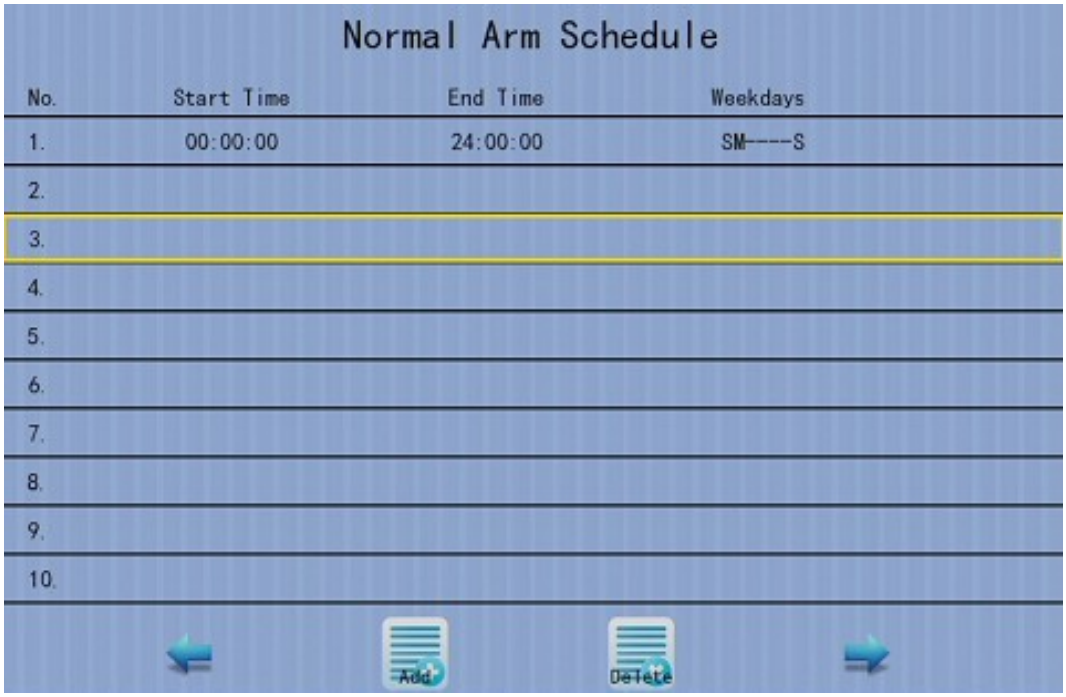
The arm/disarm input and ground of TeleEye GN8 HD Digital Video Recorder needs to connect to a control unit which is commonly a switch or password panel for arm/disarm input.

[Main Menu] → [Event Handler] → [Arm/Disarm]



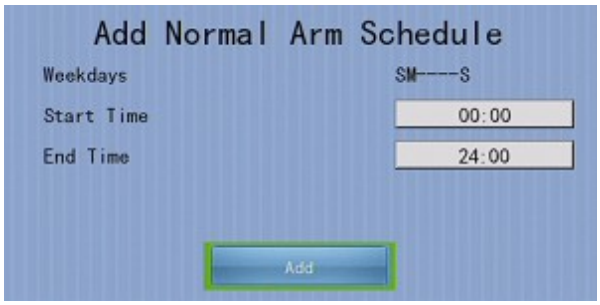
Enable	Enable / disable the arm/disarm control
Mode	Select the arm/disarm mode
Arm State	Select circuit open/close as system armed(Hardware Arm only)
Associate Switch	Associate switch 1 to arm/disarm control status
Schedule Arm/Disarm	Enable / disable schedule arm/disarm (Schedule Arm only)
Normal Arm Schedule	Set weekly arm/disarm schedule (Schedule Arm only)
Holiday Arm Schedule	Set holiday arm/disarm schedule (Schedule Arm only)

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Normal Arm Schedule]



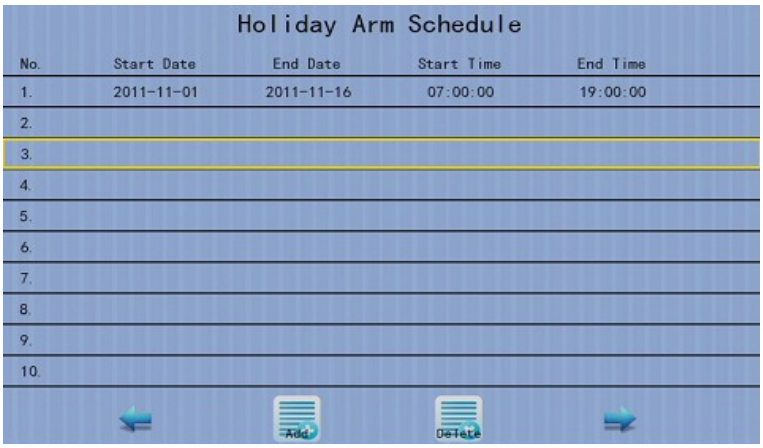
No.	Show the schedule number
Start Time	Show the start time of system armed
End Time	Show the end time of system armed
Weekdays	Show the weekdays the schedule applied to
Add	Add a normal arm schedule
Delete	Delete the selected normal arm schedule
	Show previous / next page of schedules

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Normal Arm Schedule] → [Add]



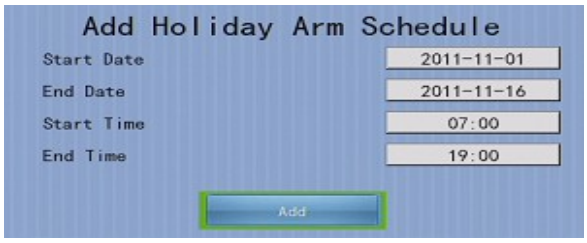
Weekdays	Set the weekdays the new schedule applied to
Start Time	Set the start time of new schedule
End Time	Set the end time of new schedule
Add	Add the new normal arm schedule

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Holiday Arm Schedule]



No.	Show the schedule number
Start Date	Show the start date of schedule
End Date	Show the end date of schedule
Start Time	Show the start time of system armed
End Time	Show the end time of system armed
Add	Add a holiday arm schedule
Delete	Delete the selected holiday arm schedule
	Show previous / next page of schedules

[Main Menu] → [Event Handler] → [Arm/Disarm] → [Holiday Arm Schedule] → [Add]



Start Date	Set the start date of new schedule
End Date	Set the end date of new schedule
Start Time	Set the start time of new schedule
End Time	Set the end time of new schedule
Add	Add the new holiday arm schedule

5.4.3.2. Security Switch 

It is an input to the digital video recorder for wiring a security switch. The purpose of the security switch is to terminate the exit delay for exit zone alarm. If the security switch is on and the system is armed, all exit delay will be terminated. If the security switch is off and an entry alarm is triggered, entry delay will start.

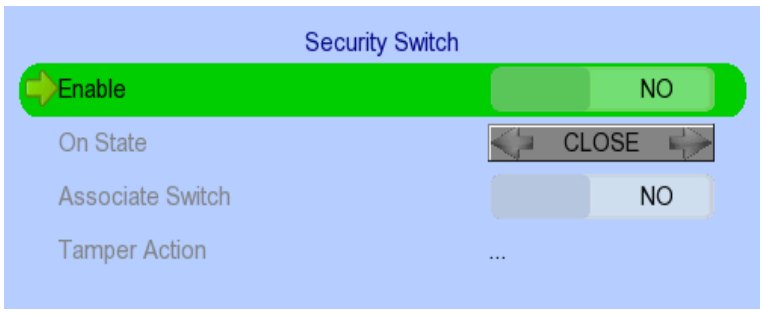
- **On State**

If security switch on state is set to close, it indicates security switch on and off of TeleEye GN8 when the state of the circuit is closed and open respectively. Oppositely, if security switch on state is set to open, it indicates security switch on and off of TeleEye GN8 when the state of the circuit is open and closed respectively.

- **Physical Configuration for Security Switch**

The security switch input and ground of TeleEye GN8 digital video recorder needs to connect to a control circuit which is commonly the lock of the surveillance area for security switch input.

[Main Menu] → [Event Handler] → [Security Switch]



5.4.3.3. Alarm

It is an input to the digital video recorder from external alarm sensors. Alarm can be used to detect many events occur at the surveillance area, such as fire and illegal entering by someone. The alarm event supports BS 8418:2003 which has arm/disarm and security switch functions.

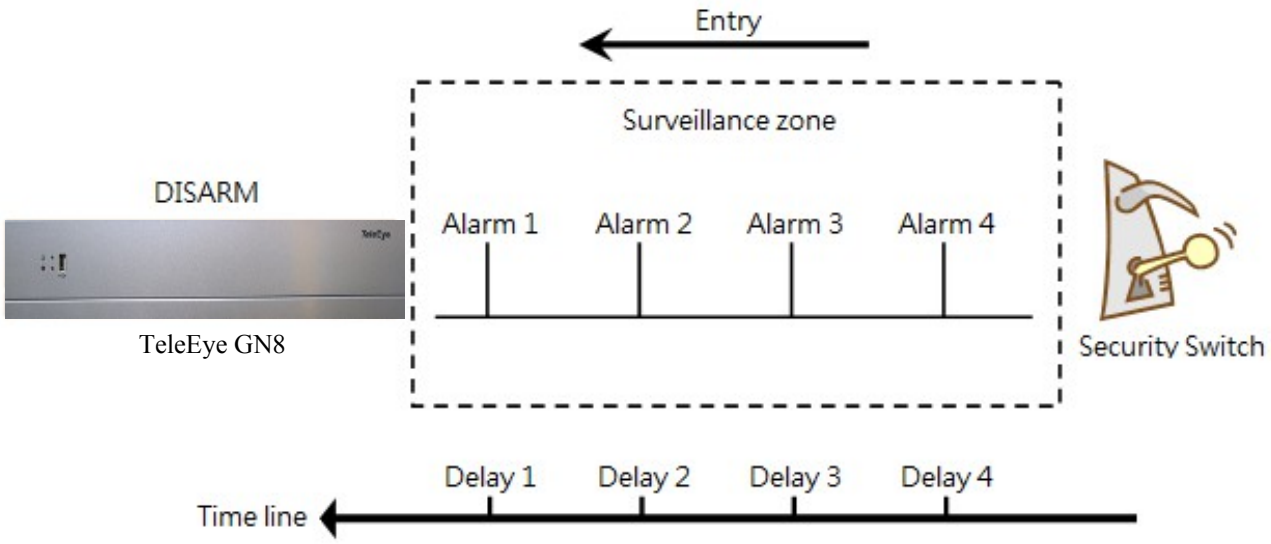
- **Zone Type**

All alarm sensors can be associated with zone types if Arm/Disarm input is installed.

Normal Zone	This zone allows alarms to be triggered after system armed.
Fire Zone	This zone allows alarms to be triggered no matter which arm state of the system is, i.e. armed or disarmed. It is suitable for installation of fire detectors
Entry/Exit Zone	This zone allows user to set the delay time for entering or leaving the surveillance area without triggering any alarm event. If alarm recording action is enabled, recording starts at entry or exit time throughout the delay.

Example of Entry/Exit Zone **WITH** Security Switch Usage

For Entry Zone:



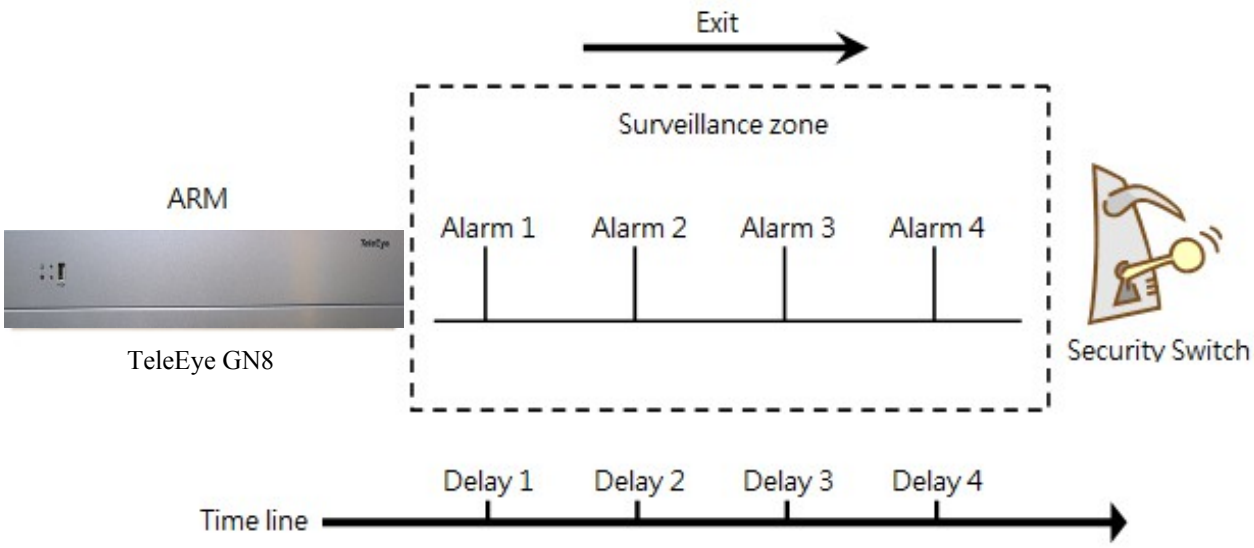
The entry delay is the period of time between entering the surveillance zone and reaching the digital video recorder. In order to disarm the system for maintenance or repair, user / installer needs to turn off the security switch and enter the surveillance zone. The delay timer starts from the 1st trigger by the 1st alarm sensor (i.e. Alarm 4). Note that if user enables recording action, recording action is automatically activated during entry delay.

The detail description is shown as follows:

1. User turns off security switch
2. The alarm is set at entry delay
3. The 1st trigger is made by Alarm 4 (i.e. user enters the surveillance zone and the entry delay time begins)
4. 2nd, 3rd and 4th trigger are made and each entry delay starts respectively
5. User disarms the system for maintenance

For example: If the time for going from security switch to digital video recorder is about 8 minutes, Delay 4 should be around 8 minutes, while Delay 3 should be longer than the time for going from security switch to Alarm 3, and so on.

For Exit Zone:



The exit delay is the period of time for leaving a surveillance zone without making false alarm (i.e. Alarm 1 to Alarm 4). The purpose is to let the user / installer have enough time to leave the surveillance zone after the digital video recorder is armed. User / installer can set the delay time for each alarm. Note that if user enables recording action, recording will be activated when an alarm is triggered during exit delay.

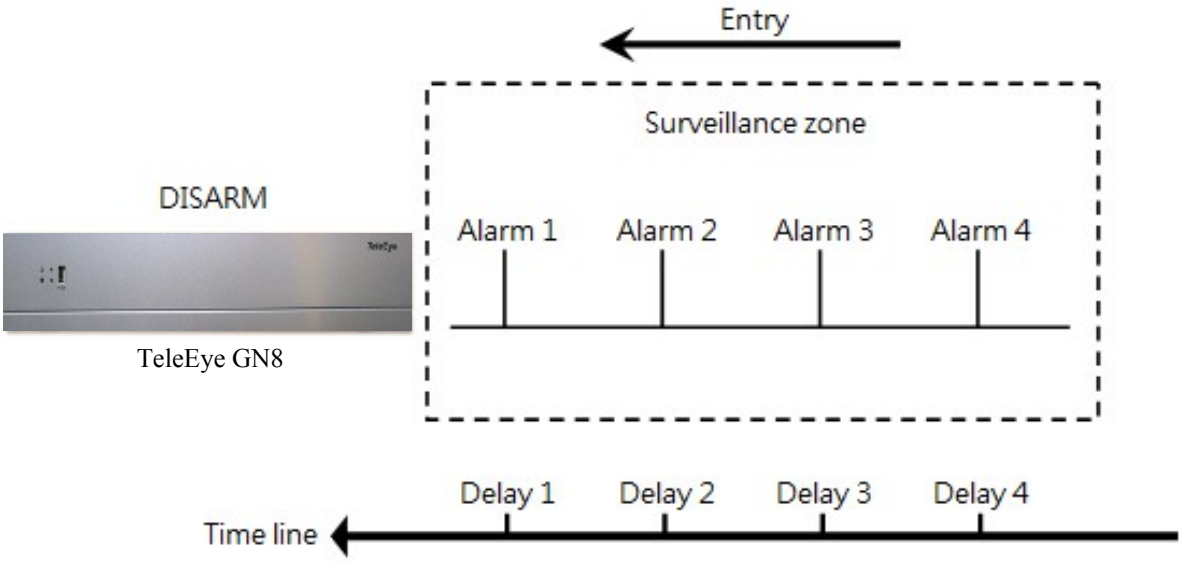
The detail description is shown as follows:

1. User arms the system
2. The alarm is set at exit delay and timer of all alarms begin
3. The 1st trigger is made by Alarm 1 (i.e. user leaves the surveillance zone)
4. 2nd, 3rd and 4th triggers are made respectively
5. User turns on the security switch or waits for all alarm exit delays to expire.

For example, if the time for leaving the surveillance zone is about 8 minutes, user should adjust the delay time so that Delay 1 = leaving time between the digital video recorder and Alarm 1, Delay 2 = leaving time between digital video recorder and Alarm 2, Delay 3 = leaving time between digital video recorder server and Alarm 3 and Delay 4 should be 8 minutes. The alarm will be activated after the exit delay expired.

Example of Entry/Exit Zone **WITHOUT** Security Switch Usage

For Entry Zone:



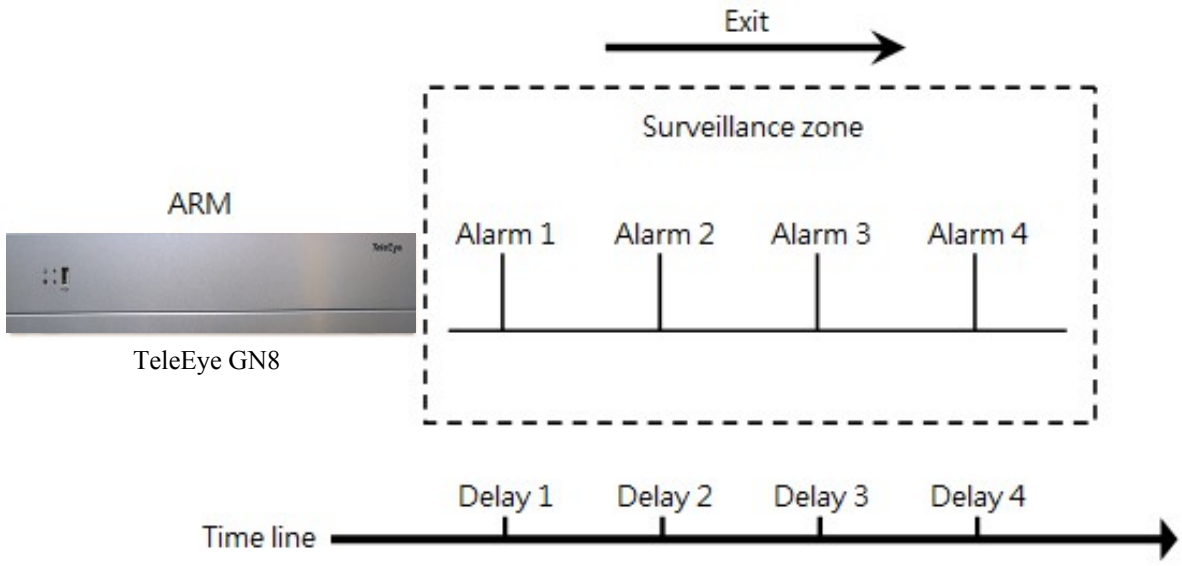
The entry delay is the period of time between entering the surveillance zone and reachingthe digital video recorder. In order to disarm the system for maintenance or repair, user / installer enters the surveillance zone. The delay timer starts from the 1st trigger by the 1st alarm sensor (i.e. Alarm 4). Note that if user enables recording action, recording action is automatically activated during entry delay.

The detail description is shown as follows:

1. The alarm is set at entry delay
2. The 1st trigger is made by Alarm 4 (i.e. user enters the surveillance zone and the entry delay time begins)
3. 2nd, 3rd and 4th trigger are made and each entry delay starts respectively
4. User disarms the system for maintenance

For example: If the time for going from security switch to digital video recorder is about 8 minutes, Delay 4 should be around 8 minutes, while Delay 3 should be longer than the time for going from security switch to Alarm 3, and so on.

For Exit Zone:



The exit delay is the period of time for leaving a surveillance zone without making false alarm (i.e. Alarm 1 to Alarm 4). The purpose is to let the user / installer have enough time to leave the surveillance zone after the digital video recorder is armed. User / installer can set the delay time for each alarm. Note that if user enables recording action, recording will be activated when an alarm is triggered during exit delay.

The detail description is shown as follows:

1. User arms the system
2. The alarm is set at exit delay and timer of all alarms begin
3. The 1st trigger is made by Alarm 1 (i.e. user leaves the surveillance zone)
4. 2nd, 3rd and 4th triggers are made respectively
5. User waits for all alarm exit delays to expire.

For example, if the time for leaving the surveillance zone is about 8 minutes, user should adjust the delay time so that Delay 1 = leaving time between digital video recorder and Alarm 1, Delay 2 = leaving time between digital video recorder and Alarm 2, Delay 3 = leaving time between digital video recorder and Alarm 3 and Delay 4 should be 8 minutes. The alarm will be activated after the exit delay expired.

Different Combination of Cases of Arm/Disarm, Security Switch and Alarm for the 3 Zone Type

Initial State			Step 1	Step 2	Step 3	Result
Alarm	**Arm**	**Security Switch**				
Fire Zone						
No trigger	Arm	On	Trigger alarm	\	\	Alarm trigger
	Arm	Off	Trigger alarm	\	\	Alarm trigger
	Arm	Uninstall	Trigger alarm	\	\	Alarm trigger
	Disarm	\	Trigger alarm	\	\	Alarm trigger
	Uninstall	\	Trigger alarm	\	\	Alarm trigger
	Uninstall	Uninstall	Trigger alarm	\	\	Alarm trigger
Normal Zone						
No trigger	Arm	On	Trigger alarm	\	\	Alarm trigger
	Arm	Off	Trigger alarm	\	\	Alarm trigger
	Arm	Uninstall	Trigger alarm	\	\	Alarm trigger
	Disarm	\	Trigger alarm	\	\	No alarm trigger
	Uninstall	\	Trigger alarm	\	\	Alarm trigger
	Uninstall	Uninstall	Trigger alarm	\	\	Alarm trigger
Entry/Exit Zone						
No trigger	Arm	On	Trigger alarm	\	\	Alarm trigger
	Disarm	Off	Arm. Exit delay starts	Trigger alarm. Recording starts if action enabled	Security switch on. Exit delay ends. Recording stops	Alarm can be triggered any time after that
					Exit delay ends after preset exit time. Recording stops	Alarm can be triggered any time after that
	Arm	On	Security switch off	Trigger alarm. Entry delay starts. Recording starts if action enabled	Disarm	No alarm trigger. Recording stops
					Entry delay ends after preset entry time	Alarm trigger. Recording don't stop unless disarm
	Disarm	Uninstall\	Arm. Exit delay starts	Trigger alarm. Recording starts if action enabled	Exit delay ends after preset exit time. Recording stops	System enter entry delay automatically after next alarm trigger
	Arm	Uninstall	Trigger alarm. Entry delay starts. Recording starts if action enabled	Disarm	\	No alarm trigger. Recording stops
				Entry delay ends after preset entry time	\	Alarm trigger. Recording don't stop unless disarm
	Disarm		Trigger alarm	\	\	No alarm trigger
	Uninstall		Trigger alarm	\	\	Alarm trigger
	Uninstall	Uninstall	Trigger alarm	\	\	Alarm trigger

Physical Configuration for Alarm

The alarm input and ground of TeleEye GN8 HD digital video recorder need to connect to various kinds of sensors which are commonly installed at entrance or special part of the surveillance area.

[Main Menu] → [Event Handler] → [Alarm]

Alarm	Select an alarm
Enable	Enable / disable the alarm
Name	Change the name of alarm
Source Type	Select source of alarm • BUILT IN: use video server on board alarm • CAMERA: use external camera alarm
Sensor Type	Select circuit open/close as normal alarm state
Zone	Set the zone type:
Entry Delay	Set the entry delay time (Entry/Exit Zone only)
Exit Delay	Set the exit delay time (Entry/Exit Zone only)
Action	Set actions taken when alarm is triggered or tampered
ENABLE/DISABLE ALL	Enable / disable all alarm

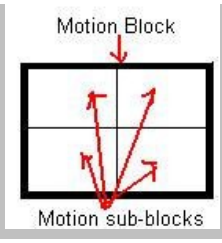
5.4.3.4. Motion

Motion detection can be triggered when motion occurs on the camera. Motion detection has different sensitivity levels, which can be set up individually on each video input channel. There are generally 4 options: high, middle, low and custom. Custom option allows user to select the sensitivity level and detection area themselves.

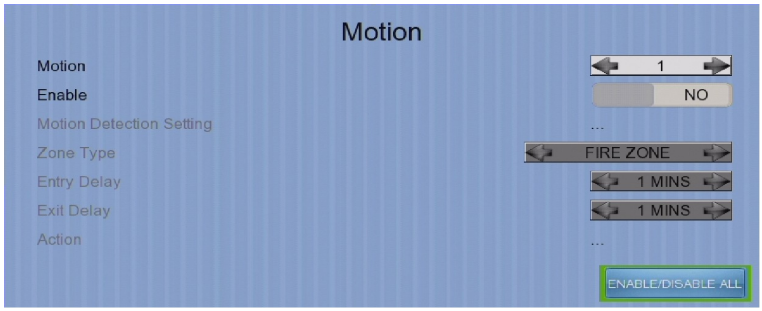
Motion detection example:
The selected motion detection area is the crossed area in green color. The motion block will turn to red color when movement is detected.
The normal display area cannot detect any motion.

Sensitivity

Level	The definition of level in motion detection is the difference in luminance level between current and reference field. The level range is 1 to 10, with 1 being the most sensitive and 10 being the least sensitive.
Area	In motion detection, one selected motion block is internally divided into four sub-blocks. The definition of area is how many sub-blocks have detected motion in order to trigger a motion event. Any value between 1 and 4 can be set. The more sub-blocks are selected, the lower the motion sensitivity is.

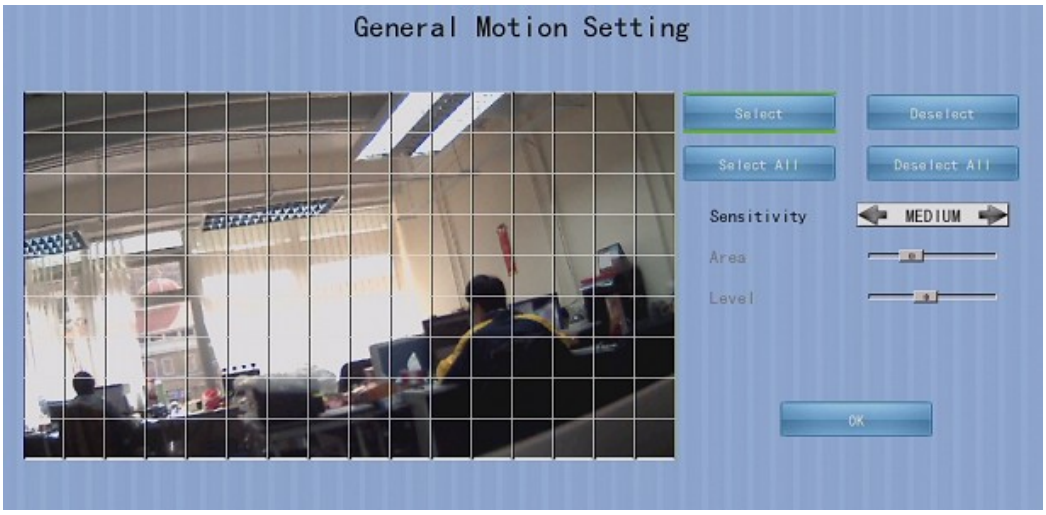


[Main Menu] → [Event Handler] → [Motion]



Camera	Select a camera
Enable	Enable / disable motion event
Motion Detection Setting	Set motion detection settings
Zone	Set the zone type:
Entry Delay	Set the entry delay time (Entry/Exit Zone only)
Exit Delay	Set the exit delay time (Entry/Exit Zone only)
Action	Set actions taken when motion is detected
ENABLE/DISABLE ALL	Enable / disable all motion

[Main Menu] → [Event Handler] → [Motion] → [Motion Detection Setting]



Select	Select motion blocks
Deselect	Deselect motion blocks
Select All	Select all motion blocks
Deselect All	Deselect all motion blocks
Sensitivity	Set the sensitivity level
Area	Set the area sensitivity (Custom sensitivity only)
Level	Set the light sensitivity (Custom sensitivity only)
OK	Save the motion detection settings

5.4.3.5. Video Loss

Video loss event will be triggered when the video channel input disappears, or the digital video recorder receives no signal from the camera. When this happens, a blue screen would be displayed on the local monitor.

[Main Menu] → [Event Handler] → [Video Loss]

Camera	Select a camera
Enable	Enable / disable video loss event
Action	Set actions taken when video loss is detected

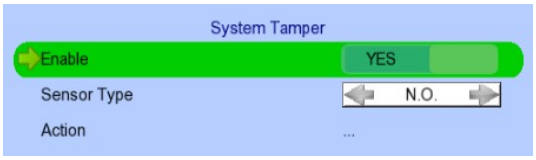
5.4.3.6. System Tamper

It is an input to the digital video recorder for wiring a tamper switch of the external cabinet outside the digital video recorder and its accessories. The purpose of system tamper event is to prevent someone from breaking into the cabinet and destroying the digital video recorder.

Physical Configuration for System Tamper

The system tamper input and ground of TeleEye GN8 HD digital video recorder need to connect to an external cabinet which is used for protecting the digital video recorder and its accessories

[Main Menu] → [Event Handler] → [System Tamper]



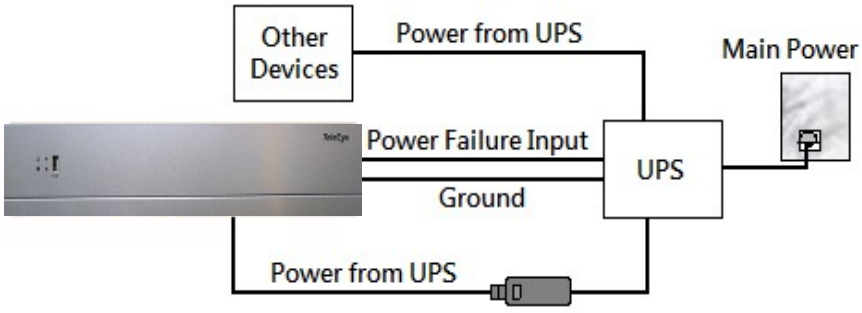
Enable	Enable / disable system tamper event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when system tamper is triggered

5.4.3.7. Power Failure

It is an input to the digital video recorder typically used for wiring the output signal pin from an uninterruptible power supply (UPS).

Physical Configuration for Power Failure Input

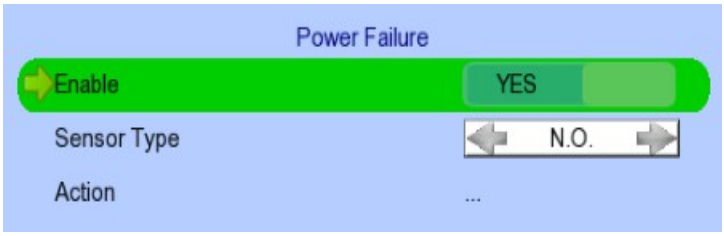
The power failure input and ground of TeleEye GN8 digital video recorder need to connect to an universal power supply circuit UPS in order to detect any power failure condition.



UPS provides backup power in certain period and send a power failure signal to GN8 when the main power does not work.

☞ *The UPS circuit setup above is used as an example. Not all UPS have signal output. Some UPS have self-testing for a period of time. Their signal output may toggle during test.*

[Main Menu] → [Event Handler] → [Power Failure]



Enable	Enable / disable power failure event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when power failure is detected

5.4.3.8. HDD Fault

HDD fault event will be triggered when hard disk failure, bad health or hard disk change with respect to checklist is detected.

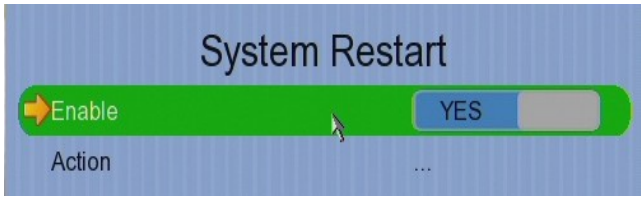
[Main Menu] → [Event Handler] → [HDD Fault]

Enable	Enable / disable the HDD fault event
Action	Set actions taken when disk failure or lost

5.4.3.9. System Restart

System restart event will be triggered when abnormal restart of video recorder is detected.

[Main Menu] → [Event Handler] → [System Restart]



Enable	Enable / disable the system restart event
Action	Set actions taken when system restarted abnormally

5.4.4. Event Action

TeleEye GN8 HD Digital Video Recorder supports 9 types of actions that can be activated by any events mentioned in above section.

1. Recording
2. Switch
3. Dialback
4. E-mail
5. Mobile Notification
6. Buzzer
7. Event LED
8. Live Camera
9. PTZ

5.4.4.1. Recording

When an event is triggered, video recording will be performed on user selected cameras with selected recording mode.

Pre-Event Recording

Pre-event recording allows video recording before an event is triggered. The period of pre-event recording is between 1 and 2 minutes before the event is detected. User can find that there is at least 1 more minute of video in the recording log before event triggering.

Post-Event Recording

After the event is reset, recording will continue until user defined duration time is reached.

[Main Menu] → [Event Handler] → Any Event → [Action] → [Recording]

Enable	Enable / disable event recording of that event
Recording Mode	Set event recording frame rate • Auto :Record at highest achievable frame rate. The storage size is large. • 1 fps :Record at 1 frame per second. Storage size is comparably small.
Duration After Event Clear	Set the post-event recording time
Recording Camera	Select cameras performing event recording

5.4.4.2. Switch

The switch action allows the digital video recorder to control 1 external relays which are defined by user.

Switch Type

Two types of switch are supported:

- Latching : The switch turns on for a period of time.
- Push-button: The switch turns off 1 second after it is turned on.

Latch Duration

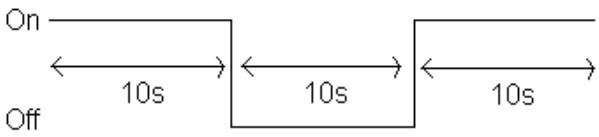
Latch duration is the period of time for turning on the latching type switch.

Action Delay

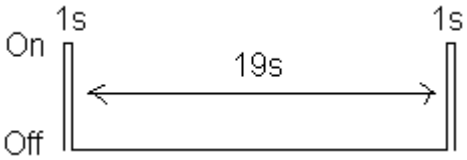
Action delay is the period of time after the switch is turned off and before turning on again.

Example of Latch Duration and Action Delay

Assuming that the latch duration is 10sec and action delay is 10sec. If an event is triggered, the on/off status of the switch versus time is shown below.

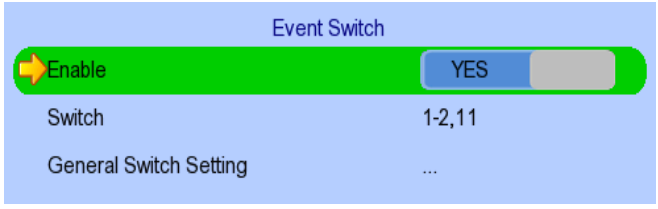


Latching type switch



Push-button type switch

[Main Menu] → [Event Handler] → Any Event → [Action] → [Switch]



Enable	Enable / disable switch action of that event
Switch	Select switches turning on when event triggers
General Switch Setting	Set the latch duration and action delay

5.4.4.3. Dialback

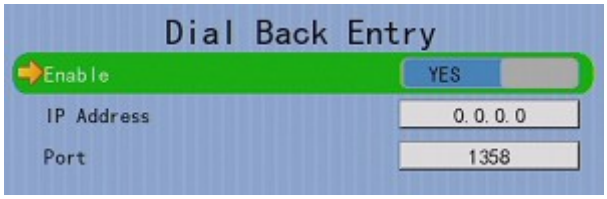
Dialback allows the digital video recorder to connect to one remote PC through TCP/IP and displays live video in case an event is triggered. As a result, remote operator can recognize what situation is at the surveillance area.

☞ *The Java web page can't respond to this request, software like TeleEye sureSIGHT or sureGUARD needs to be installed to the PC to perform dialback.*

[Main Menu] → [Event Handler] → Any Event → [Action] → [Dial Back]

Enable	Enable / disable dialback action of that event
Retry Duration (Sec)	Set the time between each dialback retrial
Retry Count	Set the number of retrial if dialback fails
Entry X	Change the settings of dialback entry X
Dial Back Test	Start the dial back test

[Main Menu] → [Event Handler] → Any Event → [Action] → [Dial Back] → [Dial Back Entry]

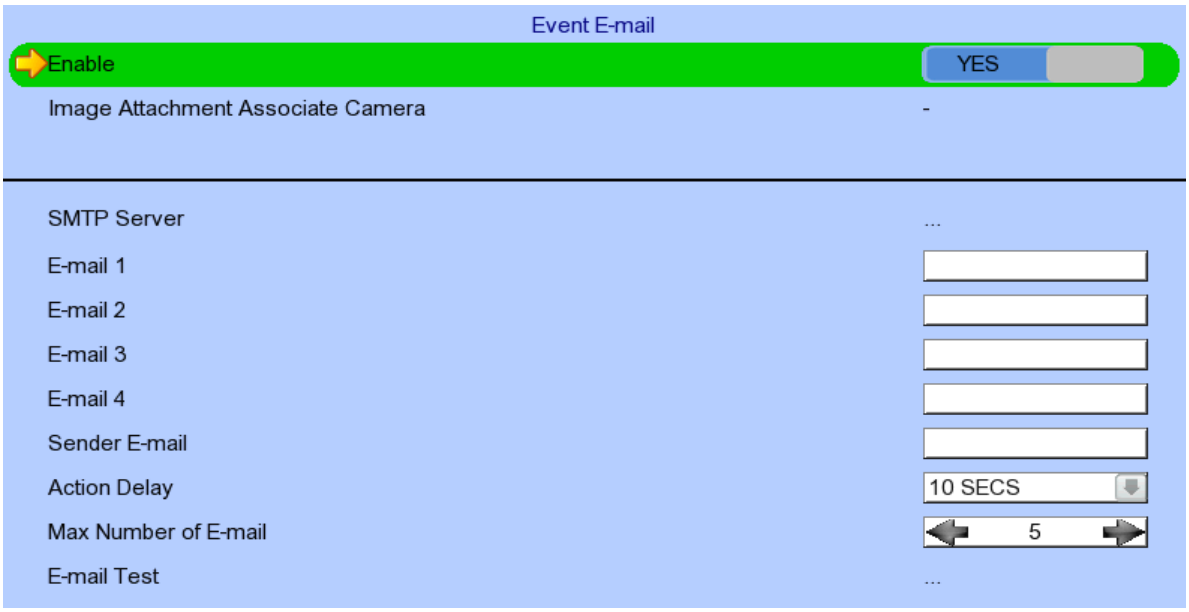


Enable	Enable / disable the dialback entry
IP Address	Set the dialback IP address when event triggers
Port	Set the dialback port when event triggers

5.4.4.4. E-mail

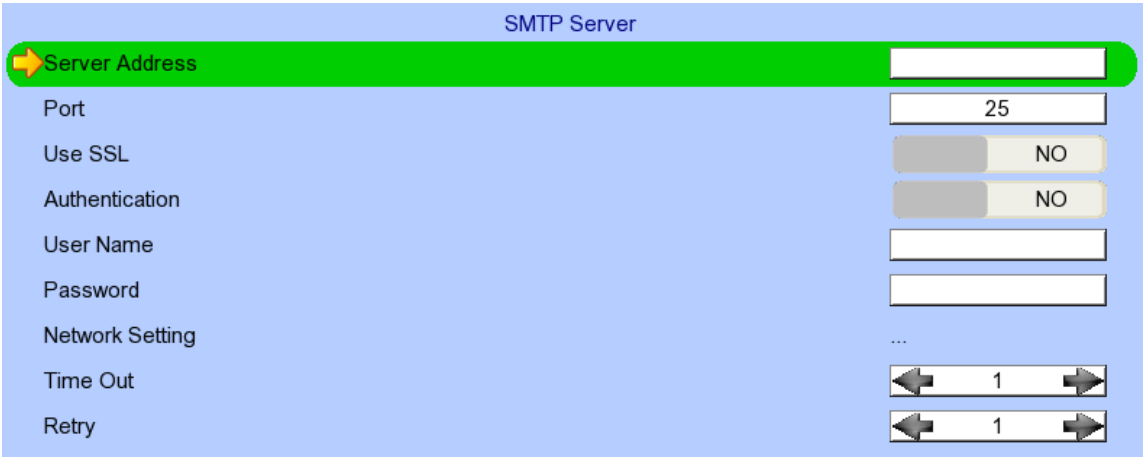
The e-mail action supports user to send e-mails to recipient address in order to notify the status of triggered event.

[Main Menu] → [Event Handler] → Any Event → [Action] → [E-mail]



Enable	Enable / disable e-mail action of that event
Image Attachment Associate Camera	Change event associated camera for image attachment
SMTP Server	Change SMTP settings
E-mail X	Set the e-mail address of recipient X
Sender E-mail	Set the e-mail address of sender
Action Delay	Set the minimum time between 2 e-mails of the same event
Max Number of E-mail	Set the maximum e-mails of an event until event clear
E-mail Test	Start the e-mail test

[Main Menu] → [Event Handler] → Any Event → [Action] → [E-mail] → [SMTP Server]

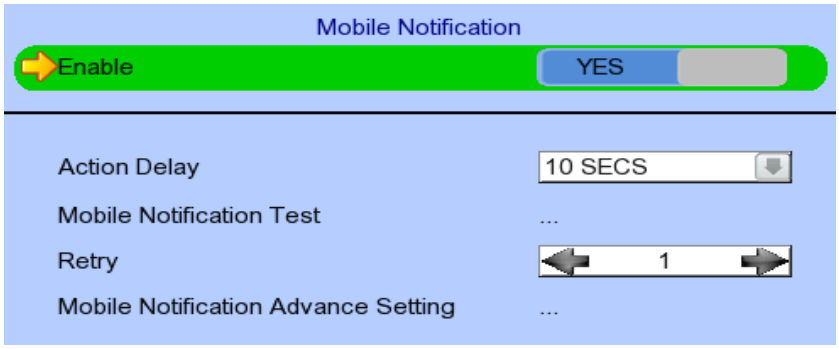


Server Address	Set the SMTP server address
Port	Set the SMTP server port
Use SSL	Is SSL required for the SMTP server
Authentication	Is authentication required for the SMTP server
User Name	Set user name used in authentication
Password	Set password used in authentication
Network Setting	Change the network settings
Time Out	Set the allowed time of sending an e-mail in each trial (in minute)
Retry	Set the number of retrial if fails to send the mail

5.4.4.5. Mobile notification

The mobile notification action supports user to receive a notification in order to notify the status of triggered event.

[Main Menu] → [Event Handler] → Any Event → [Action] → [Mobile Notification]



Enable	Enable / disable mobile notification action of that event
Action Delay	Set the minimum time between 2 message of the same event
Mobile Notification Test	Start the mobile notification test
Retry	Set the number of retrial if fails to send the message
Mobile Notification Advance Setting	Set mobile notification server

5.4.4.6. Buzzer

The built-in buzzer of the digital video recorder can give “Beep” sound that draws nearby operator’s attention when an event is triggered.

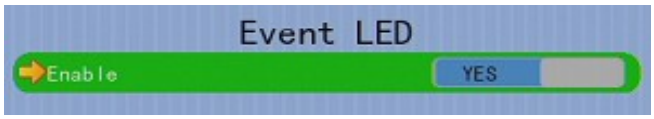
[Main Menu] → [Event Handler] → Any Event → [Action] → [Buzzer]

Enable	Enable / disable buzzer action of that event
Action Delay	Set the time between turning off and next turning on
Duration	Set the time for turning on the buzzer

5.4.4.7. Event LED

The event LED is the LED  built on the front panel of TeleEye GN8. If an event is triggered, the LED will keep blinking until the event is cleared.

[Main Menu] → [Event Handler] → Any Event → [Action] → [Event LED]

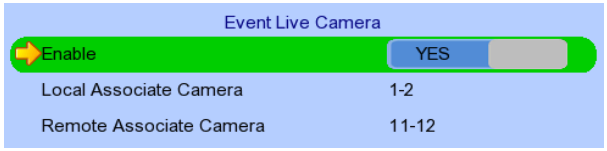


Enable	Enable / disable LED action of that event

5.4.4.8. Live Camera

Event associated live camera displays real time live video of pre-selected cameras when an event is triggered. Operator can immediately know what is happening at the site. The live camera action would only be performed once until user clears the event.

[Main Menu] → [Event Handler] → Any Event → [Action] → [Live Camera]



Enable	Enable / disable live camera action of that event
Local Associate Camera	Select cameras to be displayed in local monitor when event triggers
Remote Associated Camera	Select cameras to be displayed in remote monitor when event triggers

5.4.4.9. PTZ

Event associated PTZ camera will move to set preset position when an event is triggered. Operator can immediately know what is happening at the site. The PTZ action would only be performed once until user clears the event.

[Main Menu] → [Event Handler] → Any Event → [Action] → [PTZ]

Enable	Enable / disable live camera action of that event
Associate Camera	Select PTZ cameras to be displayed when event triggers
Preset Number	Select preset position of PTZ camera when event triggers

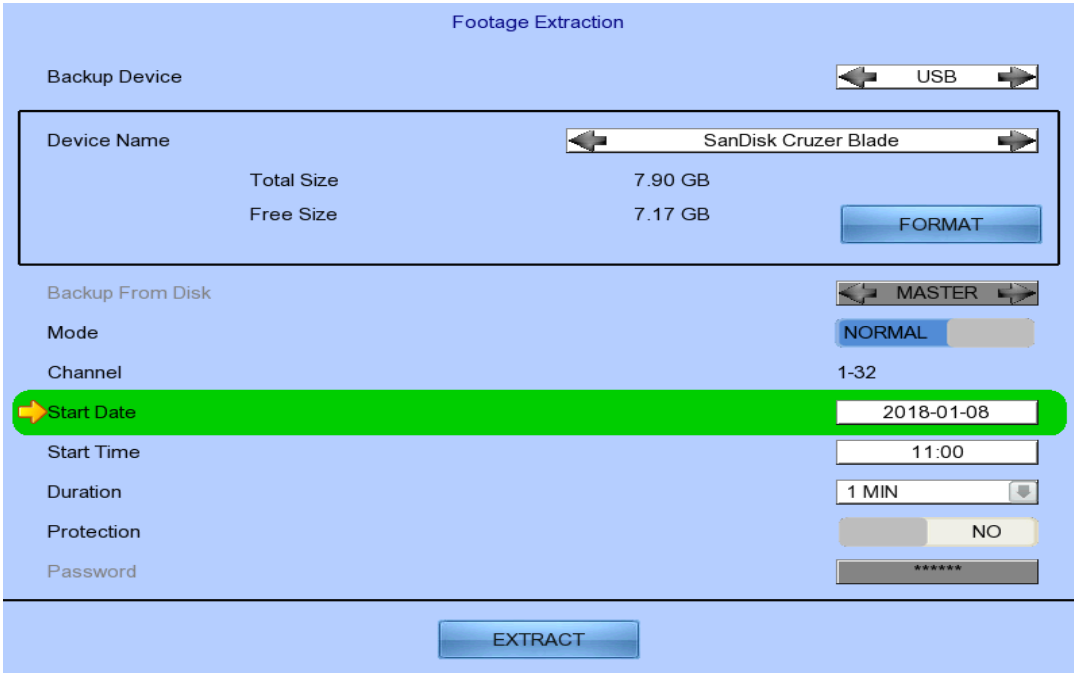
5.4.5. Footage Extraction

Video footage can be extracted to USB flash device for evidence purposes. Back up video can be played in any PC without special software.

There are 2 extraction modes available:

- Normal mode : Extract recording at original frame rate, with audio
- Quick : Extract recording at lower than it's frame rate without audio, so that this mode can save extracted file size

[Main Menu] → [Footage Extraction]

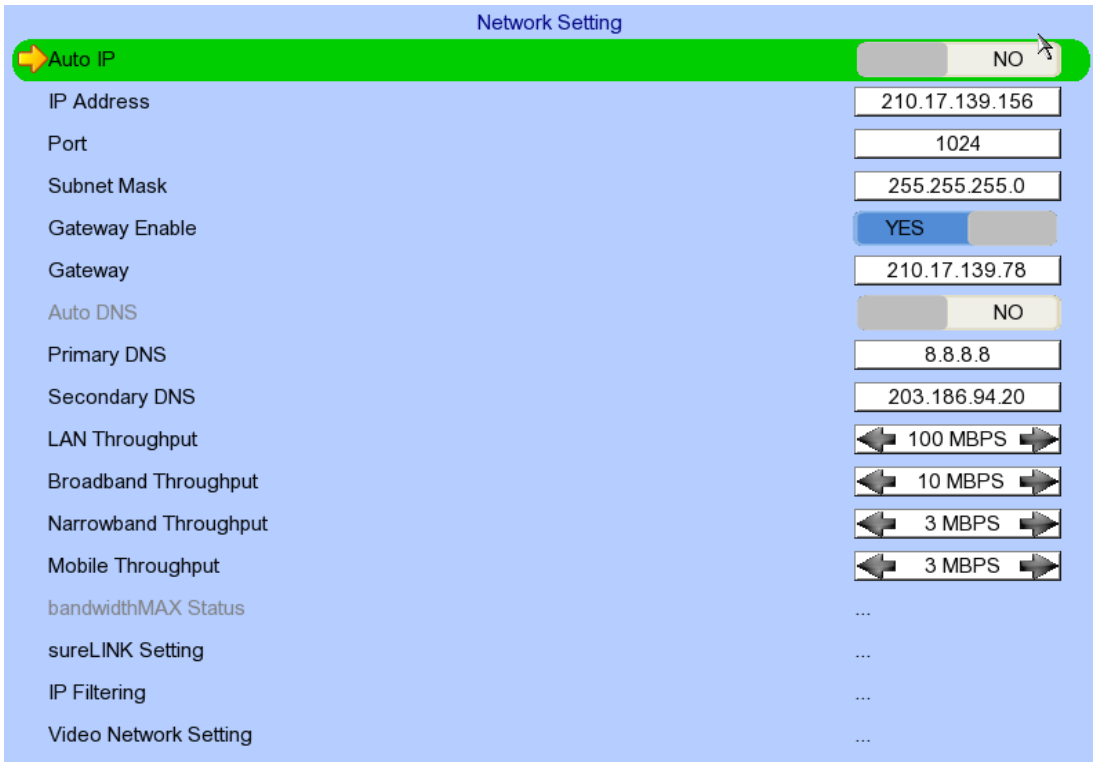


Backup Device	Select device for saving the footage
Device Name	Show the name for selected device
FORMAT	Format the selected USB device
Backup From Disk	Select the source directory -MASTER: Source from master hard disk -MIRROR: Source from mirror hard disk
Mode	Set extraction mode -Normal: Extract at the same recording frame rate, with audio -Quick: Extract selected cameras at low frame rate, no audio
Channel	Choose video channels to extract(Select or Quick mode only)
Start Date	Set start date of the footage
Start Time	Set start time of the footage
Duration	Set video length of the footage
Protection	Enable / disable password protection

5.4.6. Throughput Control

Video monitoring performance can be affected by network speed. Throughput control can limit the output data rate of the digital video recorder according to user setting, which should be configured to fit the network bandwidth to avoid delay or rusty video.

[Main Menu] → [System] → [Network Setting]

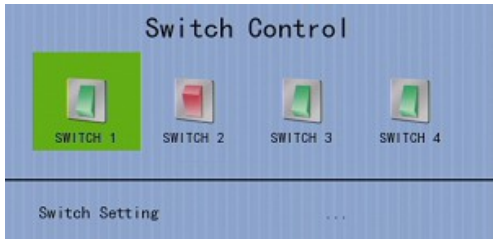


Auto IP	Enable / disable auto IP from DHCP
IP Address	Set IP address of the digital video recorder
Port	Set port number of the digital video recorder
Subnet	Set subnet mask of the digital video recorder
Gateway Enable	Enable / disable the gateway
Gateway	Set gateway of the digital video recorder
Auto DNS	Enable / disable auto DNS
Primary DNS	Set primary DNS of the digital video recorder
Secondary DNS	Set secondary DNS of the digital video recorder
LAN Throughout	Set the data rate of LAN connection
Broadband Stream Throughput	Set the data rate of broadband connection
Narrowband Stream Throughput	Set the data rate of narrowband connection
Mobile Stream Throughput	Set the data rate of mobile connection
bandwidthMAX Status	Show camera is support D.R.T
sureLINK Setting	Change sureLINK settings
IP Filtering	Change IP filtering settings
Video Network Setting	Change video network setting

5.4.7. Switch Control

The external switches connected to the digital video recorder can be controlled through the switch control function. The switch won't follow the latch duration and action delay. It will remain at that state until user toggles it again or an event associated with switch action has triggered.

[Main Menu] → [Switch]

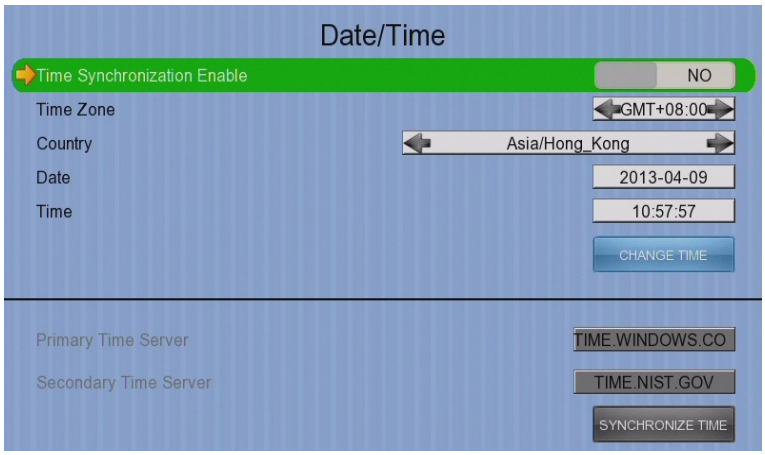


Switch 1 – Switch 4	Toggle the status of the switch
Switch Setting	Change switch settings

5.4.8. Time Synchronization

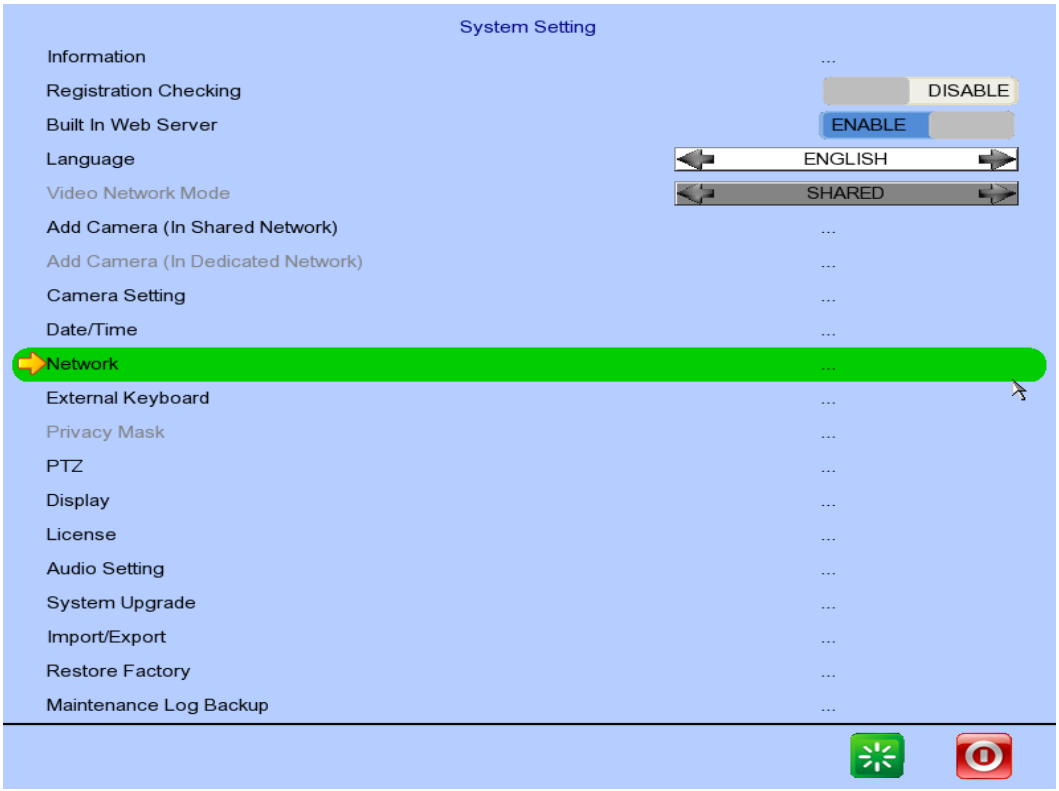
The time in TeleEye GN8 can be synchronized with timeserver in the network using the time synchronization function. The GN8 can work as a timeserver if internal time server is enabled.

[Main Menu] → [System] → [Date/Time]



Time Synchronization Enable	Enable / disable time synchronization
Time Zone	Set the time zone
Country	Select a country
Date	Set system date (Time sync disabled only)
Time	Set system time (Time sync disabled only)
CHANGE TIME	Save the time settings (Time sync disabled only)
Primary Time Server	Set the primary time server(Time sync enabled only)
Secondary Time Server	Set the secondary time server(Time sync enabled only)
Synchronize Time	Perform time synchronization(Time sync enabled only)

[Main Menu] → [System]

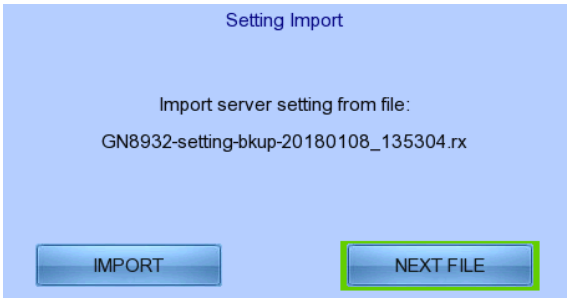


Information	Display general information of the digital video recorder
Registration Checking	Enable / disable remote registration check
Built In Web Server	Enable / disable built in web server
Language	Set display language
Video Network Mode	Change video network mode
Add Camera (In Shared Network)	Change shared network mode settings
Add Camera (In Dedicated Network)	Change dedicated network settings
Camera Setting	Change camera settings
Date /Time	Change date and time settings
Network	Change connection, throughput and 3G modem settings
External Keyboard	Set external keyboard settings
Privacy Mask	Set PTZ privacy mask
PTZ	Set PTZ arguments
Display	Change local monitoring and audio settings
License	Check server license
Audio Setting	Set audio input and output
System Upgrade	Upgrade system from USB device
Import /Export	Import or export setting files
Restore Factory	Restore default settings
Maintenance Log Backup	Extract digital video recorder log
Restart System Button	Restart the system
Shutdown System Button	Safe shutdown the system

5.4.9. Import and Export

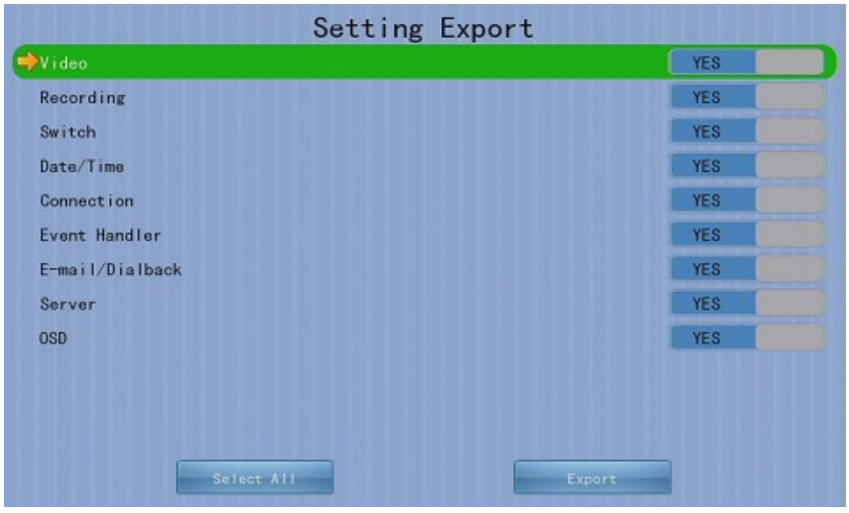
Configurations of the digital video recorder can be exported to an USB flash device for backup purpose, or to copy the settings to another video recorder. When something goes wrong, previously exported settings can be applied through the import function.

[Main Menu] → [System] → [Setting Import Export] → [Import]



Import	Import the setting files from USB flash device
Cancel	Cancel the operation

[Main Menu] → [System] → [Setting Import Export] → [Export]



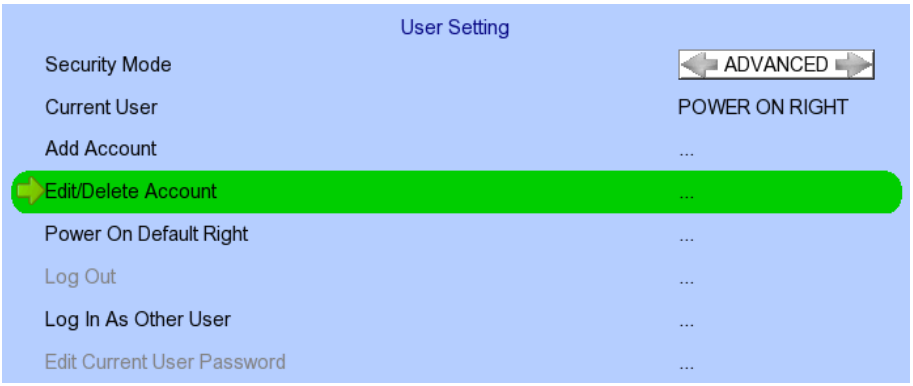
Video	Export camera settings if selected
Recording	Export recording settings if selected
Switch	Export switch settings if selected
Date/Time	Export date/time settings if selected
Connection	Export network settings if selected
Event Handler	Export event settings if selected
E-mail/Dialback	Export e-mail and dialback settings if selected
Server	Export server settings if selected
OSD	Export OSD settings if selected
Select All	Select / deselect all settings
Export	Export the selected settings to USB flash device

5.4.10. User Account

In TeleEye GN8, advanced security mode supports multiple user accounts with flexible access rights.

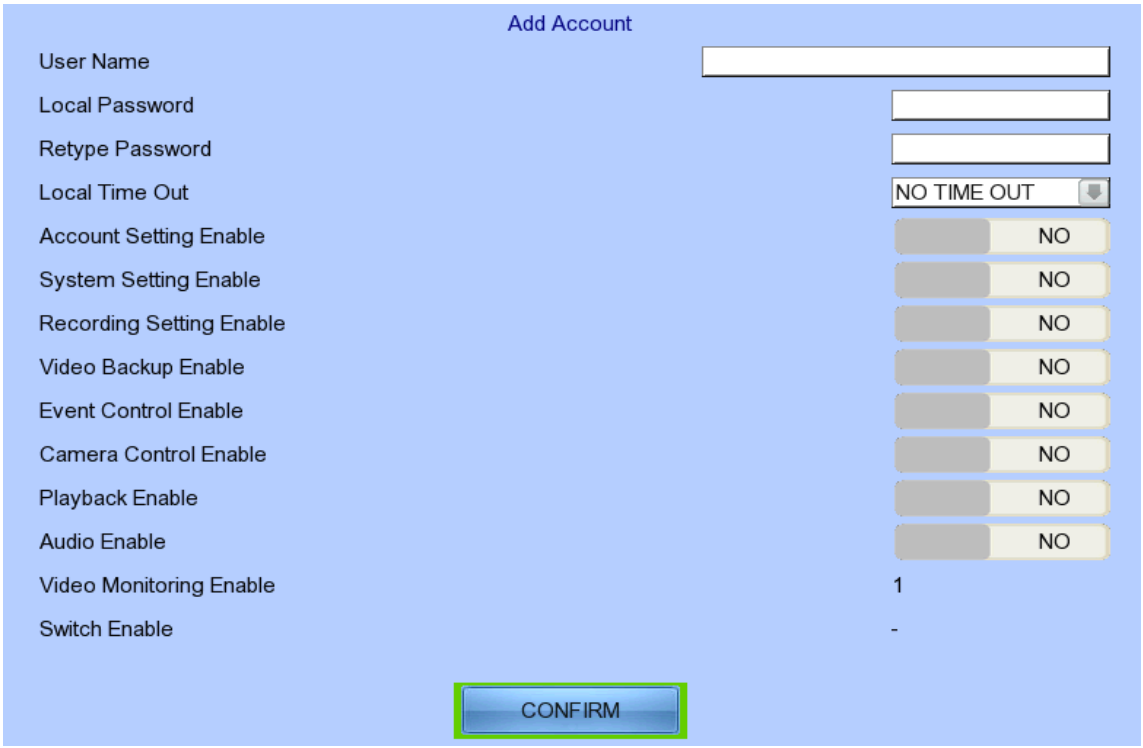
Users with the *"User Account"* access right can add new account, modify existing account, or delete an account. When system startup or local user logout, access right of local menu will follow the setting of *"Power On Default Right"*. Please refer to the appendix for detail.

[Main Menu] → [User]



Security Mode	Advanced security mode: Log in and access right required
Current User	Display current log in user
Add Account	Add new account
Edit/Delete Account	Edit or remove an account
Power On Default Right	Access right when not logged in
Log out	User log out
Log In As Other User	User log in
Edit Current User Password	Edit current user password

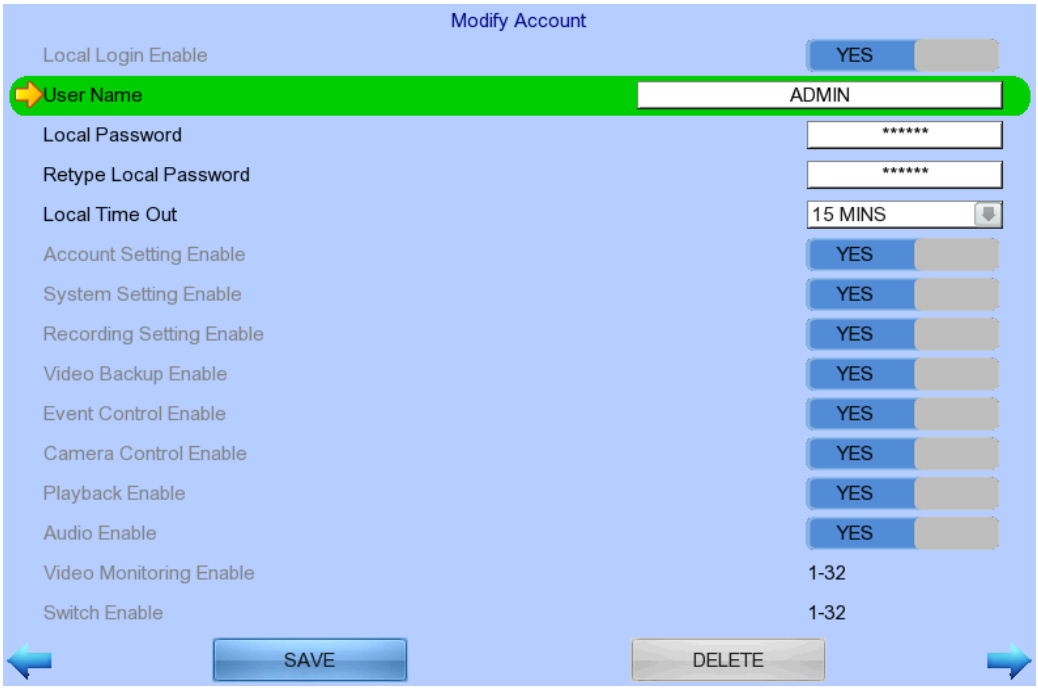
[Main Menu] → [User] → [Add Account]



User Name	User name of new account (4 – 16 characters)
Local Password	Password for local log in (4 – 10 characters)
Retype Local Password	Confirming the password
Local Time Out	Set the auto logout time when no local operation
Account Setting Enable	Access right setting
System Setting Enable	Access right setting
Recording Setting Enable	Access right setting
Video Backup Enable	Access right setting
Event Control Enable	Access right setting
Camera Control Enable	Access right setting
Playback Enable	Access right setting
Audio Enable	Access right setting
Video Monitoring Enable	Access right setting
Switch Enable	Access right setting
Confirm	Create the account

[Main Menu] → [User] → [Edit/Delete Account]

Most settings are the same as **[Add Account]** menu.



Local Login Enable	Enable / disable local log in (with remote log in right only)
Save	Save the account settings
Delete	Delete the account
	Show settings of previous / next account

[Main Menu] → [User] → [Power On Default Right]

Most settings are the same as **[Add Account]** menu.

Save	Save the access rights when server startup or local user log out

Section6: Remote Operation

6.1. Network Setup

6.1.1. Port Mapping Setup

Port mapping, also called port forwarding or punch-through, enables you to create a permanent translation entry that maps a protocol port on your gateway machine to an IP address and protocol port on your private LAN. This process enables you to run a public Internet service on a machine that is otherwise hidden from the Internet by your gateway.

To access your TeleEye GN8 digital video recorder outside your private LAN, you need to do port mapping for your TeleEye GN8. For detail setup procedure, please refer to user manual of your router. After finishing the port mapping, you can access your TeleEye GN8 anytime and anywhere by the IP address and port number through web browser. The address should be in this format: http://IPAddress:Port.

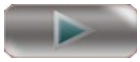
☞ *The default port number is 1024, which can be used for port mapping.*

6.1.2. sureLINK Setup

sureLINK technology is a group of additional functions and services available in TeleEye GN8 so as to make it connect to the Internet in any connection methods. With a sureLINK address, you don't have to memorize the IP address and port number of the transmitter, or worry about the dynamically changed IP address. If you can only use broadband dial-up account to connect to the Internet through your computer, sureLINK provides a solution for sharing the Internet connection between your computer and the digital video recorder.
Please refer to the appendix for procedures and configurations on setting up sureLINK.

6.2. Icons Description

When monitoring using web browser, user may see different icons on the control panel or the video. A summary of their meanings can be found in the following table.

Icon	Description
	Recording
	Playback
1.  3.  2.  4. 	Screen mode selection panel 1. Change page 2. Change mode 3. Max screen 4. Full screen
1.  6.  2.  7.  3.  8.  4.  9.  5.  10. 	Event status panel 1. Video loss event 2. Motion event 3. HDD event 4. Power failure event 5. Alarm tamper event 6. System tamper event 7. Alarm event 8. Siren on/off 9. Armed / Disarmed 10. Clear event
	Show menu panel
1.  5.  2.  6.  3.  7.  4. 	Menu panel 1. Server Setting 2. Audio 3. PTZ 4. View log 5. Advanced 6. Footage extraction 7. Switch
1.  2. 	On screen event status 1. Motion 2. Video loss

1.  4.  2.  5.  3. 	Playback panel 1. Rewind 2. Play 3. Pause 4. Stop 5. Fast forward
	Digital PTZ
	Analog PTZ

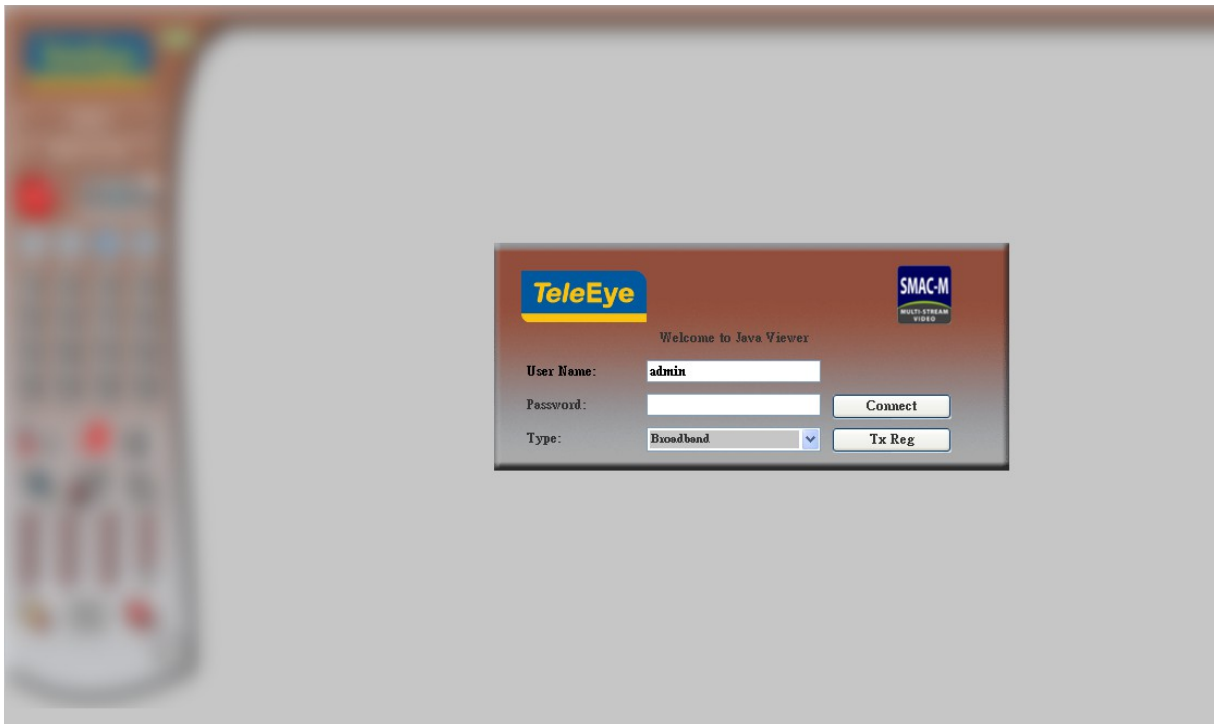
6.3. Basic Operation

6.3.1. View Live Video

With the built-in web server function enabled, user can access the TeleEye GN8 digital video recorder easily through web browser.

1. Enter IP address plus port number in the format http://IPAddress:PortNumber (e.g. http://192.168.0.12:1024) or ***sure*LINK** address in web browser address bar. Procedures for getting a ***sure*LINK** address can be found in the appendix.

2. By default, advance security mode is applied and user name is not required. Enter password and press [**Connect**].
   (The default administrator password is *"0"+"digits of serial number"*. There is an example:
   Serial Number :GNS11529
   User Name : admin
   Default Password : 011529
   Details can be found in the registration code sheet)



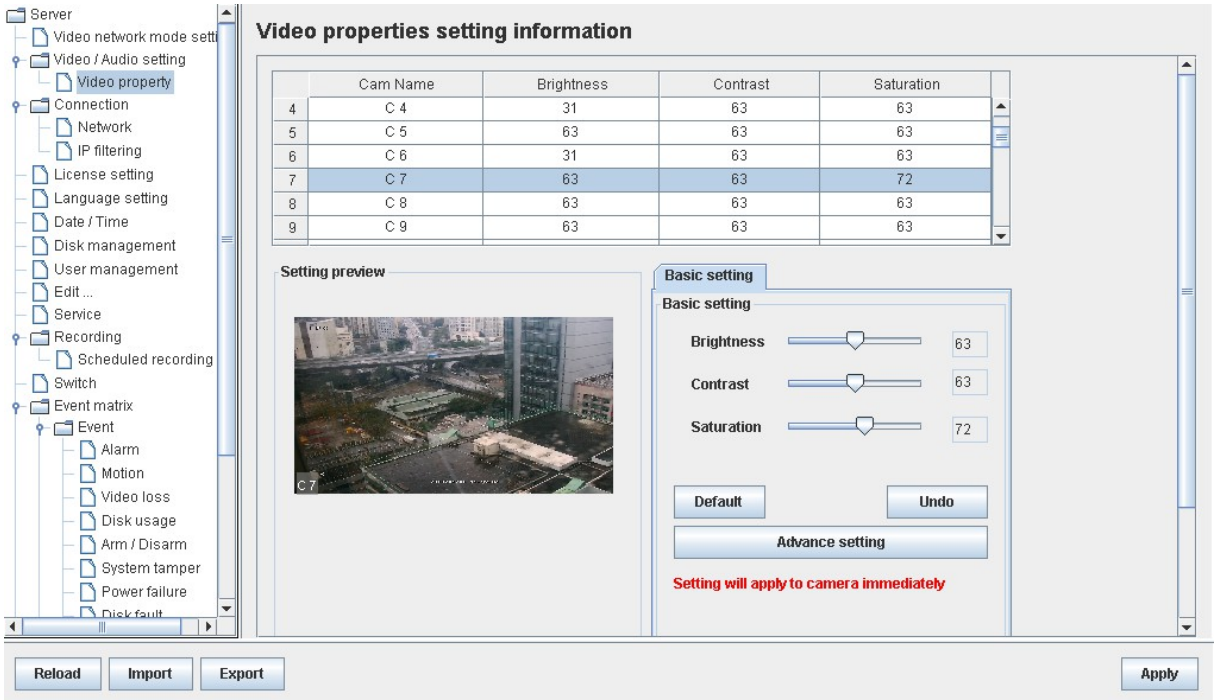
3. Use screen mode selection panel and camera selection panel to view video.

If a cross sign is shown at the top left corner of the web page, it implies that Java JVM is not installed in the computer. It can be obtained through the following methods

- *Install through the software CD in the package*
- *Download from http://www.java.com and install it*

If the camera setting does not fit the environment, select

[Server] → [Video/Audio Setting] → [Video Properties] to change the configuration.



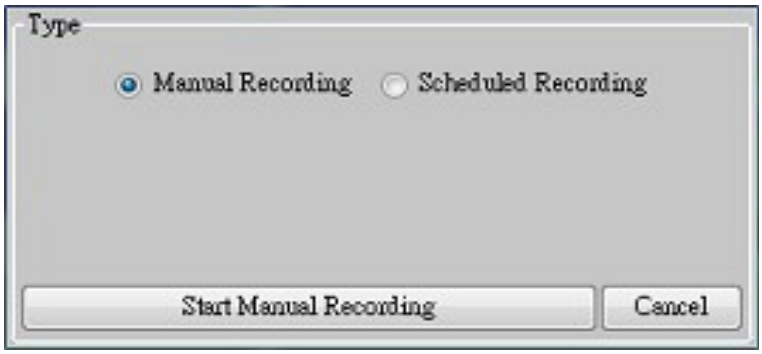
6.3.2. Recording

According to different situations, user can select suitable recording mode.

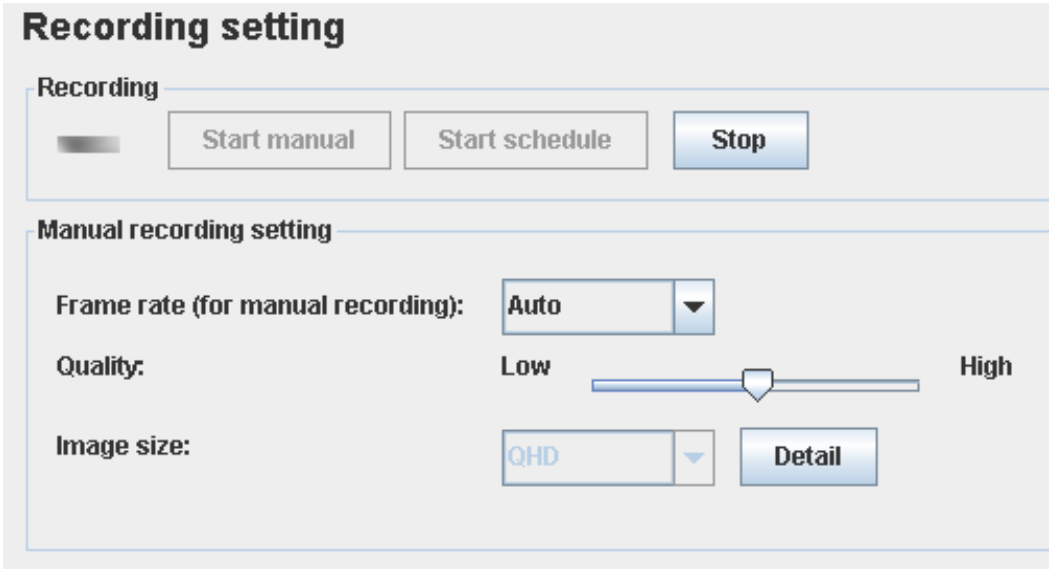
A. Manual Recording

The start/stop operation is controlled manually by operator. Recording will be performed on all cameras once started

1. To start or stop manual recording, click on **[Recording]** button on the main panel.



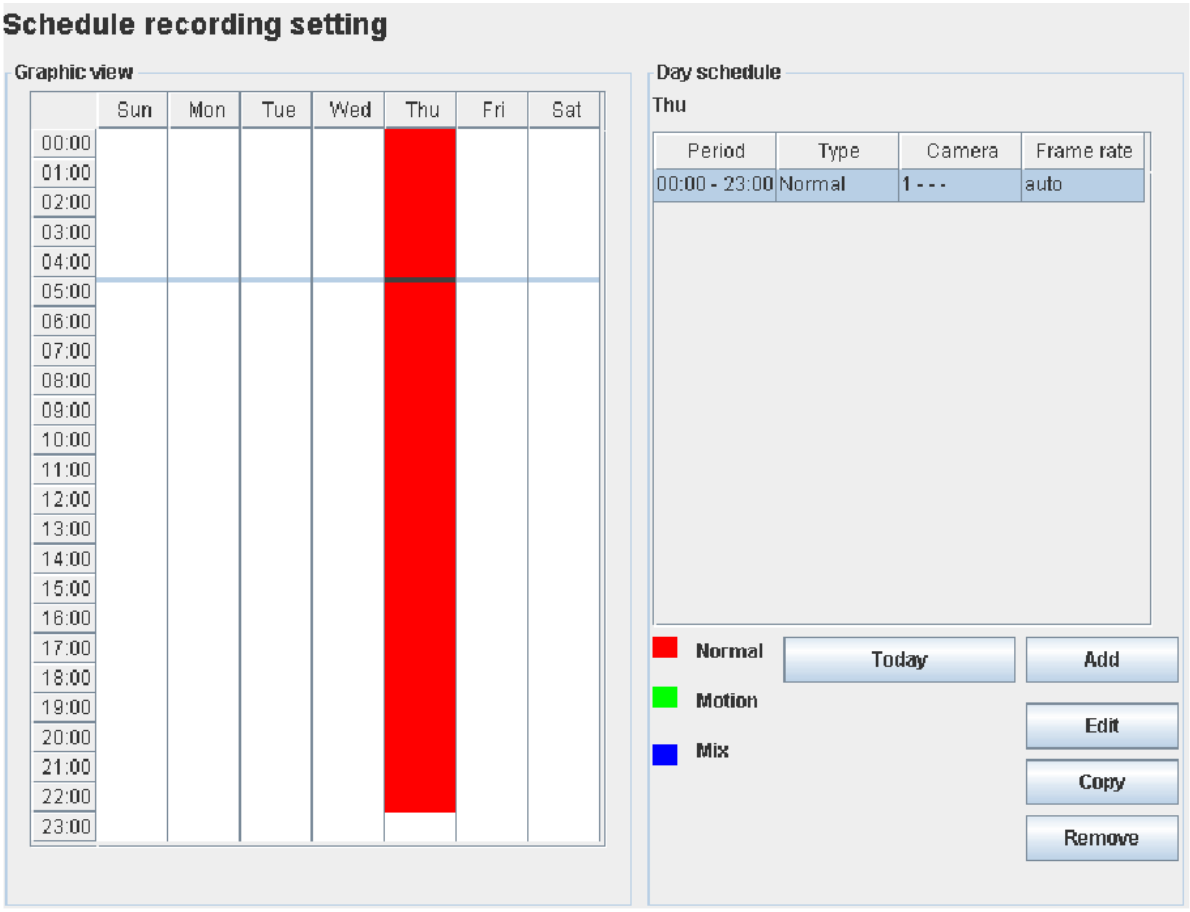
2. To change recording settings, go to **[Server]** → **[Recording]** in setting page.



B. Schedule Recording

TeleEye GN8 supports 2 types of recording schedule: Normal and Motion. Motion recording records video only when motion is detected in selected surveillance area.

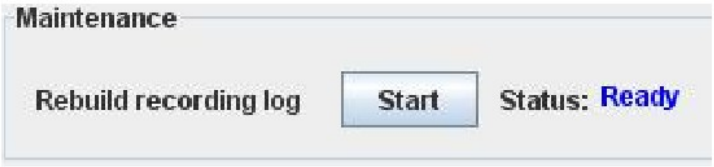
1. To start or stop schedule recording, click on **[Recording]** button on the main panel.
2. To view or edit the schedules, go to **[Server]** → **[Recording]** → **[Scheduled Recording]**.



3. To select a schedule, simply click on the graphical representation of the schedule. A list of that day's schedules will show on the right hand side.

C. Recording Rebuild

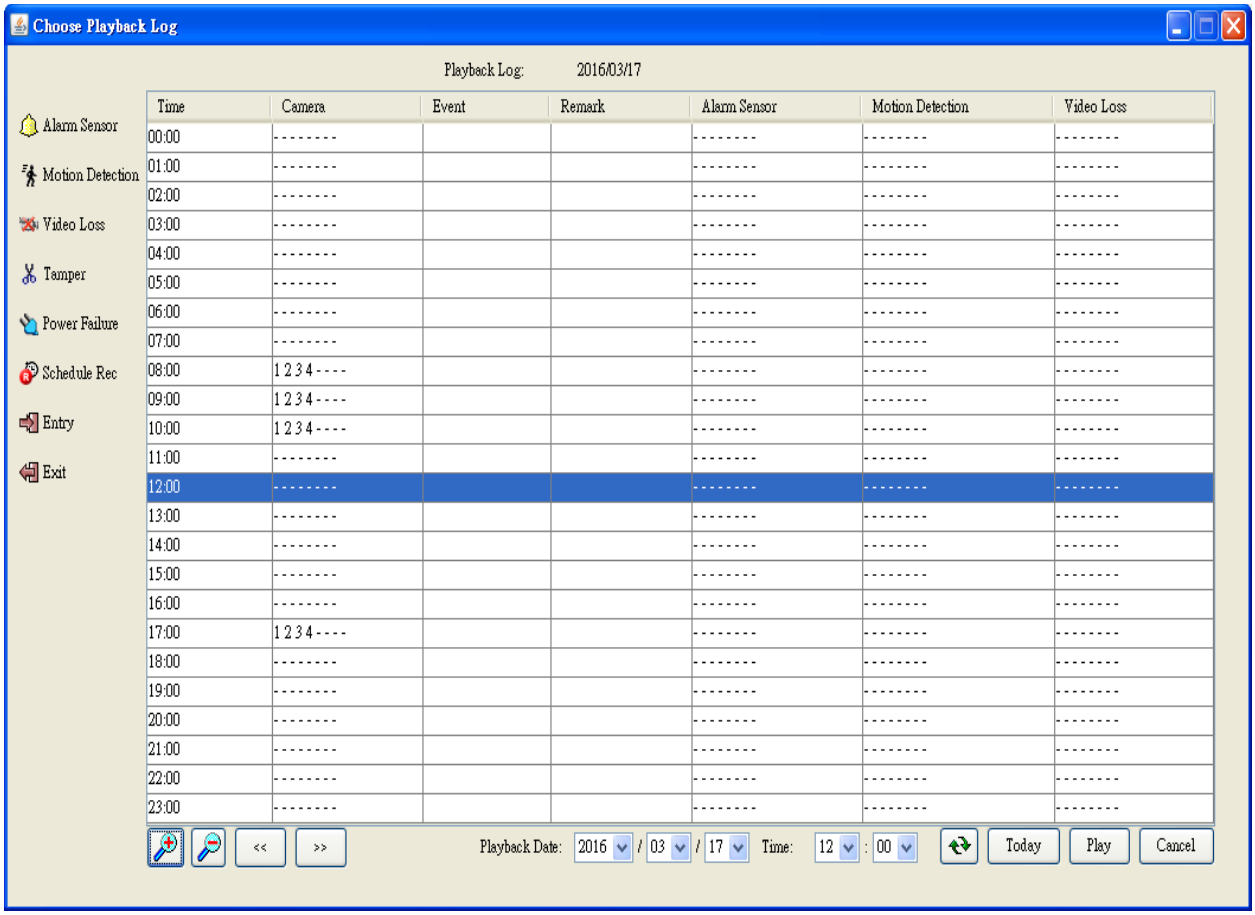
Recording log can be recovered by using recording rebuild function when user can not play back the recording. User can go to **[Server] → [Recording]**, under part of **[Maintenance]** click **[Start]** to start rebuild process.



6.3.3. Playback

Recorded video can be played back through web browser without affecting the recording process

1. Click on **[Playback]** button to show the recording log.



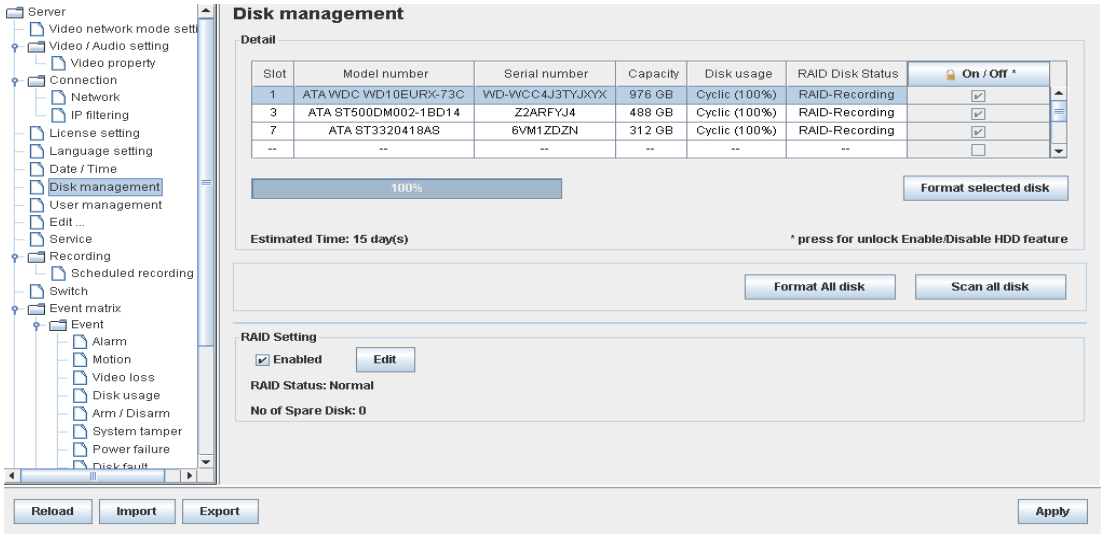
2. Choose a log entry and select a camera to start playback.

6.4. Advanced Operation

6.4.1. Hard Disk Formatting

Hard disk formatting is done to reconstruct the disk in recognizable format, clean up the recording space, and redeem the file allocation. Beware that formatting will erase all data within the hard disk, backup important data beforehand. Remote login password is required for this operation.

1. Go to **[Server] → [Disk Management]** in remote setting page.



☞ *Do not close the browser or alter the hard disk until the process is complete.*

6.4.2. Hard Disk Scanning

Disk scanning is performed in an attempt to fix noticeable hard disk error, and to enhance its performance and reliability. Remote login password is required for this operation.

Go to **[Server] → [Disk Management]**, click *"Scan all disk"* in remote setting page.

☞ *Do not close the browser or alter the hard disk until the process is complete.*

6.4.3. Hard Disk Enable/Disable

Problematic disk can be drawn from recording disk list by turning it off, so that the disk will not affect reliability of system. Remote login password is required for this operation.

Go to **[Server] → [Disk Management]**, click icon to unlock disk list, then turning on/off any disk in remote setting page.

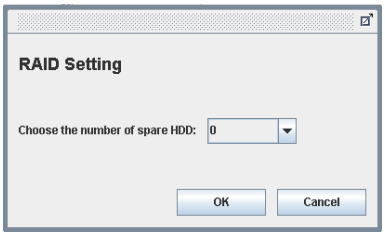
☞ *Restart system is required for any disk turn on or off*

6.4.4. RAID Setting

RAID Setting allow user configure RAID in GN8. All disks must have 200GB or larger and with similar disk size.

Go to **[Server] → [Disk Management] → [RAID Setting]**, click the Enable check box, then select no. of RAID spare disk.

☞ *Disk formatting is required for any setting change in RAID Setting*



6.4.5. Event Handling

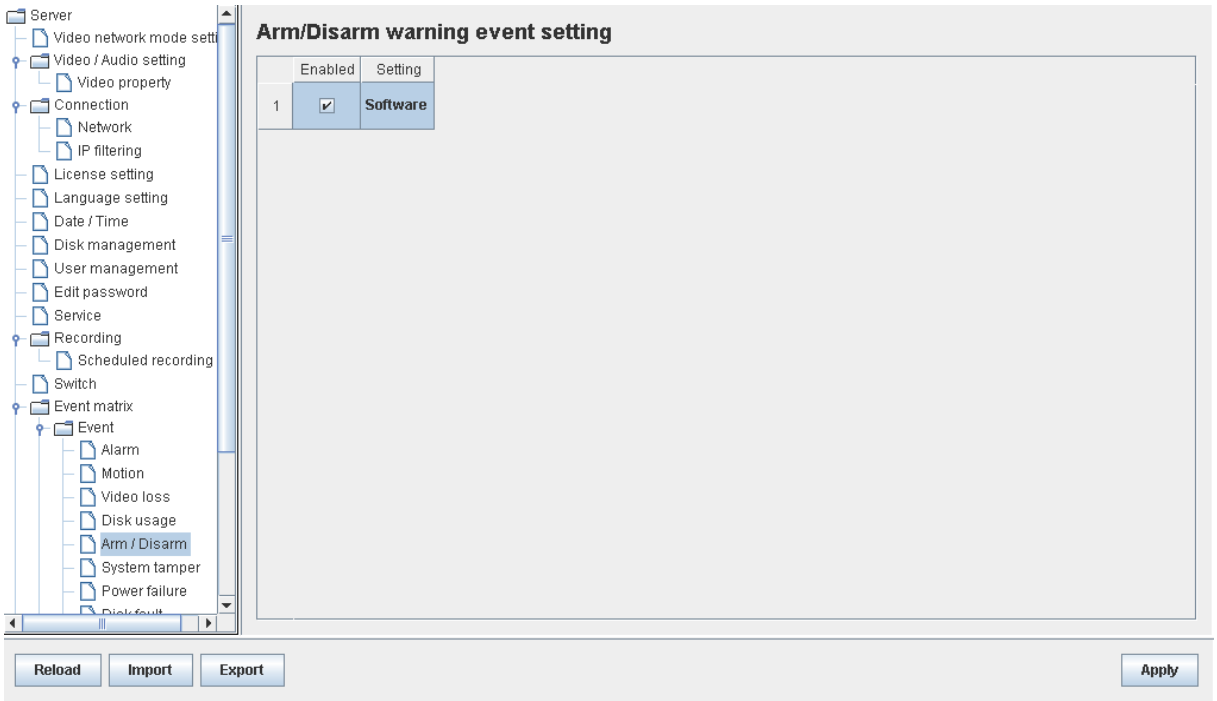
TeleEye GN8 digital video recorder supports different types of event detection. This section shows the configuration of event settings.

☞ *Please refer to 4.4.1. Install Alarm Sensors and Relay Control Port for setup detail and 4.4.3. Event Handling for descriptions of different events and their corresponding settings*

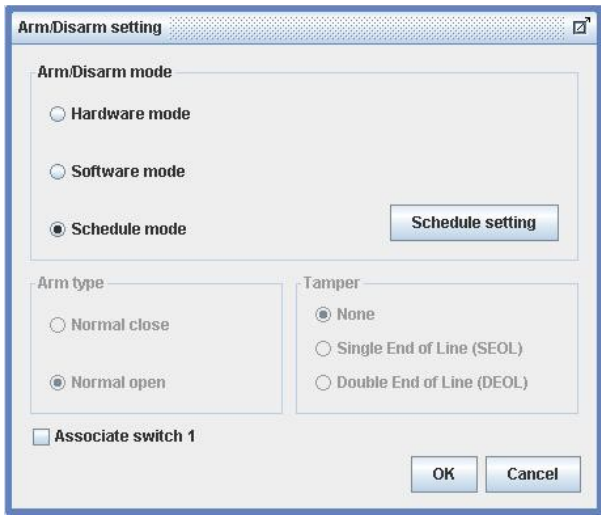
6.4.5.1. Arm/Disarm

Arm/Disarm input is used for enhancing security level of the surveillance area.

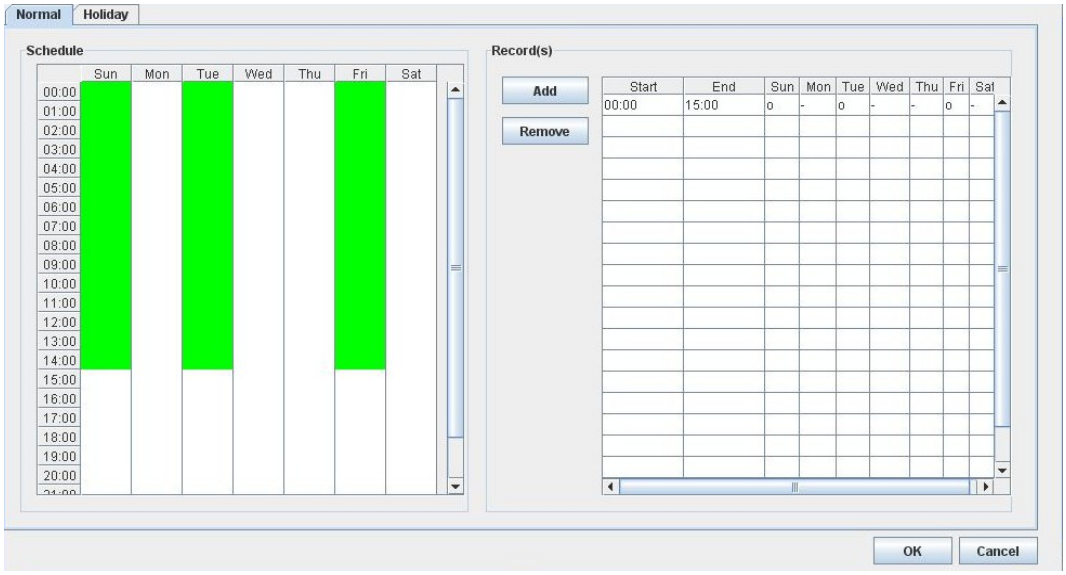
1. Go to **[Server]**, select **[Event Matrix] → [Event] → [Arm/Disarm]**.

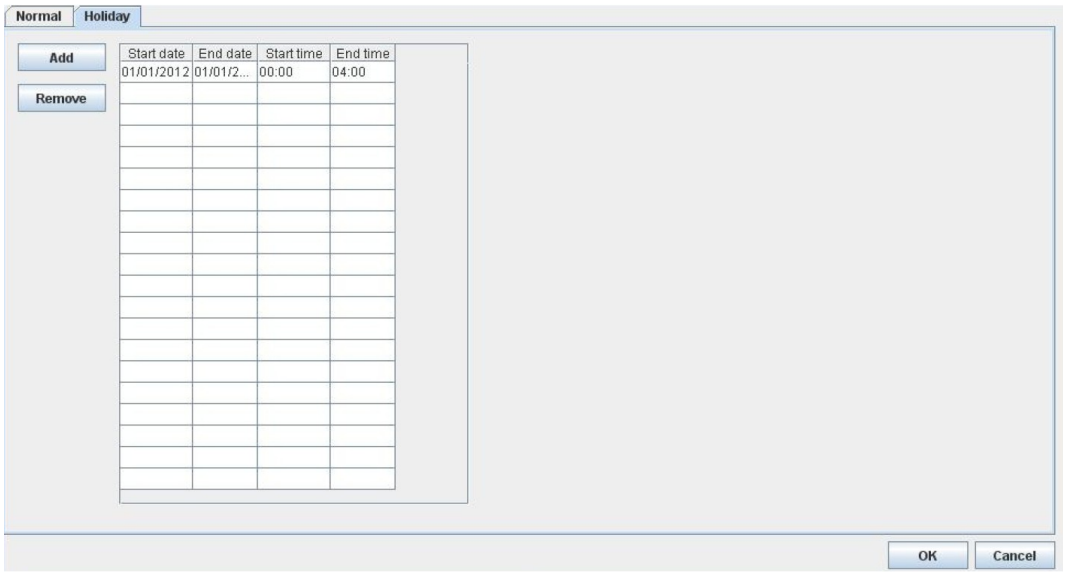


2. To change arm/disarm settings, click on **[Arm Setting]**.



3. To add or remove arm schedules, click on **[Schedule Setting]**. Use the tap **[Normal]** and **[Holiday]** on the top left corner to select normal schedule or holiday schedule.

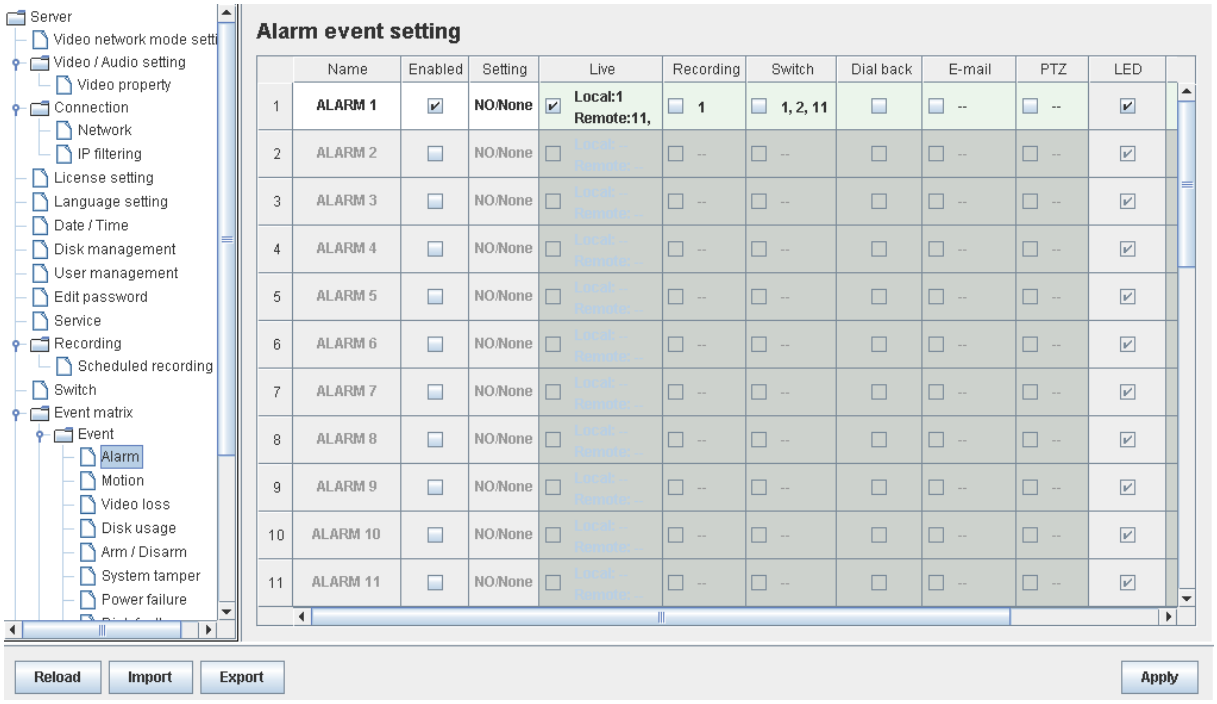




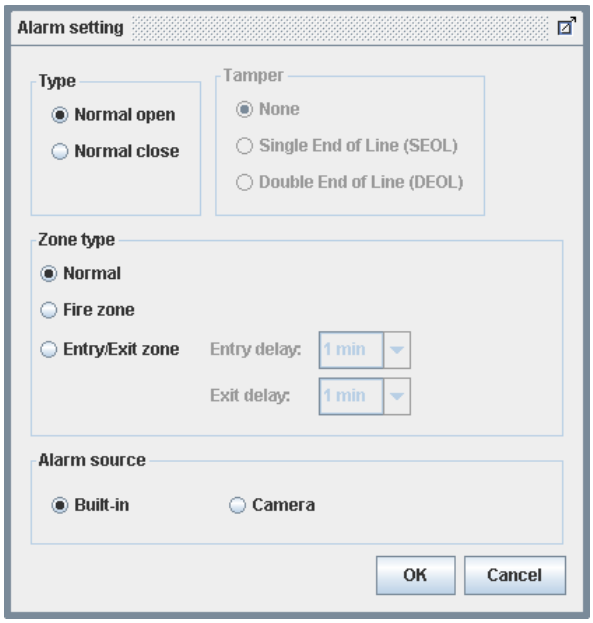
6.4.5.2. Alarm

Alarm can be used to detect many events, such as fire and illegal entering by someone.

1. Go to **[Server]**, select **[Event Matrix] → [Event] → [Alarm]**.



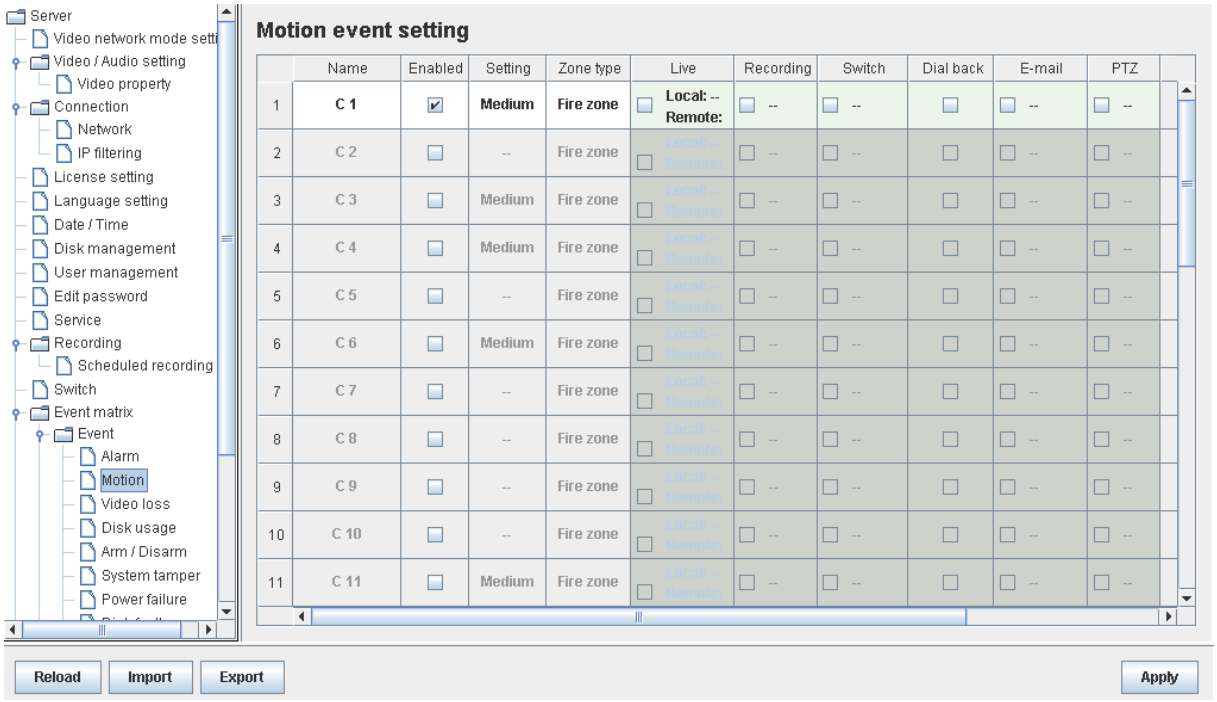
2. Click on **[Alarm Setting]** and select appropriate settings in the pop up menu.



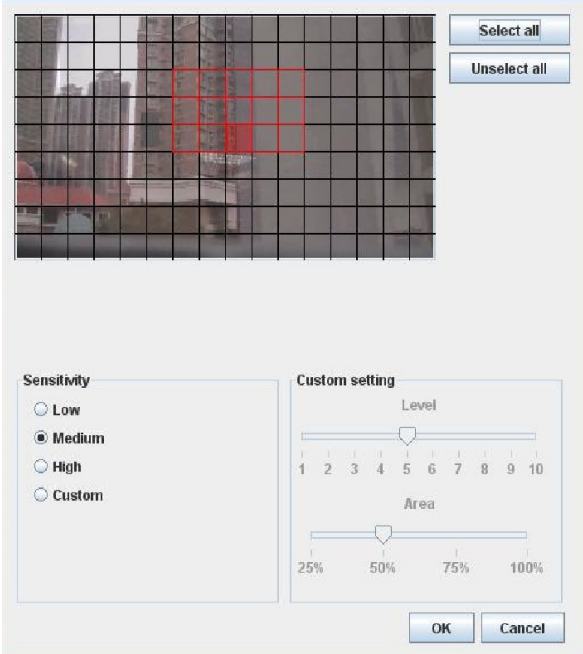
6.4.5.3. Motion

Motion event is triggered when movement is detected inside the surveillance area of a camera.

1. Go to **[Server]**, select **[Event Matrix] → [Event] → [Motion]**.



2. Click on **[Setting]** to pop up **[Motion Setting]** menu. Left click mouse and drag to select the surveillance area or right click mouse and drag to deselect the area. Outlines of selected blocks will display in red color. Blocks filled with red color means motion is detected.

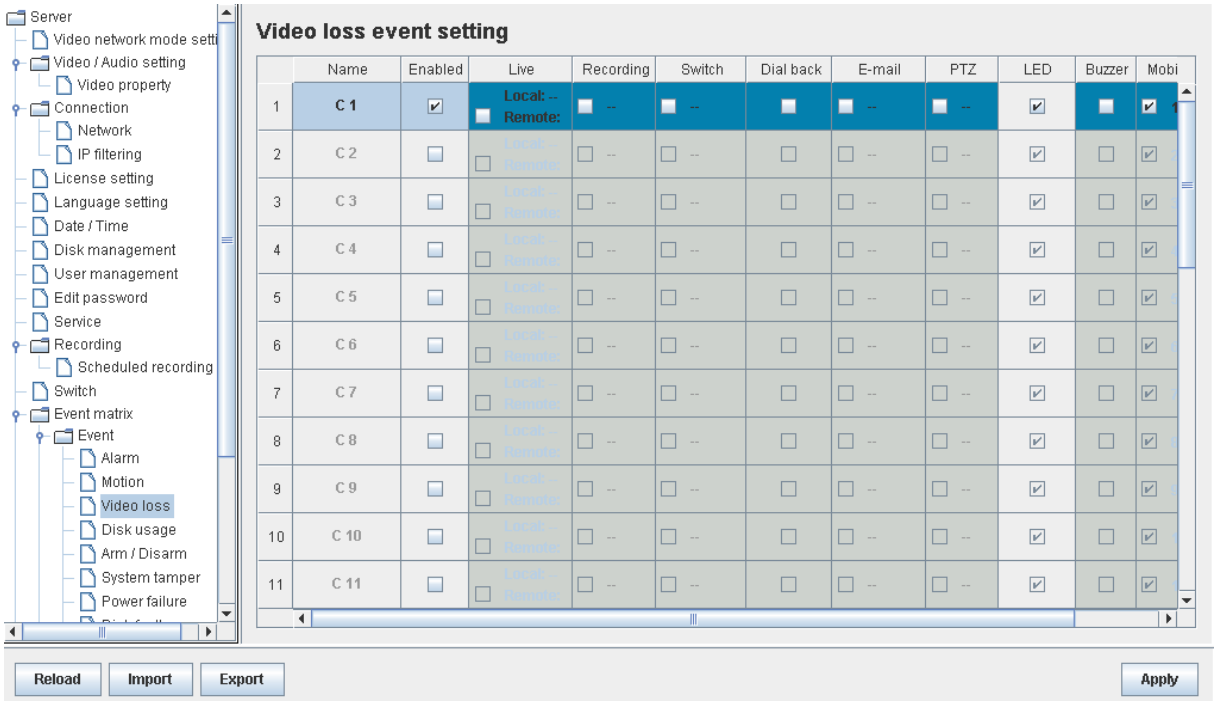


3. Click on **[Zone Type]** to change the operational zone.

6.4.5.4. Video Loss

Video loss event is triggered when the digital video recorder receives no signal from the camera. A blue screen would be displayed when this happens.

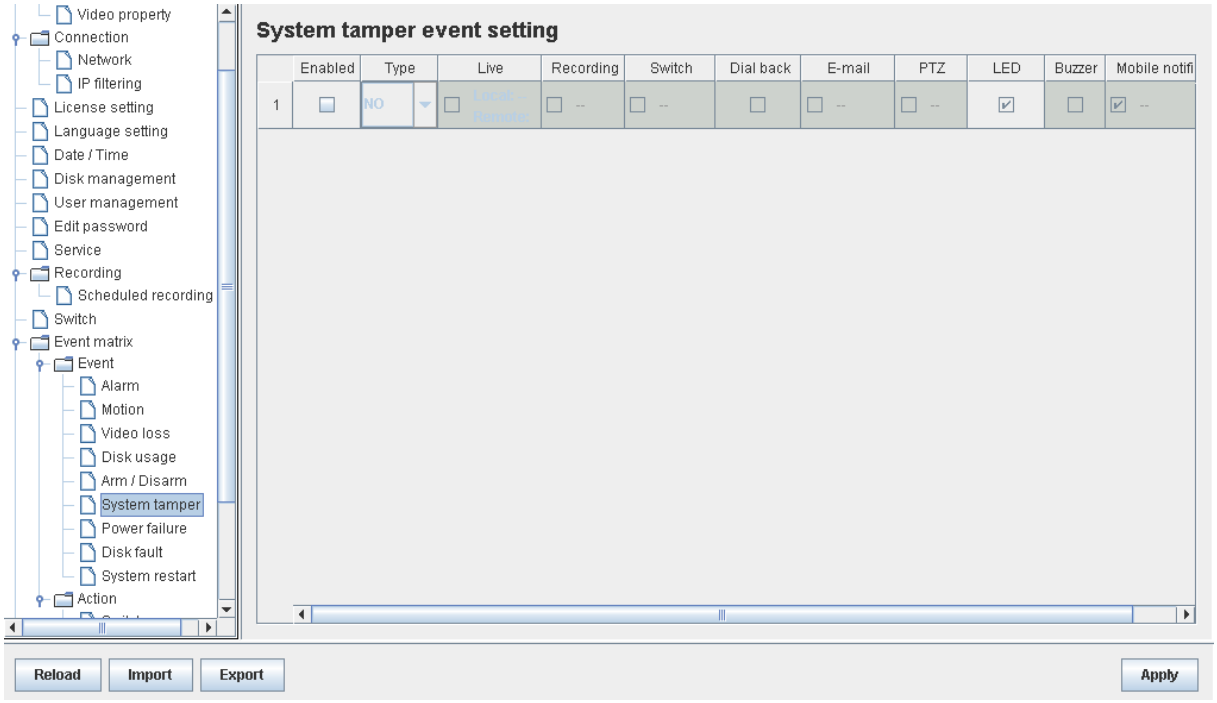
1. To enable video loss detection, go to **[Server]** → **[Event Matrix]** → **[Event]** → **[Video loss]**.



6.4.5.5. System Tamper

System tamper prevents someone from breaking into the cabinet and destroying the digital video recorder.

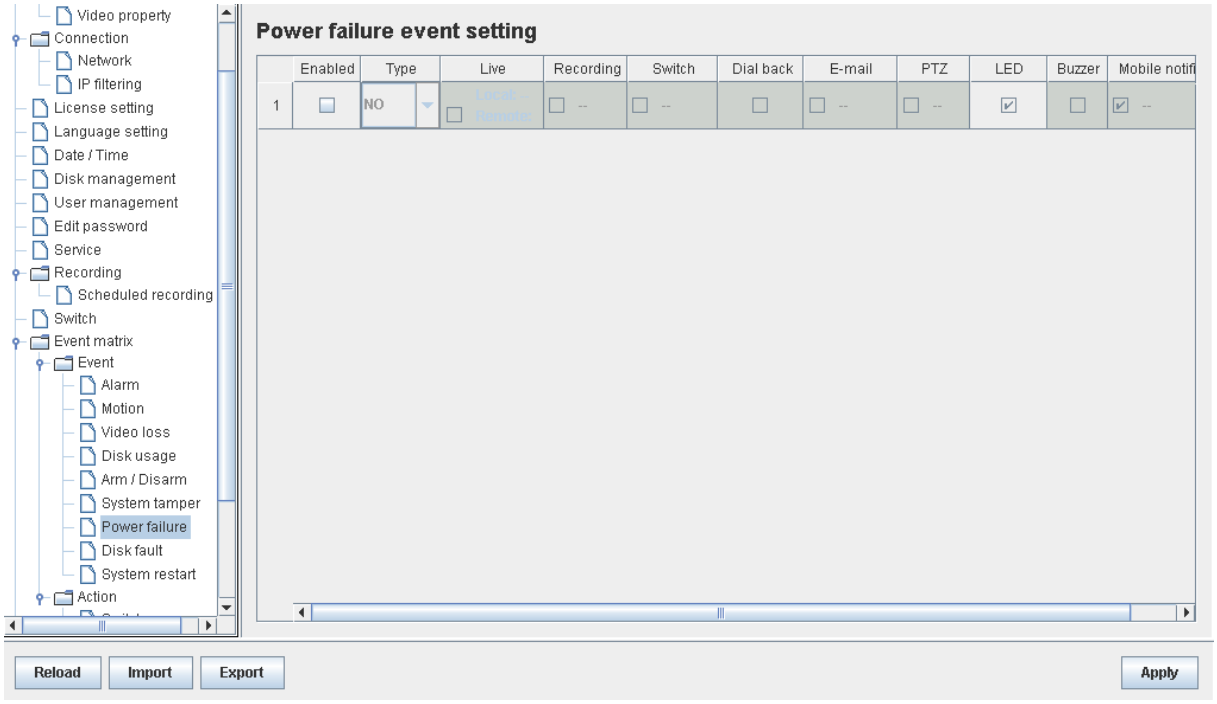
1. To change the event settings, go to **[Server] → [Event Matrix] → [Event] → [System Tamper]**.



6.4.5.6. Power Failure

This event is triggered when any power failure condition is detected.

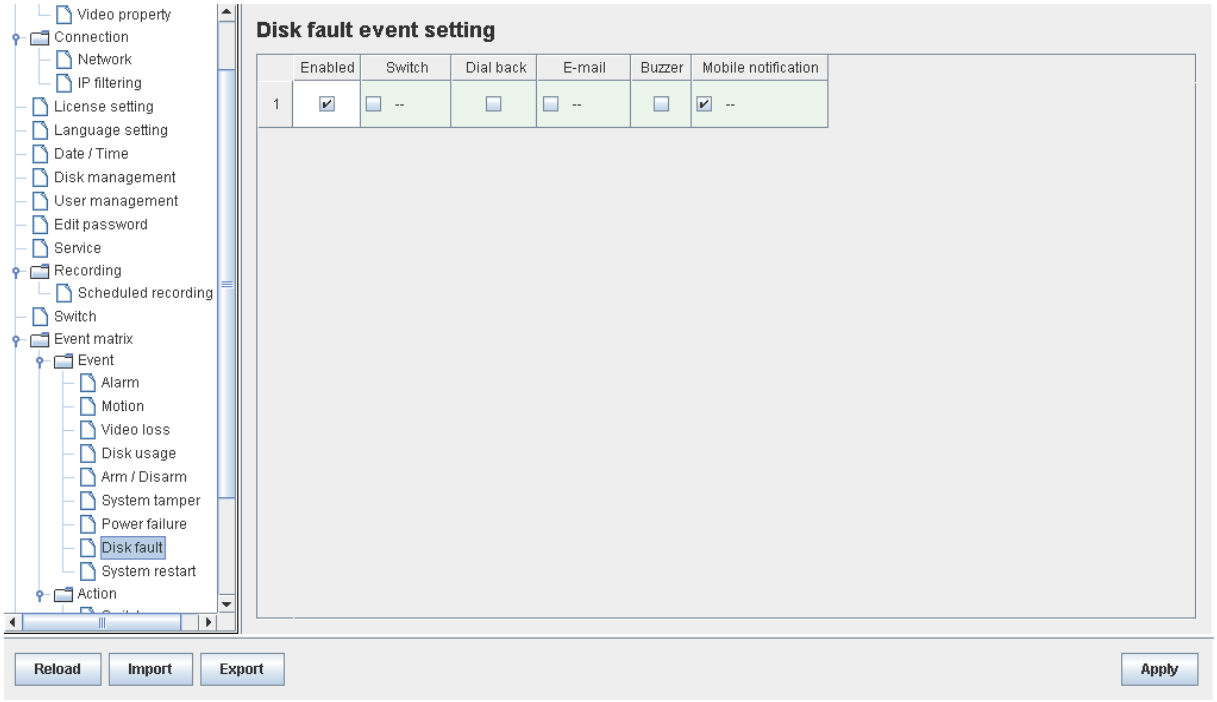
1. To change the event settings, go to **[Server] → [Event Matrix] → [Event] → [Power Failure]**.



6.4.5.7. Disk Fault

Disk available event is triggered when hard disk change or failure is detected. This event is enabled by default.

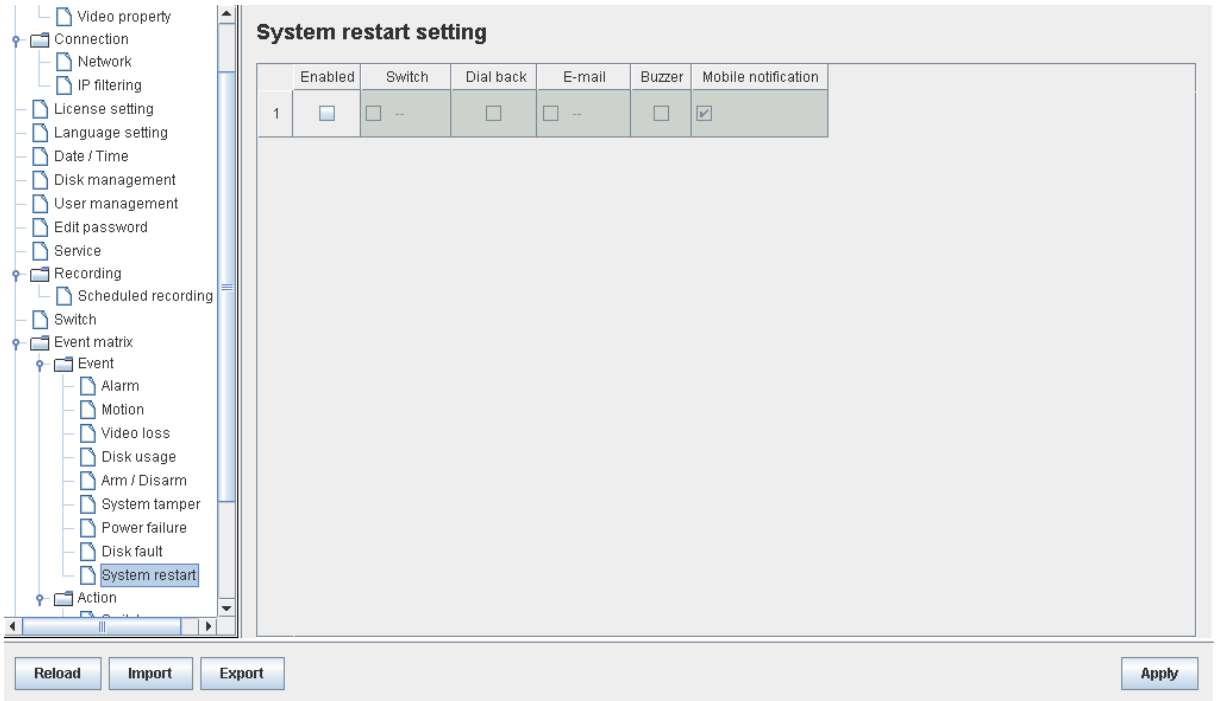
1. To disable the event, go to **[Server] → [Event Matrix] → [Event] → [Disk Fault]**.



6.4.5.8. System restart

The system restart event will be triggered if the TeleEye GN8 digital video recorder is restarted or powered off abnormally. Pre-selected actions will be taken immediately after the system is started up again.

1. To enable the event, go to **[Server] → [Event Matrix] → [Event] → [System Restart]**.



6.4.6. Event Action

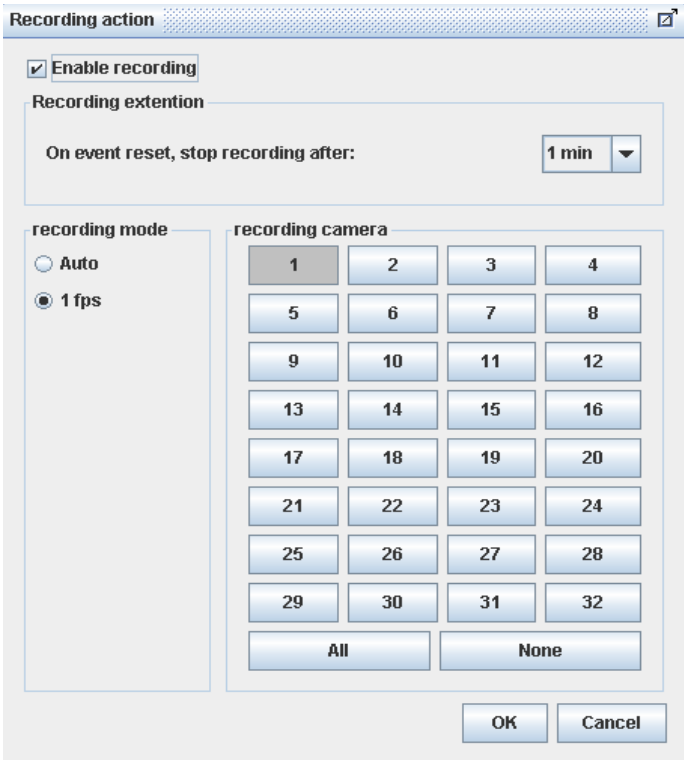
User can define the set of actions to be taken by TeleEye GN8 when an event is triggered. This section shows the configuration of action settings.

☞ *Please refer to 4.4.4. Event Action for descriptions of different actions and their settings*

6.4.6.1. Recording

If an event is associated with recording action, recording will be performed on pre-selected cameras when this event is triggered.

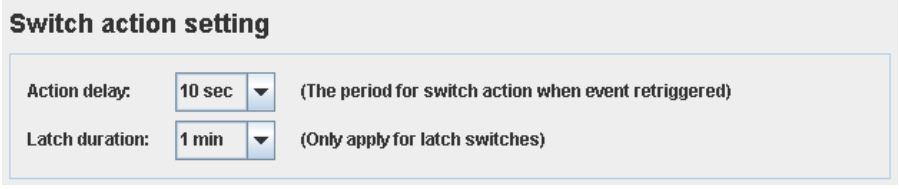
1. To change the settings, go to **[Server] → [Event Matrix] → [Event]**. Choose an event and click on **[Recording]** column.



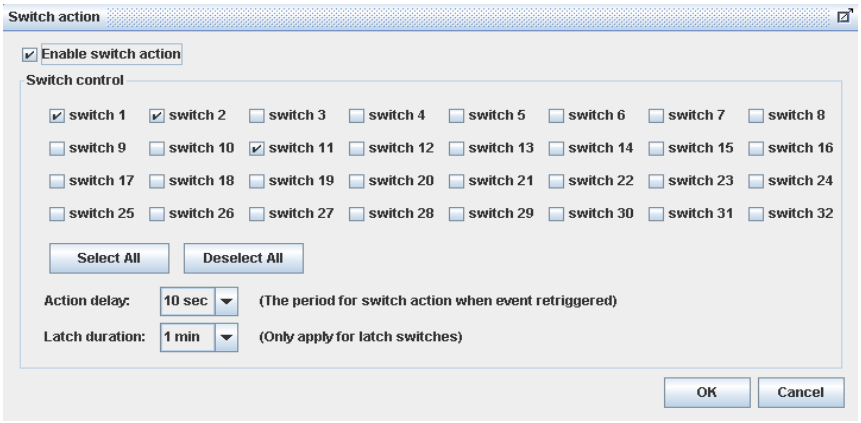
6.4.6.2. Switch

If an event is associated with switch action, user selected switches will turn on when this event is triggered.

1. To change the switch properties, go to **[Server] → [Event Matrix] → [Action] → [Switch]**.



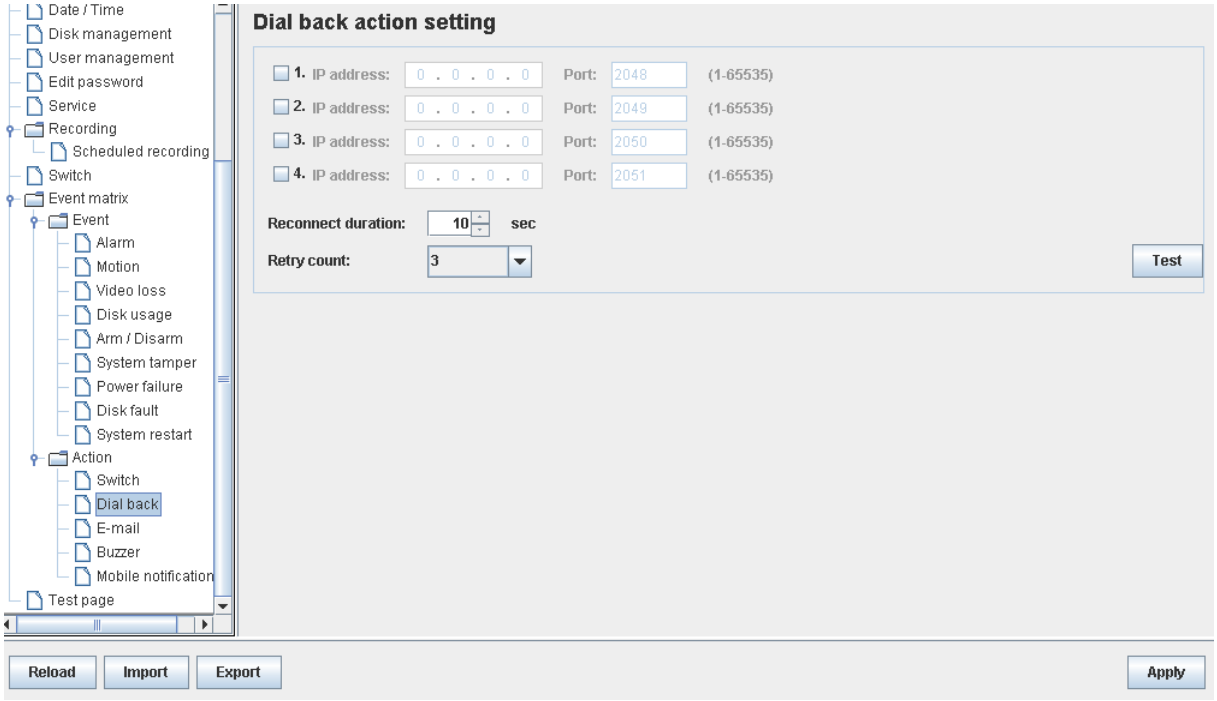
2. To enable the switch action, go to **[Server] → [Event Matrix] → [Event]**. Choose an event and click on **[Switch]** column.



6.4.6.3. Dialback

If an event is associated with dialback action, the digital video recorder will request for connection automatically when this event is triggered.

1. To change the settings, go to **[Server] → [Event Matrix] → [Action] → [Dial Back]**.



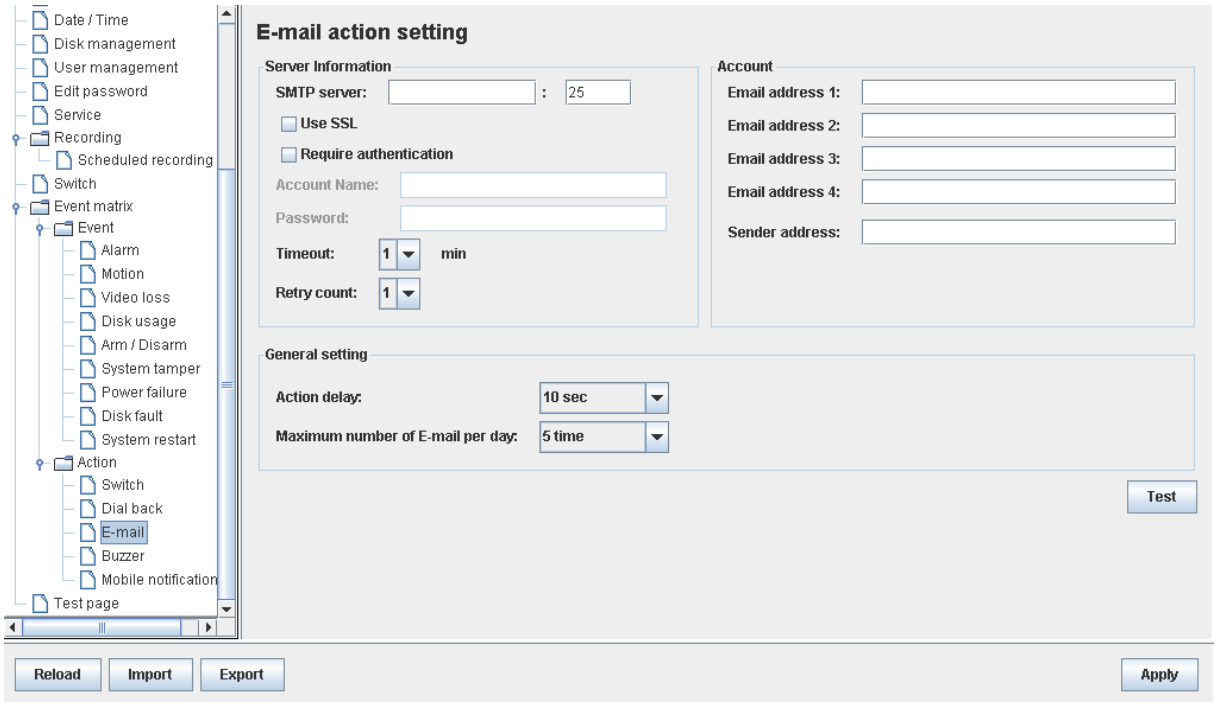
2. To enable the action, go to **[Server] → [Event Matrix] → [Event]**. Choose an event and click on **[Dial Back]** column.

☞ *The Java web page can't respond to dialback request, software like TeleEye sureSIGHT or sureGUARD needs to be installed to the PC to perform dialback.*

6.4.6.4. E-mail

If an event is associated with e-mail action, a notification e-mail will be sent when this event is triggered.

1. To change e-mail settings, go to **[Server] → [Event Matrix] → [Action] → [E-mail]**.

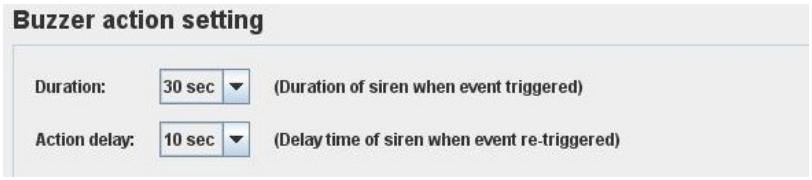


2. To enable the action, go to **[Server] → [Event Matrix] → [Event]**. Choose an event and click on **[E-mail]** column.

6.4.6.5. Buzzer

If an event is associated with buzzer action, a “Beep” sound will be produced to draw nearby operator’s attention when this event is triggered.

1. To change buzzer settings, go to **[Server] → [Event Matrix] → [Action] → [Buzzer]**.

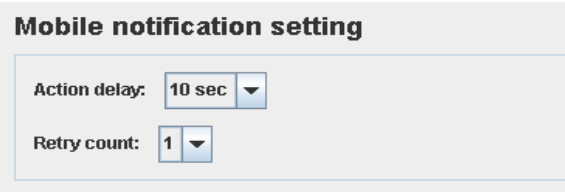


2. To enable the action, go to **[Server] → [Event Matrix] → [Event]**. Choose an event and click on **[Buzzer]** column.

6.4.6.6. Mobile notification

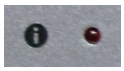
If an event is associated with mobile notification action, a mobile notification will be sent when this event is triggered.

1. To change buzzer settings, go to **[Server]** → **[Event Matrix]** → **[Action]** → **[Mobile notification]**.



2. To enable the action, go to **[Server]** → **[Event Matrix]** → **[Event]**. Choose an event and click on **[Mobile notification]** column.

6.4.6.7. Event LED

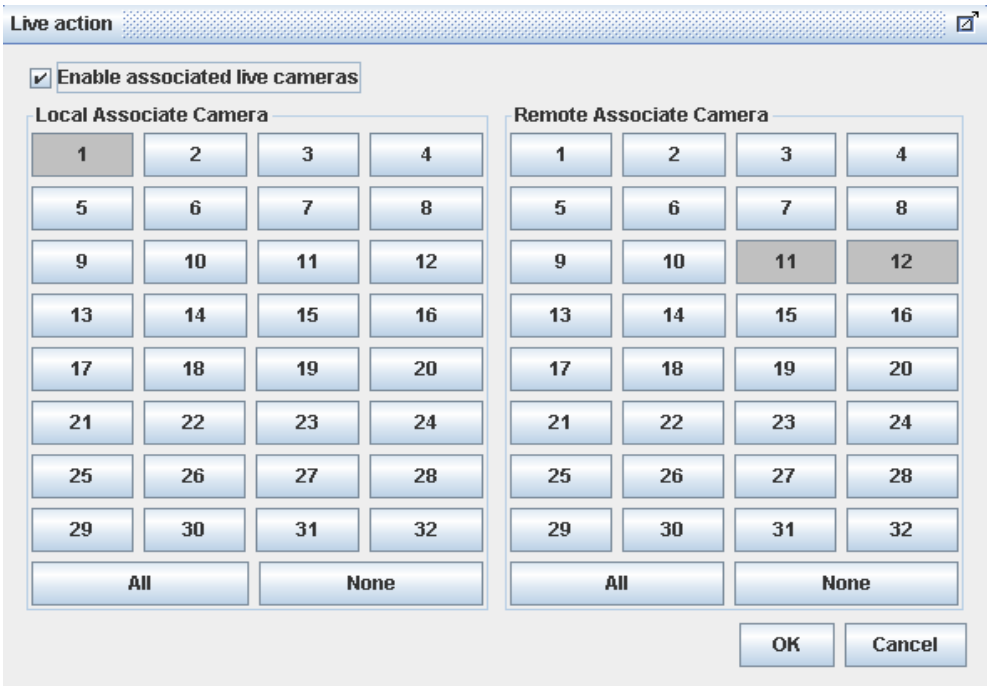
If an event is associated with LED action, the LED  built on the front panel of TeleEye GN8 will blink when this event is triggered. This action is enabled by default.

1. To disable the action, go to **[Server]** → **[Event Matrix]** → **[Event]**. Choose an event and click on **[LED]** column.

6.4.6.8. Live Camera

If an event is associated with live camera action, real time live video of pre-selected cameras will be displayed immediately when this event is triggered.

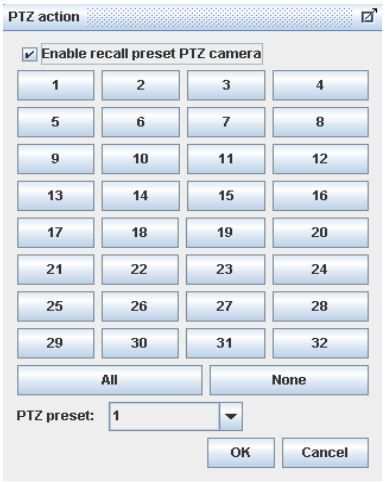
1. To change the settings go to **[Server]** → **[Event Matrix]** → **[Event]**. Choose an event and click on **[Live]** column.



6.4.6.9. PTZ

If an event is associated with PTZ camera action, associated PTZ camera will move to preset position when this event is triggered.

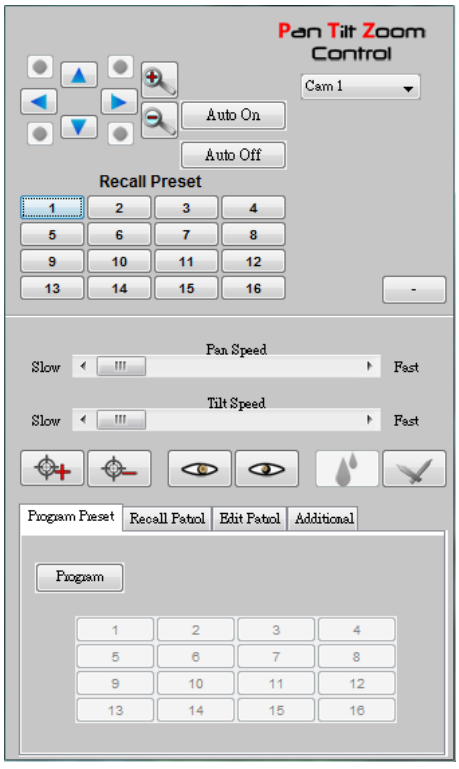
1. To change the settings go to **[Server]** → **[Event Matrix]** → **[Event]**. Choose an event and click on **[PTZ]** column.



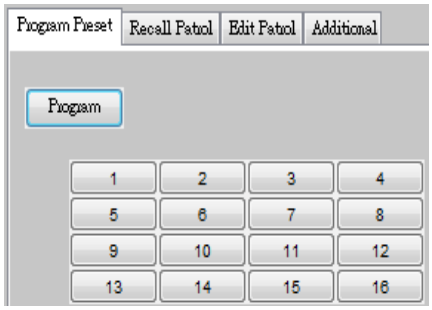
6.4.7. Pan Tilt Zoom (PTZ)

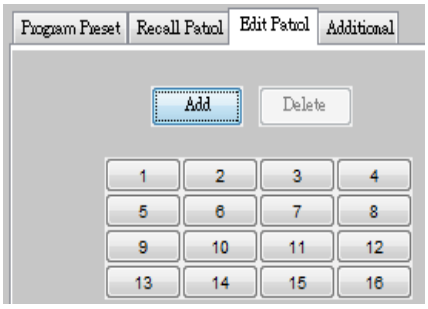
PTZ operations can be performed easily when a PTZ supported camera is connected to TeleEye GN8 digital video recorder .

2. Go to **[Menu]** → **[PTZ]** to open the PTZ control panel.



The meaning of each icon is summarized in the following table:

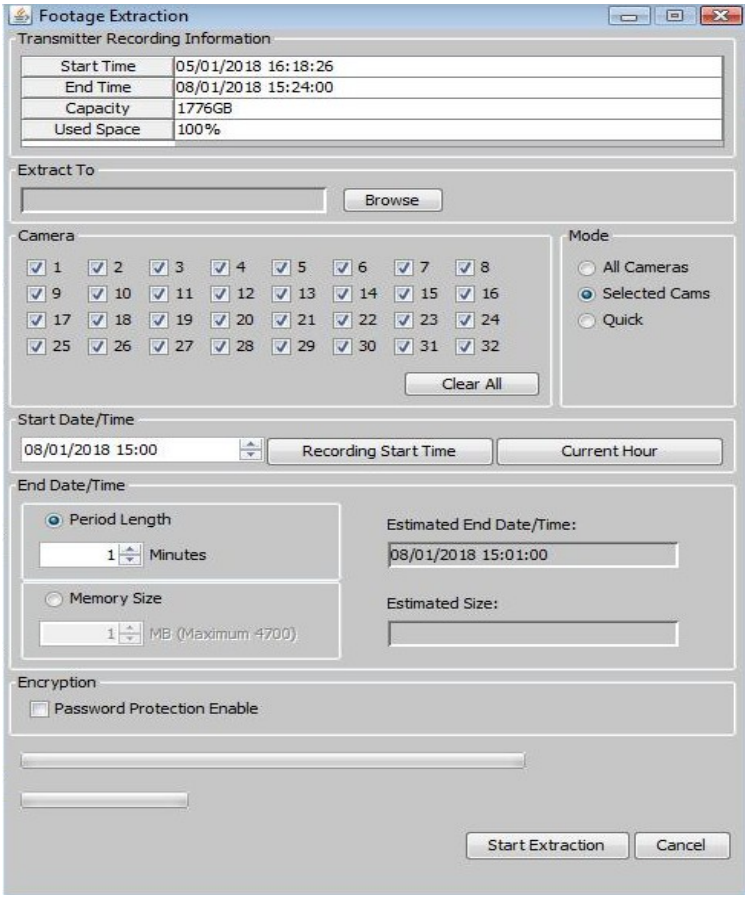
Button	Description
	Tile the camera up
	Tile the camera down
	Pan the camera left
	Pan the camera right
	Zoom in
	Zoom out
	Pan automatically until **[Auto Off]** is clicked
	Stop the auto pan operation
	Set the pan speed
	Set the tilt speed
	Configure the desired direction and lens' settings as the preset positions for recall preset and patrol operation
	Move to the pre-defined preset location by clicking the 16 numeric buttons

	Add or delete preset positions associated with patrol tour using the 16 numeric buttons
	• Start the patrol operation when **[Patrol1]** is clicked • Stop the patrol operation when **[Stop Patrol]** is clicked
	• Restore default setting by clicking **[Set Default]** • Delete the patrol 1 by clicking **[Clr. Patrol 1]** • Move to preset 1 automatically when left idle for a certain time, with **[Home On]** activated • Cancel the **[Home On]** operation by clicking **[Home Off]**

6.4.8. Footage Extraction

Video footage can be extracted through network.

1. Go to **[Menu] → [Footage Extraction]**

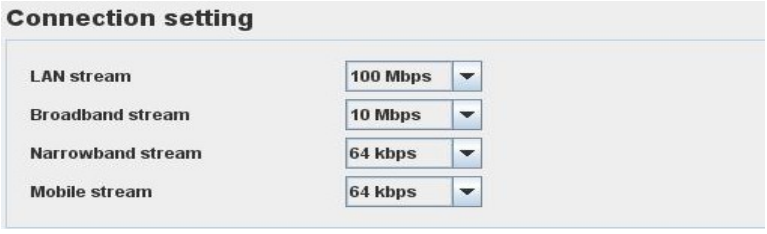


2. When extraction completes, open the selected folder and double click *"TPPlayer.exe"* to view the extracted video.

6.4.9. Throughput Control

Throughput control can limit the output data rate of the digital video recorder. To avoid possible downgrade in video monitoring performance, this setting should be configured to fit the network bandwidth.

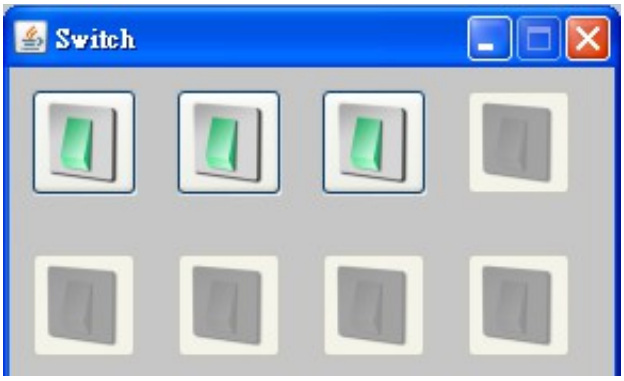
Go to **[Menu] → [Server Setting] → [Connection]**.



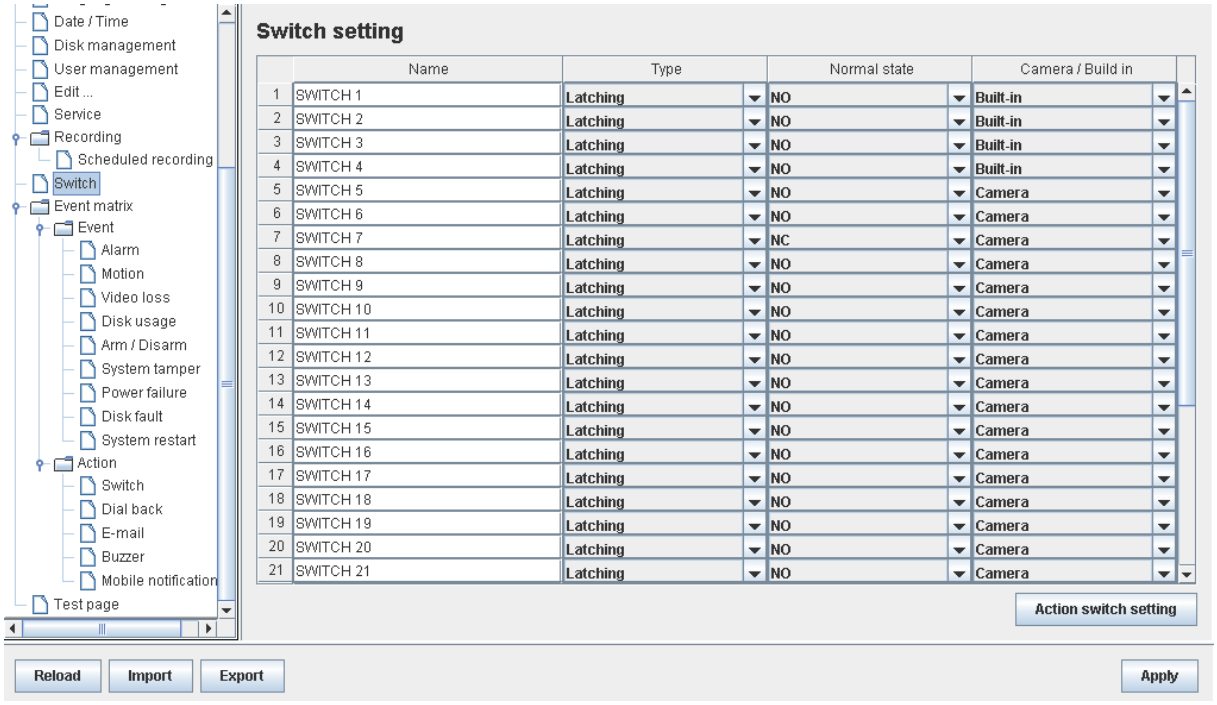
6.4.10. Switch Control

Besides controlling through event action, user can also control the external switches directly.

1. Go to **[Menu]** → **[Switch]** and click on a button to toggle the switch status.



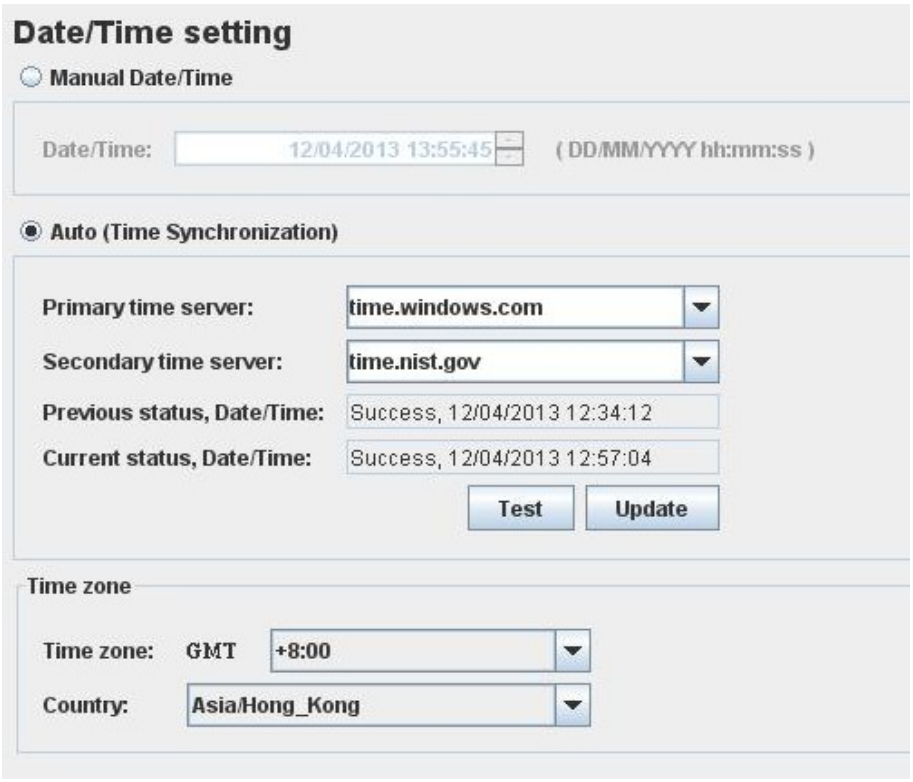
2. If user wants to change the switch settings, go to **[Menu]** → **[Server Setting]** → **[Switches]**.



6.4.11. Time Synchronization

The time in the digital video recorder can be synchronized with timeserver using the time synchronization function.

1. Go to **[Menu] → [Server Setting] → [Date/Time]**.



2. After changing the time settings, user can click **[Time Synchronization Test]** to perform testing.

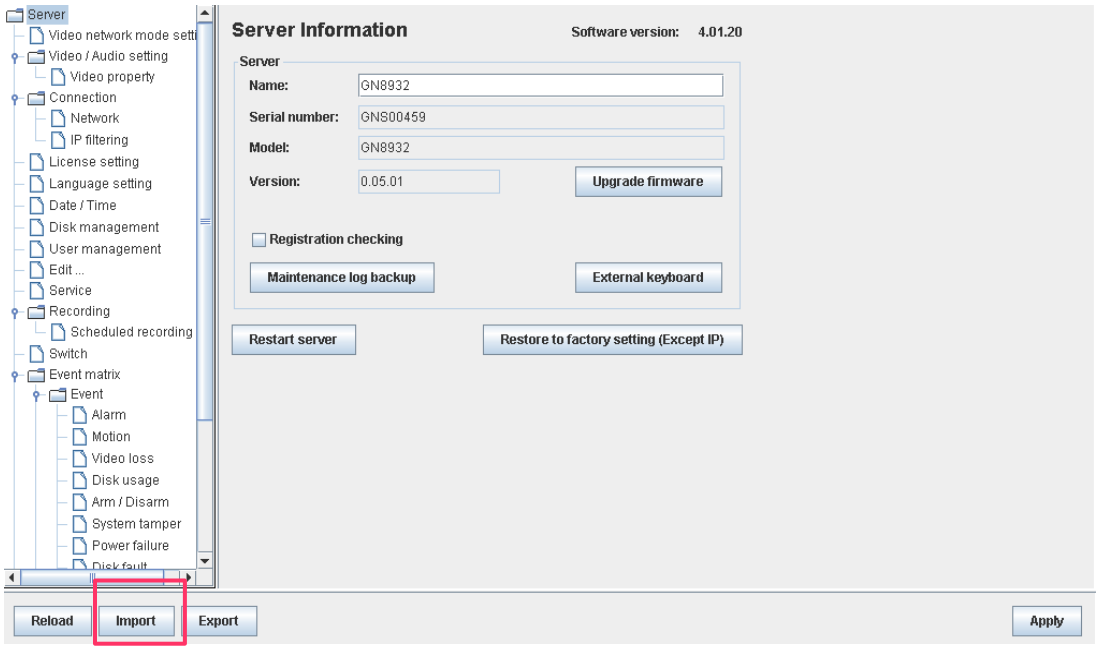
6.4.12. Import and Export

Settings of the digital video recorder can be exported to or imported from a remote PC through network. The procedure is shown as follows:

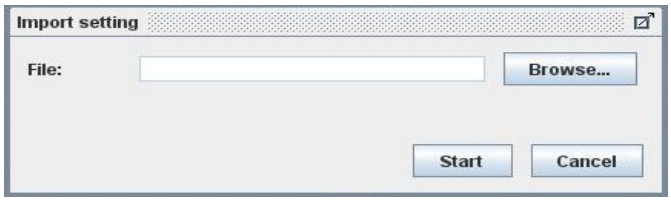
A. Import

Note that the digital video recorder will be restarted automatically after import process is completed.

1. Go to Setting page, select **[Import]** at the lower left corner of the page.

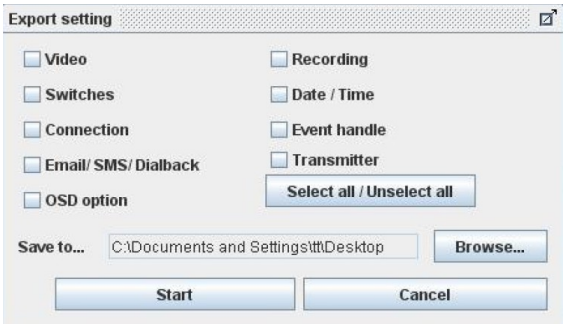


2. In the pop up menu, select the setting file to be imported.



B. Export

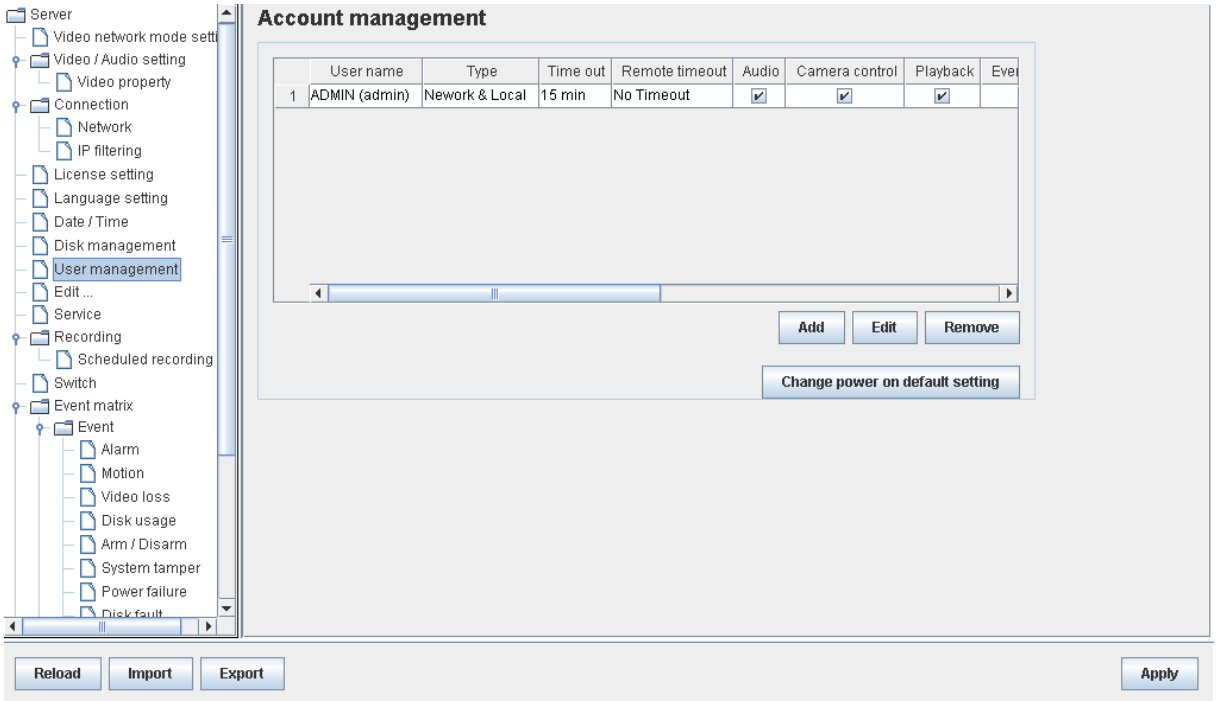
1. Go to Setting page, select **[Export]** at the lower left corner of the page. Select the configurations to be exported.
2. Upon completion, a message box will pop up and show the path of the exported file.



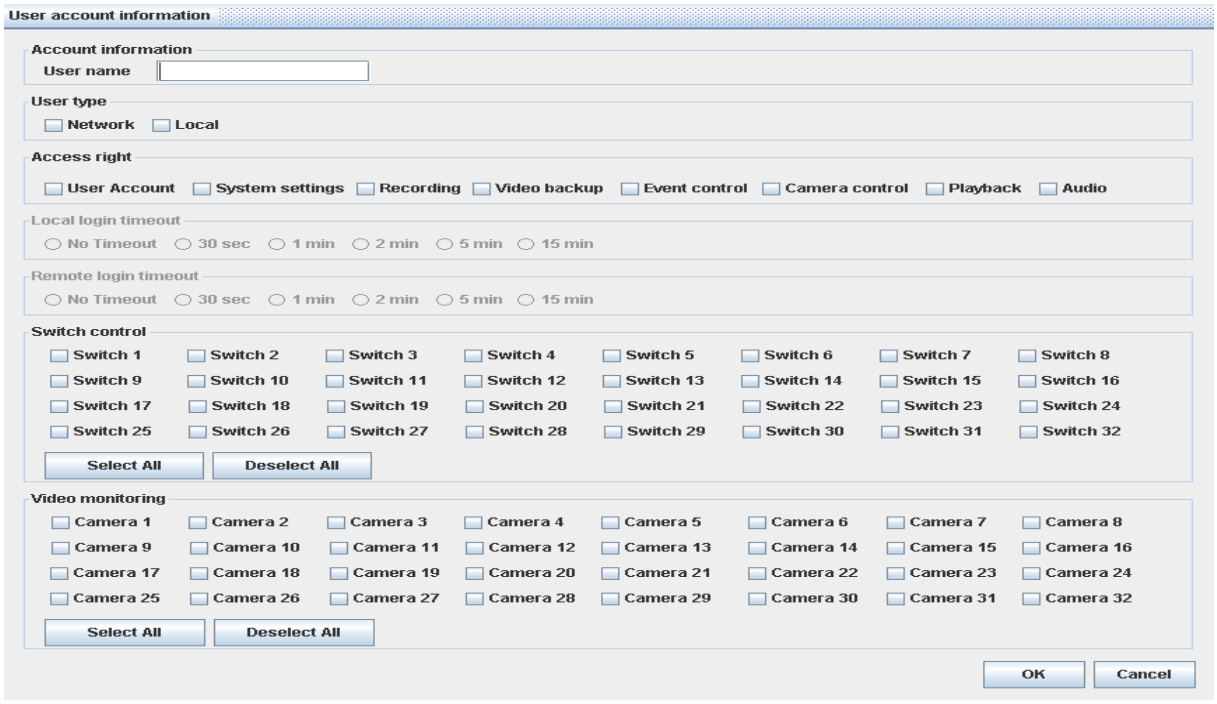
6.4.13. Account Management

In advanced security mode, different users are allocated with their own account and corresponding access rights. Only accounts with the *"User Account"* access right have the privilege to modify the account settings. Please refer to the appendix for details.

1. Go to **[Menu] → [Server] → [User management]**.



2. To add new account, click **[Add]**. To modify or remove an account, select an existing account and click **[Edit]** or **[Delete]** respectively.

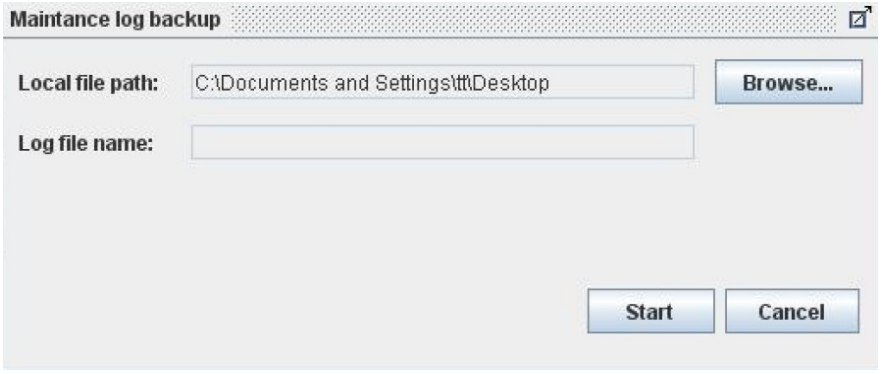


☞ *User name of an account cannot be changed after creation.*

6.4.14. Maintenance Log Backup

Maintenance log of the digital video recorder can be extracted.

Go to **[Menu] → [Server Setting] → [Maintenance Log Backup]**, click **[start]** to start backup process.



Appendix A: Safety Instruction

Read the following instructions carefully, and save them for future reference.

1. Follow all warnings and instructions marked on the product and this user guide.
2. Do not place this product on unstable cart, stand, or table. The product may fall, causing serious damage to the product.
3. Slot and openings of the casing are provided for ventilation; to ensure reliable operation of the product and to prevent it from overheating, these openings must not be blocked or covered. The openings should never be placed near a radiator or heat source, or in a built-in installation unless proper ventilation is provided.
4. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
5. The hard disk holder contains metal parts that may cause injury to user. Handle with care when installing and removing hard disk.
6. Do not attempt to service this product yourself, to avoid possible exposure to dangerous voltage points or other risks.

Appendix B: Limited Warranty

Conditions, limitations and liabilities of this warranty:

1. Signal Communications Ltd. (hereinafter called TeleEye) provides free repairing labour and free repairing parts for the first 12 months. Please present the Warranty Card and the original invoice when you are asking for service support.
2. When necessary, TeleEye staff shall request a remote access inspection or trouble shooting through internet or mobile media.
3. When service is required, the Customer is responsible for all the transportation costs.
4. Outdoor services are not included. Subject to TeleEye, outdoor services will be provided at extra charges.
5. This warranty does not extend to cover any damages or malfunction resulting from disaster, environmental factor, abnormal humidity/temperature, improper voltage, electrostatic discharge, misuse, negligence, ignorance, accident, mold, or repairs /modifications made by any person(s) other than the authorized personnel of TeleEye.
6. TeleEye reserves the right to charge Customer an inspection fee, on-site service fee or cost of parts if (i) no fault in the equipment can be found during inspection or (ii) the defect is caused at conditions those mentioned in point 5 above or (iii) Customer fail in providing access methods to the site or the equipment, e.g. specified access permit or key. Such determination is up to the sole discretion of TeleEye.
7. The warranty is void if any of the cabinet seal has been removed or opened if there is any such sign not being made by any authorized personnel of TeleEye.
8. Under no circumstance shall TeleEye be liable for any damages to any parties so caused by the usage of the above specified equipment or so caused during service provision.
9. The conditions, limitations and liabilities of this warranty card may be extended to further terms and conditions or superseded by other terms and conditions when otherwise specified on any of the products.
10. Customer shall be responsible for backing up the data contained in the disk products.
11. TeleEye shall have no responsibility arising out of any damage to, or loss of the data contained in the disk products.
12. All the above determinations are up to the sole discretion of TeleEye.

Appendix C: sureLINK Technology

sureLINK technology is available in TeleEye GN8 which enables you to connect to the digital video recorder with broadband dynamic IP Internet connection. If you can only use broadband dial-up account to connect to the Internet through your computer, sureLINK provides a solution for sharing the Internet connection between your computer and the digital video recorder.

sureLINK is a group of additional functions, services and software provided for the digital video recorder so as to make it connect to the Internet in any connection methods. Such function can only be used if you have applied for this service though. After you have done so, you also need to configure the digital video recorder to make sureLINK available. This section will help you configure and use it.

With the sureLINK technology, the powerful TeleEye GN8 can work on broadband Internet economically and cost effectively, and perform remote live video monitoring anytime and anywhere conveniently.

sureLINK Address

You can apply for a sureLINK address (domain name), such as *www.hkpublic.TeleEye.TeleEye.net*, for your digital video recorder. You can use this name to login or browse the built-in web server. One of the advantages is that you are not required to memorize the IP address and port number (e.g. 210.177.50.156:1024) of the digital video recorder. Since the sureLINK address is fixed while the IP address may change periodically (in case dynamic IP is used), you do not need to worry about the expiration of the IP address. The sureLINK address can be used in digital video recorder web browsing to see live video on standard web browser (e.g. IE, Netscape).

Refreshing Rate

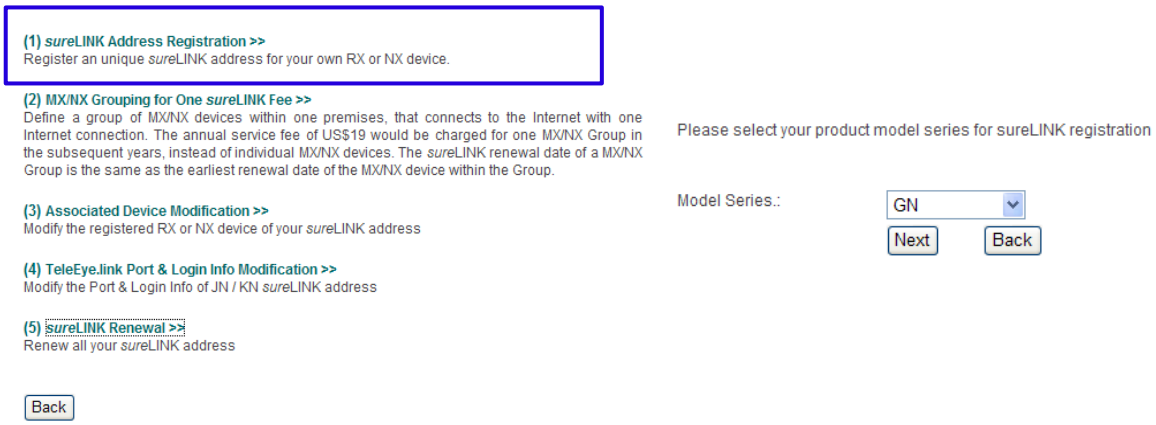
When sureLINK address feature is enabled, your GN8 digital video recorder will periodically update its current IP address to our database to ensure that the sureLINK address is always forwarded to a valid IP. This update period can be set through OSD menu or web browser.

A. sureLINK Application

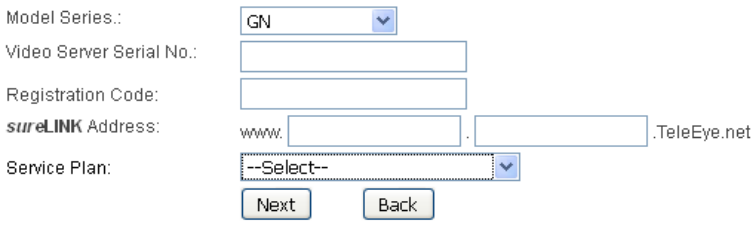
You can apply for sureLINK by visiting our web site at *http://www.TeleEye.com*. Follow the steps below:

1. Enter *http://www.TeleEye.com* in your web browser address bar to access our web site. Click on **[Login]** button.

2. Login using your registered name and password. New customers need to sign up first.
3. Select **[sureLINK Registration] → [sureLINK Address Registrations]**. Then select *"GN"* and then click next.



4. Enter a sureLINK address (Domain Name), your video recorder serial no. and registration code in the fields provided. Then click on **[Next]** button. The process is then completed.



[Reference] Registration Code is printed on the registration Code Sheet

The application will be processed once we received your domain name registration. Normally, it requires about 1 working day to activate sureLINK for your TeleEye GN8. You will receive a notification mail when your sureLINK service is ready.

B. sureLINK Modification

Since the sureLINK (Domain name) address corresponds to a single digital video recorder, if you change from one digital video recorder to another one, you have to inform us to update our database record. To do this, you can visit our TeleEye Product Support again and follow the steps below:

1. Login in at *http://www.TeleEye.com*

2. Go to **[sureLINK Registration] → [Associate Device Modification]**
3. Select a sureLINK address (Domain Name) you want to modify.
4. Enter the old registration code, new digital video recorder serial number and new registration code in the fields provided.
5. Click **[Modify]** button to submit the form.

If the above procedure is completed successfully, the new sureLINK will become effective immediately.

C. sureLINK Setup in TeleEye GN8

After getting a sureLINK address, configure the address to GN8 through web browser

1. Use IP Setup Utility to access GN8 web page by double clicking the row represent your GN8 digital video recorder.
2. Click on **[Menu] → [Server Setting**], select **[Connection] → [Network].**
3. Scroll down to sureLINK section.

4. Select *"Using sureLINK address"* to enable sureLINK function.
5. Type in the registered address.
6. Select a time period for GN8 to update its IP address to sureLINK server.

Appendix D: Firmware Upgrade

Please follow the following procedures to upgrade the TeleEye GN8 to a new version of firmware. User can choose to perform the upgrade locally using USB flash device, or through a remote PC.

USB Upgrade

Step 1:	• Get ready the TeleEye GN8 firmware upgrade file *.rxp.
Step 2:	• Get ready an empty USB flash device • Download the firmware upgrade file to the root directory of the USB, for example, E:*.rxp.
Step 3:	• Turn on the GN8 digital video recorder. • Plug the USB device to the USB port of the digital video recorder.
Step 4:	• Enter the menu **[Main Menu] → [System] → [Firmware Upgrade]** • Click **[Upgrade]** to start the upgrade.
Step 5:	• After upgrade, the digital video recorder will be restarted. • Enter the menu **[Main Menu] → [System] → [Server Information]** to check the firmware version.

Network Upgrade

Step 1:	• Get ready the TeleEye GN8 firmware upgrade file *.rxp.
Step 2:	• Turn on the GN8 digital video recorder.
Step 3:	• Connect to the digital video recorder through web browser.
Step 4:	• Go to the setting page, select **[Server]**, click *"Upgrade Firmware"*. • Click **[Browse]** to select the path of the firmware upgrade file. • Click **[Start]** to start the upgrade.
Step 5:	• After upgrade, the digital video recorder will be restarted. • Go to the setting page, check the firmware version at **[Server] → [Version]**.

Appendix E: Security Mode

In TeleEye GN8, there is advanced security mode. In advanced security mode multiple user accounts with flexible access right can be created. The property of the security mode can be found in the following table:

Description		Advanced Security Mode
Number of account		20
Account apply on		Remote software and local OSD
Password length		4 – 10
Password encryption		Yes
Login	Remote software	User name and password
	Local menu	Only password
Access right		Video monitoring Audio Playback Camera control Event control Switch control Video backup Recording System setting User account

☞ *Advanced security mode supports 6 concurrent users*

Advanced security mode – User account

Account structure

Type	Description	Remark
General setting		
User name	Login user name from remote software	4 – 16 characters Case insensitive Unique between each account
Account type	Local / Network / Both	Allow user to login from local OSD / remote software / both
Access right	Access right of the user account	------
Network account type setting		
Network password	Login password from remote software	4 – 10 characters Case insensitive
Local account type setting		
Local password	Login password from local OSD	4 – 10 numeric characters Unique between each account
Local time out	Automatic log out time when keypad and mouse idle	Except in playback state

By default, a preset account: ADMINISTRATOR is stored in the digital video recorder. The account ADMINISTRATOR cannot be removed. When TeleEye GN8 startup or local user logout, access right of local menu will follow the setting of “Power On Default Right”.

Administrator account: ADMINISTRATOR

Type	Default	Remark
User name	ADMINISTRATOR	Fixed
Account type	both	Fixed
Access right	All	Fixed
Network password	0 + digits of serial number	Available to change
Local password	0 + digits of serial number	Available to change
Local time out	15 mins	Available to change

Power on default right

Type	Default	Remark
Access right	None	Available to change

Advanced security mode – Access right

Group	Features Involved
Video monitoring #	Basic video monitoring with fixed cameras Browsing the event status **
Audio	Audio monitoring ** PA with microphone, PA with pre-recorded voice clips
Playback	Video playback ** Browsing event log, connection log, setting log and operation log
Camera control	PTZ **
Event control	Clear event
Switch control	Switch control
Video backup [1]	Video extraction and backup
Recording [1]	Start / stop recording Start / stop schedule recording
System setting [1]	Video format, camera installation Change live video quality brightness, contrast Network setting, throughput control setting Date/Time setting Hard disk formatting, scanning Recording setting Switch setting Event setting Firmware upgrade Shutdown / restart
User account [2]	User account setting Changing of security mode Setting import / export Restore factory setting

At least one camera should be selected

** Video monitoring dependency. For example, if user has no access right on camera 2 monitoring, he cannot browse event status, control PTZ and playback on this camera.

[1] All video monitoring, audio and playback access right groups will be enabled automatically

[2] All access right groups will be enabled automatically

Appendix F: General Terms Discussion

Before you start configuring the digital video recorder, you may need to know some of the terms and information used in the digital video recorder.

Registration Checking

When this feature of TeleEye GN8 is enabled, users need to do the registration in the remotely connecting software (e.g. JAVA web page, TeleEye sureSIGHT) for authorization before the digital video recorder can be used. This option can be applied to improve the security protection for the organization when higher security level is required. If the digital video recorder is decided to open for public use, this feature can be disabled so that public users do not need to register for viewing live video remotely through network.

Site Monitoring Method

There are two methods to link up with the digital video recorder to view video:

- TCP/IP in LAN
- TCP/IP on the Internet using Broadband and Internet Router

Depending on the connection method chosen, follow Section 3 to configure the digital video recorder before use so as to make it function properly.

The built-in web server or TeleEye surveillance applications (e.g. sureSIGHT) contains all the settings for different remote video monitoring methods. Different connection methods may have different settings, and some of the setting configured in one connection method may not be applicable to other method.

It is recommended that the above items should be configured before the first time you use the digital video recorder no matter which connection method you use. The setup and configuration procedures are discussed in Section 3: Setup for Local and Remote Monitoring.

Appendix G: Audit Trail Log Description

A. Audit Trail Log Description of Setting Log

Event short form: *[Event]*

ARM	Arm/disarm input
Secu Switch	Security switch input
Alarm	Alarm sensor input
Motion	Motion
Video Loss	Video loss
Disk Usage	Disk usage
Sys Tamper	System tamper input
Power Fail	Power failure input
HDD Fault	HDD fault
Sys Restart	System restart

B. Setting Log Setting Column Table

Setting	Description
Camera Installed	Install / uninstall camera
Camera Name	Change camera name
Date Time Position	Change OSD clock position
PTZ Supported	Support PTZ camera or not
PTZ Pan Speed	Change PTZ camera pan speed
PTZ Tilt Speed	Change PTZ camera tilt speed
PTZ Pan Duration	Change PTZ camera pan duration
PTZ Tilt Duration	Change PTZ camera tilt duration
PTZ Zoom Duration	Change PTZ camera zoom duration
PTZ Focus Duration	Change PTZ camera focus duration
PTZ Iris Duration	Change PTZ camera iris duration
PTZ Additional Duration	Change PTZ camera additional duration
PTZ Washer Duration	Change PTZ camera washer duration
PTZ Wiper Duration	Change PTZ camera wiper duration
PTZ Patrol Speed	Change PTZ camera patrol speed
PTZ Dwell Time	Change PTZ camera dwell time
PTZ Driver	Change PTZ driver
PTZ Baud Rate	Change PTZ camera baud rate
Camera Name Enabled	Show / hide OSD camera name
Sequential Time	Change sequential mode camera switch time
Sequential Cam	Change camera displayed in sequential mode
Default Display	Change default display mode

OSD Font Color	Change OSD font color
Rec Frame Rate	Change recording frame rate
Schedule Rec Enabled	Enable / disable schedule recording
Disk Mode	Change recording disk mode
Video Quality	Change recording quality
Image Size	Change recording resolution
Retention Enabled	Enable / disable recording retention
Retention Period	Change retention period
Retention Time	Change retention time
Rec Audio Channel	Change recording audio channel
Switch Name	Change switch name
Switch Type	Change switch type
Date Time	Change date time
Time Zone	Change time zone
Auto IP	Enable / disable auto IP
IP Address	Change IP address
Port	Change port
Subnet Mask	Change subnet mask
Gateway Enabled	Enable / disable gateway
Gateway	Change gateway
Auto DNS	Enable / disable auto DNS
DNS	Change DNS address
sureLINK Enabled	Enable / disable sureLINK
sureLINK Address	Change sureLINK address
sureLINK Refresh Rate	Change sureLINK refresh rate
Throughput	Change throughput
[Event] Enabled	Enable / disable the event
[Event] Tamper Type	Change the event tamper type
[Event] Zone	Change the event zone type
[Event] Entry Delay	Change the event entry delay
[Event] Exit Delay	Change the event exit delay
Arm State	Change arm state
Associate Switch 1	Enable / disable arm/disarm associate switch 1
Secu Switch On State	Change security switch on state
Associate Switch 2	Enable / disable security switch associate switch 2
Alarm Name	Change alarm sensor name
Alarm Sensor Type	Change alarm sensor type
Motion Block	Change motion detection block
Motion Sensitivity	Change motion detection sensitivity
Motion Level	Change motion detection level
Motion Area	Change motion detection area
Sys Tamper Sensor Type	Change system tamper sensor type
Power Fail Sensor Type	Change power failure sensor type
Disk Usage Level	Change disk usage warning level
[Event] Recording	Enable / disable recording action of the event
[Event] Rec Cam	Change event recording camera

[Event] Rec Frame Rate	Change event recording frame rate
[Event] Rec Duration	Change recording duration after event clear
[Event] Switch	Enable / disable switch action of the event
[Event] Switch Mask	Change switch associated to the event
Switch Latch Duration	Change switch latch duration
Switch Delay	Change switch action delay
[Event] Dialback	Enable / disable dialback action of the event
Dialback IP	Change dialback IP address
Dialback Port	Change dialback port
Dialback Retry Duration	Change dialback retry duration
Dialback Retry Count	Change dialback retry count
Dialback Type	Change dialback type
[Event] Email	Enable / disable e-mail action of the event
SMTP Server	Change SMTP server address
SMTP Authentication	Enable / disable SMTP server authentication
SMTP User Name	Change SMTP server user name
SMTP Password	Change SMTP server user password
Email Timeout Retry	Change e-mail timeout / retry count
Email Address	Change recipient e-mail address
Max No. of Email	Change maximum no. of email
Email Delay	Change email action delay
[Event] Buzzer	Enable / disable buzzer action of the event
Buzzer Duration	Change buzzer duration
Buzzer Delay	Change buzzer action delay
[Event] LED	Enable / disable LED action of the event
[Event] Live Cam	Enable / disable live camera action of the event
[Event] Live Cam Mask	Change camera associated to live camera action
[Event] PTZ	Enable / disable PTZ action of the event
[Event] PTZ Cam	Change camera associated to PTZ action
[Event] PTZ Preset	Change PTZ camera recall preset position
Server Name	Change digital video recorder name
Registration Check	Enable / disable registration checking
Web Server Enabled	Enable / disable built-in web server
Security Mode	Change security mode
Add Account	Add a new account
Delete Account	Delete an account
Edit Account	Change information of an account
Hardware Arm Mode	Change to hardware arm mode
Software Arm Mode	Change to software arm mode
Schedule Arm Mode	Change to schedule arm mode
Edit Normal Arm Schedule	Add / delete normal arm schedule
Edit Holiday Arm Schedule	Add / delete holiday arm schedule
[Event] Add Suspension	Suspend the event
[Event] Rm Suspension	Remove the suspension of the event
Alarm Src Type	Change the source of alarm
Switch Src Type	Change the source of switch

Rec Audio Src Type	Change the source of audio input
Audio PA	Enable /disable PA
Audio PA Src Type	Change the source of PA output

C. Operation Log Operation Column Table

Operation	Description
Start Recording	Start manual recording
Stop Recording	Stop manual recording
Start Playback	Start playback video
Stop Playback	Stop playback video
Network Backup	Start backup from remote interface
Backup to USB	Start backup to local USB flash device
Stop Backup	Stop backup
Scan Disk	Scan hard disk
Format Disk	Format hard disk
Switch X On	Turn on switch X
Switch X Off	Turn off switch X
Restore Factory	Restore default factory setting
Start Retention	Start recording retention
Stop Retention	Stop recording retention
Upgrade from USB	Upgrade firmware from USB
Remote Upgrade	Upgrade firmware from remote interface
Import Setting	Import settings
Export Setting	Export settings
Local Login	Local user login
Local Logout	Local user logout
Remote Login	Remote user login
Remote Logout	Remote user logout
Software Arm	Armed from remote interface
Software Disarm	Disarmed from remote interface
Enable Schedule Arm	Start schedule arm mode
Disable Schedule Arm	Stop schedule arm mode
System Startup	Start the digital video recorder
System Restart	Restart digital video recorder
System Shutdown	Shutdown digital video recorder
Password Reset	Reset user login password
Power Off	System shut down abnormally
Disk Turn On	Disk turn on
Disk Turn OFF	Disk turn off

D. Connection Log Column Table

Connected	Remote user connected
Disconnected	Remote user disconnected
Failed	Remote user connection fail
Unauthorized	Invalid remote user connection rejected
Timeout	Remote user connection time out

Appendix H: Specifications

ITEM	MODEL	
	GN8916	GN8932
VIDEO INPUT		
Supported HD cameras	TeleEye MQ and MP series, IP cameras conform to ONVIF profile S	
Digital channel RJ45, 10/100 base-T	1	
VIDEO OUTPUT		
Digital video	1 channel, 1280x720, 1920x1080, 3840x2160	
VGA	1 channel, 1280x720, 1920x1080	
Display screen	Full, quad, 3x3, 4x4	Full, quad, 3x3, 4x4, 5x5, 6x6
AUDIO INPUT		
No. of channels	1	
RCA	Line level; Output impedance: 30KOhm, Frequency: 200-3500Hz	
AUDIO OUTPUT		
No. of channels	1 for PA, HDMI for Local output	
RCA	Line level; Output impedance 600Ohm, Frequency: 200-3500Hz	
RECORDING		
Mode	Manual, schedule, motion, event-driven	
HDD	SATA, internal x8	
Max. recording performance	25fps per channel @ 4K 25fps per channel @ WQHD	12fps per channel @ 4K 25fps per channel @ WQHD
Playback	Forward, backward, pause, step forward, step backward, fast forward	
COMMUNICATION		
Network	RJ-45, 10/100/1000 base-T Ethernet (auto-sensing)	
Concurrent users	6 (independent)	

sureLINK	Support Internet connection assigned with dynamic IP address	
Max. transmission frame rate	400fps	800fps
Web server	Built-in	
Keyboard control	RS422/RS485, 1 channel input	
USB	1 @ front panel, 2 @ rear panel; USB 2.0 High speed 480Mbps	
EVENT HANDLING		
Event	External alarm, Tamper, Video motion detection, Video loss, Power interruption, System failure, Disk Failure	
Action	Buzzer, Dial back, Local recording, Relay control, Email notification, PTZ, mobile notification	
External alarm inputs	16	
RELAY SWITCH		
No. of channels	4	
Max. rating	24V AC, 1000mA	
POWER		
Voltage	AC100-240V/3.5-2A	
Max. rating	80W	
OPERATING ENVIRONMENT		
Ambient temperature	-10°C - 55°C	
Relative humidity	10% - 90% (no condensation)	
MECHANICAL DESIGN		
Dimension	440x95x440mm	
Weight	7.6kg	