# **TeleEye** GN8 Series

# **HD Digital Video Recorder**

GN8916 / GN8932 / GN8616 / GN8816

**User Guide** 

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# **Section1: Introduction**

TeleEye GN8 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 GN8 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 hackers' attacks via the Internet.

TeleEye GN8 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. HDD screws



6. 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, Enhanced 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

**G** Remarks

## 1.4. Hardware Feature

#### 1.4.1. Front View

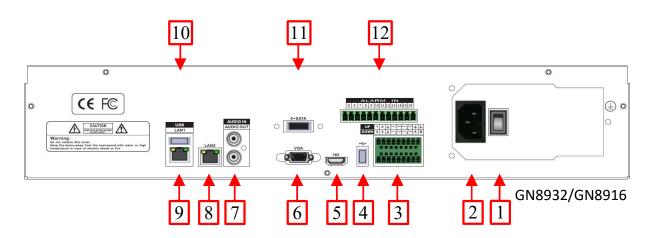


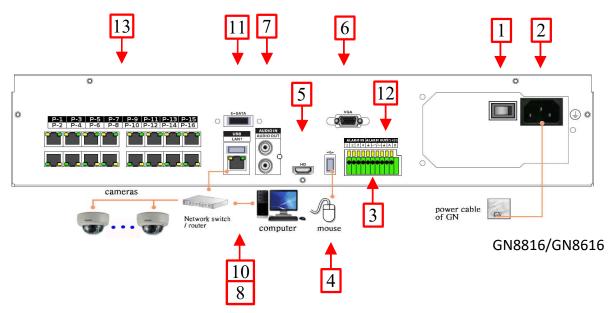
LED	Description
<b>9</b>	Light up when power on
0 •	Light up when performing recording Blink when event is triggered

#### 2. Front USB port

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

#### 1.4.2. Back View





#### 1. Power switch

Switch on or off the TeleEye GN8 HD Digital Video Recorder

#### 2. Power input (AC100-240V/3.5-2A)

Power supply for 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
- 13. POE Digital video input ports
  - 16 channels POE RJ-45 connectors for video source input

# Section2: Hard Disk Installation, Formatting and Scanning

## 2.1. Hard Disk Installation

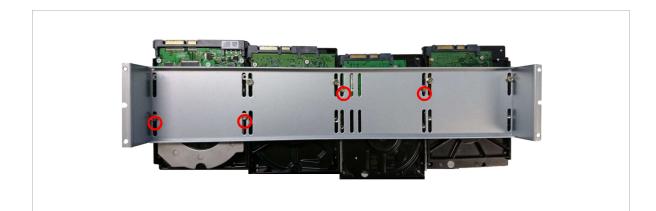
A hard disk is required for recording, video playback and keeping different types of log. Follow the steps below for disk installation. A hard disk recommendation list has been included in the package as a reference.

#### **GN8** series

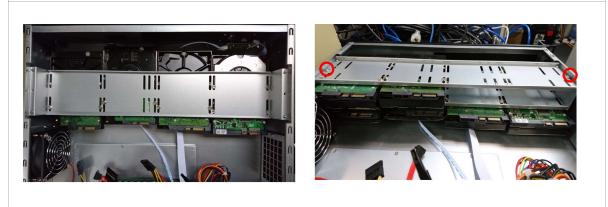
- 1. Loosen the screws of the cover.
- 2. Remove the cover and take out the hard disk holder.
- 3. Mount the HDD on the hard disk holder with attached screws. A maximum of 8 HDD can be

installed.

- 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. This often occurs on hard disks that have not been used by the video recorder before. 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.

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

# Disk Management Total Size Total Usage Estimated Time O Days (walt for 5 minutes) Recording Redundancy RAID Status RAID Status RAID Rebuilding Stot Model SN Installation Last Format Size/GB Status STATA WDC WD8ZEJPOV89A VGGBXRTG 2022-07-21 2022-05-17 7626-76 GB (DN) N RECORDING 02 03 04 05 06 07 08

#### [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/off 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] $\rightarrow$ [HDD/Recording] $\rightarrow$ [Disk Management].

Clicking on the [Scan All] button will start scanning all installed hard disk.

# 2.4. RAID Setting

RAID Setting allows users to configure RAID in TeleEye GN8. All disks must have 200GB or more

and with similar disk size. The function can be found in the OSD menu:

#### [Main Menu] $\rightarrow$ [HDD/Recording] $\rightarrow$ [Disk Management] $\rightarrow$ [RAID Setting].



RAID5 Enable / Disable RAID

RAID Spare Disk No. of spare disk

#### 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 Status: FAIL, not enough disk	RAID Status: REBUILDING, SPARE:
RAID-RECORDING	for raid	0/1
	RAID Rebuilding:	RAID Rebuilding: rebuilding starts
	RAID rec.: recording fail	again
	Playback: playback fail	RAID rec.: recording normal
		Playback: playback normal
Remove 1 HDD:	RAID Status: DEGRADED, SPARE:	NA
REBUILDING	0/1	
	RAID Rebuilding: rebuilding starts	

	again RAID rec.: recording normal Playback: playback normal	
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

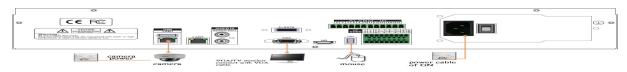
# Section3: Camera

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

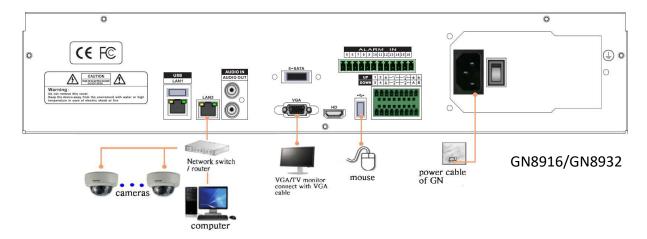
# 3.1. Camera Installation

# 3.1.1. Setup for Local and Remote Monitoring

#### **Dedicated Video Network**



#### **Shared IP Network**



- 1. Follow the diagram 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.



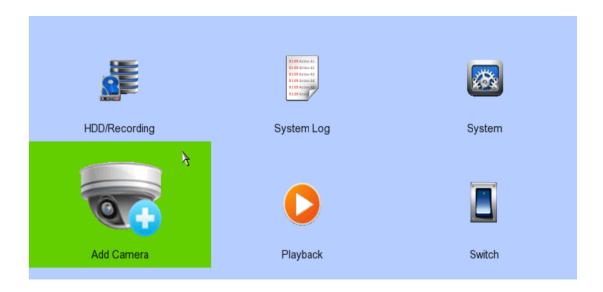
## 3.1.2. Adding New Camera

#### **Dedicated Video Network**

Cameras will be search automatically after installing cameras to the video ports of TeleEye GN8.

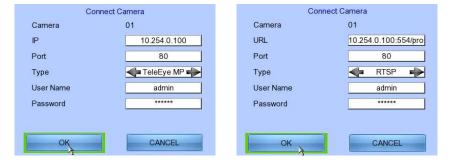
#### **Shared IP Network**

[Main Menu] → [Add Camera]



- 2. Click to search for cameras. The details of cameras such as CAM number, IP port, Type, Model and Status will be shown on screen.
- 3. Select the camera that you want to add, click to edit camera information.
- 4. Click **[OK]** to connect. Click **[OK]** to connect. There are 9 types of cameras: TeleEye MQ, TeleEye MP, TeleEye MX, TeleEye MS, TeleEye EX, FISHEYE, AX8, RTSP, and ONVIF. Please make sure that you have selected the correct type of camera.

(Whatever the type of cameras you have selected, you are requested to enter a username and password.)



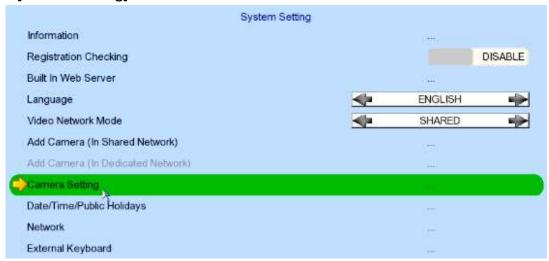
(For TeleEye MQ / MP, the default user name is "admin" and the password is "123456".)

# 3.2. Camera swapping

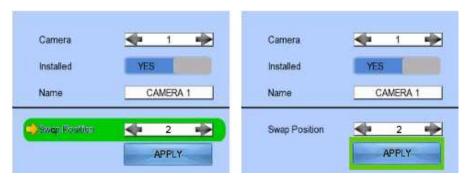
In Dedicated Video Network mode, the assigned camera number of a digital video recorder is not dependent on the port number. It is dependent on the order in which the recorder is added. For example, if camera A is connected to video port 2 first, and camera B is connected to video port 1 afterwards, CAM 1 will display recording from Camera A as it was added first. Recording from Camera B will be displayed on CAM 2. However, it is possible to swap the camera numbers — the

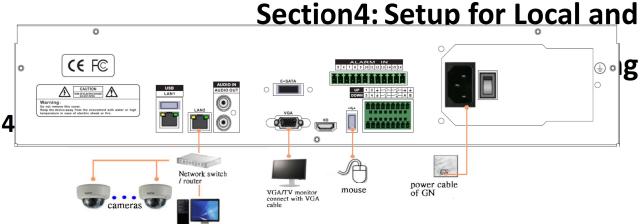
position of recordings displayed on screen.

- 1. Switch on the video recorder. Open the main OSD menu by right clicking the mouse. Click [Menu] and Select [System].
- 2. Select [Camera Setting].



3. Camera in position shown next to **[Camera]** will be swapped with the camera in position shown next to **[Swap Position]**. Click **[Apply]** to swap the cameras.





#### **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

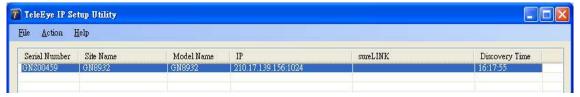
#### **Setup Procedures on GN8 Side:**

- 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 a network switch or video ports of TeleEye GN8.
- 3. Connect TeleEye GN8 to the network switch.
- 4. Connect TeleEye GN8 to the power adaptor provided and plug in the power adaptor.
- 5. If 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 the IP address of the PC should be the same as that of TeleEye GN.
- Besides accessing through IP Setup Utility, users 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 sureLINK address in the address bar directly.
- 7. By default, the username is "admin". Enter a password and press [Connect].

(The default administrator password is "0"+"digits of serial number". Here is an example:

Serial Number: GNS11529

Username: admin

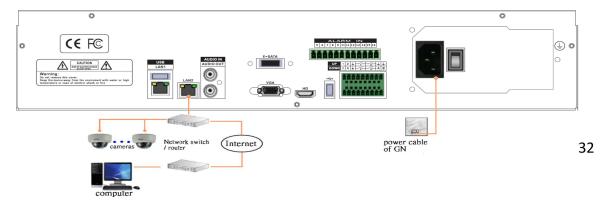
Default Password: 011529

(Details can be found in the registration code sheet)





# 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:

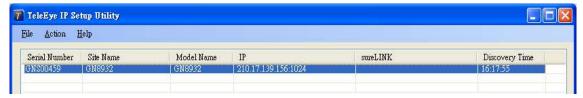
- Java: Sun Microsystems Java 2 runtime Version 1.5.0 or above
- IE: Windows Internet Explorer Version 6 or above

#### **Setup Procedures on GN8 Side:**

- 1. Install a hard disk to TeleEye GN8.
  - 🕝 If no hard disk is 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 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 a PC with a 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.
- 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 the address bar directly.
- 9. By default, username is "admin". Enter a password and press [Connect]. (The default administrator password is "0"+"digits of serial number". Here is an example:

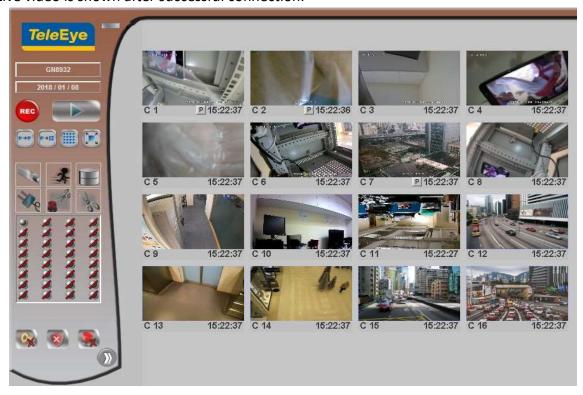
Serial Number : GNS 11529

Username: 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 videos from a local monitor, icons may be shown on the screen. Each icon has its special meaning. A summary of their meanings can be found in the following table.

Icon	Representation	Icon	Representation
K	Tamper event	<b>② ③</b>	Arm/disarm control
	Alarm event		Security switch control
<u>_</u>	Motion event	REC	Recording
	Video loss event	•	Playback
î	Power failure event		Pause in playback
0	HDD fault event	<b>&gt;</b>	Fast Forward in playback
8	Audio enabled	4	Backward in playback
4	OSD object selection	+	Digital /Analog PTZ control
1	PTZ tite up		PTZ tite down
<b>—</b>	PTZ pan left	<b>→</b>	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)
FORMATTING:	Disk formatting	SCANNING:	Disk scanning
RECOVERING:	Recovering recording		

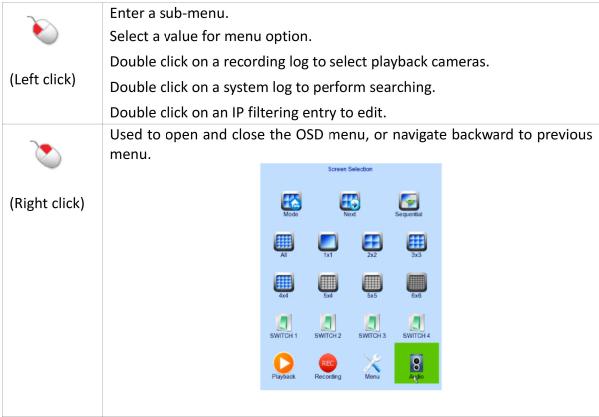
# 5.2. OSD Menu

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

#### 5.2.1. OSD Menu Operation

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

#### A. By Mouse



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

Item	Name	Description
No	Yes/No box:	2 options only
		Click on it to toggle between options
₹ 720P	Spin box:	3 or more options available
		Click on the arrows to change between options
5 MINS	Drop down box:	Multiple options available
		Click on it to display all available options
		Select an option by clicking on it
11:00	Edit box:	Requires the user to enter a value
		Click on it to prompt a virtual keypad for inputting
	Link:	Click on it to enter a sub-menu
	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 of 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

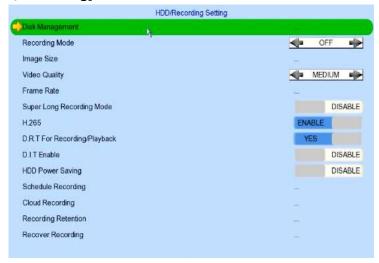
· Schedule: Enable schedule recording

#### [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 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]



	Format scan or anabla/disable
Disk Management	View hard disk informations

Format, scan or enable/disable disk

Enable/disable RAID

Recording Mode	Select recording mode			
	Off :Disable recording			
	<ul> <li>On :Enable recording of all cameras</li> </ul>			
	Schedule :Enable schedule recording			
Image Size	Set recording resolution			

4K : 3840 x 2160
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
	<ul> <li>Auto : Record at the highest achievable frame</li> </ul>

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 tampered recordings

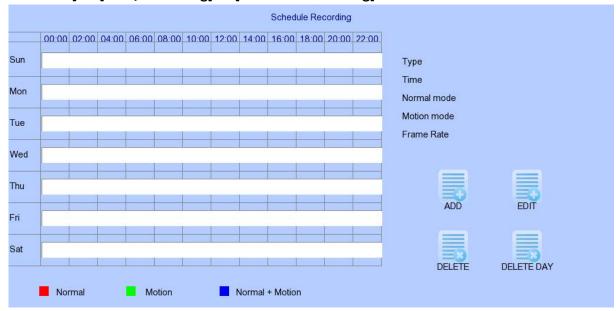
# [Main Menu] → [HDD/Recording] → [Disk Management]

			Disk Managemer	II.		
Total Size					754	16.53 GB
Total Usage					0 %	
Estimated T	ime				0.0	ays (wait for 5 minutes)
Recording F	Redundancy					DISABLE
RAID Setting	9					
RAID Stitus						AID DISABLED
RAID Rebuil	ding					
Slot	Model	SN	Installation	Last Format	Size/GB	Status
01 💫	ATA WDC WD82EJRX-89A	VGG9XR1G	2022-07-21	2022-05-17	7628.76 GB (0%)	IN RECORDING
02						
03						
04						
05						
06						
06						

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]

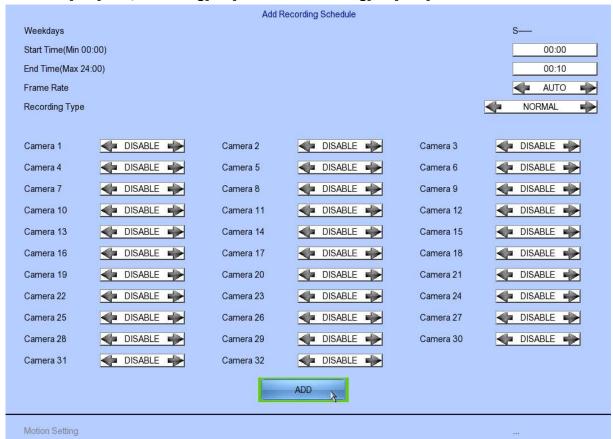


Add	Add a new recording schedule
Edit	Edit the selected schedule

Delete the selected schedule

Delete Day Delete all schedules for a day on the selected day

#### [Main Menu] $\rightarrow$ [HDD/Recording] $\rightarrow$ [Schedule Recording] $\rightarrow$ [Add]



Weekdays	Select which day of the week for scheduled recording				
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 to				
Frame Rate	Set recording frame rate of the schedule				
	(Custom frame rate is not applicable)				
Recording Type	Types of recording schedule				
	<ul> <li>Normal: Record according to schedule</li> </ul>				
	<ul> <li>Motion: Record according to schedule and when</li> </ul>				
	motion is detected				
	<ul> <li>Custom: Record based on individual camera settings</li> </ul>				
ADD	To confirm schedule settings				
Motion Setting	Set motion detection settings				

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

Most settings are the same as [Add] menu.

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



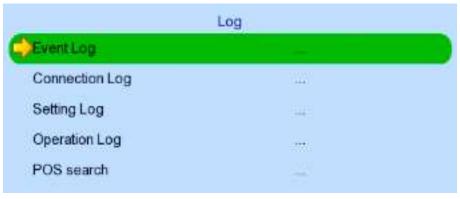
Enable	Enable / disable recording retention
Retention Period	Remove recorded video on selected days
Schedule Time for Retention	Remove recorded video at selected time

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

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



#### [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 : System armed Arm 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 Show event associated actions Action 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	ê	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	ā	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			
	<ul> <li>Dial back :Triggered by dialback action</li> </ul>			
User	Show the user connected to video server through remote software			
<b>≠</b>	Show previous / next page of log			

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

		Setti	ing Log		
Date/Time	Setting	СН	Remark	Access	User
2016-03-16 09:19:31	Server Name		*	210.17.139.132	ADMIN
2016-03-16 09:19:10	Image Size	12	Custom	210.17.139.132	ADMIN
2016-03-15 15:46:08	Camera Password	3	Ti	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	5)	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
1					7

Date/Time	Show date and time of the change
Setting	Show setting that has been 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" of the local host
User	Show which user that applied the change
<b>≠</b> ⇒	Show previous / next page of log

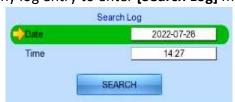
#### [Main Menu] → [System Log] → [Operation Log]

		Operation Log	
Date/Time	Operation	Access	User
2016-03-16 09:19:42	Remote Logout	210.17.139.132	ADMIN
2016-03-16 09:19:37	Remote Logout	210.17.139.132	ADMIN
2016-03-16 09:19:09	Remote Login	210.17.139.132	ADMIN
2016-03-16 09:18:38	Remote Login	210.17.139.132	ADMIN
2016-03-16 09:10:41	System Startup	Local	POWER ON RIGHT
2016-03-15 19:25:24	Power Off	Local	POWER ON RIGHT
2016-03-15 16:00:10	System Startup	Local	POWER ON RIGHT
2016-03-15 15:59:10	Power Off	Local	
2016-03-15 15:58:00	System Startup	Local	POWER ON RIGHT
2016-03-15 15:57:00	Power Off	Local	项
-			-

Date/Time	Show date and time of the operation
Operation	Show operation that is done
Access	Show IP of the remote host or "Local" of the local host
User	Show the user that performed the operation
<b>←</b>	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.

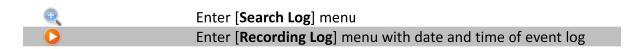


Date	Set the search date
Time	Set the search time

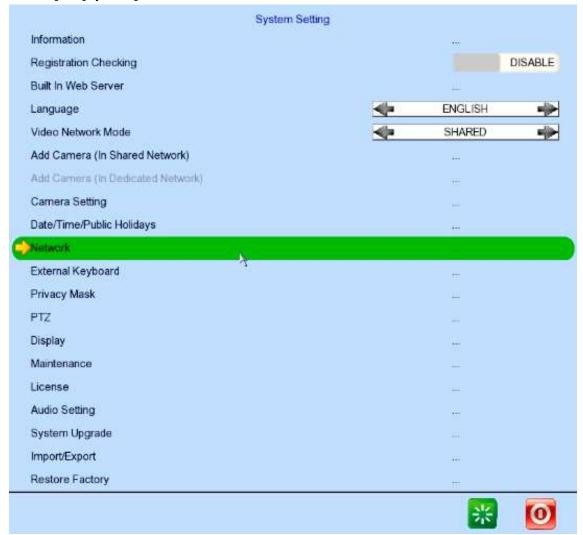
#### [Main Menu] → [System Log] → [Event Log] → [Log Option]

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





#### [Main Menu] → [System]



Information	Display general informations 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	Change shared network settings
(In Shared Network)	
Add Camera	Change dedicated network settings
(In Dedicated Network)	
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

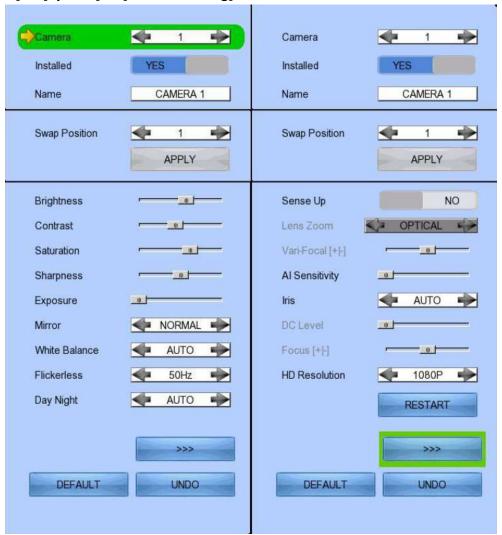
Audio Setting	Set audio input and output
System Upgrade	Upgrade system from USB device
Import /Export	Import or export setting files
Restore Factory	Restore to default settings
Maintenance Log Backup	Extract digital video recorder log
Restart System Button	Restart the system
Shutdown System Button	Safe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

#### [Main Menu] → [System] → [Information]

System Name	GN8916
Model Name	GN8916
Serial Number	GNS02190
Firmware Version	2.10.81 (5752-24183)
Lib Version	1.08.02-1.06.19
IP	210.17.139.79
Port	1024
Subnet Mask	255.255.255.0
Gateway	210.17.139.78
Primary DNS	8.8.8
Secondary DNS	1.1.1.1
Cellular Network IP	NOT DIALUP

Display name of the digital video recorder
Display model of the digital video recorder
Display serial number of the digital video recorder
Display firmware version of the digital video recorder
Display Lib version
Display IP address of the digital video recorder
Display port number of the digital video recorder
Display subnet mask of the digital video recorder
Display gateway of the digital video recorder
Display primary DNS of the digital video recorder
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
	<ul> <li>HV Flip :Left/right flip + top/down flip</li> </ul>
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
	<ul> <li>Auto :Auto adjustment</li> </ul>
	<ul> <li>Day :Day mode only (color)</li> </ul>
	<ul> <li>Night :Night mode only (black and white)</li> </ul>
Sense Up	Set video to sense up
Lens Zoom	Set camera lens zoom
	<ul> <li>OPTICAL ZOOM :support optical zoom only</li> </ul>
	<ul> <li>OPTI &amp; DIGI ZOOM :support optical and</li> </ul>
	digital zoom
Vari-Focal [+/-]	Adjust the focal
Al Sensitivity	Set Al 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/Public Holidays]



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)

# $[\mathsf{Main}\;\mathsf{Menu}] \to [\mathsf{System}] \to [\mathsf{Network}]$

Auto IP	YES
IP Address	210.17.139.79
Port	1024
Subnet Mask	255 255 255 0
Gateway Enable	YES
Gateway	210.17.139.78
Auto DNS	YES
Primary DNS	8.8.8.8
Secondary DNS	1.1.1.1
LAN Throughput	🐗 100 MBPS 🧼
Broadband Throughput	◆ 10 MBPS ◆
Narrowband Throughput	→ 3 MBPS →
Mobile Throughput	→ 3 MBPS → →
D.R.T. For Remote	YES
bandwidthMAX Status	<del></del>
sureLINK Setting	***
IP Filtering	
Video Network Setting	
Upload Image	#9
Service and Protocol	

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] → [bandwidthMAX Status]

bandwidthMAX Status			
Camera	Support	Camera	Support
C 1	YES	C 2	<b>#</b>
C 3	æ	C 4	*
C 5	<del>.</del>	C 6	<del>-</del>
C 7	æ	C 8	æ
C 9	4	C 10	4
C 11		C 12	. <del></del>
C 13	+	C 14	-
C 15		C 16	끝
C 17	æ	C 18	i <del>t</del>
C 19	÷	C 20	÷
C 21		C 22	ž
C 23	=	C 24	=
C 25	4	C 26	4
C 27	.5	C 28	.5
C 29	-	C 30	+
C 31	2	C 32	¥
bandwidthMAX Overal	l Status	Sup	ported

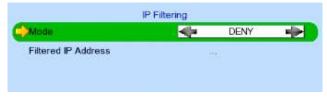
bandwidthMAX Status Camera is support D.R.T status bandwidthMAX Overall Status bandwidthMAX support status

### [Main Menu] → [System] → [Network] → [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] → [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

# $[Main\ Menu] \rightarrow [System] \rightarrow [Network] \rightarrow [IP\ Filtering] \rightarrow [Filtered\ IP\ Address]$

	IP	Filtering Entry	
No.	Start IP Address	End IP Address	
1.	193.168.64.1	193,168,64,1	
2			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
-	ADD	DELETE A	ц 🔫

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
<b>←</b> ⇒	Show previous / next page of filtered IP address

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

End IP Address	0.0.00

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

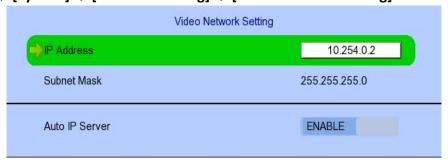
# $[Main\ Menu] \rightarrow [System] \rightarrow [Network] \rightarrow [IP\ Filtering] \rightarrow [Filtered\ IP\ Address] \rightarrow [Edit\ IP\ Filter]$

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



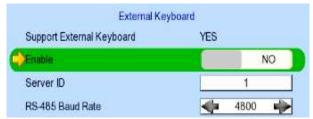
Start IP Address	Change starting IP of the filtering range
End IP Address	Change ending IP of the filtered range
Edit	Edit the filter entry

### [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]

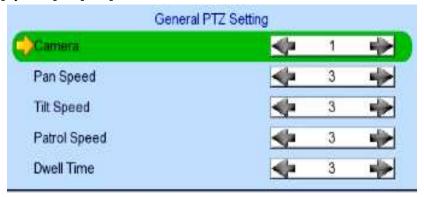
User can draw privacy mask by mouse or





Camera	Selected video channel
Mask ID	Selected privacy mask id
Mask Status	Enable /disable current privacy mask
<b>4 ( ( ( ( ( ( ( ( ( (</b>	change current camera center
	Edit size of selected privacy mask
DELETE	Delete current privacy mask
DELETE	Edit size of selected privacy mask

### [Main Menu] → [System] → [PTZ]



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]



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
	<ul> <li>CAMERA: use external camera audio input</li> </ul>
RCA Audio Output	Select RCA output
	• PA: RCA output for PA
	<ul> <li>LIVE/PB: RCA output for LIVE/PB</li> </ul>
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
	<ul> <li>CAMERA: use external camera audio output</li> </ul>
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]



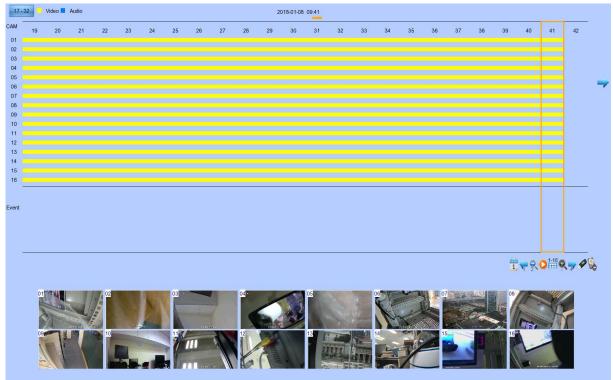
Import	Import settings from USB flash device
Export	Export settings to USB flash device

#### [Main Menu] $\rightarrow$ [System] $\rightarrow$ [Import /Export] $\rightarrow$ [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
<b>≠ ⇒</b>	Show previous / next page of recording log
<b>+</b>	Display recording log in smaller time scale
	Display recording log in bigger time scale
india.	Search recording log by date and time
9	Extract video from selected time slot
1-4	Search a camera record

# [Main Menu] → [Playback] → [Search By Date] (click on the calander icon)



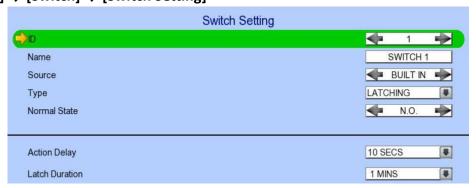
Date	Set the search date
Time	Set the search time
Today	Set date and time to current time
ОК	Search for log closest to the date and time

### [Main Menu] → [Switch]



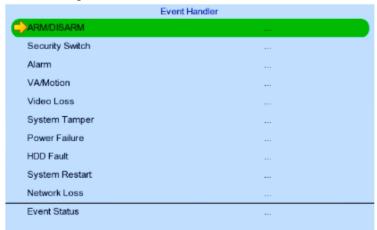
Switch 1 – Switch 4	Toggle the status of the switch
Switch Setting	Change switch settings
(NA)	Switch disable
ASSOCIATE	Associate switch
	Latch normal for build in mode
	Latch click for build in mode
	Latch normal for external mode
	Latch click for external mode

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



ID	Select the switch
Name	Name Change the name of switch X
Source	Select source of switch
	<ul> <li>BUILT IN: use video server relay</li> </ul>
	<ul> <li>CAMERA: use external camera switch</li> </ul>
Туре	Change the type of switch
	<ul> <li>Latching : Turn on for a period of time</li> </ul>
	<ul> <li>Push button: Turn off 1 second after it is turned on</li> </ul>
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]



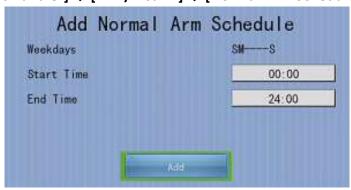
Enable	Enable / disable the arm/disarm control
Mode	Select the arm/disarm mode
Arm State	Select circuit open/close as system armed(Hardware Arm only)
Associate Switch	Associate switch 1 to arm/disarm control status
Schedule Arm/Disarm	Enable / disable schedule arm/disarm (Schedule Arm only)
Normal Arm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

		Normal Arm	Schedule	
No.	Start Time	End Time	Weekdays	
11.1	00:00:00	24:00:00	SMS	
2				
3.				
4.				
5				
6				
7.				
8.				
9.				
10.				
	<b>*</b>	Add	De leur	

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
<b>←</b> ⇒	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]

Holiday Arm Schedule					
No.	Start Date	End Date	Start Time	End Time	
4.	2011-11-01	2011-11-16	07:00:00	19:00:00	
2					
3.					
4.					
5					
6					
7.					
8.					
9					TIT
10.					
	<b>=</b>	Tado	Delega	=	

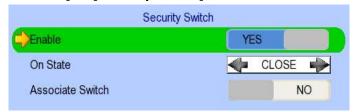
No.	Show the schedule number
Start Date	Show the start date of schedule
End Date	Show the end date of schedule
Start Time	Show the start time of system armed
End Time	Show the end time of system armed
Add	Add a holiday arm schedule
Delete	Delete the selected holiday arm schedule
<b>≠</b>	Show previous / 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

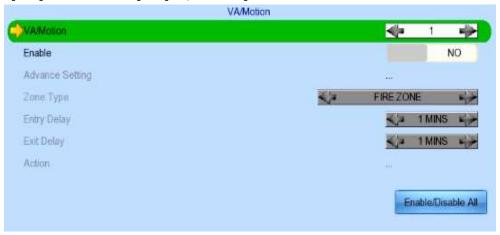
On State Select circuit open/close as security switch on Associate Switch Associate switch 2 to security switch status

#### [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] → [VA/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]



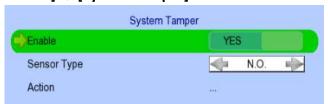
Select	Select motion blocks
Deselect	Deselect motion blocks
Select All	Select all motion blocks
Deselect All	Deselect all motion blocks
Sensitivity	Set the sensitivity level
Area	Set the area sensitivity (Custom sensitivity only)
Level	Set the light sensitivity (Custom sensitivity only)
OK	Save the motion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



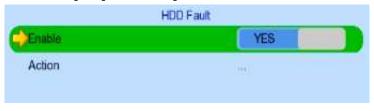
Enable	Enable / disable system tamper event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when system tamper is triggered

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



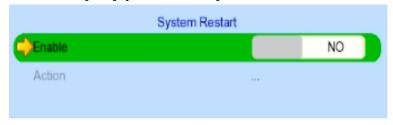
Enable	Enable / disable power failure event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when power failure is detected

#### [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]

Action
***
***
***
444
***
***
***

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
	<ul> <li>Auto :Record at highest achievable frame rate.</li> </ul>
	The storage size is large.
	<ul> <li>1 fps :Record at 1 frame per second. Storage</li> </ul>
	size is comparably small
<b>Duration After Event Clear</b>	Set the post-event recording time
Recording Camera	Select cameras performing event recording

### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Switch]



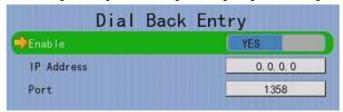
Enable	Enable / disable switch action of that event
Switch	Select switches turning on when event triggers
General Switch Setting	Set the latch duration and action delay

# [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [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] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Dial Back Entry]



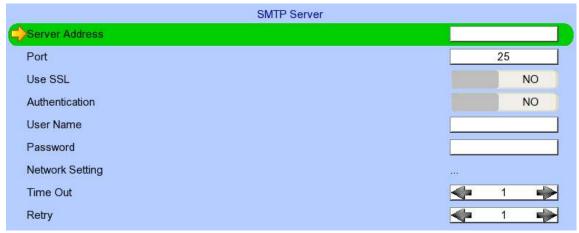
Enable	Enable / disable the dialback entry	
IP Address	Set the dialback IP address when event triggers	
Port	Set the dialback port when event triggers	

### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [E-mail]



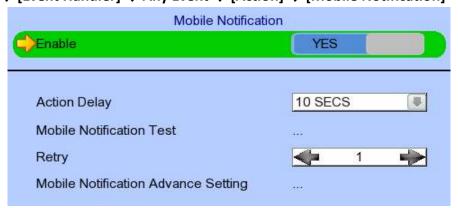
Enable	Enable / disable e-mail action of that event
Image Attachment Associate	Change event associated camera for image attachment
Camera	
SMTP Server	Change SMTP settings
E-mail X	Set the e-mail address of recipient X
Sender E-mail	Set the e-mail address of sender
Action Delay	Set the minimum time between 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] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [E-mail] $\rightarrow$ [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] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [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	Set mobile notification server
Advance Setting	

# [Main Menu] $\Rightarrow$ [Event Handler] $\Rightarrow$ Any Event $\Rightarrow$ [Action] $\Rightarrow$

[Mobile Notification] → [Mobile Notification Advance Setting]

Notify server1	server1.teleeye.link:1024
Notify server2	server2.teleeye.link:1024

Notify server X Mobile notify server address

Default Restore server address to default mobile notify server

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Buzzer]



Enable | Enable | disable buzzer action of that event

Action Delay Set the time between turning off and next turning on

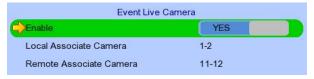
Duration Set the time for turning on the buzzer

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



Enable Enable / disable LED action of that event

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [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] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [PTZ]



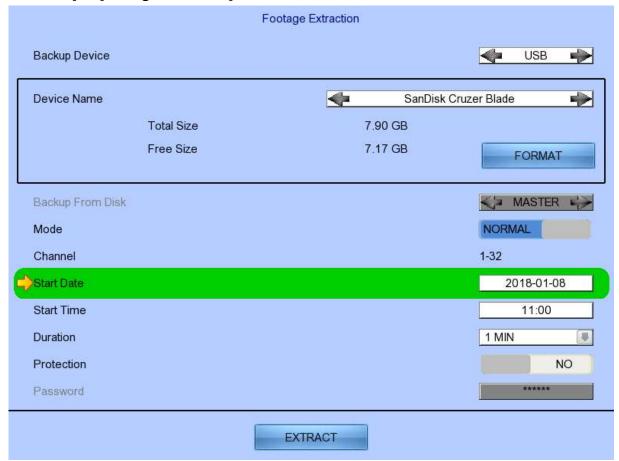
Enable	Enable / disable live camera action of that event
Associate Camera	Select PTZ cameras to be displayed when event triggers
Preset Number	Select preset position of PTZ camera when event triggers

### [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

<sup>(\*</sup> For execution, local password of current user is required in advanced mode)

# [Main Menu] → [User] → [Add Account]

Add Account	
User Name	
Local Password	
Retype Password	
Access Days	ATTACA CONTRACTOR OF THE PARTY
Local Time Out	NO TIME OUT
Account Setting Enable	NO
System Setting Enable	NO
Recording Setting Enable	NO
Video Backup Enable	NO
Event Control Enable	NO
Camera Control Enable	NO
Playback Enable	NO
Audio Enable	NO
Video Monitoring Enable	1
Switch Enable	

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
<b>Event Control Enable</b>	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
<b>≠</b>	Show settings of previous / next account

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

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



**SAVE** 

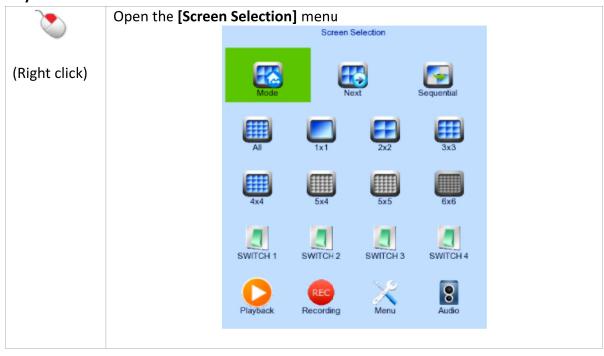
Save the access rights when server startup or local user log out

# 5.3. Basic Operation

#### 5.3.1. View Live Video

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

#### A. By Mouse





Click on [All], [Mode] and [next] to display in different modes or other sets of cameras.

(Left click)

Click on [1x1], [2x2], [3x3], [4x4], [5x5], [6x6] to change the screen mode Click on [Sequential] to start sequential mode.

# 5.3.2. Recording

For 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 **1** will light up in red.

•	<b>Manual Recording</b>	The start/stop operation is controlled manually by an
		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 scheduled 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 scheduled recording simultaneously. Detail description and setup procedure will be given later in the Advanced Operation section.

To change recording mode quickly, right click the 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 menu:

### [Main Menu] → [HDD/Recording]



Disk Management	View hard disk information	
	Format, scan or enable/disable disk	
	Enable/disable RAID	
Recording Mode	Select recording mode	
	<ul> <li>Off :Disable recording</li> </ul>	
	<ul> <li>On :Enable recording of all cameras</li> </ul>	
	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	
	<ul> <li>Auto :Record at highest achievable frame rate</li> </ul>	
	<ul> <li>X fps :Record at X frames per second</li> </ul>	
	<ul> <li>Custom :Enable custom frame rate for individual</li> </ul>	
	camera	

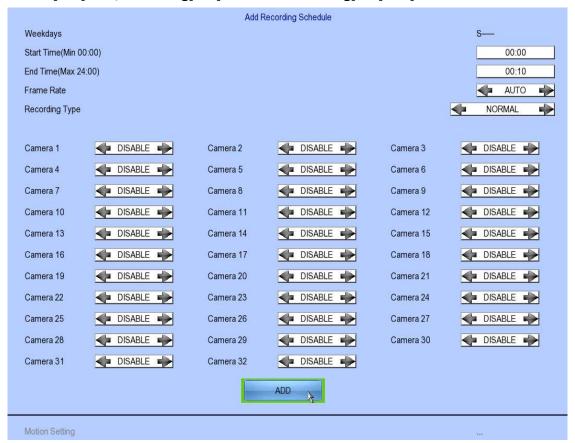
H.265	Set video compression format to H.265
D.R.T For	Set dynamic resolution
Recording/Playback	
D.I.T Enable	Set dynamic I-frame
<b>HDD Power Saving</b>	Enable/disable HDD power saving
Schedule Recording	View or change recording schedules
Recording Retention	Set recording retention settings
Recover 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	<ul> <li>Type of recording schedule</li> <li>Normal :Record when within schedule</li> <li>Motion :Record when motion detected and within schedule</li> </ul>	
Mookdays	Custom :Record based on individual camera setting  Select the weekdays to apply the schodule.	
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.

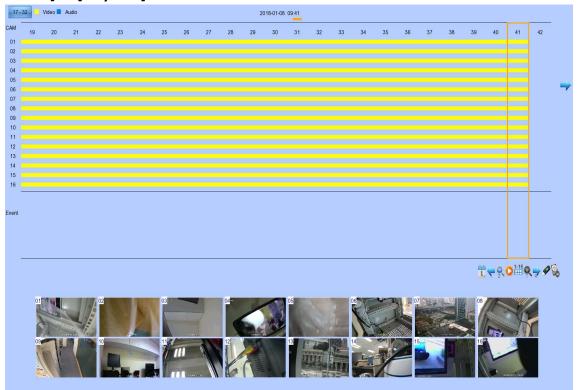
**EDIT** 

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	
<b>≠ ⇒</b>	Show previous / next page of recording log	
<b>+</b>	Display recording log in smaller time scale	
	Display recording log in bigger time scale	
	Search recording log by date and time	
9	Extract video from selected time slot	
1-4	Search a camera record	

### [Main Menu] → [Playback] → [Search By Date] (Click on the calander icon)



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 a video from a local monitor, users can select individual video channel by using



lacktriangle (mouse left click) to take PTZ control, then the selected channel will be highlighted by the  $rac{d}{dt}$ 

icon. For analog PTZ supported channels, Users can click for taking PTZ command after the command box pop-up on the video monitoring screen. Users can deselect the PTZ control channel by using , then the video channel will be pointed by the icon.

4	OSD object selection	4	Digital /Analog PTZ
			control

	PTZ tite up	<b>U</b>	PTZ tite down
<b>(</b>	PTZ pan left	<b>→</b>	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, users can select different PTZ command by clicking on \(\sums\) buttons, and control the value by \(\begin{array}{c} \operatorname{\text{L}} \operatorname{\text{D}} \operatorname{\text{buttons}}.\)



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

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
<b>€</b> ↑ <b>€→</b>	change current camera center
+=	Edit size of selected privacy mask
DELETE	Delete current privacy mask

### [Main Menu] $\rightarrow$ [System] $\rightarrow$ [PTZ]



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]

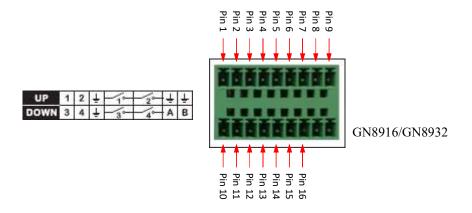


Support External Keyboard	Display support of external keyboard
Enable	Enable external keyboard
Server ID	Set DVR id for PTZ control
RS-485 Baud Rate	Set RS-485 input baud rate

# 5.4. Advanced Operation

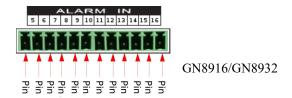
# 5.4.1. Install Alarm Sensors and Relay Control Port

TeleEye GN8 supports up to 16 alarms 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 types 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 follow.

1.	Arm/Disarm	
2.	Security Switch	
3.	Alarm	
4.	Motion	<b></b>
5.	Video loss	
6.	System Tamper	*
7.	Power Failure	i
8.	HDD Fault	0
9.	System Restart	•

#### **Event Icons in Local Monitor**

If an event is triggerd, 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 in its original position.

# 5.4.3.1. Arm/Disarm 🦁



Arm/Disarm input is used to enhance the security level of surveillance areas. There are 3 zones to choose from: fire zone, normal and entry/exit zone.

# Armed V



If the system is armed, alarm sensors that are set as a normal zone alarm are triggered immediately if someone triggers the sensor or if motion is detected. It is usually used when no operator is in the surveillance area.

# Disarmed 🔕

If the system is disarmed, alarm and motion events will not trigger the sensor except when the sensor is a fire zone alarm, or when there is an arm/disarm tamper. If there are operators in the 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

The security switch is not applicable under software and schedule mode.

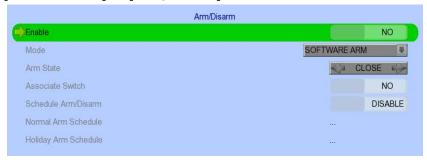
#### There are 2 types of arm schedules:

Normal Schedule	Users can set the arm periods by day. The system would
	arm according to this weekly schedule.
Holiday Schedule	Users can schedule arm/disarm for holidays. If a holiday
	schedule is set, it will follow the holiday schedule instead
	of the 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 usually a switch or a password panel used 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]

		lormal Arm Sch	edule	
No.	Start Time	End Time	Weekdays	
1.	00:00:00	24:00:00	SMS	
2				
3.				
4.				
5	77.5			
6				
7.				
8.				
9.				
10.				17111
	<u></u>		eTell 🚔	

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] $\rightarrow$ [Event Handler] $\rightarrow$ [Arm/Disarm] $\rightarrow$ [Normal Arm Schedule] $\rightarrow$ [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]

		Holiday Ari	m Schedule	
No.	Start Date	End Date	Start Time	End Time
11.	2011-11-01	2011-11-16	07:00:00	19:00:00
2				
3.				
4.				
5				
6				
7.				
8.				
9.				
10.				
	<b>*</b>	- ASO	петер	<b>=</b>

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
<b>≠</b> ⇒	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 digital video recorders 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 delays will be terminated. If the security switch is off and an entry alarm is triggered, entry delay will start.

#### · On State

If on state is set to 'close', security switch of TeleEye GN8 will be set to 'on' if the circuit is closed. If the circuit is open, the security switch of TeleEye GN8 will be set to off. Contrary, if on state is set to 'open', security switch of TeleEye GN8 will be set to 'on' if the circuit is open. If the circuit is closed, the security switch of TeleEye GN8 will be set to off.

#### · Physical Configuration for Security Switch

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



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



# 5.4.3.3. Alarm



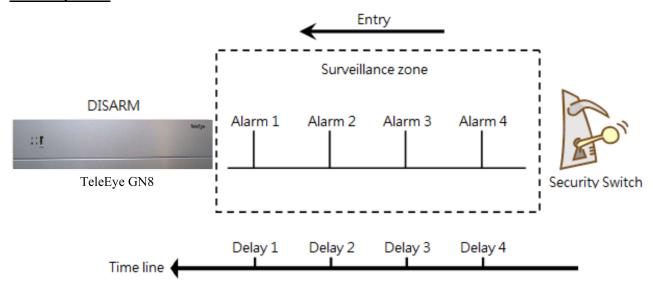
It is an input to the digital video recorder from external alarm sensors. Alarm can be used to detect events that occur in the surveillance area, such as fire and trespassing. Alarm event supports BS 8418:2003 which has arm/disarm and security switch functions.

#### Zone Type

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

Normal Zone	Alarms can triggered if the system is armed.
Fire Zone	Alarms can triggered in both arm state, i.e. armed or disarmed. It is suitable for fire detectors
Entry/Exit 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.

#### **For Entry Zone:**



Entry delay is a period of time where alarms are not triggered if someone is entering the surveillance area. In order to disarm the system for maintenance or repair, user / installer needs to turn off the security switch and enter the surveillance area. Delay timer starts if any event is detected. Each alarm has its own delay timer (They can be different).

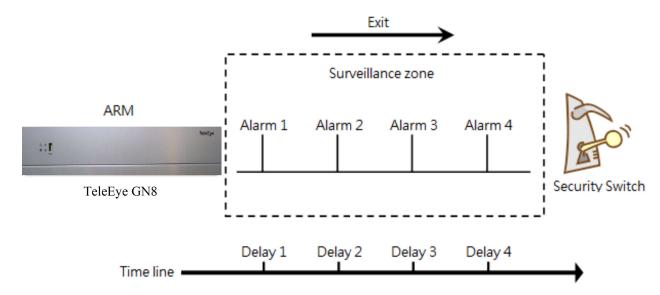
Note: If recording action is enabled, it is automatically activated during entry delay.

#### A detailed description is shown below:

- 1. User turns off security switch if security switch is used
- 2. Alarm entry delay is enabled
- 3. The first trigger is made by Alarm 4 (i.e. user enters the surveillance zone and the entry delay time begins)
- 4. Alarm 3,2 and 1 are triggered respectively and the entry delay starts separately for each alarm
- 5. User disarms the system for maintenance

For example: If the time taken to go from security switch to digital video recorder is about 8 minutes, Delay 4 should last around 8 minutes. Delay 3 should be shorter than Delay 4 as distance from digital video recorder to alarm 3 is shorter. The nearer the alarm is to the digital video recorder, the shorter the delay time should be.

#### **For Exit Zone:**



Exit delay is a period of time allowed for a user to leave a surveillance area without a making false alarm. The intention is to give users / installer enough time to leave the surveillance area after the digital video recorder is armed. Users / installer can alter the delay time for each alarm.

Note: If recording action is enabled, it is automatically activated if any alarm is triggered during exit delay

A detailed description is shown below:

- 1. User arms the system
- 2. Alarm exit delay is enabled
- 3. The first trigger is made by Alarm 1 (i.e. user reaches alarm 1 first)
- 4. Alarm 2,3 and 4 are triggered respectively and the exit delay starts separately for each alarm
- 5. User turns on the security switch if security switch is used. The alternative is to wait for all exit delays of all alarms to expire.

For example, if the time needed to leave the surveillance area 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. Any event will cause alert after exit delay has 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 2	Zone .		
No trigger	Arm	On	Trigger alarm	\	\	Alarm trigger
	Arm	Off	Trigger alarm	\	\	Alarm trigger
	Arm	Uninstall	Trigger alarm	\	١	Alarm trigger
	Disarm	\	Trigger alarm	\	١	Alarm trigger
	Uninstall	١	Trigger alarm	\	\	Alarm trigger
	Uninstall	Uninstall	Trigger alarm	\	\	Alarm trigger
			Norma	l 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/Ex	cit Zone		
No trigger	Arm	On	Trigger alarm	\	\	Alarm trigger
	Disarm	Off	Arm.	Trigger alarm.	Security switch	Alarm can be
			Exit delay starts	Recording starts if	on.	triggered any time
				action enabled	Exit delay ends.	after that
					Recording stops	
					Exit delay ends after preset exit time.	Alarm can be triggered any time after that
					Recording stops	
	Arm	On	Security switch off	Trigger alarm.	Disarm	No alarm trigger.
				Entry delay starts.		Recording stops
				Recording starts if	Entry delay ends after preset entry	Alarm trigger.
				action enabled	time	Recording don't
						stop unless disarm
	Disarm	Uninstall\	Arm. Exit delay starts	Trigger alarm.  Recording starts if	Exit delay ends after preset exit time.	System enter entry delay automatically
				action enabled	Recording stops	after next alarm trigger
	Arm	Uninstall	Trigger alarm.	Disarm	\	No alarm trigger.
			Entry delay starts.			Recording stops
			Recording starts if	Entry delay ends after preset entry	\	Alarm trigger.
			action enabled	time		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 have to connect to various kinds of sensors which are commonly installed at the entrance or in some special parts 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 movement is detected by a camera. Motion detection has different sensitivity levels, which can be set up individually on each video input channel. There are 4 options: high, middle, low and custom. Custom option allows the user to select the sensitivity level and detection area themselves.



#### Motion detection example:

The selected motion detection area is the crossed area in green. The motion block will turn to red when movement is detected. Areas that are not crossed will not detect any motion.

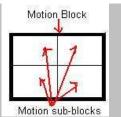
#### Sensitivity

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 to be 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] → [VA/Motion]



Camera	Select a camera
Enable	Enable / disable motion event
<b>Motion Detection Setting</b>	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

# General Motion Setting Sensitivity

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ [VA/Motion] $\rightarrow$ [Advance setting] $\rightarrow$ [Motion]

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 is triggered when the video channel input disappears, or when the digital video recorder receives no signal from the camera. When this happens, a blue screen is 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 🐇



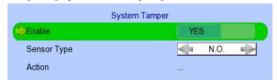
A tamper switch can be wired to a digital video recorder and its accessories outside its cabinet. In an emergency (e.g. someone breaking and entering), the digital video recorder will inform staffs in regards to the event and may trigger alarms.

#### **Physical Configuration for System Tamper**

The system tamper input and ground of TeleEye GN8 HD digital video recorder have 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

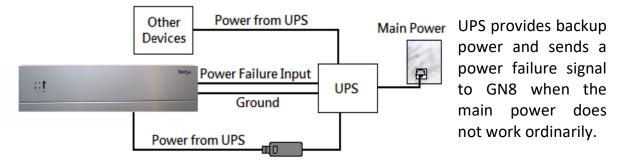
# 5.4.3.7. Power Failure



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 have to connect to a universal power supply circuit UPS in order to detect any power failure.



🕼 The UPS circuit setup above is used as an example. Not all UPS have signal output. Some UPS have self-testing occasionally. Their signal output may toggled during tests.

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

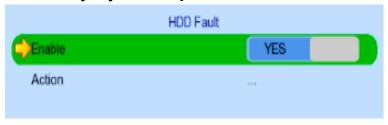


Enable	Enable / disable power failure event
Sensor Type	Select circuit open/close as normal state
Action	Set actions taken when power failure is detected

# 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]

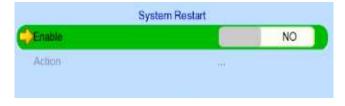


Enable	Enable / disable the HDD fault event
Action	Set actions taken when disk failure or lost

# 5.4.3.9. System Restart

System restart event will be triggered when abnormal restart of digital 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 event mentioned below.

- 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 the user's selected cameras with its 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 will find that there is at least 1 more minute of recording in the recording log before the event is triggering.

#### **Post-Event Recording**

After the event is reset, recording will continue until the predefined duration time has ended.

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Recording]



Enable	Enable / disable event recording of that event
Recording Mode	Set event recording frame rate
	<ul> <li>Auto: Record at the highest achievable frame rate.</li> </ul>
	Storage size is large.
	<ul> <li>1 fps: Record at 1 frame per second. Storage size is</li> </ul>
	comparably small.
<b>Duration After Event Clear</b>	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 relay set by the 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**

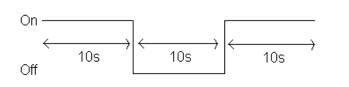
Latch duration is how long the switch will be turned on for when an event is triggered.

#### **Action Delay**

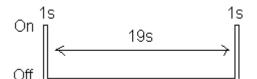
During action delay, an event will not trigger a change in state for the switch. Action delay starts when a switch has changed state due to an event.

#### **Example of Latch Duration and Action Delay**

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



Latching type switch



Push-button type switch

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Switch]



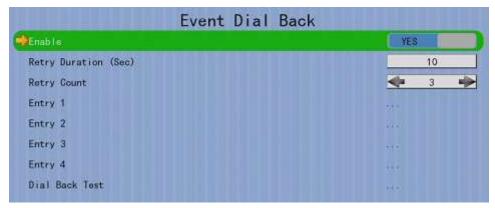
Enable	Enable / disable switch action of that event
Switch	Select switches turning on when event triggers
General Switch Setting	Set latch duration and action delay

#### 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 operators can be notified of any situation in the survelliance area.

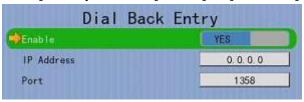
Java web page can't respond to this request. Software like TeleEye sureSIGHT or sureGUARD are to be installed to a PC to perform dialback.

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [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] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Dial Back] $\rightarrow$ [Dial Back Entry]

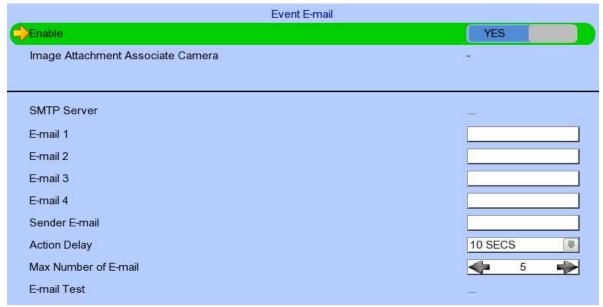


Enable	Enable / disable the dialback entry
IP Address	Set the dialback IP address when event triggers
Port	Set the dialback port when event triggers

#### 5.4.4.4. E-mail

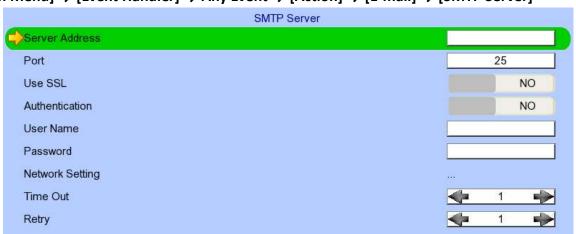
The e-mail action notifies users of any event by sending an e-mail to the recipient's address.

# $[{\sf Main\ Menu}] \to [{\sf Event\ Handler}] \to {\sf Any\ Event} \to [{\sf Action}] \to [{\sf E-mail}]$



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

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [E-mail] $\rightarrow$ [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 username used in authentication
Password	Set password used in authentication
Network Setting	Change network settings
Time Out	Set the allowed time of sending an e-mail in each trial (in minutes)
Retry	Set the number of retrials if e-mails have not been sent successfully

#### 5.4.4.5. Mobile notification

The mobile notification action notifies users of any event by sending a notification to the recipient's mobile phone.

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Mobile Notification]



Enable	Enable / disable mobile notification action
Action Delay	Set the minimum time between sending 2 notifications of
	the same event
Mobile Notification Test	Start mobile notification test
Retry	Set the number of retrials if notifications have not been sent successfully
Mobile Notification Advance Setting	Set mobile notification server

#### 5.4.4.6. Buzzer

The built-in buzzer of the digital video recorder can give a "beep" sound to draw nearby operators' attention when an event is triggered.

#### [Main Menu] $\rightarrow$ [Event Handler] $\rightarrow$ Any Event $\rightarrow$ [Action] $\rightarrow$ [Buzzer]

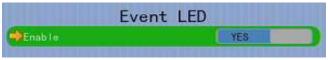


Enable	Enable / disable buzzer action of that event
Action Delay	Set the minimum time between one event buzzer and the next
Duration	Set the time of how long the buzzer is turned on for

#### 5.4.4.7. Event LED

LED will blink until the event is cleared.

[Main Menu]  $\rightarrow$  [Event Handler]  $\rightarrow$  Any Event  $\rightarrow$  [Action]  $\rightarrow$  [Event LED]



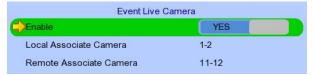
Enable

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. Operators can immediately know what is happening on the site. The live camera action would only be performed once until a user clears the event.

[Main Menu]  $\rightarrow$  [Event Handler]  $\rightarrow$  Any Event  $\rightarrow$  [Action]  $\rightarrow$  [Live Camera]



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

#### 5.4.4.9. PTZ

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

[Main Menu]  $\rightarrow$  [Event Handler]  $\rightarrow$  Any Event  $\rightarrow$  [Action]  $\rightarrow$  [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 a USB flash device. Back up video can be played in any PC without any special software.

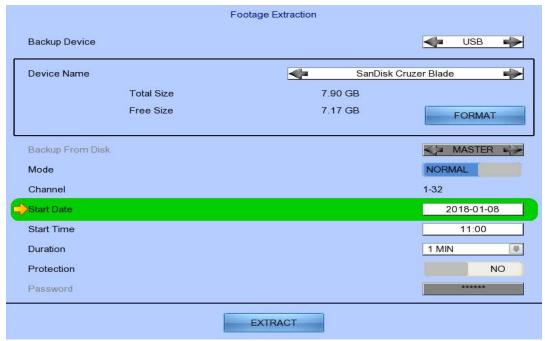
There are 2 extraction modes available:

Normal mode : Extracts recording at the original frame rate, with audio

Quick : Extracts recording at a lower frame rate without audio, reducing the

file size

#### [Main Menu] → [Footage Extraction]



Backup Device	Select what device the footage is saved to
Device Name	Show the name of the 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
Channel	Choose which video channels to extract
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 videos.

#### [Main Menu] → [System] → [Network]



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 Throughput	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 settings

#### 5.4.7. Switch Control

External switches connected to 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 in that state until a user toggles it again or an event associated with switch action is triggered.

#### [Main Menu] → [Switch]



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

## 5.4.8. Time Synchronization

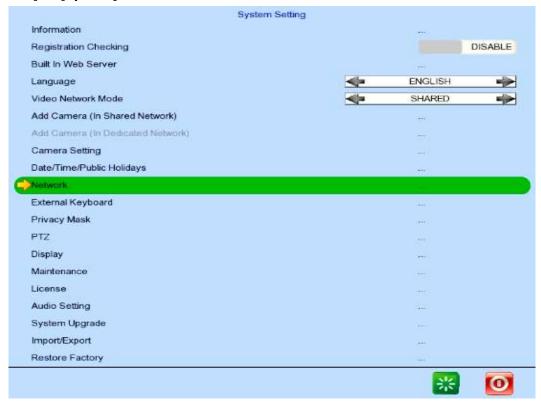
The time in TeleEye GN8 can be synchronized with timeserver in the network using the time synchronization function. GN8 can act as a timeserver if internal time server is enabled.

#### [Main Menu] → [System] → [Date/Time/Public Holiday]



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	Performs time synchronization(Time sync enabled only)

#### [Main Menu] → [System]

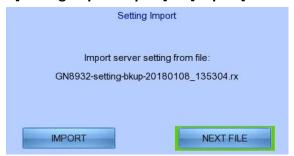


Information	Display general informations of the digital video recorder
Registration Checking	Enable / disable remote registration check
Built In Web Server	Enable / disable built in web server
Language	Set display language
Video Network Mode	Change video network mode
Add Camera	Change shared network mode settings
(In Shared Network)	
Add Camera	Change dedicated network mode settings
(In Dedicated Network)	
Camera Setting	Change camera settings
Date/Time/Public Holiday	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
Maintananca Lag Backun	Extract digital video recorder log
Maintenance Log Backup	Extract digital viaco recorder log
Restart System Button	Restart the system

## 5.4.9. Import and Export

Configurations of the digital video recorder can be exported to a USB flash device for backup, or to copy the settings to another video recorder. Should anything happens, 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]

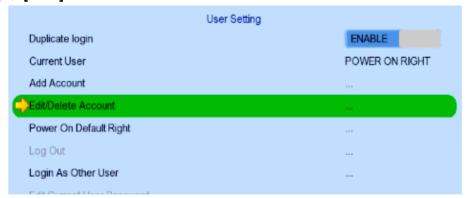


Video	Export camera settings if selected
Recording	Export recording settings if selected
Switch	Export switch settings if selected
Date/Time	Export date/time settings if selected
Connection	Export network settings if selected
Event Handler	Export event settings if selected
E-mail/Dialback	Export e-mail 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

TeleEye GN8's 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 more detail.

#### [Main Menu] → [User]



Security Mode	Advanced security mode: Login and access right required	
Current User	Jser Display the current user	
Add Account	Add a new account	
Edit/Delete Account Edit or remove an account		
Power On Default Right	Access right when not logged in	
Log out	Log out Log out of the account	
Log In As Other User	Login to another account	
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 there are no local operations
Account Setting Enable	Access right setting
System Setting Enable	Access right setting
Recording Setting Enable	Access right setting
Video Backup Enable	Access right setting
<b>Event Control Enable</b>	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 login (with remote login right only)
Save	Save the account settings
Delete	Delete the account
<b>≠⇒</b>	Show settings of previous / next account

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

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



# **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 a detailed setup procedure, please refer to the 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 a 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 to 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 from a web browser, users 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
	REC	Recording
		Playback
		Screen mode selection panel
1	3.	1. Change page
1.	3.	2. Change mode
2	<b>4</b>	3. Max screen
2.	4.	4. Full screen
		Event status panel
1. <b>X</b>	6.	1. Video loss event
		2. Motion event
2. 🏂	3 3 3 3	3. HDD event
	7. 2 2 2 2	4. Power failure event
		5. Alarm tamper event
2	g 📆	6. System tamper event
3.	Ŏ.	7. Alarm event
4.	9	8. Siren on/off
	J. 10	9. Armed / Disarmed
5. 40	10.	10. Clear event
		Show menu panel
9	- (A)	Menu panel
1.	5. <sup>(A)</sup>	1. Server Setting
2. ガ	6.	2. Audio
		3. PTZ
2 4	-	4. View log
5. 👣	7.	5. Advanced
4 7		6. Footage extraction
4.		7. Switch
		On screen event status
1. 🚜	2. 🔀 🐧	1. Motion
		2. Video loss

1. 2. 3. II	4. <b>5</b> .	Playback panel 1. Rewind 2. Play 3. Pause 4. Stop 5. Fast forward
	+	Digital PTZ
	P	Analog PTZ

# 6.3. Basic Operation

#### 6.3.1. View Live Video

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

- Enter IP address plus port number in the format http://IPAddress:PortNumber (e.g. http://192.168.0.12:1024) or *sureLINK* address in a web browser. Procedures for getting a *sureLINK* address can be found in the appendix.
- 2. By default, advance security mode is enabled and a username is not required. Enter a password and press [Connect].

(The default administrator password is "0"+"digits of serial number". Here is an example:

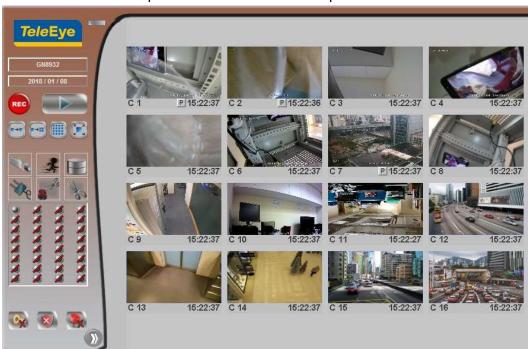
Serial Number: GNS11529

Usename: admin

Default Password: 011529

(Details can be found in the registration code sheet)





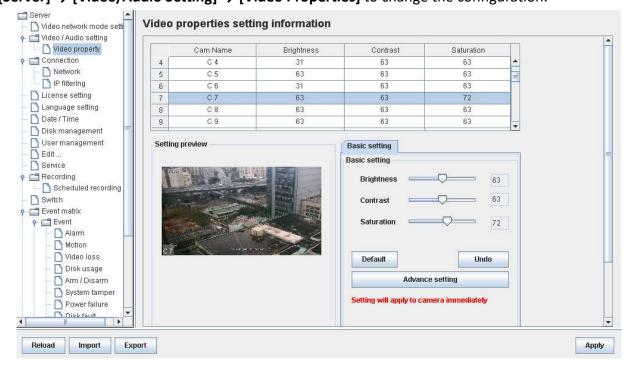
3. Use screen mode selection panel and camera selection panel to view video.

If a cross sign is shown on 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.

- Installed through the software CD in the package
- Downloaded from <a href="http://www.java.com">http://www.java.com</a>

If the camera setting does not fit the environment, select

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



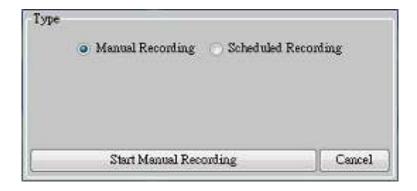
## 6.3.2. Recording

According to different situations, users can select a suitable recording mode.

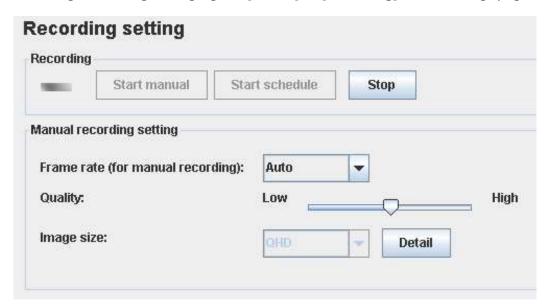
#### A. Manual Recording

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

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



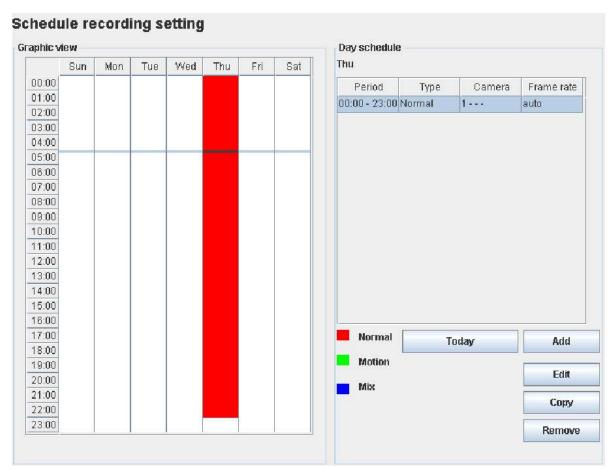
2. To change recording settings, go to [Server]  $\rightarrow$  [Recording] in the settings page.



#### B. Scheduled Recording

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

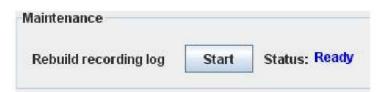
- 1. To start or stop schedule recording, click on the [Recording] button on the main panel.
- 2. To view or edit the schedules, go to [Server] → [Recording] → [Scheduled Recording].



3. To select a schedule, simply click on the graphical representation of the schedule. A list of schedules will be shown on the right hand side.

#### C. Recording Rebuild

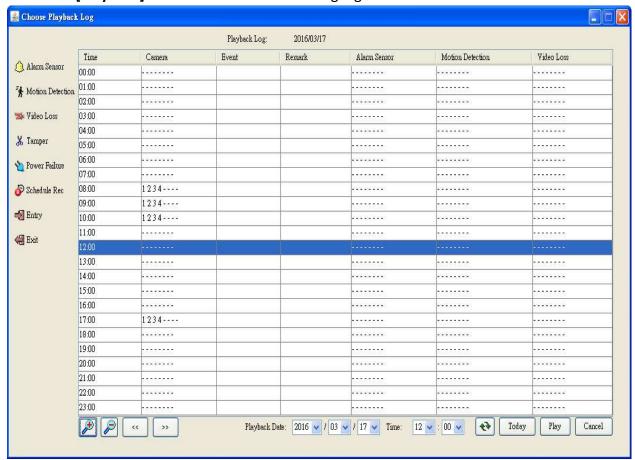
Recording logs can be recovered using the recording rebuild function when users cannot play back the recording. Users can go to [Server]  $\rightarrow$  [Recording], under [Maintenance] and click [Start] to start the rebuild process.



## 6.3.3. Playback

Recorded videos can be played back through a 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.

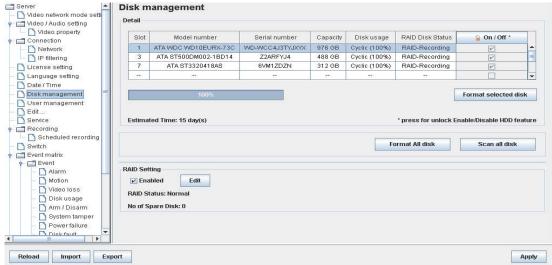


# 6.4. Advanced Operation

#### 6.4.1. Hard Disk Formatting

Hard disk formatting is done to reconstruct the disk in a recognizable format, to clean up the recording space, and to redeem file allocation. Backup important data before hand as formatting will erase all data within the hard disk. 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 completed.

## 6.4.2. Hard Disk Scanning

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

Go to [Server]  $\rightarrow$  [Disk Management], click "Scan all disk" in the remote setting page.

**T** Do not close the browser or alter the hard disk until the process is completed.

## 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 the reliability of the system. Remote login password is required for this operation.

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

System restart is required for any disk to turn on/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 number of RAID spare disk.

Disk formatting is required for any setting changes in RAID Setting



### 6.4.5. Event Handling

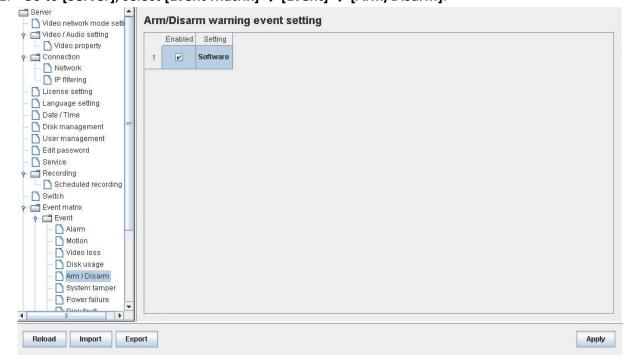
TeleEye GN8 digital video recorder supports different types of event detection. This section shows the configuration of event settings.

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

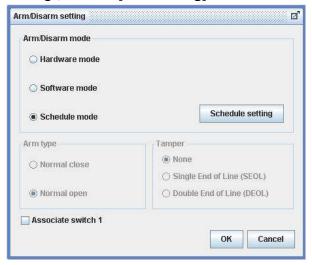
### 6.4.5.1. Arm/Disarm

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

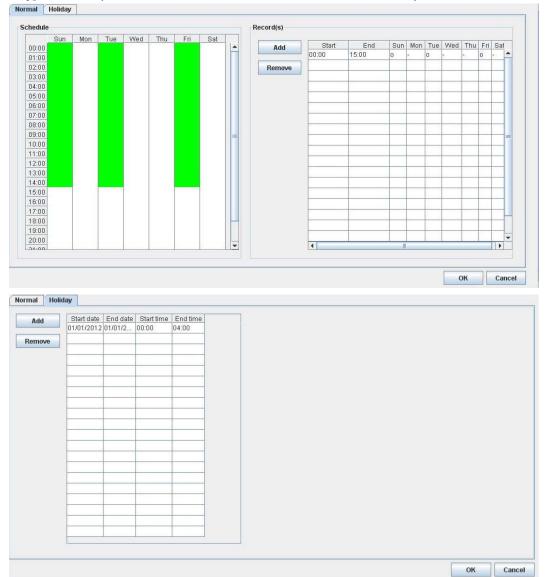
1. Go to [Server], select [Event Matrix] → [Event] → [Arm/Disarm].



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



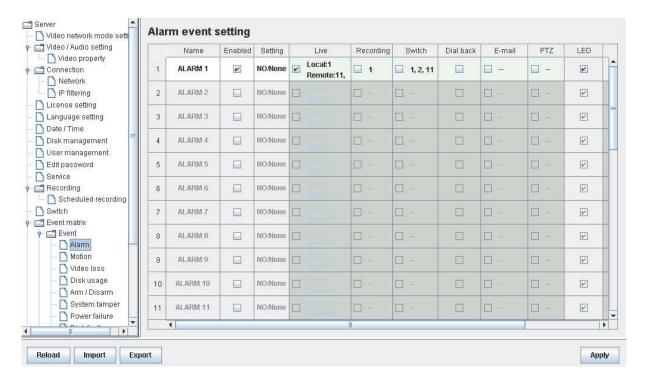
3. To add or remove arm schedules, click on [Schedule Setting]. Use the tap [Normal] and [Holiday] on the top left corner to select normal schedule or holiday schedule.



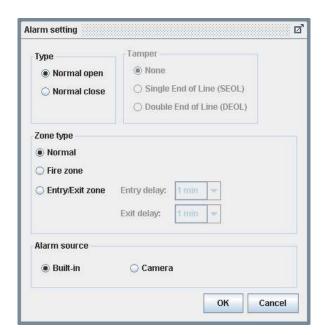
### 6.4.5.2. Alarm

Alarm can be used to detect many events, such as fire and trepassing.

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



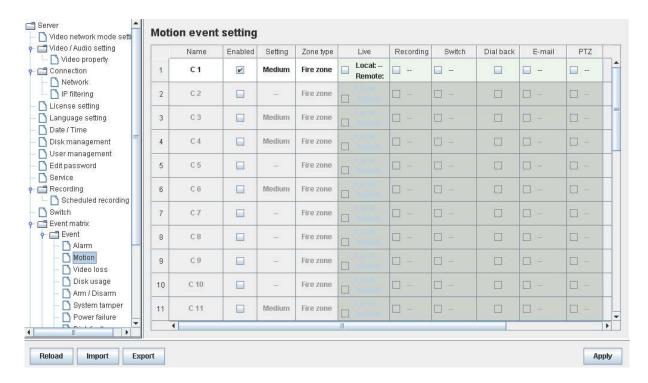
2. Click on [Alarm Setting] and select appropriate settings in the pop up menu.



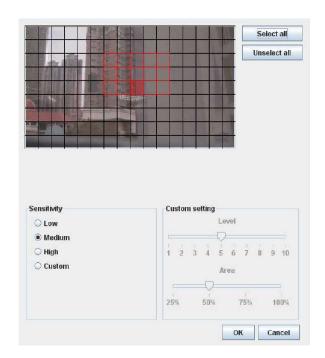
### 6.4.5.3. Motion

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

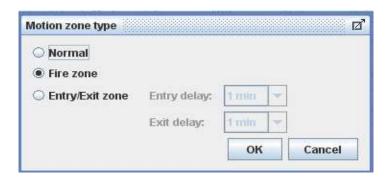
1. Go to [Server], select [Event Matrix] → [Event] → [Motion].



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 indicate motion is detected.



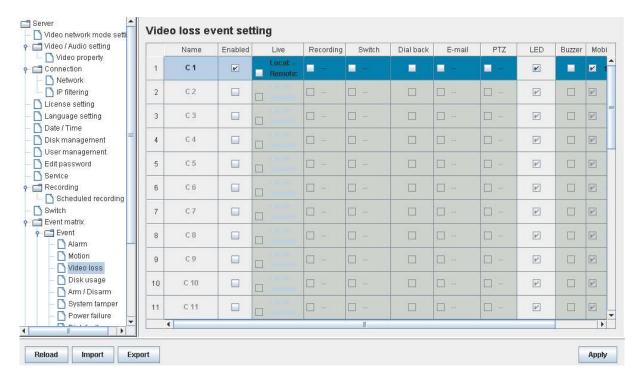
3. Click on [Zone Type] to change the operational zone.



### 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 is displayed on screen when this happens.

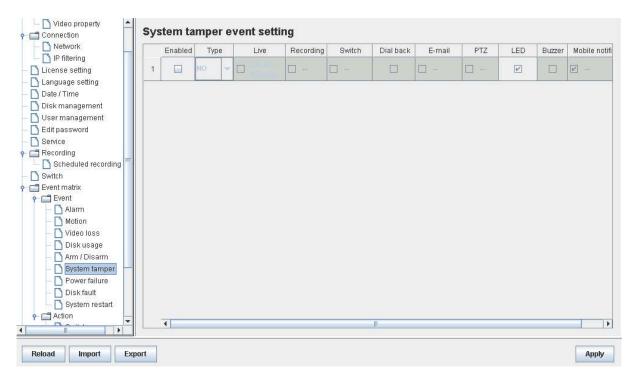
1. To enable video loss detection, go to [Server]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Event]  $\rightarrow$  [Video loss].



### 6.4.5.5. System Tamper

In an emergency (e.g. someone breaking and entering), the digital video recorder will inform staffs in regards to the event and may trigger alarms.

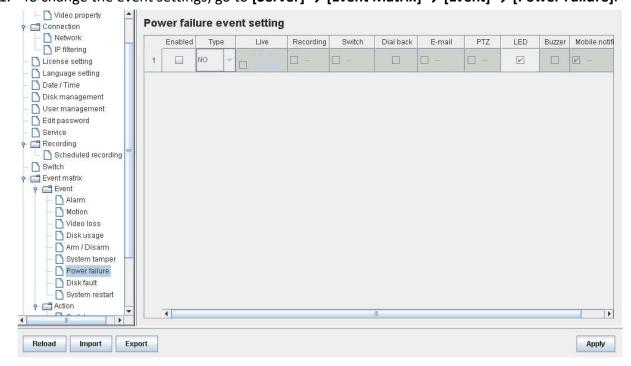
1. To change the event settings, go to [Server]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Event]  $\rightarrow$  [System Tamper].



### 6.4.5.6. Power Failure

This event is triggered when any power failure is detected.

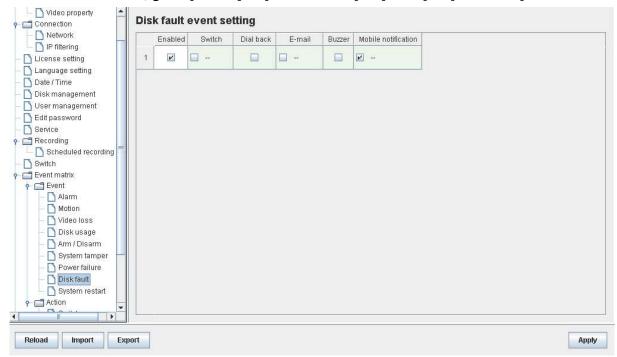
1. To change the event settings, go to [Server]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Event]  $\rightarrow$  [Power Failure].



#### 6.4.5.7. Disk Fault

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

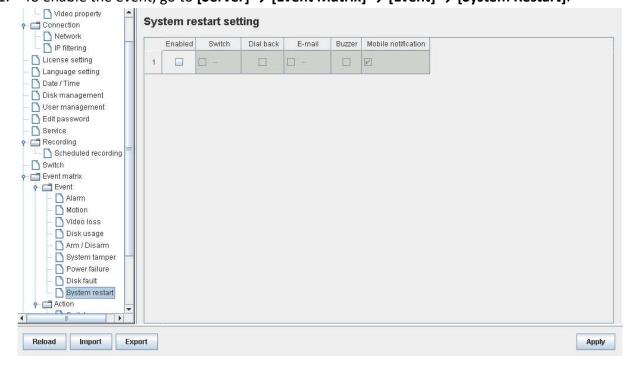
1. To disable the event, go to [Server]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Event]  $\rightarrow$  [Disk Fault].



### 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 has restarted.

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



### 6.4.6. Event Action

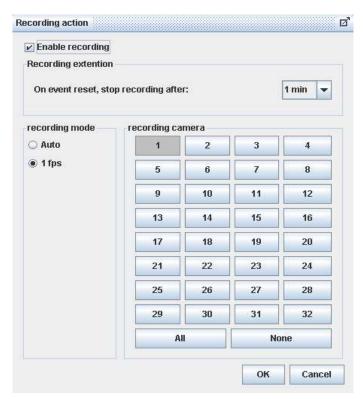
Users can define the set of actions to be taken by TeleEye GN8 when an event is triggered. This section shows the configuration of action settings.

👉 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, pre-selected cameras will start recording when an event is triggered.

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



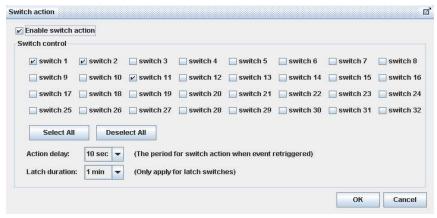
### 6.4.6.2. Switch

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]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Action]  $\rightarrow$  [Switch].



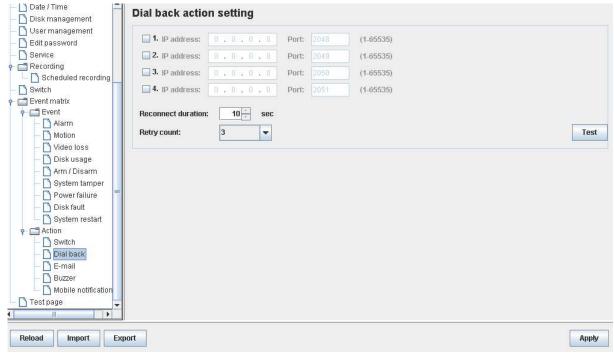
 To enable switch action, go to [Server] → [Event Matrix] → [Event]. Choose an event and click on [Switch].



#### 6.4.6.3. Dialback

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

1. To change the settings, go to [Server]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Action]  $\rightarrow$  [Dial Back].



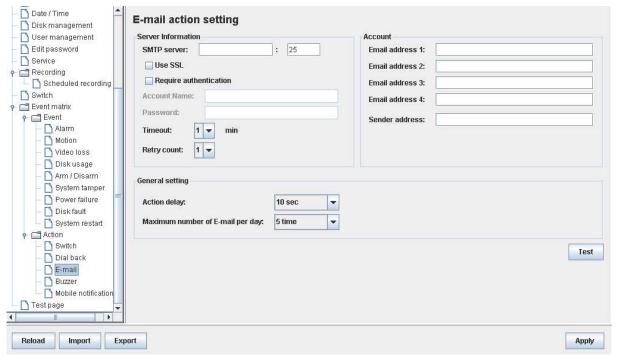
2. To enable dialback action, go to [Server] → [Event Matrix] → [Event]. Choose an event and click on [Dial Back].

Java web page cannot respond to dialback request. Software such as TeleEye sureSIGHT or sureGUARD is 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]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Action]  $\rightarrow$  [E-mail].



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

### 6.4.6.5. Buzzer

If an event is associated with buzzer action, a "beep" sound will be produced to draw nearby operators' attention when this event is triggered.

1. To change buzzer settings, go to [Server]  $\rightarrow$  [Event Matrix]  $\rightarrow$  [Action]  $\rightarrow$  [Buzzer].



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

#### 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. To change mobile notification settings, go to [Server] → [Event Matrix] → [Action] → [Mobile notification].

obile not	ificatio	n
Action delay:	10 sec	7
Retry count:	1 🔻	

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

### 6.4.6.7. Event LED

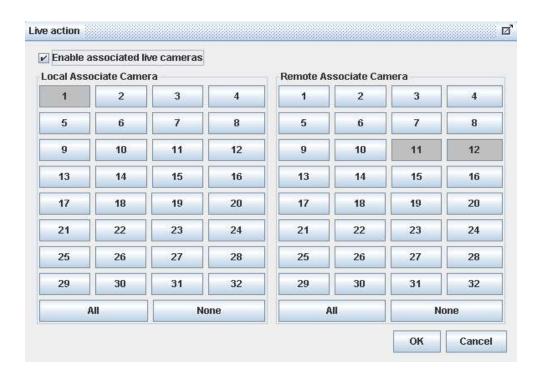
If an event is associated with LED action, the LED built on the front panel of TeleEye GN8 will blink when this event is triggered. This action is enabled by default.

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

#### 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.

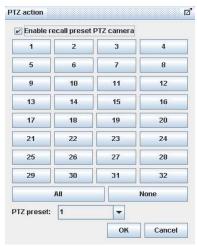
 To change the settings, go to [Server] → [Event Matrix] → [Event]. Choose an event and click on [Live].



### 6.4.6.9. PTZ

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

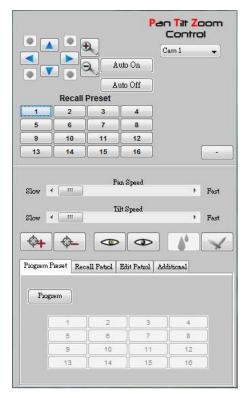
1. To change the settings, go to [Server] → [Event Matrix] → [Event]. Choose an event and click on [PTZ].



### 6.4.7. Pan Tilt Zoom (PTZ)

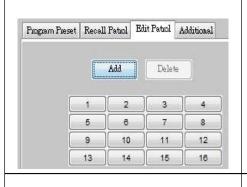
PTZ operations can be performed easily when a PTZ supported camera is connected to TeleEye GN8 digital video recorder .

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

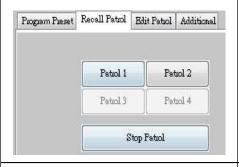


The meaning of each icon is summarized in the following table:

Button	Description
	Tile the camera up
	Tile the camera down
	Pan the camera left
	Pan the camera right
<b>9</b>	Zoom in
9	Zoom out
Auto On	Pan automatically until [Auto Off] is clicked
Auto Off	Stop the auto pan operation
Slow Fast	Set the pan speed
Slow	Set the tilt speed
Program Preset Recall Patrol   Edit Patrol   Additional	Configure a direction and lens settings as the preset positions for recall preset and patrol operation
Recall Preset  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	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 [Patrol 1] is clicked
- Stop the patrol operation when [Stop Patrol] is clicked

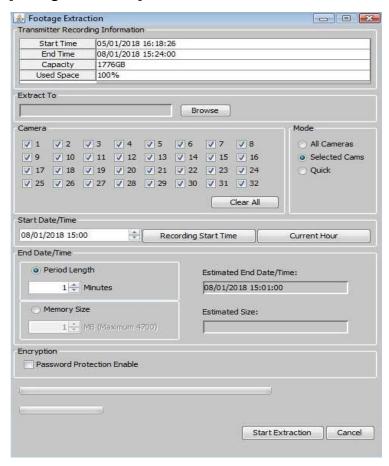


- Restore to default settings by clicking [Set Default]
- Delete patrol 1 by clicking [Clr. Patrol 1]
- Move to preset 1 automatically when left idle for a period of time, with [Home On] activated
- Cancel [Home On] operation by clicking [Home Off]

### 6.4.8. Footage Extraction

Video footage can be extracted through a network.

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

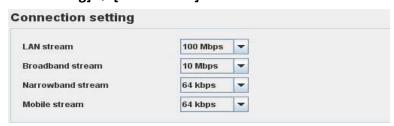


2. When extraction completes, open the selected folder and double click "TPPlayer.exe" to view the extracted video.

### 6.4.9. Throughput Control

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

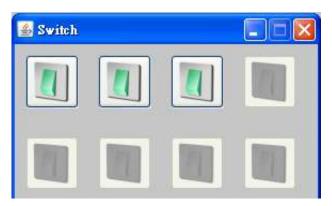
Go to [Menu]  $\rightarrow$  [Server Setting]  $\rightarrow$  [Connection].



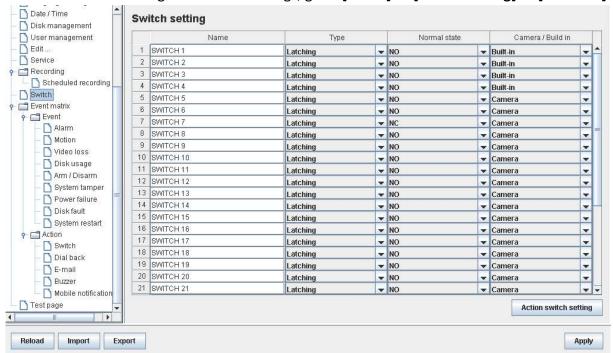
### 6.4.10. Switch Control

Whilst the state of switches can be changed due to an event, user can also control the external switches directly.

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



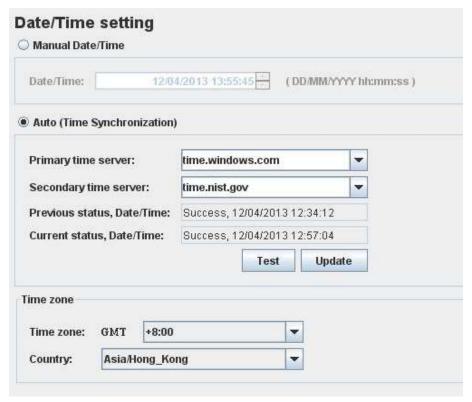
2. If a user wants to change the switch settings, go to [Menu]  $\rightarrow$  [Server Setting]  $\rightarrow$  [Switches].



### 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, users can click [Time Synchronization Test] to perform testing.

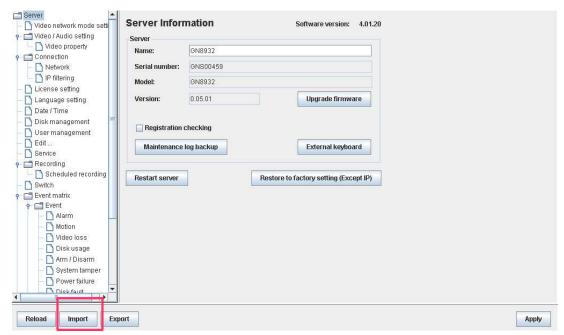
### 6.4.12. Import and Export

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

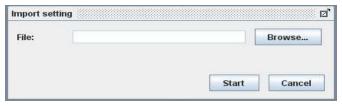
### A. Import

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

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



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



### B. Export

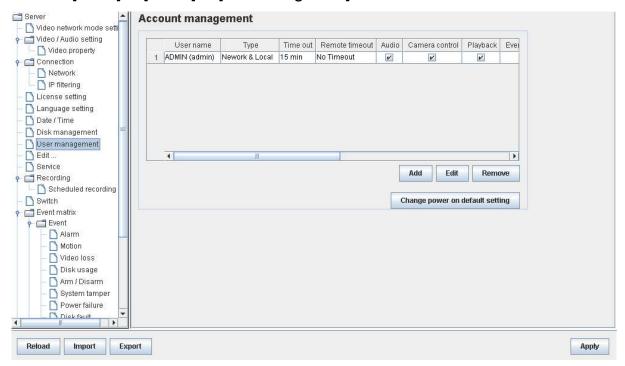
- 1. Go to Settings page, select **[Export]** at the lower left corner of the page. Select the setting configurations to be exported.
- 2. Upon completion, a message box will pop up and show the path of the exported file.



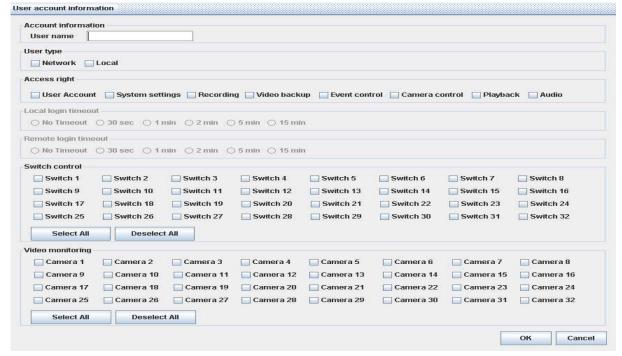
### 6.4.13. Account Management

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

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



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

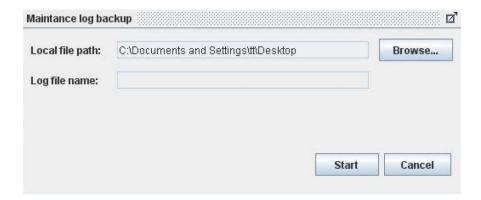


G Username of an account cannot be changed after creation.

## 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 the 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 carts, stands, or tables. 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 the user. Handle with care when installing and removing hard disks.
- 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 troubleshooting through the 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 disasters, environmental factors, abnormal humidity/temperature, improper voltage, electrostatic discharges, misuse, negligence, ignorance, accidents, 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 by conditions 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 seals 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 a broadband dynamic IP Internet connection. If you can only use a 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 will also need to configure the digital video recorder to make sureLINK is available. This section will help you configure and use it.

With 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 <u>www.hkpublic.TeleEye.TeleEye.net</u>, 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 a 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 the OSD menu or a web browser.

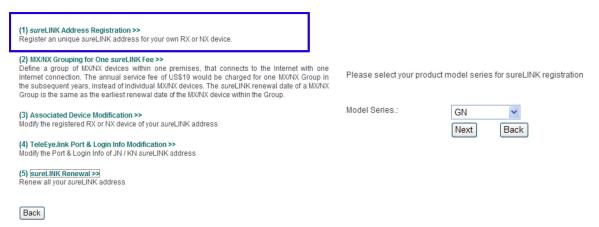
### A. sureLINK Application

You can apply for sureLINK by visiting our web site at <a href="http://www.TeleEye.com">http://www.TeleEye.com</a>. Follow the steps below:

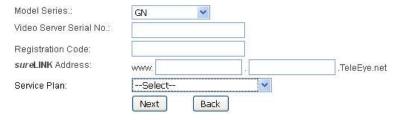
 Enter <u>http://www.TeleEye.com</u> in the address bar to access our web site. Click on the [Login] button.



- 2. Login using your registered Login ID and password. New customers will need to sign up first.
- Select [sureLINK Registration] → [sureLINK Address Registrations]. Then select "GN" and then click [Next].



4. Enter a sureLINK address (Domain Name), your video recorder's serial number and registration code in the fields provided. Then click on the **[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 <a href="http://www.TeleEye.com">http://www.TeleEye.com</a>



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

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

### C. sureLINK Setup in TeleEye GN8

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

- Use IP Setup Utility to access GN8 web page by double clicking the row representing 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. Users can choose to perform the upgrade locally using a USB flash device, or through a remote PC.

### **USB Upgrade**

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

### **Network Upgrade**

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

# **Appendix E: Security Mode**

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

Description	on	Advanced Security Mode
Number o	of account	20
Account a	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 rig	ght	Video monitoring
		Audio
		Playback
		Camera control
		Event control
		Switch control
		Video backup
		Recording
		System setting
		User account

G Advanced security mode supports 6 concurrent users

### Advanced security mode – User account

### Account structure

Туре	Description	Remark		
General setting				
User name	Login username from remote	4 – 16 characters		
	software	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	Network account type setting			
Network password	Login password from remote	4 – 10 characters		
	software	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 logout time when keypad	Except in playback state		
	and mouse are idle			

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 the local menu will follow the setting of "Power On Default Right".

### Administrator account: ADMINISTRATOR

Туре	Default	Remark
User name	ADMINISTRATOR	Fixed
Account type	both	Fixed
Access rights	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

Туре	Default	Remark
Access rights	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 <sup>1</sup>	Video extraction and backup
Recording <sup>1</sup>	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 <sup>2</sup>	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 the user has no access right to camera 2 monitoring, he cannot browse event status, control PTZ and playback on this camera.
- All video monitoring, audio and playback access right groups will be enabled automatically
- <sup>2</sup> 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 of the organization when a 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 a network.

### **Site Monitoring Method**

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

- 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 using it so that it may 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 settings configured in one connection method may not be applicable to other connection methods.

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
	Change disk usage warriing level
[Event] Recording	Enable / disable recording action of the event

[Frant] Dog Frama Data	Change quant recording from a rate	
[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 with 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 switches	
3ton 5.6 1,pc	Change the source of switches	

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 a 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 a 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 a remote interface	
Software Disarm	Disarmed from a 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's connection failed	
Unauthorized	Invalid remote user connection rejected	
Timeout	Remote user connection time out	

# **Appendix H: Specifications**

ITEM	MODEL		
I I EIVI	GN8916	GN8932	
VIDEO INPUT			
Supported HD	Tala Eva MO and MD carios ID a	TeleEye MQ and MP series, IP cameras conform to ONVIF profile S	
cameras	Telecye MQ and MP series, IP C		
Digital channel RJ45,		1	
10/100 base-T			
VIDEO OUTPUT			
Digital video	1 channel, 1280x720,	1 channel, 1280x720, 1920x1080, 3840x2160	
VGA	1 channel, 128	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:	Line level; Output impedance: 30KOhm, Frequency: 200-3500Hz	
AUDIO OUTPUT			
No. of channels	1 for PA, HDM	I for Local output	
RCA	Line level; Output impedance	Line level; Output impedance 600Ohm, Frequency: 200-3500Hz	
RECORDING			
Mode	Manual, schedule,	Manual, schedule, motion, event-driven	
HDD	SATA, i	SATA, internal x8	
Max. recording	25fps per channel @ 4K	12fps per channel @ 4K	
performance	25fps per channel @ WQHD	25fps per channel @ WQHD	
Playback	Forward, backward, pause, step f	Forward, backward, pause, step forward, step backward, fast forward	
COMMUNICATION			
Network	RJ-45, 10/100/1000 bas	RJ-45, 10/100/1000 base-T Ethernet (auto-sensing)	
Concurrent users	6 (inde	6 (independent)	

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sureLINK	Support Internet connection assigned with dynamic IP address		
Max. transmission frame rate	400fps	800fps	
Web server	Built	Built-in	
Keyboard control	RS422/RS485, 1	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	o loss, Power interruption, System failure, Disk Failure	
Action	Buzzer, Dial back, Local recording, Relay contro	Buzzer, Dial back, Local recording, Relay control, Email notification, PTZ, mobile notification	
External alarm inputs	16		
RELAY SWITCH			
No. of channels	4	4	
Max. rating	24V AC, 1	24V AC, 1000mA	
POWER			
Voltage	AC100-240	AC100-240V/3.5-2A	
Max. rating	80W		
OPERATING ENVIRON	MENT		
Ambient temperature	-10°C -	- 55°C	
Relative humidity	10% - 90% (no	condensation)	
MECHANICAL DESI	GN		
Dimension	440x95x4	440mm	
Weight	7.6	kg	