

ZIPK4T2/ZIPK8T2 User Manual Speco Gray Series Kits



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Welcome

Thank you for purchasing this surveillance system.

Please read this manual carefully before installing and operating the cameras and the NVR (network video recorder).

If technical assistance is needed, please contact Speco Technologies Technical Support.

Phone: 1-800-645-5516 option 3

Email: techsupport@specotech.com

Important Safeguards and Warnings

Please carefully read the following instructions to avoid personal injuries and prevent the equipment and other devices from being damaged.

1. Power source (note: please use the power supply that was included)

Never operate the equipment by using an unspecified power supply.

1. Never push objects of any kind through the openings on the recorder

Never push objects of any kind through the openings on the NVR to avoid electric shock or other accidents.

2. Avoid dusty areas

Do not put the equipment in a dusty area.

3. Do not place the equipment in a rainy or humid environment

Do not place the recorder in a humid environment like a basement. If the equipment comes accidentally in contact with water, please unplug the power cable and immediately contact support.

4. Keep the surface of the equipment clean and dry

Use a soft, damp cloth to clean the outer case of the recorder (do not use liquid aerosol cleaners)

5. Do not operate if any problems are found

If there are any strange smell or sounds coming from the recorder, unplug the power cable and contact support.

6. Do not try to remove the upper cover

Warning: Do not remove the cover of the recorder while power is connected, to avoid electric shock.

7. Handle with care

Handle the unit gently as rough physical handling may cause malfunction.

8. Use standard lithium battery

After disconnecting power, if the system clock does not continue to work, please replace the standard 3V lithium battery on the main board.

Warning: Turn off the unit before replacing the batteries. Please properly dispose of the used batteries.

9. Put the equipment in a place with good ventilation

The recorder can produce a large amount of heat during operation. Install or put the equipment in a place with good ventilation.

- 10. The included power adapter can only be used for the single recorder. Do not connect more equipment to the power adapter.
- 11. Prevent water from splashing on the equipment. Do not place objects containing water on the equipment.

12. Electrical safety

All installation and operation here should conform to local electrical safety codes. The product must be grounded to reduce the risk of electric shock. Speco Technologies assumes no liability or responsibility for all the fires or electric shock caused by improper handling or installation.

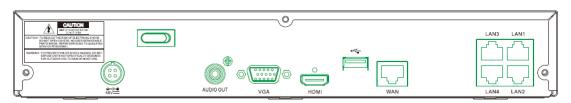
13. Qualified personnel

All examination and repair work should be done by the qualified service personnel. Speco Technologies is not liable for any problems caused by unauthorized modifications or attempted repair.



Chapter 1 Product Overview

1.1 Rear Panel



(4-channel recorder shown for reference)

Item	Physical Port	Connection Method
1	Power Switch	Startup and shutdown
2	Power Port	Connect the included power supply
3	USB Port	Connect USB devices, such as USB mouse and USB flash drive.
4	HDMI Port	Connect to a monitor or TV
5	VGA Port	Connect to a monitor with VGA port
6	Audio Out	Audio signal output, RCA port
7	WAN Port	Network interface to router
8	LAN Ports	Network interface to IP cameras. Also provides power to IP cameras.

1.2 Remote Control (For Reference Only)

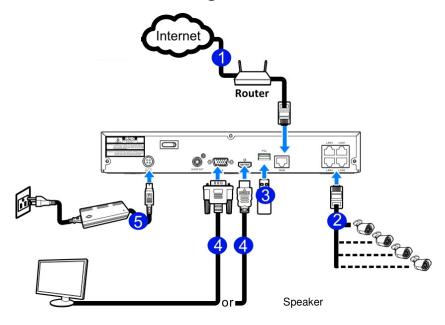
No.	lcon	Description
1	1-4	Numeric keys
		Press to display channel 1~4
3	ALL	Press to display all channels
3	ALL	Multiple display mode
4	Menu	Press to enter or exit the Main Menu
5	Mute	Mute On/off

•		
6	Submenu	Go to submenu
7		Up arrow key
8	SEL	Press to enter the selected menu item and
-	•==	edit the setting
9	•	Left/Right key
10	▼	Down arrow key
11		Press to rewind during video playback
12	••	Press to fast forward during video playback
13		Press to play recorded video or enter the
	•	playback search menu
14		Press to start manual recording
15		Press to stop manual recording or stop the
		video playback
16		Press to pause the video playback or enter
		frame-playback mode

Table 2-1

Chapter 2 NVR Installation & Connection

2.1 Connection Diagram

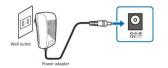


(4-channel recorder connection shown for reference)

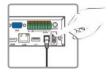
2.2 Power Supply Connection

Caution: Use only the supplied power adapter that was included in the package

Connect one end of the power adapter to the power connector on the back of the NVR. Plug the other end of the power adapter into the wall outlet.

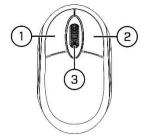


Press the Power switch to turn on the power.



Chapter 3 NVR Common Operations

3.1 Using the Supplied Mouse



1. Left Button:

- Click to select menu options.
- During live viewing in split-screen view, double-click on a channel to view it in full-screen.
 Double-click the channel again to return to split-screen viewing.
- Click up on a channel in Live View to open the Camera Quick Toolbar.
- General click and drag actions

2. Right Button:

- Click once to open the Task bar in the Live View screen. View Task bar on 4.2.2 Taskbar
- Click to go back / close menus.

3. Scroll Wheel:

- General scrolling actions.
- While hovering over the volume control panel, scroll to turn system volume up / down.

3.2 Using the Virtual Keyboard

The virtual keyboard will pop up on the screen when data needs to be entered.

Click to toggle the keyboard to upper case and more punctuation



Move the cursor to left

3.3 Password

When the recorder is powered on for the first time, a password is required to set. Please make sure to remember the username and password and save them in a secure place.

			07/17/2018 13:29:49 Tue.
	ENGLISH ¥		
	admin		
		Show Password	
	Disable 🗸		

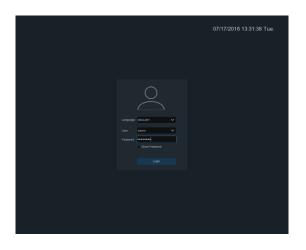
Language: Choose an OSD language

New Admin Name: set the user name.

New Admin Password: set the admin password. The password must be a combination of 8 characters.

Confirm Password: Enter the password again.

Click **Apply** to confirm the setup and go to the login interface. Enter the user name & password to log in.



NOTE: If the password is forgotten or lost, please contact support to reset the password.

Chapter 4 Start up

4.1 Start Wizard

The Startup Wizard will help configure the system and get the system up and running quickly.

4.1.1 Start Wizard

Click the Start Wizard button to proceed to the next step



4.1.2 Network Configuration

	١	Vizard		×
Network				
Local Connection				
DHCP				
IP Address				
Subnet Mask				
Gateway				
DNS				
DNS1				
DNS2				
Port				
Web Port	00080			
Client Port	09000			
RTSP Port	00554			
UPNP				
			Next	Cancel

Check the **DHCP** box if the recorder is connected to a network with DHCP capability. A router typically has DHCP. The router will assign the network parameters automatically when DHCP is enabled on the recorder. To manually assign parameter values, see below:

IP Address: The IP address identifies the recorder in the network. It consists of four groups of numbers between 0 to 255, separated by periods. For example, "192.168.001.100".

Subnet Mask: Subnet mask is a network parameter which defines a range of IP addresses that can be used in a network. If IP address is like a street where you live then subnet mask is like a neighborhood. The subnet address also consists of four groups of numbers, separated by periods. For example, "255.255.000.000".

Gateway: This address allows the unit to access the Internet. The format of the **Gateway** address is the same as the **IP Address**. For example, "192.168.001.001".

DNS1/DNS2: DNS1 is the primary DNS server and DNS2 is a backup DNS server. It is usually enough just to enter the DNS1 server address.

Port

Web Port: This is the port that will be used to log in remotely to the NVR (e.g. using the Web Client). If the default port 80 is already being used by other applications, it must be changed.

Client Port: This is the port that the NVR will use to send information through (e.g. using the mobile app). If the default port 9000 is already taken by other applications, it must be changed.

RTSP Port: This is the port that will be used to transmit real-time streaming video to other devices (e.g. using a streaming Media player.).

UPNP: To log in remotely to the NVR using the Web Client, port forwarding must be completed in the router. Enable this option if the router supports the UPnP protocol. In this case, port forwarding does not need to be configured manually on the router.

4.1.3 Date/Time

Date and Time

Click on the calendar icon to set the current system date.

Date and Time NTP	DST	
Date	10/25/2017	i
Time	15:39:21	
Date Format	MM/DD/YY	~
Time Format	24Hour	~
Time Zone	GMT+08:00	~

Date: Click on the calendar icon to set the system date.

Time: Click to set the system time.

Date Format: Choose from the drop down menu to set preferred date format.

Time Format: Choose time format between 24Hour and 12Hour.

Time Zone: Set the correct time zone.

NTP

NTP stands for Network Time Protocol. This feature allows the date and time to be synchronized automatically on the NVR over the Internet. The NVR needs to be connected to the Internet for this feature to work.

Date/Time	
Date and Time NTP	DST
Enable NTP	
Server Address	pool.ntp.org
	Update Now

Check the " $\ensuremath{\mathsf{NTP}}$ " box, and select the NTP server.

DST

DST stands for Daylight Saving Time.

Enable DST Itour Itour	Date and Time	NTP DST					
DST Mode Week Start Time Mar. The 2nd Sun. 02:00:00	Enable DST	~					
Start Time Mar. ✓ The 2nd ✓ Sun. ✓ 02:00:00	Time Offset	1Hour 📐 🗸]				
	DST Mode	Week 🗸					
End Time Nov. 🗸 The 1st 🗸 Sun. 🗸 02:00:00	Start Time	Mar. 🗸 🗸	The 2nd	~	Sun.	~	02:00:00
	End Time	Nov. 🗸	The 1st	~	Sun.	~	02:00:00

DST: Enable if Daylight Saving Time (DST) is observed in the time zone where the system is installed.

Time Offset: Select the amount of time to offset for DST (normally 1 hour)

Time Mode: Choose to set the daylight saving time in weeks or in days

Start Time/End Time: Set the start time and end time for DST

4.1.4 IP Camera

IP cameras can be added to the NVR through this menu if the included cameras are not connected directly to the PoE ports on the back of the NVR.

					٧	Vizar	ď							×
IP (Came	ra												
	No.	IP Address/Domain	Port	Manufacturer				Channel		Edit	State	IP Addr	ess/Domain	Sul
		192.168.6.171	9988					IP CH1	0					
	2	192.168.6.173	9988					IP CH2	0					
		192.168.6.152	9988					IP CH3	٥					
	4	192.168.6.162	9988					IP CH4	0					
		192.168.6.165	9988					IP CH5	0					
		192.168.6.155	9988					IP CH6	0					
		192.168.6.168	9988		с	-		IP CH7	0					
	8	192.168.6.153	9988					IP CH8	0					
		192.168.6.174	9988					IP CH9	٥					
	10	192.168.6.172	9988					IP CH10	٥					
	11	192.168.6.170	9988					IP CH11	0					
	12	192.168.6.169	9988					IP CH12	٥					
	13	192.168.6.159	9988											
S	earch													
								P	revio	us	Ne	ext	Cancel	

Click Search to search IP cameras in the same network. Choose the IP camera(s) to add, and then click the icon to add to the NVR.

Dealthan			
Position	Left-Top 🗸 🗸		
Port		🖌 Auto	
Protocol	Private 🗸 🗸	🖌 Auto	
User Name	admin		
Password		Show Password	
		Add	Cancel

Enter the camera's user name & password to add the camera(s). The default credentials are admin/admin.

Click the **G** button to add an individual IP camera to a single channel.

						Add IP C	amera		×	
		No.	IP Address/Domain	Port	Manufacturer	Device Type	MAC Address	Software Version		
			192.168.1.5	9988		IP CAMERA	00-23-63-6D-09-8	8 V2.31.4.8_180706		
	IP (30-57-AC-00-E8-E			
No		5	192.168.1.8		IPCAM		30-57-AC-00-35-0			
			192.168.1.20	9988		IP CAMERA	00-23-63-87-52-2	9 V9.41.4.8_180712		
			192.168.1.76	9988		IP CAMERA	00-23-63-5C-4F-8			
	3		192.168.1.126	9988		NHD-885	A0-23-63-AA-25-3			
	4		192.168.1.143	9988			00-23-63-6D-0C-6			
			192.168.1.144	9988			00-23-63-6D-0E-A			
		11	192.168.1.145 192.168.1.151	9988 9988		IP CAMERA	00-23-63-6D-67-4	F V2.31.4.8_180706 C V2.1.3.4 170605		
			192 Ino Liat	Seina		IP CAMERA	00-25-05-00-07-7	. vz ta 4 trubus		
		IP /	Address/Domain	92.16						
	9	Alia		CH1						
				_eft-To	0		~			
					þ					
		Por		888						
		Pro	tocol	Private						
No		Use	ar Name	admin						
			ssword	••••				Show Password		
		Bin	d channel							
			Search D	efault P	assword			Add Canc		

Click Search button to search IP cameras, and then click one of the IP camera in the device list.

IP Address/Domain: IP address or domain name of the IP camera

Alias: Name of the IP camera

Position: Position to display the camera name on the screen.

Port: Port of the IP camera

Protocol: Choose the protocol of the IP camera from the drop down menu

User Name: User Name of the IP camera

Password: Password of the IP camera

Bind channel: Choose a channel of the NVR to associate the camera to

4.1.5 Disk

				Wizard				×	
No	Disk								era
		Model	Serial No.	Firmware	State	Free/Total	Free Time	Se	June 1997
		ST2000VX007-2AY102	ZFM00R21		Normal	1550G/1863G	99999Hour		
	-								
No	Overwrite Au	to 🗸 Fo				us Next	Cancel		əra
		07	7/19/201	8 10:16	:54				

The NVR comes with a preinstalled HDD. If for any reason, the HDD needs to be formatted, select the HDD and then click the **Format HDD** button.

Overwrite: Use this option to overwrite the old recordings on the HDD when the HDD gets full. For example, if the option 7 days is chosen then only the last 7 days of recorded data are kept on the HDD. To prevent overwriting any old recordings, select Disable. If this function is disabled, please check the HDD status regularly to make sure the HDD is not full.

4.1.6 Resolution

Select the appropriate resolution for the monitor. The NVR also supports automatic adjustment of the output resolution to match the best resolution for the monitor when the system starts up.

Resolution		
Output Resolution	1280x1024	~
	Apply	

4.1.7 Mobile

Scan the QR code with the mobile app to view the NVR remotely through a smartphone.

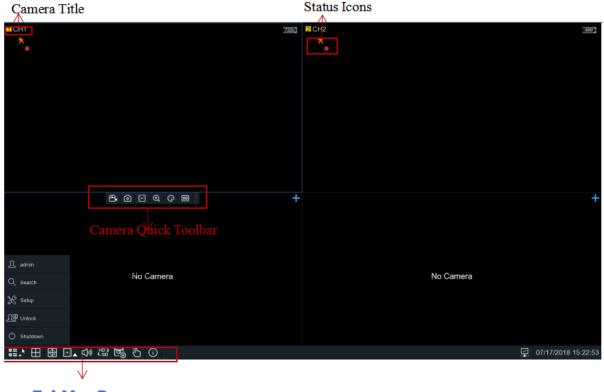
Mobile		
P2P ID		
P2P ID	RSV1907010420595	
Local Connection		
IP Address	192.168.6.28	
Subnet Mask	255.255.255.0	告述道
Port		
Web Port	80	
Client Port	9000	

4.1.8 Summary

Check "Don't show this window next time" to not display the Start Wizard again when the system is rebooted next time. Click Finish button to save & exit.

Summary	
System	
Resolution	1920x1080
Date/Time	04/10/2017 16:18:17, GMT+08:00
NTP	OFF
DST	OFF
Network	
DHCP	ON
IP Address	192.168.6.28
Subnet Mask	255.255.255.0
Gateway	192.168.6.1
DNS1	192.168.1.1
DNS2	8.8.8.8
Don't show this window next tin	ne.





Task Menu Bar

Status Icons

This indicates that the NVR is currently recording.

This icon appears when motion has been detected.

The icon indicates that the external I/O alarm device has been triggered



This icon indicates an HDD error

•

This icon indicates the HDD is unformatted

This icon indicates the HDD is full.

E This icon indicates the HDD is read-only.

No Camera: IP camera is not connected.

+ Click to open Quick Add menu to add IP camera

Click to edit current IP camera

4.2.1 Camera Quick Toolbar

In live view, click the left button of the mouse on a channel to display the Camera Quick Toolbar.



- Click to manually record the channel immediately. If the manually recording is in process, the icon will be in red color. Click one more time to stop manual record.
- Olick to save a snapshot of the current camera image.
- Click to play the last 5 minutes of recording of this channel
- 🔁 Click to zoom into the channel.
- Click to adjust the image settings of the channel. These parameters can be adjusted: Hue, Brightness, Contrast, and Saturation of the image.

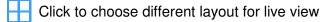
Ho To switch the live view video stream between HD & SD. HD is the main stream and SD is the sub stream.

07/17/2018 15:22:53

4.2.2 Task bar

1. 日母日 今日日 1. 11

Click to open the Start Menu



Click to start viewing channels in a sequence

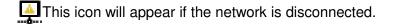
Quick playback. If chosen, the recording for all channels from the beginning of the day will start playing back. If the arrow is clicked, playback from the last 5s, 10s, 30s, 1min, and 5min can be chosen.

- Click to adjust the audio volume
- Click to switch all IP channels between main stream and sub stream for live view

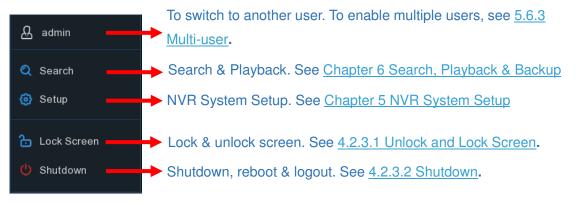
Click to switch among real-time, balanced, or smooth view. The view effect modes affect only the live view video quality by bitrate and frame rate but do not affect the recording quality.

Click to start or stop Manual Record and Manual Alarm.

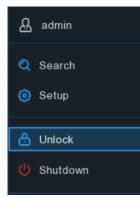
i)Click to view system information, channel information, record info and network state.



4.2.3 Start Menu



4.2.3.1 Unlock and Lock Screen

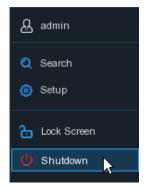


The screen will be locked to protect unauthorized OSD operation if there is no user interaction after 1 minute.

If necessary, the screen can be locked manually. To do so, go to the Start Menu, and then click the Lock Screen icon to lock the system immediately.

If the system is locked, click the Unlock icon 📩 to unlock the system for further operation.

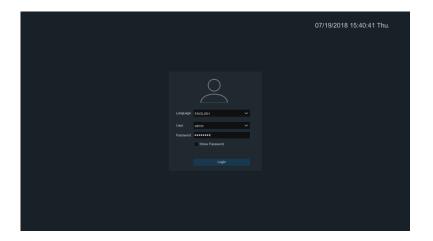
4.2.3.2 Shutdown



Click the **Shutdown** button from Start Menu, and the check the desired operation. Click **OK**. The system will require the admin password to continue.



If Logout is chosen, the live view screen will disappear. Log in to the system again for operation.



Chapter 5 System Setup

Go to Start Menu→Setup.



5.1 Channel

Available options in this section are: camera configuration, live view display, manage IP cameras, adjust IP camera's image, motion setup, and privacy mask setup.

5.1.1 IP Channels

Setup										×
Channel	No. Edit		ain Port Manufa	cturer Device Type						
- IP Channels										
- Protocol Manage										
• Live										
Motion										
	Search	Add	Add All							
	Channel	Edit State								
			192.168.1.143	255.255.255.0 9	1988	IP CAMERA Private	00-23-63-6D-0C-6E	V2.1.3.5_170829		
	CH4									
	Auto Assign II	P to Camera(s)	Channel Delete Mar	ual Mode Auto	Mode Default F	'assword		Total Band Width:50M	lbps, Used Band Width:10.75	iMbps
	Channel Protocol Manage Live Image Control Motion	Channel I I Channels I Protocol Manage UN I I I I I I I I I I I I I I I I I I	Channel IP Channels Protocol Manage Kuive Motion Privacy Mask Cearch Add Channel Edit State CH2 CH2 CH3 CH3 CH4 CH4 CH4 CH4 CH4 CH4	Channel Protocol Manage Clive Motion Privacy Mask	• Channel • No Edit IP Address/Domain Port Manufacturer Device Type • IP Channels • Protocol Manage • Vo •	• Channel • No. Edt IP Address/Domain Port Manufacturer Device Type MAC Address • IP Channels • Protocol Manage • V V	• Channel • No. Edt IP Address/Domain Port Manufacturer Device Type MAC Address Software Version • IP Channels • Protocol Manage • Uve • Image Control • Image Control • Privacy Mask • Privacy Mask • Edt State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol Manage • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol Protocol • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol • Ch1 • Imag	• Channel • No Edit IP Address/Domain Port Manufacturer Device Type MAC Address Software Version • IP Channels • Protocol Manage • Version • Version • Version • Version • Image Control • Privacy Mask • Privacy Mask • Privacy Mask • Privacy Mask • Version • Version • Privacy Mask • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type MAC Address • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol MAC Address • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol MAC Address • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol MAC Address • Channel Edit State IP Address/Domain Subnet Mask Port Manufacturer Device Type Protocol MAC Address • Chan • P Address/Domain Subnet Mask	• Channel • IP Channels • Protocol Manage • Iunge Control • Motion • Privacy Mask • Channel • Channel	• Ohannel • IP Octoor Manage • IP Octoor Manage • Ir Ortoor Manage • Inage Control • Motion • Privacy Mask • Channel • Edit State • IP Address Domain • Motion • Privacy Mask • Channel • Channel • Add • Othernel

Click **Search** to search for IP cameras on the local network. Click **Add** to add an individual IP camera or click **Add All** to add all IP cameras. Note that this should be used only for channels where the IP camera isn't connected directly to the PoE port on the back of the NVR.

IP Address/Domain	192.168.1.151				
Alias	CH17				
Position	Left-Top	~			
Port	9968				
Protocol	Private	~			
User Name	admin				
Password			Show	Password	
Bind channel	CH17	~			
Search			Add	Cancel	

Click Search button to search for IP cameras, and then click one of the IP cameras in the device list.

IP Address/Domain: IP address or domain name of the IP camera

Alias: Nickname of the channel

Position: Position to display the camera name on the screen.

Port: Port of the IP camera (leave it at default unless it was specifically changed previously on the camera)

Protocol: Choose the protocol of the IP camera from the drop down menu (leave it at default)

User Name: User Name of the IP camera (default: admin)

Password: Password of the IP camera (default: admin)

Bind channel: Choose a channel of the NVR to attach the camera to

Auto Assign IP to Camera(s): If for any reason, the IP camera's IP address was set to a different network segment as the NVR's internal camera network segment, this option can be used to change the camera back to the network segment that the NVR recognizes.

Channel Delete: Choose one or more IP cameras, and click this button to delete them from the channels.

5.1.2 Custom RTSP

Custom RTSP URLs can be used to get video streams from 3rd party IP cameras where their respective RTSP URLs are known.

0	Setup						×
D.		Custom Protocol	Custom Protocol1				
Channel		Protocol Name	Custom 1				
		Stream Type Enable Substream	Main Stream	Sub Stream			
Record	• Live	Type		RTSP			
		Port					
Ð		Resources Path	rtsp://192.168.1.150:554/ch01/0	rtsp://192.168.1.150:554/ch01/1			
Alarm							
\oplus							
Network							
		Example :					
Device		[type]://[IP addre rtsp://192.168.0	ess].[port]/[resources path] .1:554/resourcesPath				
ې نې							
System							
						Default	Apply

Custom Protocol: Maximum of 10 custom protocols can be supported.

Protocol Name: Give a name to the custom protocol that's being used.

Enable Substrearm: Check the box to enable the sub-stream.

Port: Enter the RTSP port of the IP camera.

Resources Path: Enter the RTSP URL of the IP camera.

5.1.3 Live

0	Setup										×
J.								Show Time 🗸	Refresh F	tate 🗸	
Channel	Live	CH1	۲	CH2	~	MM/DD/YYYY	24 Hour	\checkmark	50Hz		
	 Image Control 			Camera	N	YYYY-MM-DD	12 Hour	N	60Hz		
Record	Motion										
Alarm											
Network											
Device											
ŝ											
System											
										Арр	iy

Channel Name: Nickname of the IP camera.

Setup: Click the (i) icon to go to the setup page.

	12	-	
Channel	CH17	~	Choose a channel to configure
Channel Name	IP CH17		Give a name to the camera
Date Format	MM/DD/YYYY	~	Date format to display for the camera
Time Format	24 Hour	~	Time format to display for the camera
Refresh Rate	50Hz	~	Refresh Rate of the camera (60Hz should be used for North America)
Camera Type	AUT O	~	Choose a camera type (Auto, AHD, TVI, CVI) for analog camera
EQ Level	AUT O	~	
🗹 Convert			
🔽 Show Nam	e		To show the camera name in live view screen
🖌 Show Time			To show the system time in live view screen
HUE		32	Adjust the Hue value for the image color
BRIGHT	•	23	Adjust the Bright value for the image color
CONTRAST	•	27	Adjust the Contrast value for the image color
SATURATION	•	20	Adjust the Saturation value for the image color
	Default		Click Default to load default settings. Click Apply to save settings.
			Right click on the mouse to exit.

5.1.4 Image Control

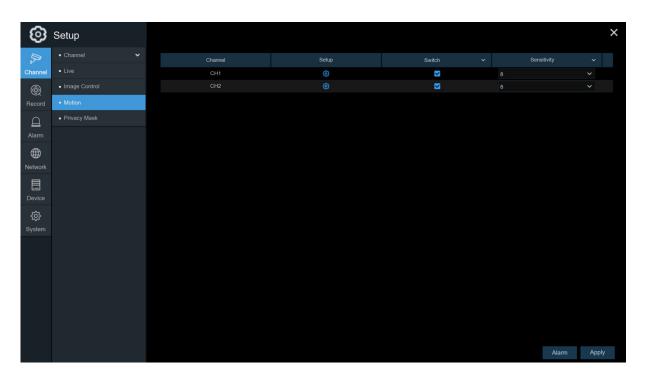
ම	Setup															×
J.			Setup	IR-CUT Mode	IR-CUT Delay		Angle Flip	Angle Trad		3D Noise Reduction	WDR		White Balance	Time Exposure	Defog Level	
Channel		CH1	٢	GPIO Auto		OFF	OFF		OFF	Auto		High	Auto	Auto	Disable	
	 Image Control 			GPIO Auto						Auto	OFF	Middle	Auto	Auto	Disable	
Record	Motion															
Alarm																
Network																
Device																
ŝ																
System																

Setup: Click the 🔁 icon to go to the setup page.

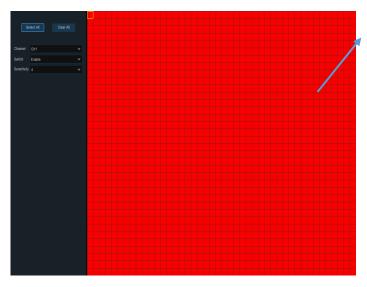
Channel	CH17	Choose a channel to configure
IR-CUT Mode	GPIO Auto	Select the desired built-in IR cut filter mode to ensure the camera works properly both in the day and night.
IR-CUT Delay	•	2 Set the delay time of mode switching
Lens Flip	Angle Flip	Check to enable lens flip and angle flip
Angle Trad	0	Set the flip angle
Back Light	Enable	To enable or disable Backlight compensation
BLC Level	Low	Choose the backlight compensation level
3D Noise Reduction	Auto	To enable or disable 3D noise reduction function
Level		128 -→ Set the 3D noise reduction level
WDR	Enable	► Enable to allow WDR
Level		128 -> Set the WDR level
AGC	Middle	Automatic Gain Control
White Balance	Auto	Configure white balance
Shutter	Auto	Set the shutter mode
Time Exposure	1/8	Choose the exposure time of the camera
Defog Mode	Auto	Use in foggy environments to improve the video quality

5.1.5 Motion

Configure motion detection options in this section.



Setup: Click the 🙆 icon to go to the setup page.



Switch: Enable or disable motion detection.

Motion Detection Area:

The whole screen is marked for motion detection (red blocks) as default. To disable motion detection on a certain area, click the grid cursor and then drag the mouse to unmark the area into transparent blocks. After setup is completed, right click on the mouse to return and click **Save** to complete the motion zone setup. **Sensitivity**: Set the sensitivity level. Level 1 the lowest sensitivity level while level 8 is the highest sensitivity level.

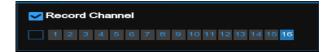
5.1.6 Alarm

Click the Alarm button to configure the motion detection alarm actions:

0	Setup										×
L.	Motion				Post Recording	Show Message 🗸			FTP Upload		
Channel	Exception	CH1	Disable	ON		×	×		×		
			Disable	ON		✓	N		~		
8 Record											
Alarm											
\oplus											
Network											
Device											
ŝ											
System											
								Motion	Сору	Default	Apply

Buzzer: The NVR can use its internal buzzer to emit an alarm tone. The buzzer duration can be set here.

Record: Click the icon to choose which channel(s) should be recorded when motion detection is triggered.



Post Recording: Set how long after the motion event occurs that the NVR will continue to record. The recommended recording length is 30 seconds but it can be set as high as 5 minutes.

Show Message: Check the box to display the ***** icon on the live view screen when motion is detected.

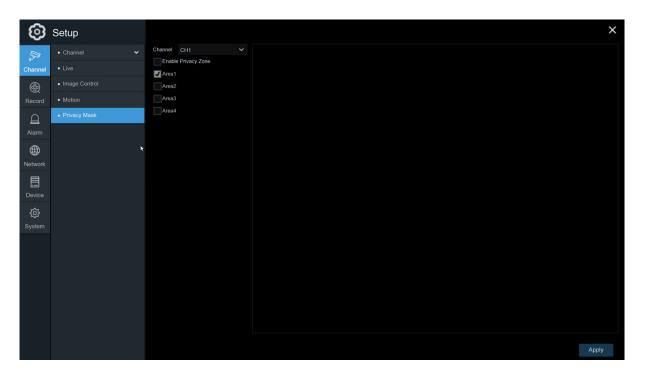
Send Email: Select to let the NVR send an email when the motion is detected. Email must be set up first in the Network section in order for this to work.

Full Screen: If this function is enabled and a motion is detected in a channel, that channel will go to full screen.

FTP Upload: To upload alarm images to an FTP server when motion is detected. To set up FTP, see <u>5.4.4 FTP</u>.

5.1.7 Privacy Mask

Privacy mask can be used to cover certain areas of the image where viewing/recording is not desired. Up to 4 privacy zones in any size and location on the camera image can be set up. Enable Privacy Zone, and choose the number of zones that are needed. The zone(s) appear as red outlined boxes. Click the bottom right corner of the box and drag it to any size to create the privacy zone. Click Apply to save.



5.2 Record

This section allows for configuration of recording settings.

5.2.1 Stream

The IP cameras have multiple simultaneous streams which are used for different purposes. The main stream defines the recording video quality which will be saved in the HDD. The sub stream defines the video quality for remote access viewing, such as the web client. The mobile stream defines the video quality for remote viewing with the mobile app.

0	Setup									×
₽.	 Stream 	Channel	Switch		Resolution	FPS		Bitrate Control 🗸	Video Quality 🗸	Bitrate Mode
Channel	- Main Stream									
	- Sub Stream									
Record	- Mobile Stream									
	 Record 									
Alarm										
\bigoplus										
Network										
Device										
ŝ										
System										
		Total Band Width:	50Mbps, Used Band	Width:0bps						

Resolution: This parameter defines how large the recorded image will be.

FPS: This parameter defines the frame rate (frames per second) that will be recorded.

Video Encode Type: Compression codec of the IP camera.

Bitrate Control: Bitrate determines the actual video quality. Constant bitrate (**CBR**) is more suitable for scenes with low contrast or where there isn't much movement. For more complex scenes or scenes with more movement, variable bitrate (**VBR**) is more suitable. If the bitrate is set too low for the given resolution, pixilation will start to occur.

Bitrate Mode: To set a custom bitrate value, choose the **User-defined** mode. To have the system set a recommended bitrate value based on the selected resolution of the stream, choose the **Predefined** mode.

Bitrate: Set the bitrate value. Note that higher bitrate values will result in higher image quality, but will also consume more storage space on the HDD.

5.2.2 Record

Configuration of the channel recording parameters.

5.2.2.1 Record

6	Setup						×
Į,	 Stream 	Channel	Record Switch	Stream Mode 🗸 🗸	PreRecord V		
Channel	 Record 		×	DualStream V	×		
			_	DualStream 🗸	V		
		CH3	✓	DualStream 🗸	✓		
Record	 Record Schedule 		V	DualStream 🗸	✓		
Alarm							
Network							
Device							
ŝ							
کی System							
Gystein							
						Default	Apply

Record Switch: Check to enable recording for the channel.

Stream Mode: Choose the recording quality. If DualStream is chosen, the system will record both the main stream and the sub stream.

PreRecord: If this option is enabled, the NVR will store recorded video a few seconds before a motion event occurs.

5.2.2.2 Record Schedule

Set a recording schedule for normal (continuous) and/or motion recording. To set the recording mode, click on the mode (Normal or Motion) and then drag the cursor to mark the time slots. The recording schedule must be set for each channel. Use the **Copy** function to set the same schedule as the initial channel that was set, for all other channels. Click **Apply** to save the settings.

Channel: Select the channel to set its recording schedule.



Normal: Continuous recording (green markers).

Motion: Motion recording (yellow markers).

No Recording: An unmarked time slot means that there is no recording scheduled for that time slot.

5.2.3 Capture

This section allows for configuration of image capture (snapshot) settings.

5.2.3.1 Capture

0	Setup															>
Į,	 Stream 	Channel	Auto Capture 🗸	Stream Type 🗸	Normal Interval 🗸	Alarm Interval										
₽ hannel	Record			Main Stream 💙			~									
	 Capture 			Main Stream 💙			~									
	- Capture	CH3		Main Stream 💙												
ecord				Main Stream 💙			~									
J	 Capture Schedule 															
letwork																
Device																
									Default	Default	Default	Default Ar	Default Apply	Default Apply	Default Apply	Default Apply

Auto Capture: Enable or disable automatic capturing for the channel.

Stream Type: Select the image resolution between main stream or sub stream.

Normal Interval: Time interval to capture an image during continuous recording.

Alarm Interval: Time interval to capture an image when motion is triggered.



5.2.3.2 Capture Schedule

Channel: Select the channel to set its capture schedule.

Normal: Continuous capture (green markers).

Motion: Motion capture (yellow markers).

No Capture: An unmarked time slot means that there is no capture scheduled for that time slot. A snapshot can still be captured manually on the channel by the operator.

5.3 Alarm

This section allows for configuration of alarm parameters.

5.3.1 Motion

Refer to 5.1.6 Alarm

5.3.2 Exception

The NVR can detect different types of errors to notify the operator.

©	Setup								×
A	Motion	Event Type	Switch 🗸		Show Message 🗸	Send Email 🗸			
Channel	 Exception 	No Space on Disk	~	10 s	×	~			
1000		Disk Error	V	10 s	V	V			
		Video Loss	>		>	>			
Record									
A									
Alarm									
Network									
Device									
ŝ									
System									
									Amelia
							B	efault	Apply

Event Type: Select the event type from the options below:

- No Space on Disk: When an HDD is full.
- Disk Error: If the HDD is not detected properly.
- Video Loss: If a camera is not connected properly.

Switch: Check the box to enable the monitoring of the event.

Buzzer: Set the buzzer duration when an event occurs (Off/10s/20s/40s/60s). To disable the buzzer, select **OFF.**

Show Message: Check the box to display a message on the screen when an event occurs.

Send Email: Lets the NVR send an email when an event occurs.

5.4 Network

Configure network settings of the NVR.

5.4.1 General

5.4.1.1 General

ଡ	Setup							×
гФ		^						
محر Channel	- General			✓				
1			IP Address		P Address	010.010.025.100		
	- PPPoE		Subnet Mask		Subnet Mask	255.255.000.000		
Record	 Port Configuration 		Gateway					
	DDNS							
Alarm	• Email	~	DNS1					
			DNS2					
Network								
Device								
ŝ								
System								
							Defau	ilt Apply

Check the **DHCP** box if connecting to a DHCP server (a router typically provides this). The router will assign automatically all the network parameters for the NVR. If parameters are known already and to manually configure the parameters, see below:

IP Address: The IP address identifies the NVR in the network. It consists of four groups of numbers between 0 to 255, separated by periods. For example, "192.168.001.100".

Subnet Mask: Subnet mask is a network parameter which defines a range of IP addresses that can be used in a network. If IP address is like a street where you live then subnet mask is like a neighborhood. The subnet address also consists of four groups of numbers, separated by periods. For example, "255.255.000.000".

Gateway: The gateway allows the NVR to access the Internet. The format of the **Gateway** address is the same as the **IP Address**. For example, "192.168.001.001".

DNS1/DNS2: DNS1 is the primary DNS server and DNS2 is a backup DNS server. It is usually sufficient just to enter the DNS1 server address.

ଡ	Setup					×
L.		Enable PPPOE				
Channel	- General	User				
8	- PPPoE	Password		Show Password		
Record	 Port Configuration 					
Ð	DDNS		192.168.001.192			
Alarm	Email	Subnet Mask Gateway	255.255.255.000			
			192.168.001.001 221.004.221.198			
Network			008.008.008			
Device						
ŝ						
کہ: System						
					Default	Apply

5.4.1.2 PPPoE

This is a protocol used for networks using DSL.

Check the "Enable PPPOE" box and then enter the User name & Password of PPPoE.

Click **Apply** to save and the system will reboot to activate the PPPoE setting.

5.4.1.3 Port Configuration

0	Setup		×
Ţ.		Web Port 00080	
	- General	Client Port 09000	
		RTSP Port 00554	
Record	 Port Configuration 	Instruction:	
	DDNS	IP Channel: rtsp://IP.Port/pA/B	
Alarm	• Email 🗸 🗸	A:01(ch1),02(ch2)	
		B.0(main stream),1(sub stream)	
Network		UPNP	
		P2P Switch 🔽	
Device			
ŝ			
System			
		Default Ap	ply

Web Port: This is the port that will be used to log in remotely to the NVR (e.g. using the Web Client). If the default port 80 is already taken by other applications, please change it.

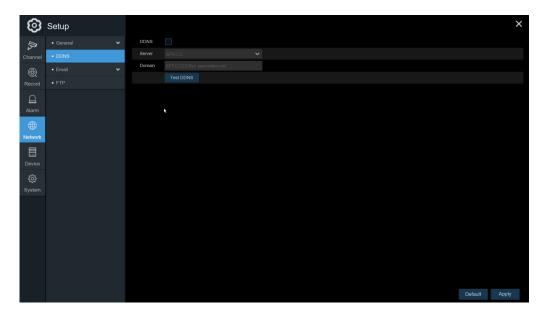
Client Port: This is the port that the NVR will use to send information through. If the default port 9000 is already taken by other applications, please change it.

RTSP Port: This is the port that the NVR uses to transmit real-time streaming to other devices. If the default port 554 is already taken by other applications, please change it.

UPNP: To log in remotely to the NVR using a web browser through DDNS, port forwarding must be set up in the router. Enable this option if the router supports UPnP. UPnP must be enabled on both the NVR and the router. If UPnP is used, port forwarding does not have to be configured manually on the router. If the router does not support UPnP, make sure port forwarding is configured manually.

5.4.2 DDNS

Configure DDNS settings. Speco Technologies provides a free DDNS service. By using DDNS, the external remote IP address of the device does not have to be known to remotely access the NVR.



DDNS: Check to enable DDNS.

Domain: specoXXXXXX.specoddns.net. The last 6 characters "XXXXXX" are the last 6 characters of the NVR's Mac address.

After all parameters are entered, click **Test DDNS** to test the DDNS settings. If the test result is "Network is unreachable or DNS is incorrect", please check if the Internet is working correctly and that port forwarding or UPnP was configured properly.

5.4.3 Email

Configure email settings. If configured, the system will send an email when motion is triggered, HDD becomes full, HDD is in error state, or Video Loss occurs.

USER MANUAL

ම	Setup					×
L.			Email			
P Channel	DDNS		Encryption			
	• Email	~		00025		
Record	 Email Configuration 		SMTP Server			
	- Email Schedule		User Name			
Alarm			Password Sender		Show Password	
			Receiver 1			
Network			Receiver 2			
			Receiver 3			
Device			Interval	3 Min 🗸		
ŝ						
System						
					Default	Apply

5.4.3.1 Email Configuration

0	Setup			×	
5					
Channel					
Ð		SMTP Port			
Record					
		User Name			
Alarm		Sender			
۲					
Network		Receiver 2			
Device		Interval	3 Min 🗸		
(2)					
System					
				Default Apply	

Email: Check to enable the function.

Encryption: Enable if the email server requires the SSL or TLS verification. If unsure, set to Auto.

SMTP Port: Enter the SMTP port of the email server that will be used to send the email.

SMTP Server: Enter the SMTP server address of the email service.

User Name: Enter the email address of the sender.

Password: Enter the password of the email address.

Password: Display name of the sender.

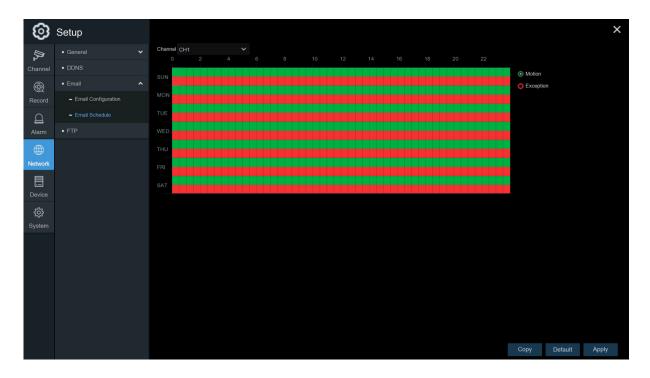
Receiver 1~3: Enter the email address(es) that will receive the notifications.

Interval: Configure the length of the time interval between the notification emails from the NVR.

To make sure all settings are correct, click **Test Email**. The system will send an automated email message to the email addresses that were specified.

5.4.3.2 Email Schedule

The schedule must be set in order for email notifications to be sent properly.



Color codes:

Green: Motion detection.

Red: Exception (HDD full, HDD error, or Video Loss).

5.4.4 FTP

Snapshots can be uploaded to an existing FTP server configured through this section.

6	Setup					×
II.		FTP Enable				
Channel	DDNS	Server IP				
	• Email 🗸 🗸					
Record	• FTP	Port	00021			
D		User Name				
Alarm		Password		Show Password		
		Directory Nam				
Network			Test FTP			
Device						
ŝ						
System						
					Default	Apply

FTP Enable: Click to enable the FTP function.

Server IP: Enter the FTP server IP address or domain name.

Port: Enter the FTP port for file upload.

Name/ Password: Enter the user name and password.

Directory Name: Enter the default directory name for the FTP file uploads.

Test FTP: Click to test the FTP settings.

5.5 Device

Disk and Cloud configuration.

5.5.1 Disk

5.5.1.1 Disk

Check and configure the internal HDD(s). The HDD already comes formatted with the system. Format the HDD only when necessary for some reason.

ଡ	Setup								×
L.	• Disk		Model	Serial No.	Firmware	State	Free/Total	Free Time	Select
Channel	– Disk		ST2000VX007-2AY102	ZFM00R21	CV11	Normal	1656G/1863G	377Hour	0
	- S.M.A.R.T								
Record									
D									
Alarm									
\oplus									
Network									
Device									
System									
		Overwrite Auto	✓ Format HD	D					
								Defau	ilt Apply

Format HDD: Select the HDD and click **Format HDD**. To start formatting, enter the user name and password and then click **OK**.

Overwrite: Use this option to overwrite the old recordings on the HDD when the HDD is full. For example, if the 7 days is chosen, then only the last 7 days recordings are kept on the HDD. To prevent overwriting any old recordings, select **OFF**. If this function is disabled, please check the HDD status regularly to make sure the HDD is not full. Recording will be stopped if HDD is full.

5.5.1.2 S.M.A.R.T

This function can be used to display technical information on the installed hard. Tests can be performed (there are three types available) to evaluate and detect potential drive errors.

ଡ	Setup									×
	 Disk 	HDD ID:	Disk 1		Self-check Type: s	Short				
Channel		Self-check State: TEMP(°C):	Not detected 37		Utility Time(d): 0					
		Whole Evaluation	PASSED		Check					
Record		S.M.A.R.T. Inf	o:							
\sim			Attribute Name	Status	Flags	Value	Worst	Threshold	Raw Value	
		0x1	Raw Read Error Rate	ОК		83	64		191528474	
Alarm			Spin Up Time							
		0x4	Start Stop Count	OK		99	99		1787	
Network		0x5	Reallocated Sector Ct							
		0x7	Seek Error Rate	OK			60		22286983	
		0x9	Power On Hours						755 (51 255 0)	
Device		0xa	Spin Retry Count	ОК		100	100			
ŝ		0xc	Power Cycle Count							
System		0xb7	Runtime Bad Block	ОК						
		0xb8	End-to-End Error							
		0xbb	Reported Uncorrect	OK		100	100			
		0xbc	Command Timeout						8590065667	
		0xbd	High Fly Writes	OK		100	100			
		0xbe	Airflow Temperature Cel						37 (Min/Max 37/37)	
		0xbf	G-Sense Error Rate	ОК	32	100	100		22	
		0xc0	Power-Off Retract Count						494	
		0xc1	Load Cycle Count	ок	32	100	100		1805	
		0xc2	Temperature Celsius						37 (0 25 0 0 0)	
		0xc3	Hardware ECC Recovered	ОК	1a	83	64	0	191528474	

Whole Evaluation not passed, continue to use the disk: If for some reason the hard drive has detected a fault (such as one or more bad sectors), you can instruct the NVR to continue saving to the drive.

Self-check Type: There are three types available:

Short: This test verifies major components of the hard drive such as read/write heads, electronics and internal memory.

Long: This is a longer test that verifies the above as well as performing a surface scan to reveal problematic areas (if any) and forces bad sector relocation.

Conveyance: This is a very quick test that verifies that the mechanical parts of the hard drive are working.

Note: When performing a test, the NVR will continue to work as normal. If an HDD S.M.A.R.T error is found, the HDD can continue to be used, but there will be a risk to lose recording data. At this point, the HDD may have to be replaced. Contact support when this occurs.

5.5.2 Cloud

Dropbox can be used to upload snapshots for motion alarms. Note that email must be configured and the HDD must have free space in order for Dropbox to work properly.

Cloud Storage: Check to enable the Dropbox function.

Alarm Detection: Check to enable Dropbox uploads for the specified channel.

Driver Name: Custom name for the channel for indication on the uploaded file name.

Activate Cloud: Click to send an authentication email to the receiver email address that was specified in the email configuration section.

Note: When the Activate Cloud button is pressed, an email will be sent to the receiver email address with a link to authenticate the NVR with Dropbox. Make sure that the PC that's accessing the link is on the same local network as the NVR. Click on the link to bring up this screen:

Dropbox needs to be activated for this device. Please make sure the PC is on the same network as the device and enter the local IP address of the device below. The IP address can be found in the Network section of the device settings.			
	IP Address Http Port	80 Authorize	

Make sure to click on the link within 3 minutes of receiving the email. Enter the local IP address of the NVR in the IP Address field (e.g. <u>http://192.168.0.XXX</u>) and specify the correct HTTP port. Click Authorize.

Enter the user name and password of the NVR. The browser will redirect to Dropbox. Log in to Dropbox as necessary. Go to account settings and then the Connected apps tab. If Dropbox was activated properly, under the Linked apps section, there will show an app called "DVRCloudStorage".

5.6 System

General system configuration

5.6.1 General

- General Language - Date and Time - Output Configuration - Output Configuration - Multi-User - Maintenance - Camera Maintenance - Information		Setup					
- General Language - Date and Time - Output Configuration - Multi-User - Maintenance - Camera Maintenance - Information	Ľ.	General	~	Device Name	N4104		
A - Date and Time - Output Configuration - Output Configuration - Muti-User - Maintenance - Camera Maintenance - Camera Maintenance - Information - Camera Maintenance - Camera Maintenanc	annel	- General		Language	ENGLISH		
- Output Configuration - Multi-User · Maintenance · Camera Maintenance · Information	<u>જ</u>	 Date and Time 		Video Format	PAL		
Multi-User Multi-User Multi-User Multi-User Camera Maintenance Information Information	ecord	 Output Configuration 			1Min		
Maintenance Camera Maintenance		 Multi-User 		Show wizard			
Information Information	⊒ arm	 Maintenance 					
Information	⊕						
	twork						
	evice						

Device Name: Enter the desired name for the NVR. The name can include both letters and numbers.

Language: Select a language for the system menus to be displayed in. Multiple languages are available.

Video Format: Select the correct video standard for the region. NTSC is the standard for North America.

Menu Timeouts: Click the drop-down menu to select the time NVR will exit the Main Menu when idle. This can be disabled by selecting "OFF" (password protection will be temporarily disabled).

Show Wizard: Click the checkbox if to display the Startup Wizard each time the unit is turned on or rebooted.

5.6.1.1 Date and Time

0	Setup								×
A.		Date and Time							
Channel	- General	Date	07/17/2018	Ċ	ä				
	- Date and Time ı	Time	16:56:58						
Record	 Output Configuration 	Date Format	MM/DD/YY	```					
	 Multi-User 	Time Format	24Hour	```					
	Maintenance	Time Zone	GMT+08:00	```					
\oplus	 Camera Maintenance 	NTP Settings							
Network		Enable NTP							
		Server Address	pool.ntp.org	```					
			Update Now						
ŝ		DST Settings							
System									
		Time Offset	1Hour						
		DST Mode	Week						
		Start Time	Mar.	The 2nd		Sun.	02:00:00		
		End Time	Nov.	The 1st		Sun.	02:00:00		
								Default	

Date & Time

Date: Click the calendar icon to change the date.

Time: Click the box to change the time.

Date Format: Select the preferred date format.

Time Format: Select the preferred time format.

Time Zone: Select the applicable time zone.

5.6.1.2 NTP Settings

The NTP (Network Time Protocol) function allows the NVR to automatically sync its clock with a time server over the Internet. This gives it the ability to constantly have an accurate time setting (the NVR will periodically sync automatically).

0	Setup											×
					1							
Record												
		NTP Settings										
		Enable NTP										
			Update Now									
٢		DST Bettings										
System		Ensile DST										
										Default	Αφρ	

Check to enable the **NTP**, and select a **Server Address**, click Update Now to manually sync the date & time.

Click **Apply** to save the settings.

5.6.1.3 DST Settings

DST (Daylight Saving Time) configuration.

Setup										2	×
	Date			Ē							
	Date Format	MMDDIYY									
Multi-Liner											
	Enable NTP										
		pool.ntp.org									
		Update Now									
	End Time	Nov.	The 1st			02:00:00					
									Default	Apply	
		Conserval Conserval Conserval Conserval Conservat Conservat Conservation Conservation Conservation Information Conservation Con	 Ourseal Outer and Tree Outer on Trae Outer Configuration Auda Configuration Auda Configuration Channess Mationnance Channess Mationnance Channess Mationnance Channess Mationnance Server Address poor y Configuration DET Sentings DET Statings Stating Configuration St		Conversion C	Conversion C	Outrant Three Outrie Outrie <tdo< th=""><th>• Concerd Concerd Time • Concerd Time Concerd Time • Out on Time Concerd Time Conc</th><th></th><th>Convert Convert C</th><th>• General Date and Time • Orand Date and Time • Orand Configmation Time Ionality 24 Max • Conserve Matternance • • Information • • Date Strateging •</th></tdo<>	• Concerd Concerd Time • Concerd Time Concerd Time • Out on Time Concerd Time Conc		Convert C	• General Date and Time • Orand Date and Time • Orand Configmation Time Ionality 24 Max • Conserve Matternance • • Information • • Date Strateging •

Enable DST: If Daylight Saving Time applies to the time zone or region, check this option.

Time Offset: Select the amount of time that Daylight Saving has increased by in the time zone. This is typically 1 hour.

Enable DST: Select when Daylight Saving starts and ends:

Week: Select the month, a particular day and time when Daylight Saving starts and ends.

Date: Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

Start Time / End Time: Set the start time and end time for Daylight Saving.

Note: For the US, DST starts at 2am local time on the second Sunday in March and ends at 2am on the first Sunday in November.

5.6.2 Output Configuration

Configure video output parameters.

0	Setup						×
L.		Video Output	LIVE-OUT				
Channel	- General	Seq Mode	Layout1				
	 Date and Time 						
Record			4K(3840x2160)				
۵	 Multi-User 	Scale And Offset Cursor Hidden Delay	Setup 5s				
Alarm	 Maintenance 	Cursor Acceleration	55	•	Ť		
		Transparency	•				
Network							
Device							
						Default Apply	

SEQ Dwell Time: Enter in seconds the maximum length of time to display a video channel in sequence mode before displaying the next video channel (300 seconds is the maximum).

VGA/HDMI Resolution: Select a display resolution that is suitable for the monitor or TV. 1920 x 1080 will suit most displays. If the monitor supports 4K resolution, select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution.

Scale and Offset: The NVR supports adjusting the size & position of the display screen to match the monitor or TV. Click Setup to adjust.



Scale:To adjust the size of the displayed screen by scale.

X Offset: To move the displayed screen to left or right.

Y Offset: To move the displayed screen to up or down.

Click once or long press the left button of the mouse on the arrow to adjust the size and position. The scroll wheel of the mouse can also be used. Click the right button of the mouse to exit and then click **Apply** to save the modifications.

Cursor Hidden Delay: Click the drop-down menu to select the time the NVR will hide the mouse cursor when idle. This can be disabled by selecting "OFF".

Cursor Acceleration: To adjust the speed of the mouse cursor.

Transparency: Click and hold the slider left or right to change how transparent the Menu Bar and Main Menu will appear on-screen. Adjust accordingly.

5.6.3 Multi-user

Configure the user name, password and user permission.

0	Setup									×
\$										
Channel	Multi-User			admin	ADMIN	Enable	Enable			
	Maintenance	~								
Record	Camely Maintenance			user2	USER2	Disable	Disable			
Alarm				user4	USER4	Disable	Disable	۲		
Network						Disable	Disabio			
			Dofault User adm							
Device										
٢										
System										
									Default	Apply

The system supports the following account types:

- **ADMIN System Administrator**: The administrator has full control of the system, and can change both administrator and user passwords and enable/disable password protection.
- USER Normal User: Users only have access to live viewing, search, playback, and other functions. Specific permissions can be granted to individual users.

5.6.3.1 Changing Password

To change the password for the administrator or user accounts, click the User Edit icon F. The password must have 8 characters and can contain a mixture of numbers and letters. Enter the new password again to confirm, and then click **Save** to save the new password. The old password will need to entered to authenticate.

	User Edit		×			Authentica	ition	×
Level	USER1							
User Enable	Enable							
User Name	user1			User				
Password Enable	Enable			Password			Show Password	
Password	•••••	Show Password			└─── ∖			
Confirm	•••••	Show Password						
		Save Cancel					Authenticate	

Password Enable: It's strongly recommended to enable the password to protect the unit and privacy.

5.6.3.2 Add New Users

<u>ڑ</u>	Setup										
\$	General										
annel	Multi-User			admin	ADMIN	Enable	Enable				
æ	Maintenance	~				Disable	Disable				
छ्र cord						Disable	Disable .		۲		
							Disable				
2					USER4	Disable	Disable		۲		
							Disable	P	۲		
₽						Disable	Disable		۲		
3											
			Default User adm								
ž											
tem											
										Default Ap	

1. Select one of the user accounts that is currently disabled and then click the User Edit icon \mathbf{F} .

	Use	er Edit		×
Level	USER1			
User Enable	Enable			
User Name	user1			
Password Enable	Enable	~		
Password	•••••		Show Pas	ssword
Confirm	•••••		Show Pas	ssword
		Default	Save	Cancel

- 2. Select Enable from the drop-down next to User Enable.
- 3. Click the field next to User Name to change the user name for the account.
- 4. Select **Enable** from the drop-down next to **Password Enable**.
- 5. Click the field next to **Password** to enter the desired password.
- 6. Click the field next to **Confirm** to reenter the password.
- 7. Click Save. The Admin password will need to be entered to authenticate.

5.6.3.3 Setting User Permissions

The administrator account is the only account that has full control of all system functions. Specific functions can be enabled or disabled for every user account.

0	Setup										×
P											
Channel	Multi-User			admin	ADMIN	Enable	Enable				
•	Maintenance	~				Disable	Disable		0		
Record				user2	USER2	Disable	Disable		۲		
								P	۲		
۵				user4	USER4	Disable	Disable		۲		
									۲		
Hetwork						Disable	Disable		۲		
Device			Default User adm								
()											
System											
										Default	Apply

1. Click the edit icon inder the Permission tab.

	Setup				×
			Jser Permission	×	
	+ Mati-Oakr	User Name			
	Maintenance				
		Backup			
•					
Ø		Fleybeck			
yalem					
					Detaut Acoly

- 2. Check the boxes next to any system menus or capabilities for the user to access. Click All to check all boxes. Click Clear to check none of the boxes.
- 3. Click **Save** to save your modifications.

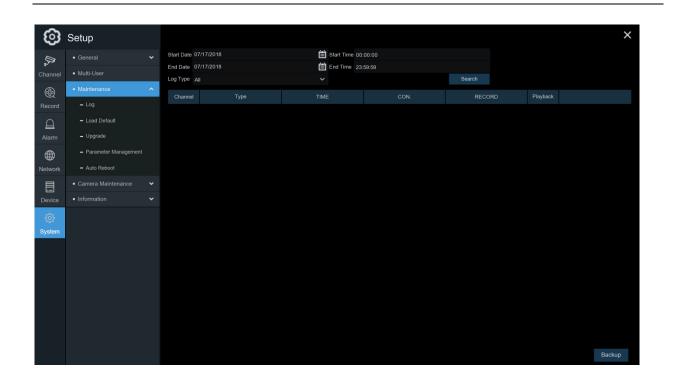
5.6.4 Maintenance

In this section, the available parameters are: system log, factory default, firmware upgrade, export & import system parameters, and system auto reboot.

0	Setup								×
L.			Start Date 07/		Start Time 00				
Channel	 Multi-User 		End Date 07/ Log Type All	17/2018	End Time 23	59:59	Search		
	 Maintenance 	^	Channel	Туре			RECORD	Playback	
Record									
	- Load Default								
Alarm	- Upgrade								
\oplus	 Parameter Management 								
Network	- Auto Reboot								
Device									
ŝ									
System									
									Backup

5.6.4.1 Log

The system log shows important system events, such as motion alarms and system warnings. Easily create a backup file of the system log for a set time period to a USB flash drive.



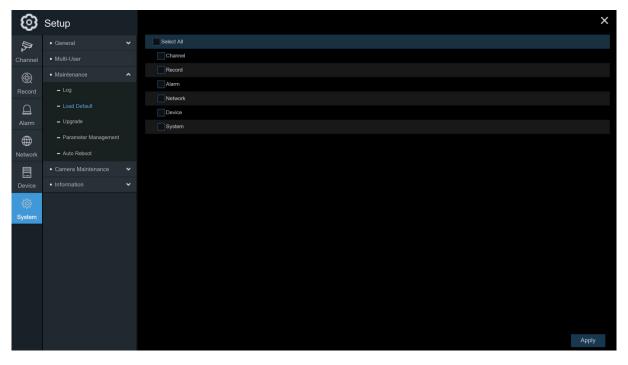
Log Searching and Backing Up:

- 1. Click the field next to Start Date & Start Time to choose the starting date & time.
- 2. Click the field next to End Date & End Time to choose the end date & time.
- Select the type of events to search for from the drop down next to Log Type, or select All to see the entire system log for the selected time period.
- 4. Click Search.
- 5. Browse system log events from the search period:
- Video events can be played back instantly by clicking in the Playback column. Right-click to return to the search results.
- Use the K < / > > buttons in the bottom-right corner of the menu to move between pages of system log events.

- 6. Click **Backup** to create a backup of the system log for the search period. Please make sure the flash drive has been connected to the NVR's USB port.
- 7. When the backup drive menu appears, navigate to the folder for the backup file to be saved in, and then click **OK** to begin.

5.6.4.2 Load Default

Reset the NVR settings to its factory default state. Restoring default settings will not delete recordings and snapshots saved to the hard drive.



Check the items to restore, or check **Select All** to choose all items. Click **Apply** to load default settings of the chosen items.

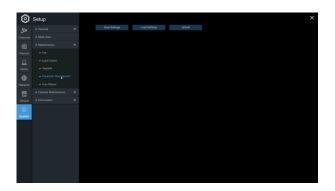
5.6.4.3 Upgrade

0	Setup							×
Ţ.		*		Update		×	Upgrade	
Channel	 Multi-User 		Driver List: C		≣ ~	* * 14	ī	
	 Maintenance 	^	USB1-1	Name	 Last Modify 			
Record								
D	- Load Default							
Alarm								
\oplus	 Parameter Management 							
Network	- Auto Reboot							
		~						
Device		*						
System								
			Disk not formatted ! Not available !	Location: Selected File:				
				Refresh finished !				

- 1. Copy the firmware file (.sw file) to the USB flash drive and insert the flash drive into the NVR's USB port.
- 2. Click the Select File button to choose the firmware file in the USB flash drive, and then Click OK.
- 3. Click the **Upgrade** button to start the system upgrade. The system upgrade will last around 5-10 minutes. Do NOT power off the NVR or remove the USB from the NVR during this process.

5.6.4.4 Parameter Management

Export the main menu settings to a USB flash drive or import settings from a flash drive to the NVR.

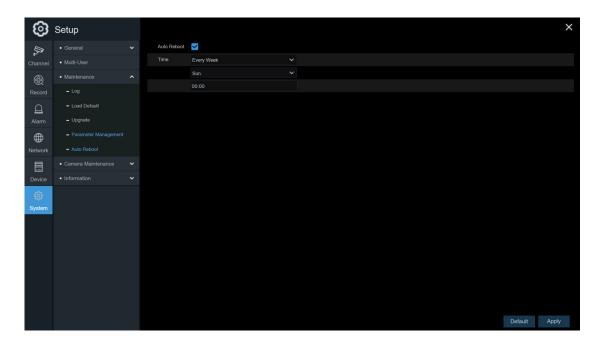


Save Settings: Click to save the NVR current system settings to the USB flash drive. Enter the Admin password to authenticate.

Load Settings: Click Load Settings button to navigate to the system settings file to import from the USB flash drive. Enter the Admin password to authenticate.

5.6.4.5 Auto Reboot

This menu allows the system to auto reboot the NVR regularly.

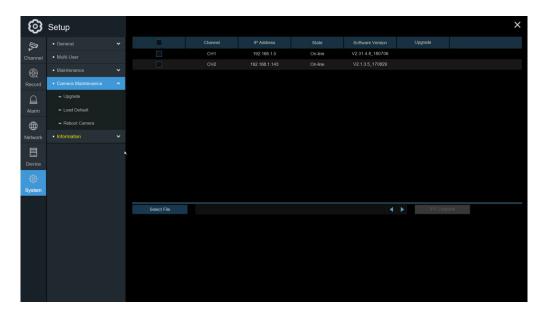


Auto Reboot: Check to enable.

Time: Set the NVR to reboot by day, week or month.

5.6.5 Camera Maintenance

For the IP camera that was included within the system, this menu allows IP camera's firmware to be updated and the default settings to be restore.



5.6.5.1 Upgrade IP Camera

0	Setup								×
D.									
Channel				CH1	192.168.1.5	On-line	V2.31.4.8_180706		
						On-line	V2.1.3.5_170829		
Record	Camera Maintenance	^							
D	- Upgrade								
Alarm									
۲									
Network	 Information 								
		*							
Device									
ŝ									
System									
			Select File				•	IPC Upgr	ade

- 1. Choose one of the IP cameras to upgrade.
- 2. Click Select File, select the update file from the USB flash drive, then click OK.

3. Click the camera Upgrade button to start the upgrade. Enter the Admin password to authenticate. Do NOT power off the NVR and IP camera or remove the USB during the process.

								_
ଡ	Setup							×
D.								
Channel			CH1	192.168.1.5	On-line	V2.31.4.8_180706		
						V2.1.3.5_170829		
Record								
۵	- Upgrade							
Alarm								
Network								
Device								
ŝ								
System								
		Load Default						

5.6.5.2 Load Default Settings for IP Camera

- 1. Choose the IP cameras to restore back to factory settings.
- 2. Click Load Default to restore settings. Enter the Admin password to authenticate.

5.6.6 System Information

This section displays the system information, channel information, record information & network status.

5.6.6.1 Information

View system information such as device model name, IP address, MAC address, firmware version and more.

©	Setup					×
L.			Device ID	000000		
Channel	 Multi-User 		Device Name	N4104		
	 Maintenance 		Device Type	N4104		
Record	 Camera Maintenance 		Hardware Version	DM-357		
	Information	^	Software Version	V8.1.0-20180711		
			IE Client Version			
	- Information		Video Format	PAL	ELEVENDER	
\oplus	 Channel Infomation 		HDD Volume	1863G		
Network	 Record Info 		IP Address	192.168.1.192		
	- Network State		Web Port			
			Client Port	9000		
ŝ			MAC Address	00-11-22-22-C6-A1		
System			Network State	connect success		
			P2P ID	RSV1707051027681		

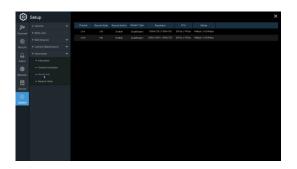
Scan the QR code on this page with the Speco Gray mobile app to remotely view the NVR.

5.6.6.2 Channel Information

0	Setup							
5								
Channel			On-line	1280x 720, 20Fps, 4Mbps	1280x 720, 10Fps, 1024Kbps	640x 480, 8Fps, 256K2ps	Support	Support
Ð								
Record								
A								
Alarm								
@								
Network								
Device								
 (3) 								
System								

View channel information for each connected camera such as the nickname, main stream and sub stream recording specifications, motion detection status, and privacy mask.

5.6.6.3 Record Information



View recording information for each connected camera such as bit rate, stream type, recording resolution and frame rate (FPS).

5.6.6.4 Network State

ම	Setup				
Į,					
hanne	 Multi-User 	WLAN			
		IP Address	192.168.1.192		
æ	 Maintenance 	Subnet Mask	255.255.255.0		
ecord	 Camera Maintenance 	Gateway	192.168.1.1		
		MAC Address	00-11-22-22-C6-A1		
			Enable		
Alarm	- Information	Internal Interface	Connected		
~	 Channel Infomation 	IP Address			
\oplus	- Channel Information	Subnet Mask	255.255.0.0		
letwork		DNS1	221.4.221.198		
	- Network State	DNS2	8.8.8.8		
	h	PPPoE	Disable		
		Port			
<u>~</u>		Web Port			
		Client Port	9000		
System		RTSP Port			
		UPNP	Disable		
		Total Band Width:	50Mbps		
		Used Band Width:	10.75Mbps		

View network information.

Total Bandwidth: Shows the NVR's total available bandwidth that can be used by IP cameras.

Used Bandwidth: Shows the used bandwidth of IP cameras.

Chapter 6 Search, Playback & Backup

The Search function provides the ability to search for and play previously recorded videos as well as snapshots that are stored on the NVR's hard drive. There is a choice of playing video that matches the recording schedule, manual recordings or motion events only. The Backup function provides the ability to save important events (both video and snapshots) to a USB flash drive.

6.1 Using Search Function

Click **QSearch** in the Start Menu to enter search section.

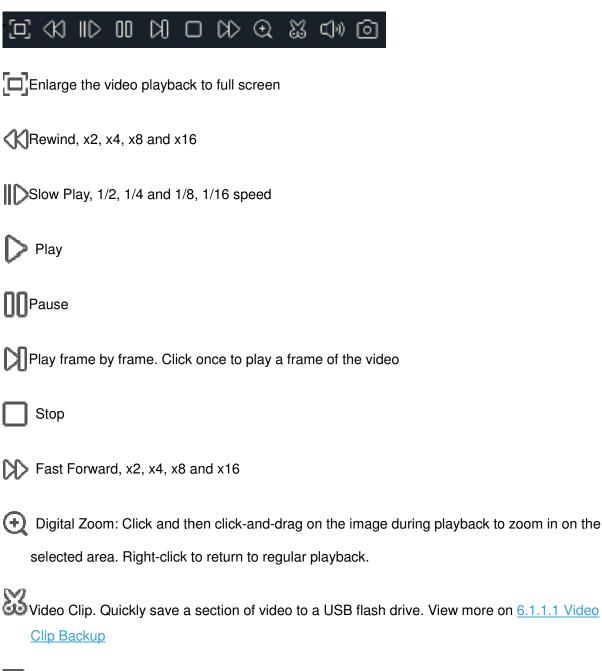


1. Search Options: the system provides various search & playback methods: General, Events,

Sub-periods, and Pictures.

- 2. Search Date: search by a date.
- **3.** Search Type: the system provides different search types to narrow the search.
- 4. Channel Selection: choose the channels to search & play.

5. Video Playback Controls: to control the video playback.



Save Video Clip.

Wolume Control: scroll the slider bar to increase or decrease volume.

Snapshots: to capture a snapshot image to a USB flash drive. If the video playback is in

split-screen view, select the channel to capture, and then click the **o** icon to save the snapshot.

- 6. **Timeline:** Recordings are shown with colored bars to represent different types of recording (legend shown in the bottom-right corner of the display). Use the time frame options
 - (24h 2h 1h 30m) to view a smaller or larger time period.

Different types of recording shown in different colors:

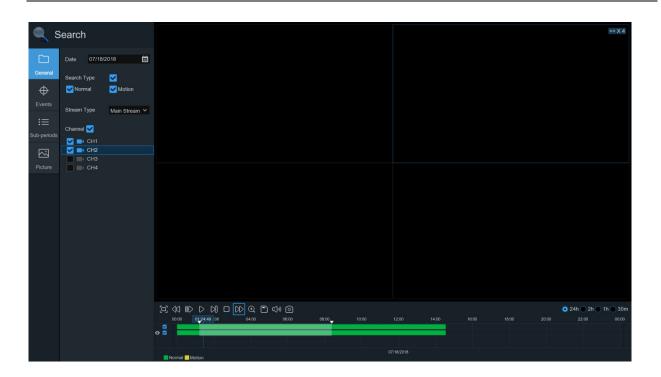
Continuous Recording in Green color;

Motion Recording in **Yellow** color;

7. Playback Status: displays the video playback status.

6.1.1 Search & Play Video in General

This menu gives an option to search & play recording for a selected date.

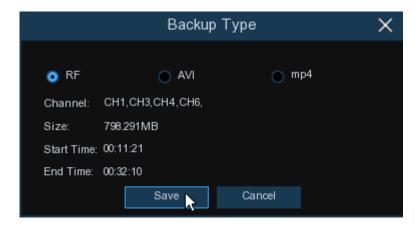


- 1. Select a date to search for video recording from the calendar. Dates with recordings will be underlined.
- 2. Choose a search type.
- 3. Check channels to search, or check Channel to search all connected channels.
- 4. The search result will display on the timeline from 00:00 to 24:00.
- 5. Click > button to start playback.
- 6. Control the playback with buttons on Video Playback Controls.
- 7. Use the time frame options (\circ 24h \circ 2h \circ 1h \circ 30m) to view a smaller or larger time period.
- 8. To quickly save a section of the video during playback to a USB flash drive, use the **Wideo Clip** backup function.

6.1.1.1 Video Clip Backup



- 1. Insert the USB flash drive to the NVR.
- 2. Start a playback.
- 3. Click the \bigotimes icon.
- 4. Check the desired channel(s).
- 5. Move the mouse cursor to the time where the clip should start.
- 6. Click and drag the cursor to the time where the clip should end.
- 7. Click 📄 to save the video clip.
- 8. Select a file type for the backup files and then click the **Save** button to save the video clips. Make sure the USB drive has enough space to save the video clips.

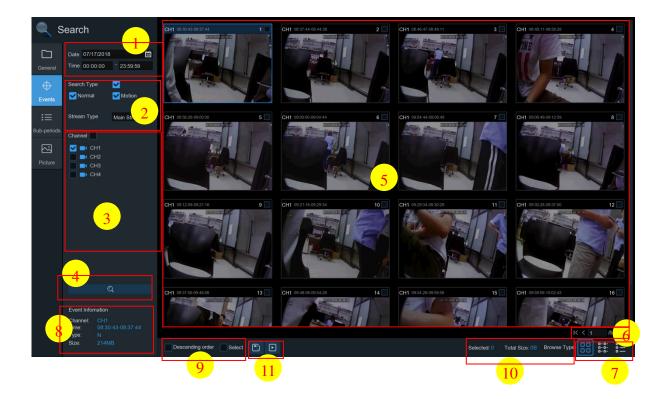


- 9. Navigate to the folder where the backup files will be saved.
- 10. Click **OK** to begin. The progress bar at the bottom of the window will show the progress of the backup.

USER MANUAL

		Backup	2		×
Driver List:	e				h 🚉 💼
🛂 USB1		Name		Last Modify	
		Location:			
		Selected Directory: /hidev/usb1			▲ ►
		3/7 67%		ОК	Cancel

6.1.2 Event Search, Playback & Backup



To search, play & back up for events:

- 1. Choose the date & time to search.
- 2. Check the recording types to search for, or check **Search Type** to choose all.
- 3. Choose the channels to search, or check **Channel** to choose all channels.
- 4. Click the *Q* icon to start search.
- 5. Events fitting the search criteria will be displayed. Double click the left button of the mouse on one of the events to play the video immediately.
- 6. Click $\mathbf{K} < 4$ $\mu_5 > \mathbf{H}$ icons in the bottom-right corner of the menu to browse between pages of events, or enter the specific page to browse.
- 7. The search results can be displayed in multiple formats. Choose between 3 formats:

Thumbnails view. View the snapshots of the events.

Detailed view. Details of the events will be listed.

	Channel	Туре	Date	Start Time	End Time	Size	Playback	Lock
1	CH1	MINS	10/23/2017	00:00:00	00:00:45	6MB	Ð	Ъ
2	CH1	MINS	10/23/2017	00:00:45	00:18:30	150MB	D	6
3	CH1	MINS	10/23/2017	00:18:30	00:44:03	217MB	D	6
4		MINS	10/23/2017	00:44:03	01:10:48	227MB	Ð	6
5	CH1	MINS	10/23/2017	01:10:48	01:19:22	72MB	Ð	6
6		MINS	10/23/2017	01:19:22	01:35:37	138MB	Ð	6
7	CH1	MINS	10/23/2017	01:35:37	01:43:32	67MB	Ð	6
8		MINS	10/23/2017	01:43:32	02:01:12	150MB	Ð	6
9	CH1	MINS	10/23/2017	02:01:12	02:25:38	207MB	Þ	6
10		MINS	10/23/2017	02:25:38	02:43:17	150MB	Ð	.
11	CH1	MINS	10/23/2017	02:43:17	03:02:08	160MB	Ð	6
12		MINS	10/23/2017	03:02:08	03:08:37	55MB	Ð	÷

List view. Displays the list of the events.

1 CH1 00:00:00 2 CH1 00:00:45	3 CH1 00:18:30	4 CH1 00:44:03	5 CH1 01:10:48 6 CH1 01:19:22	7 CH1 01:35:37 8 CH1 01:43:32
9 CH1 02:01:12 10 CH1 02:25:38	11 CH1 02:43:17	12 CH1 03:02:08	13 CH1 03:08:37 14 CH1 03:10:01	15 CH1 03:14:54 16 CH1 03:42:12
17 CH1 04:07:23 18 CH1 04:19:35	19 CH1 04:36:40	20 CH1 05:00:20	21 CH1 05:24:12 22 CH1 05:45:55	23 CH1 06:04:07 24 CH1 06:14:27
25 CH1 06:41:12 26 CH1 06:44:25	27 CH1 07:01:42	28 CH1 07:20:43	29 CH1 07:31:23 30 CH1 07:48:04	31 CH1 08:17:33 32 CH1 08:40:16
33 CH1 08:50:34 34 CH1 09:07:05	35 CH1 09:25:12	36 CH1 09:44:07	37 CH1 09:46:08 38 CH1 10:00:52	39 CH1 10:14:18 40 CH1 10:34:42
41 CH1 10:45:57 42 CH1 11:12:48	43 CH1 11:20:27	44 CH1 11:48:18	45 CH1 12:07:25 46 CH1 12:30:12	47 CH1 12:44:43 48 CH1 12:55:49
49 CH1 13:06:48 50 CH1 13:30:46	51 CH1 13:37:51	52 CH1 13:57:01	53 CH1 14:10:24 54 CH1 14:11:16	55 CH1 14:18:12 56 CH1 14:35:26
57 CH1 14:40:31 58 CH1 14:44:42	59 CH1 14:48:38	60 CH1 15:15:44	61 CH1 15:39:06 62 CH1 16:01:07	63 CH1 16:16:00 64 CH1 16:24:41
65 CH1 16:27:29 66 CH1 16:43:47	67 CH1 16:45:43	68 CH1 17:01:14	69 CH1 17:05:03 70 CH1 17:28:30	71 CH1 17:54:23 72 CH1 18:08:49
73 CH1 18:36:07 74 CH1 18:44:14	75 CH1 18:57:14	76 CH1 19:07:37	77 CH1 19:12:12 78 CH1 19:36:50	79 CH1 19:50:34 80 CH1 20:01:42
81 CH1 20:25:40 82 CH1 20:34:32	83 CH1 20:49:48	84 CH1 21:04:51	85 CH1 21:21:09 86 CH1 21:42:12	87 CH1 21:47:36 88 CH1 22:02:49
89 CH1 22:29:59 90 CH1 22:39:14	91 CH1 22:54:42	92 CH1 22:57:45	93 CH1 23:08:03 94 CH1 23:22:59	95 CH1 23:35:50

- 8. When an event is selected, the event information will be shown on the bottom left corner of the screen.
- 9. Check the box next to each event to select files, or check the box next to **Select** to select all events on the page.
- 10. The number of selected files and the total size information will be displayed at the right bottom of the screen.
- 11. After selecting file(s), click the 📄 icon to save the video to a USB flash drive. Or click the 🕨 icon to play the video.

🔍 s	earc	h	_		
~~				Start Time	
	1	CH1	N	08:30:43	
	2				
	3	CH1		08:46:47	
\oplus	4	CH1		08:48:11 08:56:28	
Events	6	1	N IN	08:56:26	
	7		IN	09:04:44	
	8	CH1	IN	09:06:49	
Sub-periods	9	CH1	IN	09:12:59	
	10			09:21:16	
\simeq	111	CH1	IN	09:29:34	
Picture	12				
	13	CH1		09:37:50	
	14				
	15	CH1		09:54:26	
	16				
]17				
	18				
	19				
	20				
	21			10:30:28	
	22				
				/3 > >1	
	Select	ed: ()		
				▶	
		L)			
	Event	Infomatic	n <mark>/</mark>		
	Chan		сни	2	
	Time: Type:			3-00.07:44	- 4
	Size:				

6.1.2.1 Event Playback Control

- 1. Event List. Select events from here.
- 2. Click 📄 to save selected event clips to a USB flash drive. Click 🕨 to play the video.
- 3. Control the playback with buttons on Video Playback Controls. Click 🤝 or right-click on the mouse to exit playback and return to the event search window.
- 4. The event that's currently playing will be displayed on the timeline.
- 5. Use the time frame options (24h 2h 1h 30m) to view a smaller or larger time period.

6.1.3 Sub-periods Playback

Sub-periods playback allows for playing back multiple continuous recordings and motion events simultaneously from a single channel. With continuous and motion recordings, the video is divided evenly depending on the split-screen mode that has been selected. For example, if the video is an hour long and you have selected Split-screens x 4, each split-screen will play for 15 minutes.



To search & play video in sub-periods:

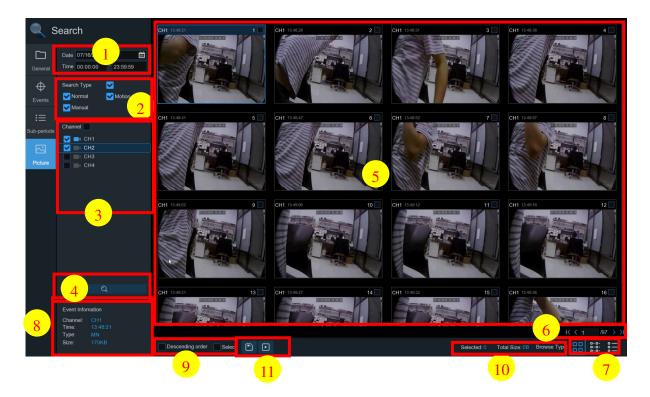
- 1. Choose the date & time.
- 2. Choose the number of split-screens to play the videos in.
- 3. Check the recording types to search for, or check **Search Type** to choose all.
- 4. Choose the channels to search. Please note that this function only supports to search & play one channel at a time.
- 5. Click the play button > to start playing. Control the playback with buttons on Video Playback Controls.
- 6. Videos from the channel in different timelines will play in the split screen view.
- 7. Select a view to display the time of the video playing on that view. The color bar on the top of the timeline indicates the time span of the view that was selected. The color bar on the bottom of the timeline indicates the time span for the entire timeline.



8. Use the time frame options (24h 2h 1h 30m) to view a smaller or larger time period.

6.1.4 Picture Search & View

Search and view snapshots.



To search, play & back up pictures:

- 1. Choose the date & time.
- 2. Select the types to search for, or check Search Type to choose all.
- 3. Choose the channels to search, or check **Channel** to choose all channels.
- 4. Click \mathbf{Q} to start search.
- 5. Images that fit the search criteria will be displayed. Double click one of the pictures to get a larger view.

- 6. Click K < 4 /15 > > icons in the bottom-right corner of the menu to browse between pages of pictures, or enter the specific page.
- 7. Switch between different views by clicking on the icons at the right bottom corner of the screen:



Thumbnails view. Displays the thumbnails of the events.

List view. The events will be displayed in list.

1 CH1 00:00:00	2 CH1 00:00:45	3 CH1 00:18:30	4 CH1 00:44:03	5 CH1 01:10:48	6 CH1 01:19:22	7 CH1 01:35:37
9 CH1 02:01:12	10 CH1 02:25:38	11 CH1 02:43:17	12 CH1 03:02:08	13 CH1 03:08:37	14 CH1 03:10:01	15 CH1 03:14:54
17 CH1 04:07:23	18 CH1 04:19:35	19 CH1 04:36:40	20 CH1 05:00:20	21 CH1 05:24:12	22 CH1 05:45:55	23 CH1 06:04:07
25 CH1 06:41:12	26 CH1 06:44:25	27 CH1 07:01:42	28 CH1 07:20:43	29 CH1 07:31:23	30 CH1 07:48:04	31 CH1 08:17:33
33 CH1 08:50:34	34 CH1 09:07:05	35 CH1 09:25:12	36 CH1 09:44:07	37 CH1 09:46:08	38 CH1 10:00:52	39 CH1 10:14:18
41 CH1 10:45:57	42 CH1 11:12:48	43 CH1 11:20:27	44 CH1 11:48:18	6 CH1 12:07:25	6 CH1 12:30:12	67 CH1 12:44:43
49 CH1 13:06:48	50 CH1 13:30:46	51 CH1 13:37:51	52 CH1 13:57:01	53 CH1 14:10:24	54 CH1 14:11:16	55 CH1 14:18:12
57 CH1 14:40:31	58 CH1 14:44:42	59 CH1 14:48:38	60 CH1 15:15:44	61 CH1 15:39:06	62 CH1 16:01:07	63 CH1 16:16:00

Detailed view. Displays the details of the files.

	Channel	Туре	Date	Time	Size	Playback
1	CH1	MIN	10/24/2017	00:00:00	160KB	
2	CH1	MIN	10/24/2017	00:12:01	201KB	
3	CH1	MIN	10/24/2017	00:21:20	401KB	Þ
4	CH1	MIN	10/24/2017	00:24:38	111KB	Þ
5	CH1	MIN	10/24/2017	00:37:25	167KB	
6	CH1	MIN	10/24/2017	00:55:58	210KB	۰

- 8. Select a file to display the picture information on the bottom left corner of the screen.
- 9. Check the box next to the events to select files, or check the box next to Select to select all pictures on the page.
- 10. The number of selected files and total size information will be displayed at the bottom right of the screen.
- 11. After selecting files, click the 📄 button to save the pictures to a USB flash drive. Or click 🕨 to go into the picture preview control window.

a s	Search	1 CH1 13:48:21			4 CH1 13:48:36		6 CH1 13:48:47	7 CH1 13:48:52
	Joaron	8 CH1 13:48:57	9 CH1 13:49:02	10 CH1 13:49:06	11 CH1 13:49:12	12 CH1 13:49:16	13 CH1 13:49:21	14 CH1 13:49:27
		15 CH1 13:49:32	6 CH1 13:49:36	17 CH1 13:49:42	18 CH1 13:49:46	19 CH1 13:49:51	20 CH1 13:49:56	21 CH1 13:50:01
	Date 07/16/2018	22 CH1 13:50:06	23 CH1 13:50:11	24 CH1 13:50:16	25 CH1 13:50:21	26 CH1 13:50:26	27 CH1 13:50:31	28 CH1 13:50:36
General	Time 00:00:00 * 23:59:59	29 CH1 13:50:41	30 CH1 13:50:46	31 CH1 13:50:51	32 CH1 13:50:56	33 CH1 13:51:01	34 CH1 13:51:06	35 CH1 13:51:11
General		36 CH1 13:51:16	37 CH1 13:51:21	38 CH1 13:51:27	39 CH1 13:51:31	40 CH1 13:51:36	41 CH1 13:51:41	42 CH1 13:51:46
\oplus	Search Type 🛛 🔽	43 CH1 13:51:52	44 CH1 13:51:56	6 CH1 13:52:01	6 CH1 13:52:06	47 CH1 13:52:11	48 CH1 13:52:16	49 CH1 13:52:21
	Normal Votion	50 CH1 13:52:26	51 CH1 13:52:32	52 CH1 13:52:36	53 CH1 13:52:41	54 CH1 13:52:46	55 CH1 13:52:51	56 CH1 13:52:56
Events			58 CH1 13:53:06	59 CH1 13:53:12	60 CH1 13:53:16	61 CH1 13:53:21	62 CH1 13:53:26	63 CH1 13:53:31
	✓ Manual	64 CH1 13:53:36	65 CH1 13:53:41	66 CH1 13:53:46	67 CH1 13:53:52	68 CH1 13:53:56	69 CH1 13:54:01	70 CH1 13:54:06
:=		71 CH1 13:54:11	72 CH1 13:54:16	73 CH1 13:54:21	74 CH1 13:54:26	75 CH1 13:54:32	76 CH1 13:54:36	77 CH1 13:54:42
Sub-periods	Channel	78 CH1 13:54:46	79 CH1 13:54:52	80 CH1 13:54:56	81 CH1 13:55:01	82 CH1 13:55:07	83 CH1 13:55:11	84 CH1 13:55:16
	🗹 📑 CH1	85 CH1 13:55:22	86 CH1 13:55:26	67 CH1 13:55:32	88 CH1 13:55:36	89 CH1 13:55:41	90 CH1 13:55:47	91 CH1 13:55:51
\sim	CH2	92 CH1 13:55:56	93 CH1 13:56:01	94 CH1 13:56:06	95 CH1 13:56:12	96 CH1 13:56:16	97 CH1 13:56:21	98 CH1 13:56:27
Picture	CH3	99 CH1 13:56:31	100 CH1 13:56:36	101 CH1 13:56:41	102 CH1 13:56:46	103 CH1 13:56:52	104 CH1 13:56:56	105 CH1 13:57:01
Tioturo	CH4	106 CH1 13:57:07	107 CH1 13:57:11	108 CH1 13:57:16	109 CH1 13:57:21	110 CH1 13:57:26	111 CH1 13:57:31	112 CH1 13:57:36
		113 CH1 13:57:41	114 CH1 13:57:46	115 CH1 13:57:51	116 CH1 13:57:56	117 CH1 13:58:01	118 CH1 13:58:06	119 CH1 13:58:12
		120 CH1 13:58:17				124 CH1 13:58:37	125 CH1 13:58:41	126 CH1 13:58:46
		127 CH1 13:58:51	128 CH1 13:58:56	129 CH1 13:59:01	130 CH1 13:59:06	131 CH1 13:59:11	132 CH1 13:59:17	133 CH1 13:59:21
		134 CH1 13:59:26	135 CH1 13:59:31	136 CH1 13:59:36	137 CH1 13:59:41	138 CH1 13:59:46	139 CH1 13:59:51	140 CH1 13:59:56
		141 CH1 14:00:01	142 CH1 14:00:06	143 CH1 14:00:11	144 CH1 14:00:16	145 CH1 14:00:21	146 CH1 14:00:26	147 CH1 14:00:31
		148 CH1 14:00:36	149 CH1 14:00:41	150 CH1 14:00:46	151 CH1 14:00:51	152 CH1 14:00:56	153 CH1 14:01:02	154 CH1 14:01:06
		155 CH1 14:01:11	56 CH1 14:01:17	157 CH1 14:01:22	158 CH1 14:01:27	159 CH1 14:01:32	60 CH1 14:01:37	61 CH1 14:01:42
		62 CH1 14:01:47	63 CH1 14:01:52	64 CH1 14:01:57	65 CH1 14:02:02	66 CH1 14:02:07	67 CH1 14:02:12	68 CH1 14:02:17
		69 CH1 14:02:22	170 CH1 14:02:27	171 CH1 14:02:32	172 CH1 14:02:37	173 CH1 14:02:42	174 CH1 14:02:47	175 CH1 14:02:52
		176 CH1 14:02:57	✓ 177 CH1 14:03:02	178 CH1 14:03:07	179 CH1 14:03:12	180 CH1 14:03:17	181 CH1 14:03:22	182 CH1 14:03:27
		183 CH1 14:03:32	184 CH1 14:03:37	185 CH1 14:03:42	186 CH1 14:03:47	187 CH1 14:03:52	188 CH1 14:03:57	189 CH1 14:04:02
		190 CH1 14:04:07	191 CH1 14:04:12	192 CH1 14:04:17	193 CH1 14:04:22	194 CH1 14:04:27	195 CH1 14:04:32	196 CH1 14:04:37
	Q	197 CH1 14:04:42	198 CH1 14:04:47	199 CH1 14:04:52	200 CH1 14:04:57	201 CH1 14:05:02	202 CH1 14:05:07	203 CH1 14:05:12
		204 CH1 14:05:17	205 CH1 14:05:22	206 CH1 14:05:27	207 CH1 14:05:32	208 CH1 14:05:37	209 CH1 14:05:42	210 CH1 14:05:47
	Event Infomation	211 CH1 14:05:52	212 CH1 14:05:57	213 CH1 14:06:02	214 CH1 14:06:07	215 CH1 14:06:12	216 CH1 14:06:17	217 CH1 14:06:22
	Channel: CH1	218 CH1 14:06:27	219 CH1 14:06:32	220 CH1 14:06:37	221 CH1 14:06:42	222 CH1 14:06:47	223 CH1 14:06:52	224 CH1 14:06:57
	Time: 14:03:02 Type: MN							K < 1 /7 > >I
	Size: 146KB	Descending order	Select			Selected: 1	Total Size: 146KB Browse	Type:

6.1.4.1 Picture Preview Control

- 1. Picture List select the pictures here.
- 2. Click 📄 to save selected pictures to a USB flash drive. Click 🕨 to view the pictures in a slide show.
- 3. Press 🤝 button to exit the preview control window and go back to the picture search window.

Press 🚺 button to pause, press 🜔 to resume slide show.

Press \square button to display previous snapshot or group of snapshots, press \square to display the next snapshot or group of snapshots.

Click \square to view a single snapshot at a time, click \blacksquare to view four snapshots at a time, and click \blacksquare to view nine snapshots at a time.

Chapter 7 Remote Access via Web Client

The NVR can be remotely accessed in various ways on a Windows PC or a Mac. The methods are as follows:

- Internal local network
 - Internet Explorer using local IP address of NVR
 - Speco Gray Viewer (included on CD or download) application using local IP address of NVR or P2P ID of NVR
 - Speco Gray Viewer plug-in for Safari on Mac using local IP address or P2P ID
- External
 - Internet Explorer: go to <u>http://gray.specotech.com</u> and enter P2P ID (note that with this method, system setup options will not be available)
 - Internet Explorer using DDNS
 - Speco Gray Viewer using P2P ID
 - Speco Gray Viewer plug-in for Safari on Mac using P2P ID or DDNS

7.1 Basic System Environment Requirements

The minimum requirements for hardware and OS required to run the Web Client are below.

Item	Minimum	Recommended
CPU	Intel® Core™ i5 CPU	Intel® Core™ i5 CPU or higher
RAM	4G or more	8G or more
Hard Drive	500G or more	1000G or more
Display RAM	2G or more	4G or more

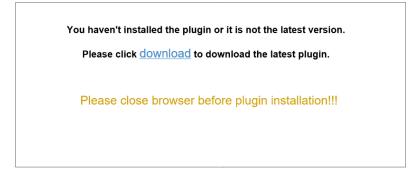
Display Resolution	1280*1024	1920*1080			
OS	Windows 7 or above				
	Mac OS X® 10.9 or above				
DirectX	DirectX 11				
Direct3D	Acceleration Function				
Ethernet Adapter	10/100/1000M Ethernet Adapter				
IE	Microsoft Internet Explorer (Ver. 11,10,9,8).				
Mac Safari	5.1 or above				

7.2 Web Plug-in Download and Installation

For IE:

1. Launch IE on the PC and enter the NVR IP address or DDNS domain name (Host Name) in the address field.

2. When the client is run for the first time, the Active-X plug-in will need to be installed. Click **download** to download the plug-in and install to the PC.



3. After installing the plug-in, close and launch the browser again, and repeat step 1 to open the login page. Enter the user name and password to log in.

speco technologies						
<mark>8</mark> admin						
Password Remember Password						

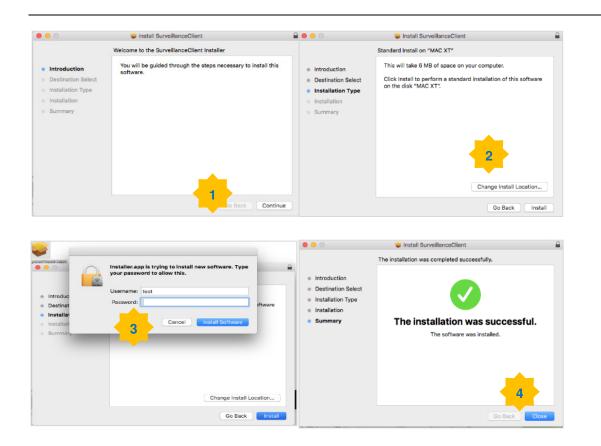
For Mac Safari:

1. Launch Safari and enter the NVR IP address or DDNS domain name (Host Name) in the address field.

	192.168.2.173	Ċ	0 1 7 +					
You haven't installed the plugin or it is not the latest version.								
Please click download to download the latest plugin.								
	Please close browser before plugin in	stallation.						

- 2. Download the plug-in (a .dmg file). Navigate to the downloaded file and double click on it.
- 3. Click on "Continue" --> "Install". Enter user name and password for the Mac, and

Click on "Install Software" --> "Close" to finish installation.

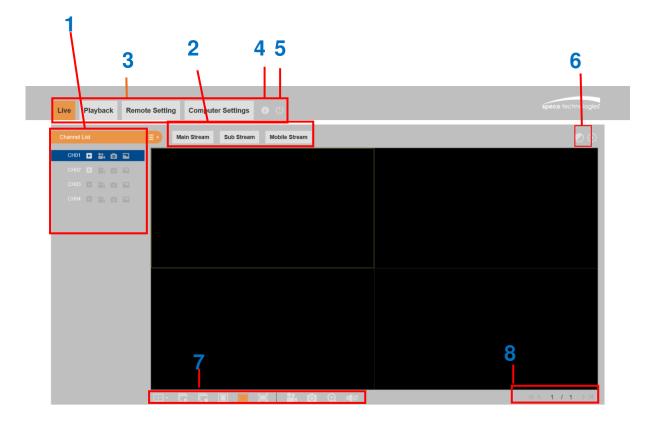


4. Close Safari and open it again to repeat step 1 to open the Web Client login page.

7.3 Web Client Manager

The system can be fully controlled through the web client interface.

7.3.1 Live Interface



- 1- Channel List: Open the channel list for quick camera function
 - Click to display the Channel List.
 - Click to hide the Channel List.
 - Turn the Live video stream on/off. The button is in blue color if the live video stream is on.
 - Manual Recording buttons. Click to start manually recording live stream video. Click again to stop recording. Manual recordings are saved to the computer. While recording, the button is in blue color.

Manual snapshot button. Click to save a snapshot of the current live display to the computer.

Bitrate button. Set camera to use the main stream, sub stream or mobile stream.

2- Live Video Stream Options:

Main stream: View all live videos using high-quality main stream video settings.

Sub stream: View all live videos using middle-quality sub stream video settings.

Mobile Stream: View all live video using lower-quality mobile stream video settings to conserve bandwidth.

3- Main Menus:

Live: View live video from cameras.

Playback: View recorded video which is saved on the NVR's HDD.

Remote Setting: Access the NVR system settings.

Local Settings: Set download locations for recordings and snapshots taken using the Web Client, and choose the file type for video files.

- 4- Information: Hover over to see system details.
- 5- Exit.
- 6- Color Controls. Click to display or hide the color controls.

Imag	je Settin	gs
Hue		128
Bright		128
Contrast		128
Saturatio	on	128
D	Default	
R	efresh	

7- Live View Control Buttons:



Open the images on Live window.



Close all Live channels



Original Proportions: Shows live video at the original proportions

Stretch: Stretch live video to fit the full area for each channel on screen.



To enlarge the web client to full screen.

Anual Recording: Click to start manually recording for all displayed channels. Click again to stop recording. Manual recordings are saved to the computer.

Snapshot: Click to save snapshots of all current displayed channels to the computer.

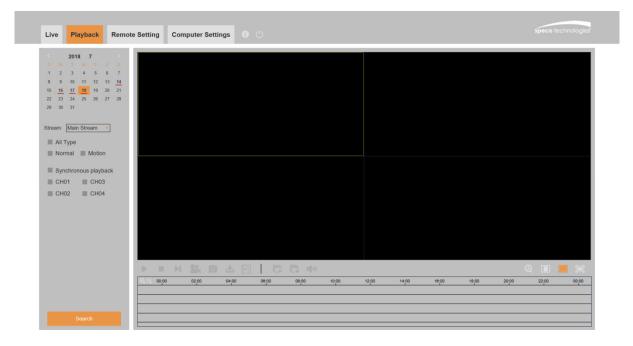
Digital Zoom: Click on a live image, then click-and-drag over an area of the live image to enlarge. Right-click to return to the normal display.

I Volume Control. **I** Volume mute.

8- Page View: Click to select how many channels appear on the screen at a time.

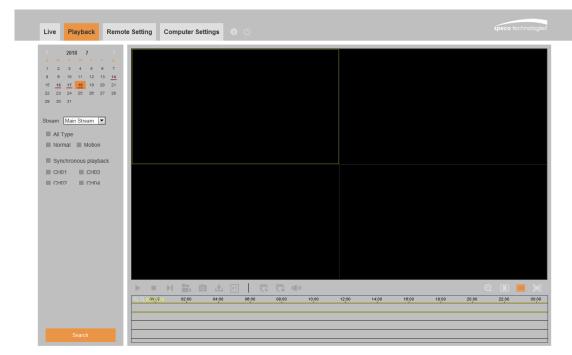
7.3.2 Playback

Search & play recording videos stored on the HDD of the NVR, and download the videos to the computer.



To search recordings:

- 1. Click **Playback** in the top-right corner of the window.
- 2. Select a day on the calendar to search for recordings from. Days with recordings appear with a red underline.
- 3. Select the recording type to search for from the drop down next to **Type**, or select **All** to search for all recordings.
- 4. Choose the video stream type to search & play. To play Sub stream recordings, make sure the NVR was set to record with Dual stream in section <u>5.2.2.1 Record</u>.
- 5. Check the channels search for recordings. Check **Synchronous playback** to play all channels at the same time.
- 6. Click Search.
- 7. Recordings that fit the search criteria will be displayed in the timeline. Click a section of video to begin playback and click the play button.



7.3.2.1 Playback Control Buttons

Play the recordings

Pause

Stop

Go Forward One Frame: Move frame-by-frame through playback. Only available if the

Synchronous playback option is not checked.

Click on one of the channels which is being played and then click record to record the current video to the computer. Click again to stop recording.

Click on one of the channels which is being played and then click button to take a snapshot and save to the computer.

Dens the Download menu, which allows for downloading several video recordings at once.

		Start Time	End Time	Status	File Size			
1	×	2017-10-25 00:00:00	2017-10-25 00:01:04	Completed	47.00M			
2	×	2017-10-25 00:01:04	2017-10-25 00:06:56	2%	253.76M			
3		2017-10-25 00:06:56	2017-10-25 00:12:48	Not Downloaded	253.71M			
4		2017-10-25 00:12:48	2017-10-25 00:18:41	Not Downloaded	253.91M			
5		2017-10-25 00:18:41	2017-10-25 00:24:34	Not Downloaded	253.64M			
6		2017-10-25 00:24:34	2017-10-25 00:30:27	Not Downloaded	253.68M			
7		2017-10-25 00:30:27	2017-10-25 00:36:18	Not Downloaded	253.75M			
8		2017-10-25 00:36:18	2017-10-25 00:42:10	Not Downloaded	253.90M			
9		2017-10-25 00:42:10	2017-10-25 00:48:03	Not Downloaded	253.74M			
10		2017-10-25 00:48:03	2017-10-25 00:53:56	Not Downloaded	253.63M			
10	10 ∨ 1 / 10 3 Show from 1 to 10, total 95. Per page : 10							
		Start D	lownload	Stop Download				

Choose the files to download and press Start Download button to begin. The download status will show. Press Stop Download to stop.

Playback Speed. Click to choose the playback speed.

Play All Channels: Click to play all channels that were chosen. Only available when the

Synchronous playback option is not checked.

Stop All Channels: Click to stop playing all channels. Only available when the Synchronous playback option is not checked.

Digital Zoom: Click on a playing video, and then click-and-drag over an area of the video to enlarge. Right-click to return to the normal display.



Original Proportions: Shows the playing video at the original proportions



Stretch: Stretch the playing video to fit the full area for each channel on screen.



To enlarge the web client to full screen.

7.3.3 Remote Setting

Remotely configure the settings of the NVR. See "<u>Chapter 5 NVR System Setup</u>" for more details on the NVR settings..

speco technologies	Channels	Cus	tom F	RTSP									
speco rechnologies													
Channel	Ch	nnel			State		IP Address	Subnet Mask	Port	Manufacturer	Device Type	Protocol	MAC Address
		_	Î	1			192.168.1.5	255.255.255.0	9988		IP CAMERA	Private	00-23-63-6D-09-88
Channel Live		12		1			192.168.1.143	255.255.255.0	9988		IP CAMERA	Private	00-23-63-6D-0C-6E
Image Control		13		1									
Motion Detection		4		1									•
Privacy Zone													
	Delet		Qui	ck Add	Re	fresh	Auto	add IPC					
Record													
Stream Decord													
Stream Record Capture													
Capture Alarm													
Capture Alarm													
Capture Alarm													
Capture Alarm Motion Exception Network													
Capture Alarm Motion Exception Network General DDNS Email													
Capture Alarm Motion Exception Network													
Capture Alarm Motion Exception Network General DDNS Email													
Capture Alarm Motion Exception Network General DDNS Email FTP Device													
Capture Alarm Motion Exception Network General DDNS Email FTP Device Disk Cloud													
Capture Alarm Motion Exception Network General DDNS Email FTP Device													

7.3.4 Local Setting

Set download locations for recordings and snapshots taken using Web Client, and choose the file type for video files.

Live	Playback	Remote Setting	Computer Settings	0 (J)	
		C	Computer Settings		
			Record Path	D:\Device\Record	=
			Download Path	D:\Device\Download	=
			Snapshot Path	D:\Device\Capture	
			File type	RF •	
				Save	

Record Path: Click **to** browse for and select the folder for the manual video recordings to be saved on the computer.

Download Path: Click to browse for and select the folder for the downloaded files to be saved on the computer.

Snapshot Path: Click **t** to browse for and select the folder for the snapshots to be saved on the computer.

File Type: Choose the preferred file type for manual recordings.

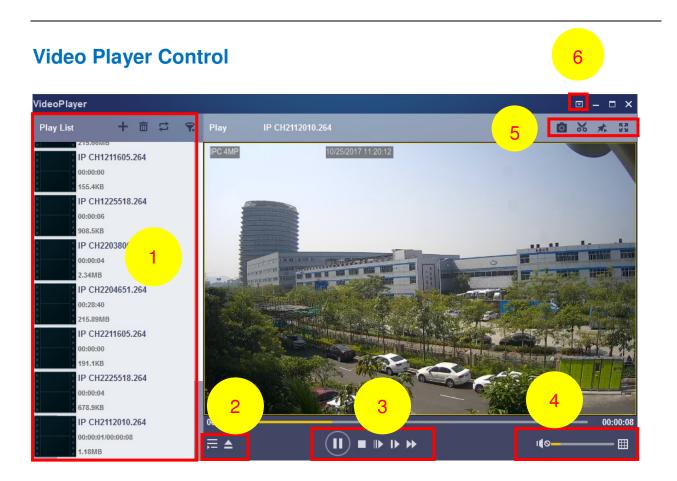
Save: Click to save the modifications.

Chapter 8 Viewing Exported Video on PC/Mac

Playing exported video files can be accomplished with the included video player. Install the video player that's on the CD. For Windows, choose the .exe file. For Mac, choose the .dmg file. After installation, follow the instructions below.

- 1. Run the Video Player.

- 2. Copy the backup files to the computer if desired or leave them on the flash drive.
- Click Open File button or click + button on the Play List to load single or multiple video files. Supported file types are ".rf", ".avi", ".mp4", ".264" and ".265" files. Click
 to load a folder with backed-up videos.



1. Play List

🕂 Add files

Remove files

To choose play mode: play a single file and stop; play all listed files by sequence; repeat one file; repeat all files.

鶦 Filter by file name

2. 🗮 Hide/Show Playlist

Click to open files or load a folder.

3.	Play Controls
	Play
	Pause
	Stop
	Play frame by frame. Click once to play a frame of the video
	▶ Slow Play, 1/2, 1/4 and 1/8, 1/16 speed
	Fast Forward, x2, x4, x8 and x16
4.	✓ olume control
	Multi-screen play. It allows for playing multiple videos simultaneously.
5.	Take snapshot
	Save a video clip to your computer. Press once to start, press again to end the video clip.
	Keep the video player on top
	Enlarge the video play screen to full screen

6.
Advanced Setup Menu allows configuration of settings.

Settings	sic Capture		×
Stick on Top:	 Stick on Top When Never Stick on Top Always Stick on Top 		
Save List File When	Exit		
Restore	ОК	Cancel	Apply

Basic Settings: Set on-top mode

Settings	Basic	Capture		×
Output Settings:				
Format:	PNG	_		
Saving Path:	C:/Users/Admi	inistrator/ <mark>*</mark> Bro	wse	
Restore		ОК	Cancel	Apply

Capture Settings: Set the format and the path to save snapshots.

Chapter 9 Appendix

9.1 Troubleshooting

1. Q: What can I do if the system does not detect the HDD?

A: Check if the power supply system is properly connected and data cord and power cable are securely connected, and if something is wrong with the HDD interface.

2. Q: I have changed the password but forgot the new password, how can I access the system?

A: Contact support for a password reset.

3. Q: I see abnormal video signal or no video signal

A: Check the network cable connection at both the NVR side and the camera side to see if the cable is firmly connected to the port. Try a different cable and/or different PoE port if the problem persists.

4. Q: How to prevent NVR from overheating?

A: The NVR needs to dissipate heat while it is running. Please place the NVR in a place with good air circulation and away from heat sources.

5. Q: The remote control doesn't work.

A: Try aiming the remote control at the IR receiver on front panel. If it still doesn't work, please check if the batteries in the remote control are dying.

7. Q: Can I playback while recording?

A: Yes. The system supports the playback while recording.

8. Q: Can I clear some recorded data on the HDD?

A: In consideration of the file security, clearing random data is not allowed. If you want to remove all the records, you can format the HDD.

9. Q: Why can't I log into the NVR client?

A: Please check if the network connection settings are correct and RJ-45 port is with good contact. Check if the user credentials are correct.

10. Q: Why can't I stop recording by pressing the "STOP" button or click "Stop Recording"?

A: Pressing Stop or Stop Recording can only stop manual record. If you want to stop Scheduled recording for specific time period, please change the schedule setting.