

# **EX-SDI/HD-SDI DVR**

## **User Manual**

Version 8.1.52.5

## Declaration

Copyright ©2019. All rights reserved.

Without the written permission of the company, any company or individual should not extract, duplicate part of or all of contents of this manual and no spreading in any form.

As the upgrade of the products or other reason, the contents of manual will be upgraded periodically. Unless otherwise stipulated, the manual is used as a instruction. All statements, information and suggestions of the manual do not constitute any ostensive or implied guarantee.

Photographs, graphics, charts, and illustrations provided in the manual are for explanation and illustration purposes only, and may differ from specific products. Please prevail in kind.

## Safety Precautions



### Notice

- Please do not place and install equipment directly under the sunlight or near heating device.
- Please do not install equipment at moist place or place with dust or soot.
- Please keep equipment installed horizontally, or install equipment in a stable place, avoid the equipment falling down.
- Please avoid liquid dropping on the equipment, make sure no objects filled (eg cups) with liquid on the equipment and prevent liquid from leaking.
- Please install the device in a well-ventilated place, do not block the vents of the equipment.
- Please only use equipment within rated input/output.
- Please do not disassembly at liberty.
- Please transport, use and reserve the equipment within allowing humidity (10%~90%) and temperature (-10°C~+55°C) .
- When cleaning the device, unplug the power cord and completely shut off the power.
- The dust on the circuit board inside the NVR may cause a short circuit after being exposed to moisture. Regularly clean the circuit board, connectors, chassis, and chassis fan with a soft brush. If dirt is difficult

to remove, wipe it off with a neutral detergent diluted in water and wipe it dry.

- Do not use volatile solvents such as alcohol, benzene, or thinner when cleaning the device. Do not use strong or abrasive cleaning agents. This can damage the surface coating.
- Please purchase the NVR dedicated hard drive recommended by the equipment manufacturer from the formal channels to ensure the quality and usage requirements of the hard drive.
- Make sure that there is no threat due to uneven mechanical load.
- Make sure that the video and audio cables have enough controls to install the cable. The bend radius of the cable should not be less than 5 times the cable diameter.
- Make sure that the alarm cable is firmly installed and the contact is good.
- Make sure that the NVR is reliably grounded.



### **Warning**

- Please do use the battery as requested, or it may lead to a battery fire, explosion or risk of burning!
- Please use the same type of battery when changing it.
- Please do use recommended cord sets (power cords), do use within the rated specifications.
- If you connect the product to the Internet at your own risk, including but not limited to products that may be subject to cyber-attacks, hacking attacks, virus infections, etc., the company will not be responsible for product abnormality, information leakage, etc., but the company will timely to provide you with product-related technical support.



### **Instruction**

- After receiving the product, please open the packing box, take out the equipment, and confirm the packing product and accessories according to the packing list in the box.
- If you find any damage to the contents of the box or any missing parts, please contact your dealer promptly

# Content

Chapter 1 Outline and Feature .....	7
1.1 Outline .....	7
1.2 Default .....	7
1.3 Descriptive content agreement .....	7
1.4 Function Features .....	8
Chapter 2 SDI DVR Appearance .....	12
2.1 Front Panel Introduction .....	12
2.2 Rear Panel Introduction .....	13
2.3 Mouse Operation Instructions .....	14
2.4 Input Method Introduction .....	15
Chapter 3 Connecting EX-SDI / HD-SDI DVR .....	16
3.1 Hard Disk Installation .....	16
3.2 Device Connection .....	18
Chapter 4 SDI DVR Startup .....	19
4.1 System Initialization .....	19
4.2 Boot wizard .....	20
4.2.1 Quick Startup Wizard .....	20
4.2.2 Forget Password .....	24
4.3 Preview Interface .....	26
4.4 Quick add device .....	27
4.5 Channel shortcut menu .....	29
Chapter 5 EX-SDI/HD-SDI DVR Menu .....	31
5.1 Shortcut menu .....	31
5.1.1 Manual screenshot .....	32
5.1.2 Poll .....	33
5.1.3 PTZ Setup .....	34
5.1.4 DVR Image .....	37
5.2 Main Menu .....	38
5.3 Operating .....	39
5.3.1 Playback .....	39
5.3.2 File backup .....	44
5.3.3 HDD .....	46
5.3.4 Record .....	47
5.3.5 Camera .....	51



5.3.6 Configuration .....	65
5.3.7 Maintenance .....	88
5.3.8 Shutdown .....	94
Chapter 6 WEB Operation .....	95
6.1 Internet connection .....	95
6.2 Browser Login .....	96
6.3 Active X install .....	96
6.4 Live View .....	98
6.5 Configuration .....	100
6.5.1 Local Config .....	100
6.5.2 Camera .....	101
6.5.3 Record .....	107
6.5.4 HDD .....	108
6.5.5 System .....	109
6.5.6 Maintain .....	119
6.6 Playback .....	122
Chapter 7 Appendixes .....	125
7.1 Q&A .....	125
7.2 Maintenance .....	125

# Chapter 1 Outline and Feature

## 1.1 Outline

This product is a new generation of high-definition digital hybrid DVR products, can access any SDI-EX, SDI-HD, network signals, can disable any channel SDI channel, converted to IP channel, both DVR and NVR dual functions. With local preview, video multi-screen split display, video files, local real-time storage capabilities, support for mouse shortcuts, with remote management and control functions. This product supports both front-end storage and client storage storage. And using a number of IT high-tech, both local independent HD monitoring, but also the formation of a powerful networking security system.

Embedded Network DVR can be widely used in financial, public security, military, telecommunications, transportation, electricity, education, water conservancy and other fields of security.

## 1.2 Default

- The factory default super administrator account is admin and the password is 12345.
- SDI DVR factory default IPv4 address: 192.168.1.88.

## 1.3 Descriptive content agreement

In order to simplify the description in this manual, the following conventions are made:

- The "device" mentioned in this manual mainly refers to the SDI DVR.
- The "IP device" mentioned in this manual mainly refers to IPC, IP DOME, or DVS.
- The "channel" mentioned in this manual refers to the SDI DVR's IP channel.
- Click the "X" or "Cancel" button to return to the previous screen.
- Click All Interfaces Default to restore the current factory default settings.
- Click "Apply" and "Save" on all screens to save the current settings.
- Click all the interfaces "Copy" to enter the copy channel interface, select the channel, and copy the current channel configuration to the selected channel.

## 1.4 Function Features

The SDI DVR features are as follows:

- HD digital hybrid DVR, support SDI, network signal access.
- Support network equipment access and can work with network cameras, network dome and network video server which with ONVIF protocol; Can increase the number of IP channels by disable the Analog channels, come with dual function of DVR and NVR.
- Each channel supports dual-stream encoding.
- The video coding parameters of each channel is adjustable independently, including frame rate, bit rate etc.
- Each channel supports timed recording and motion detection, alarm recording.
- Support composite stream and video stream encoding. Audio and video synchronized when it is composite stream encoding.
- Support SDI-EX、SDI-HD switch adaptation.
- Support the option mode of video input and video output.
- IP channel function can be quickly added.
- Support fast search, Multi-channel playback and backup function and can greatly improve the video retrieval and playback efficiency.
- Supports H.264 /H.264+ /H.265 /H.265+ video compression format network camera access, HI3521D series, HI3531D series supports 800W resolution network camera input.
- Support G.711μ audio compression format.
- USB2.0 or USB3.0 interface, support backup, software upgrades, mouse operation.
- Support U disk or mobile hard disk in FAT32, NTFS, exFAT and other formats.
- Support 23 languages: Chinese Simplified / Chinese Traditional / English / Polish / Czech / Russian / Thai / Hebrew / Arabic / Bulgarian / Persian / German / French / Portuguese / Turkish / Spanish / Italian / Hungarian / Romanian / Korean / Dutch / Greek/Vietnamese.

### ➤ Local Monitoring

Local Monitoring features as below:

- Support local VGA and HD output, the maximum resolution is 4K.
- Support multi-screen split into different channels and preview & playback.

- 4-channel SDI DVR support 1 / 4 / 8 / 9 / 16 screen preview, 8-channel SDI DVR support 1 / 4 / 8 / 9 / 16 / 25 / 32 screen preview.
- Support adjust the preview channel order by drag the mouse.
- Support preview manually or auto-tour preview, automatic polling cycle can be set.
- Supports video motion detection and video loss detection.
- Support a variety of video monitor protocol, can access the menu easily when connect to HD-Analog camera; For HD-PTZ Camera, no need to connect RS485, simple and convenient.
- Support preset points, cruise paths and trajectories.
- Achieve IP PTZ camera control through the ONVIF protocol.

### ➤ **Hard disk management**

Hard disk management features as below:

- Each SATA interface support up to 8T hard drive
- Support hard disk formatting
- Supports hard disk loss and hard disk abnormal alarm.

### ➤ **Video Record and Playback**

Features as below:

- Video compression standard is H.264 / H.264+ / H.265 / H.265+, with timed recording function.
- Support the main, sub-stream recording at the same time.
- Support cyclic writing.
- Maximum 6 recording time can be set in each day, and the recording trigger mode can be set independently for different time periods.
- Support video data retrieval and playback through channel number, video type, file type, start and end time.
- Support electronic zooming of preview & playback images.
- Support pause, fast, rewind (Local) and slow (Web) release in playback, support mouse drag positioning.
- Support 1-4 channel playback (Pure analog support multi-channel playback) and network multi-channel playback.

### ➤ **Data backup**

Features as below:

- Support backup by USB interface.
- Support U disk or mobile hard disk in FAT32, NTFS, exFAT and other formats.
- Support batch backup by file and time.
- Support for VMS clip-by-clip backups.

### ➤ **Alarm and exception management**

Features as below:

- Some models support alarm input / output arming time setting.
- Some models support multi-channel external alarm input and output.
- Supports video motion detection alarm, network disconnection alarm, IP Conflict alarm, Disk error alarm and Disk loss alarm
- Various alarms can trigger pop-up alarm screen, voice warning, email sending and trigger alarm output. Besides, video motion detection can trigger any channel for video inspection; various exceptions can trigger audible alerts, email sending, and trigger alarm output.

### ➤ **Other Local Functions**

Features as below:

- Users can quickly and easily set the system parameters by SDI DVR buttons frontal, USB mouse.
- Administrator can create multi-user and set permissions, which can be refined to the channel.
- Support manual alarm trigger.

### ➤ **Network Function.**

Features as below:

- Hi3520D V200 series support one 10M / 100M adaptive network interface, other models support a 10M / 1000M adaptive network interface.
- Support remote client privileged access, improve system security.
- Support TCP / IP protocol cluster, support DHCP, DNS, HTTP, SMTP, RTSP, UPnP and other protocols.
- Embedded WEB SERVER, support HTTPS protocol, improve the security of network access.
- Support remote search, playback, download.
- Support remote access and configure parameters.

- Support remote access to equipment running status, system log and alarm status.
- Support remote formatted hard disk, upgrade program, restart and other operations for system maintenance.
- Support remote manual trigger & stop recording.
- Support remote manual trigger & stop alarm output.
- Support alarm pushes function.
- Support remote FTP server configuration.
- Support remote PTZ control.
- Support for FreeIP / BitVision.
- Support ONVIF protocol access to platform.

# Chapter 2 SDI DVR Appearance

## 2.1 Front Panel Introduction

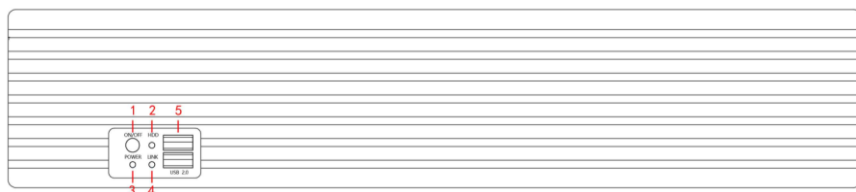


Figure 2-1

No.	Name	Description
1	Indicator light	Normal working hours, the corresponding indicator light turns
2	Channel button	Select single channel full screen display
3	Multi-channel preview	Switch and display 4,9,16 channel
4	Direction button	Move the button up or down, right or left to select menu
5	USB2.0 or USB3.0	Connect mouse or USB memory stick backup

Table2-1



### Note

- The panel diagram does not reflect the product size and ratio. Please refer to the actual product for details.

## 2.2 Rear Panel Introduction

The schematic diagram of the rear panel of the common equipment is as follows:

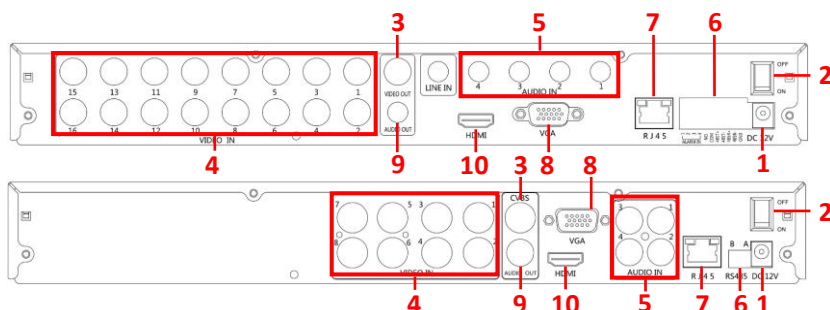


Figure 2-2

No.	Name	Description
1	Power input	DC12V
2	ON/OFF	ON/OFF
3	Video output	Output by TV/BNC
4	Input	BNC
5	Audio input	audio input
6	Alarm input	4 /I alarm input
	Alarm output	I/O output for alarm
	RS 485	RS 485 for connecting PTZ
7	Network	For connecting Ethernet
8	VGA	For connecting VGA monitor
9	Audio output	For connection audio output
10	HD	For connecting HD monitor

Table 2-2



### Note

- For informational purposes only, subject to object.



## 2.3 Mouse Operation Instructions


Operate SDI DVR through mouse left button, right button & scroll wheel.

Mouse actions	Function
Click left mouse button	<ol style="list-style-type: none"> <li>1. Select one of the options;</li> <li>2. Insertion cursor, enter or modify the value of a parameter.</li> </ol>
Click right mouse button	<ol style="list-style-type: none"> <li>1. When interface not locking, click right mouse button, system menu pops up;</li> <li>2. When interface locking, click right button on real-time preview interface, login interface pop up;</li> <li>3. Entered to main menu, to a submenu of PTZ control, click right mouse button on the menu interface, return to previous menu (except video playback interface);</li> <li>4. Entered to close system interface, click mouse right button on the interface, return to preview interface.</li> </ol>
Single, double-click the mouse left button	<ol style="list-style-type: none"> <li>1. When real-time preview multiple channels interface, double-click maximized channel display of one channel and return to the original state;</li> <li>2. Single click the password input field on the login interface;</li> <li>3. Single click setting parameters (date, time, IP address, port number, bit stream value and user password) or user names.</li> </ol>
mouse movements	Select the menu or menu item.
Mouse drag	Drag progress bar to playback video.
Slide mouse scroll wheel	<ol style="list-style-type: none"> <li>1. Time setting;</li> <li>2. Select the drop-down menu values;</li> </ol>

Table 2-3

## 2.4 Input Method Introduction

Input method includes lowercase and uppercase English letters. Clicking

“” button on the left can switch the input method and the symbol


“” represents deleting incorrect input, as shown in Figure 2-4 and Figure 2-5:



Figure 2-3 Uppercase English input



Figure 2-4 Lowercase English input

## Chapter 3 Connecting EX-SDI / HD-SDI DVR

### 3.1 Hard Disk Installation



#### Notice

- Before installation, please confirm that the power has been disconnected.
- Please use the SDI DVR dedicated monitor hard drive recommended by the device manufacturer.

#### Installation tools

A Phillips screwdriver

#### Hard disk installation

**Hard disk installation guide for SDI DVR PG / PGH series as shown in Figure 3-1:**

- (1) Unscrew the screws and remove upper cover.
- (2) Align the hard disk screw holes to the chassis backplane, and then tighten lock the screws.
- (3) Connect one end of the hard disk power cable and data cable to the motherboard and the other end to the hard disk.
- (4) Install the cover and fix it by screws.



Figure 3-1

**Hard disk installation guide for SDI DVR C/D/CB/DB series as shown in Figure 3-2:**

- (1) Unscrew the screws on the back and sides of the chassis and remove the cover.
- (2) Connect one end of the hard disk power cable and data cable to the motherboard and the other end to the hard disk.
- (3) Align the hard disk screw holes to the chassis backplane, and then tighten lock the screws.
- (4) Install the cover and fix it by screws.

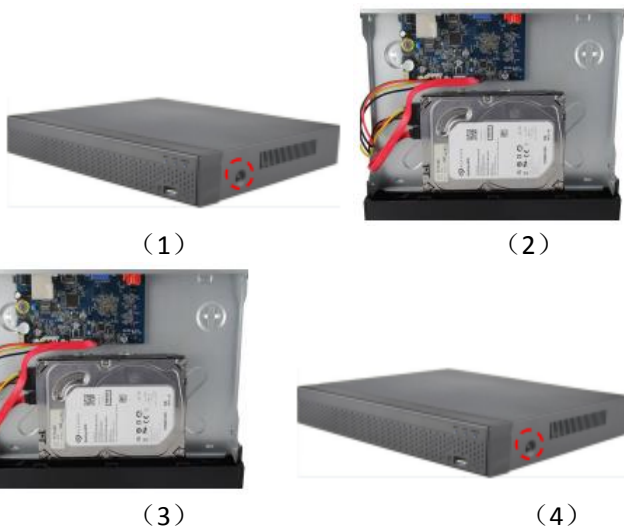


Figure 3-2

**Hard disk installation guide for SDI DVR L series as shown in Figure 3-3:**

- (1) Unscrew the back panel screws and take off the cover.
- (2) Remove the hard disk rack.
- (3) Install the hard disk to the rack from top to bottom.
- (4) Fix the hard disk by screws.
- (5) Install the rack and fix it.
- (6) Connect the hard disk power cable and data cable.
- (7) Install the cover and fix it by screws.



Figure 3-3

## 3.2 Device Connection

Use VGA cable or 1080P cable to transmit the SDI DVR signal to the display. If it is a controllable PTZ, use wire to connect RS485 A cable and RS485 B cable to the corresponding RS485 interface on SDI DVR, as shown in Figure 3-4:

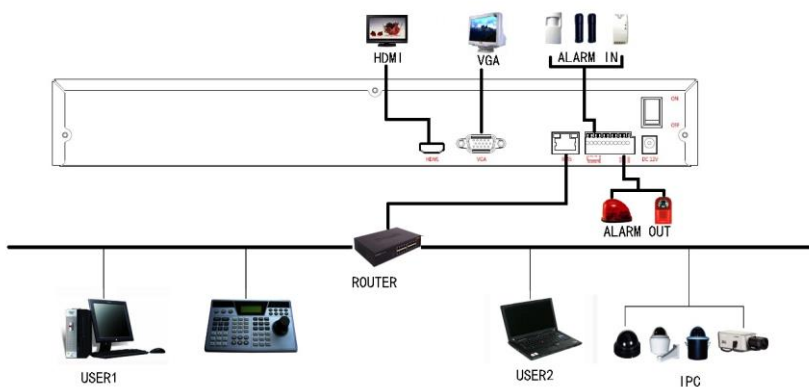


Figure 3-4

## Chapter 4 SDI DVR Startup

### 4.1 System Initialization

The steps to turn on SDI DVR are as follows:

- ① Connect the device to the analog camera, monitor and plug in the mouse and power cord.
- ② Turn on the power switch on the rear panel to start the device. The system initialization screen appears, as shown in Figure 4-1.



Figure 4-1



#### Instruction

- Please confirm that the voltage to be connected matches the SDI DVR requirements and ensure that the SDI DVR ground is well grounded.
- If the power supply is abnormal, the SDI DVR may not work properly or even damage the SDI DVR. It is recommended to use a regulated power supply for power supply.
- The illustrations that appear in the operation manual may not be exactly the same as the menu interface displayed on your monitor, so all illustrations are for user's reference only.
- After the device starts up, it can be simply configured through the boot wizard, which is the normal operation of the device.

## 4.2 Boot wizard

### 4.2.1 Quick Startup Wizard

Quickly configuration the NVR as shown in Figure 4-2:

- ① After the device starts, enter the "Boot Wizard" and click "Next Step".

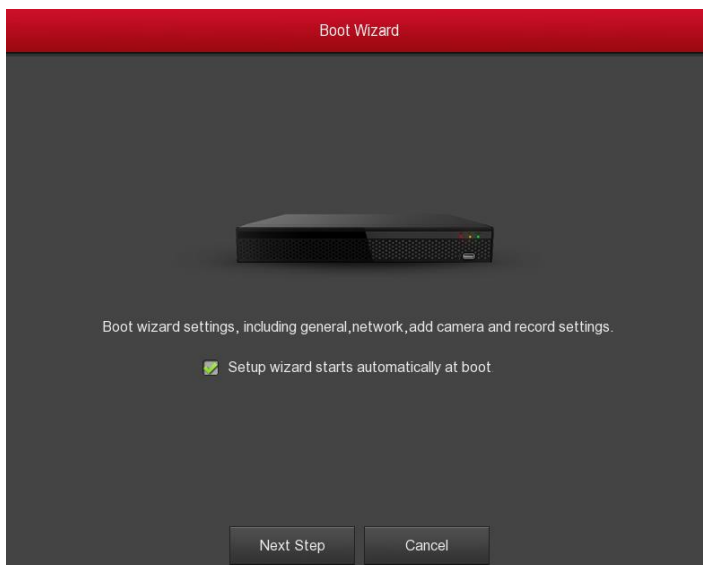


Figure 4-2 ①

- ② Then select a user name, enter the user password, select the system language and click "Login" to login the system (the default username is admin, password is 12345).

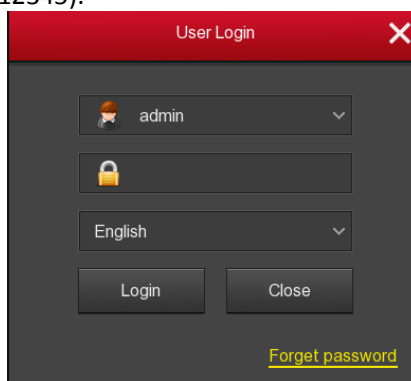


Figure 4-3 ②

③ When the login password is too simple, a security password prompt will pop up. Click "Modify".



Figure 4-2 ③

④ Click the "New password" box, enter a new password, confirm the new password, select the security question, enter the corresponding answer, click "Save"; insert a USB flash drive on the device, and click "Export key".

Modify password	
User name	admin
New password	
Confirm	
Warning: The password must not be less than 8 bits and contain at least one digit and letter!	
Please set security issue	
Security issue1	Please select issue ▼
Answer1	
Security issue2	Please select issue ▼
Answer2	
Security issue3	Please select issue ▼
Answer3	
Warning: Forget the security issue and don't have key file, need to return the equipment to the factory.	
<div>Save</div> <div>Clear</div> <div>Export key</div>	

Figure 4-2 ④

⑤ Go to the "General" interface, configure the Device setting and date, and click "Next Step". For details, see "5.3.6.1 General".



General	
<u>Device settings</u>	Date settings
Language	English
Record mode	Overwrite
Record days	No limit
Video standard	PAL
Standby time(min)	10
Device name	DVR
<div> <div>Default</div> <div>Apply</div> <div>Cancel</div> <div>Next step</div> </div>	

Figure 4-2 ⑤

⑥ Go to the "Network" interface, configure the network parameters of the device. Click "Next Step". For details, see "5.3.6.2 Network".

Network	
IP Address	192 • 168 • 1 • 34
Enable DHCP	<input type="checkbox"/>
Network Mask	255 • 255 • 254 • 0
Gageway	192 • 168 • 1 • 1
Primary DNS	172 • 18 • 192 • 1
Secondary DNS	8 • 8 • 8 • 8
Broadcast IP	0 • 0 • 0 • 0
Device MAC	11.22.33.44.55.66
TCP Port	5000
HTTP Port	80
RTSP Port	554
Private port	6000
RTSP encryption enable	<input type="checkbox"/>
<div> <div>Refresh</div> <div>Default</div> <div>Cancel</div> <div>Previous Step</div> <div>Next Step</div> </div>	

Figure 4-2 ⑥

⑦ Go to the "Add Camera" interface, you can search for and add devices and click "Next Step". For details, see "5.3.5.1 Add Camera".

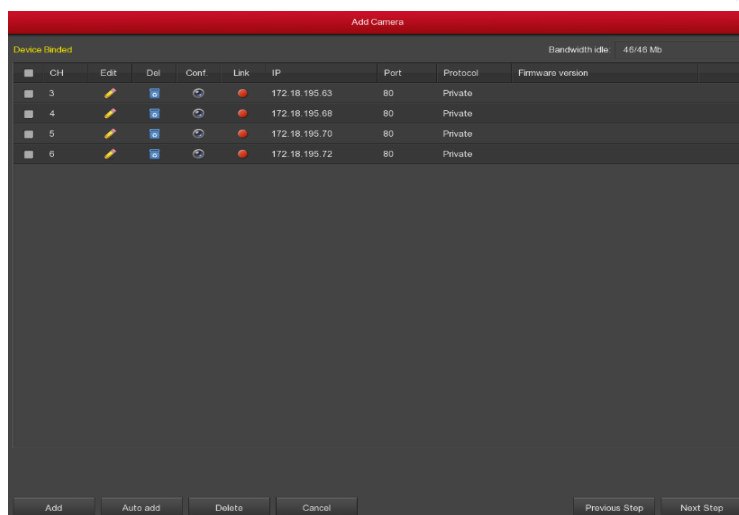


Figure 4-2 ⑦

⑧ Go to the "Record Setup" interface, set the video plan, support the manual drawing schedule, click "Complete", the boot wizard is set up. For details, see section "5.3.4.1 Schedule".

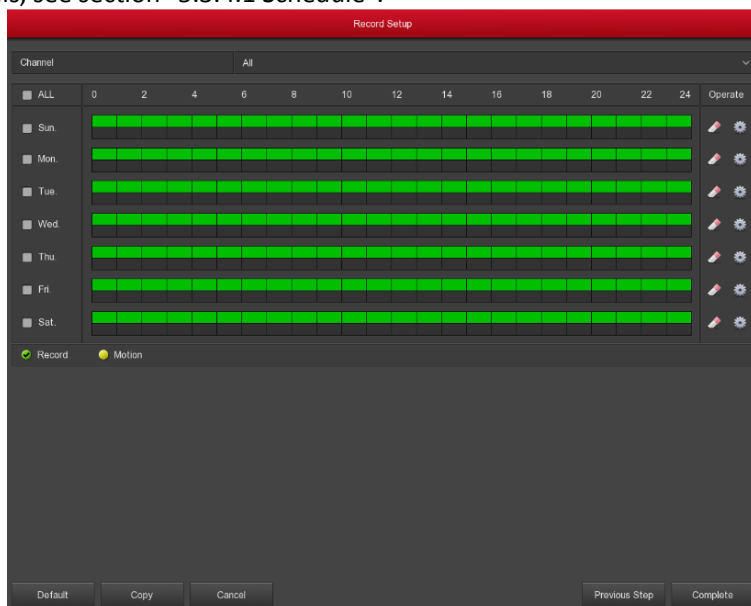


Figure 4-2 ⑧



### Instruction

- On the startup wizard screen, click Cancel to exit the startup wizard.
- When the password is too simple, after the login, a password strength security interface will pop up. You can click "Modify later" to continue using the existing password.
- Please confirm that the SDI DVR device has been properly connected to the network before setting up the network parameters.
- System default setting is all channels are recorded 24 hours a day.
- If the boot wizard has been configured for the first time, click "Menu → Configuration → General", cancel check "Enable wizard at startup", and the boot wizard interface will no longer appear after the next boot.

## 4.2.2 Forget Password

If you forget your password, you can click "Forget password" on the login page to enter the safety verification interface to reset the password (as shown in Figure 4-3). The password can be reset via "Answer the question" or "Import Key".

Forget Password

Verification mode	Answer the question <span style="float: right;">▼</span>
Security issue1	Please select issue <span style="float: right;">▼</span>
Answer1	
Security issue2	Please select issue <span style="float: right;">▼</span>
Answer2	
Security issue3	Please select issue <span style="float: right;">▼</span>
Answer3	

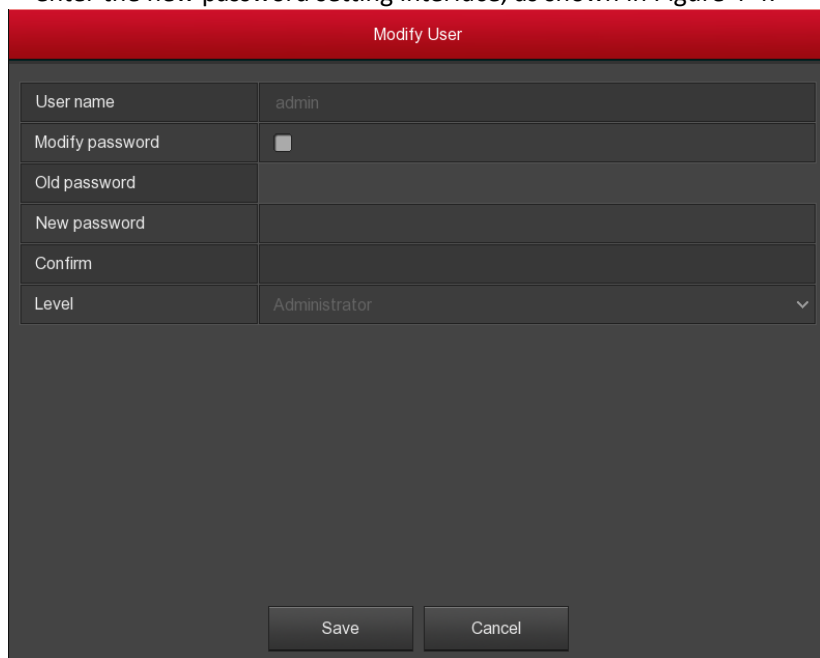
Next step

Clear

Cancel

Figure 4-3

- **Answer the question:** Select the three security questions when setting the password and enter the answer to the corresponding question to enter the new password setting interface, as shown in Figure 4-4.



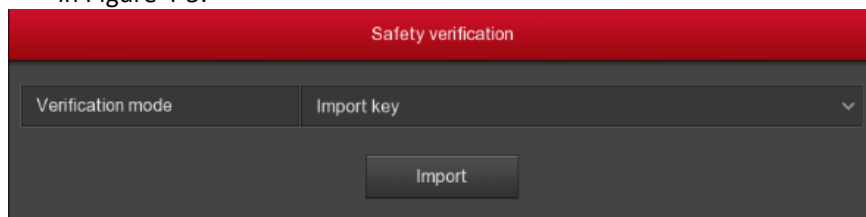
The 'Modify User' interface features a red header bar with the title 'Modify User'. Below the header is a form with the following fields:

User name	admin
Modify password	<input type="checkbox"/>
Old password	
New password	
Confirm	
Level	Administrator ▼

At the bottom of the form are two buttons: 'Save' and 'Cancel'.

Figure 4-4

- **Import key:** Select the authentication method as Import Key, as shown in Figure 4-5.



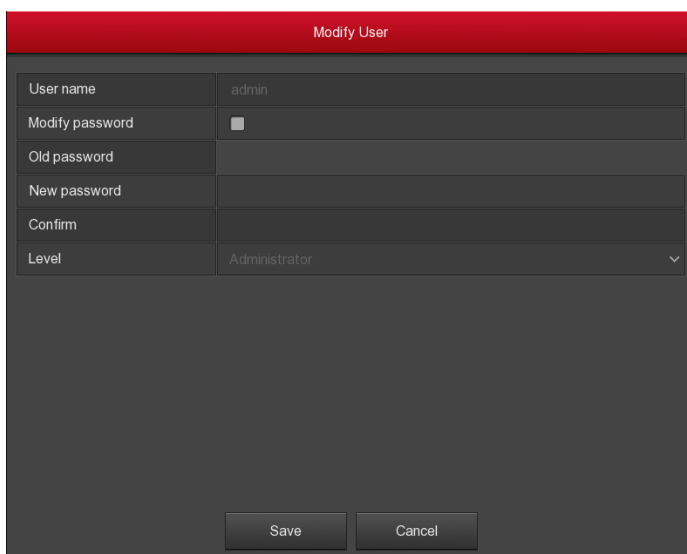
The 'Safety verification' interface has a red header bar with the title 'Safety verification'. Below the header is a form with the following fields:

Verification mode	Import key ▼
-------------------	--------------

Below the form is a single button labeled 'Import'.

Figure4-5

- ① Insert the USB disk (the key file exported when the device setting password is stored) on the device, and click Import to import the key file into the device.
- ② In the modification user interface, select “Change Password”, enter a new password, confirm the password, and click “Save”, as shown in Figure 4-6.



Modify User	
User name	admin
Modify password	<input type="checkbox"/>
Old password	
New password	
Confirm	
Level	Administrator

Save Cancel

Figure4-6



### Instruction

- When you select "Security Issues", the issues and answers must exactly match the settings when you set the password to proceed to the next Modify User screen.
- When you select "Import Key", the key file in the USB flash drive must be the key file that was exported when the password was set.

## 4.3 Preview Interface

After the system is fully booted, it will enter into the default preview interface, as shown in Figure 4-7.



Figure 4-7

After the device normally starts up, the default setting is to preview in multi-screen display mode. Products with different channels has different amount of split screens to display. On the preview interface, you can set the appropriate date and time. On the bottom left of the screen, it shows the recording status of each video channel or alarm status icon.

The function of each icon is shown in the following table:



Icon	Function
	The monitoring channel is in video.
	The monitoring channel is in the motion detection state.

Table 4-1

## 4.4 Quick add device

In the preview interface, you can quickly add a webcam to a channel that is not connected to the webcam, as shown in Figure 4-8 below:

- ① At the preview menu, for the channel of unconnected IP Camera, click anywhere in the channel interface, the lower left corner of the channel display “+” icon.



Figure 4-8 ①

- ② Select the device to add and click “Add”.

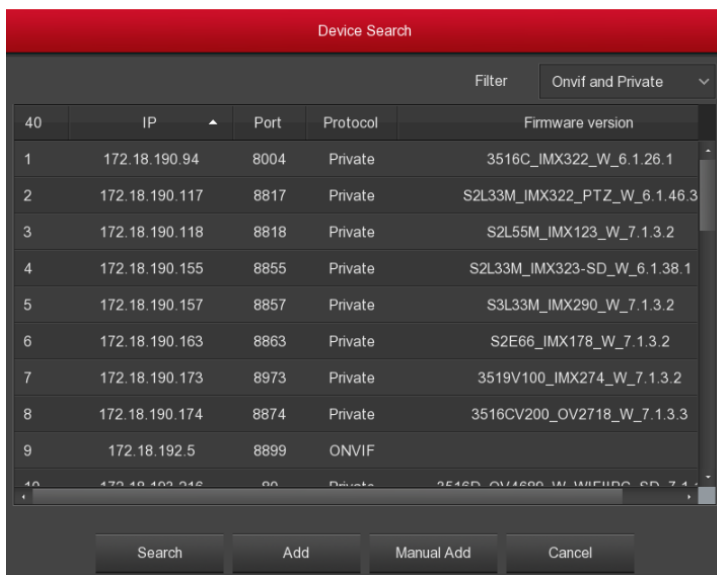


Figure 4-8 ②

- **Search:** Click to search all online IP devices in the LAN according to the protocol in the "Filter" box.
- **Add:** Add selection device.
- **Manual Add:** For details on how to manually enter device information, see 5.3.5.1.
- **Filter:** Sort the filter display in the device that has been searched.



### Instruction

- Filter Search Add Device: In the Add Device interface, select the corresponding protocol in the "Filter" column → "Search" → Select Device → Click "Add".
- Manual Add: On the Add Device screen, click "Manual add" → Click "Enable check box" → Select Protocol, Preview Stream, Enter Password, IP, Port → click "Save".
- The IP channel only supports the quick add function.






## 4.5 Channel shortcut menu

After adding a device to a channel, click the channel. The shortcut menu appears as shown in Figure 4-9.



Figure 4-9

The function of each icon is shown in the following table:

Icon	Function
	The current channel access signal is an "SDI" signal.
	Instant playback button, click the button, the channel playback 5 minutes before the video.
	Audio output control button, click to set the channel output volume and mute.
	Electronic zoom button, click to open the electronic zoom function, press and hold the left mouse button to select the zoom area, release the mouse, the preview interface is displayed as the selected zoom area, and the original image of the channel is displayed in the lower right corner of the screen, which can be set by the blue inside. Adjust the zoomed area by the position and size of the frame; click the right mouse button to exit the electronic zoom and restore the live preview interface.
	Image color button, click into the image interface, you can set the channel brightness, contrast, saturation, sharpness of the parameter values.





	Bit stream information button, when the mouse moves to the icon position, the channel shows the current stream and other related parameters.
	Image channel shortcut menu close button, click to close the image channel menu.

Table 4-2



### Instruction

- The image shortcut menu appears only if you click Channel after adding the device to the channel.
- Some SDI DVR support previews electronic zoom to switch to full screen, and can be zoomed in and out with the mouse wheel.
- The rotation button works only when the IP device is connected.

## Chapter 5 EX-SDI/HD-SDI DVR Menu

### 5.1 Shortcut menu

Log in system, right-click it to pop up the SDI DVR shortcut menu. As shown in Figure 5-1, you can switch the number of preview video windows, or enter the menu, Select Mode, Poll, Record Setup; Add Camera, Playback, PTZ, SDI DVR image color and other interfaces are related to the settings.

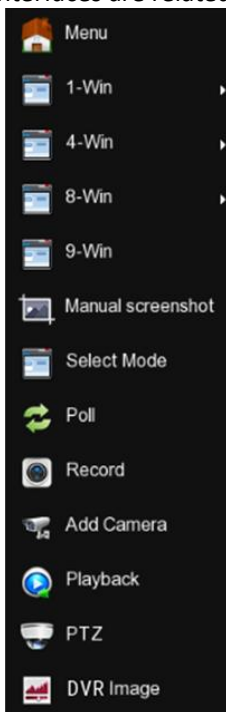


Figure 5-1

- **Menu:** Click and enter the main menu.
- **1-Win:** CH1, CH2, CH3, CH4, CH5 ..... CH8, CH9.
- **4-Win:** Divided into 4 groups to display (CH1~CH4, CH5~CH8, CH6~CH9).
- **8-Win:** Divided into 2 groups to display (CH1~CH8、CH2 ~CH9).
- **9-Win:** Display all channels (CH1~CH9).
- **Poll:** Click into the poll setup interface (Detailed operation as 5.1.2).
- **Record Setup:** Click into the record setup interface (Detailed operation as 5.3.4.1).
- **PTZ:** SDI DVR supports PTZ control, allowing users to remotely control the camera.(Detailed operation as 5.3.5.6).

- **Playback:** Click into the Playback interface.(Detailed operation as 5.3.1).
- **Add Camera:** Click and enter the add camera configuration menu.(Detailed operation as 5.3.5.1).
- **DVR Image:** Click into the image color configuration interface. (Detailed operation as 5.1.4).



### Instruction

- Multi-screen display depends on the maximum number of channels supported by the device. For example, there are 9 screens in the shortcut menu of the 9-channel device and 16 screens in the 16-channel device shortcut menu...

## 5.1.1 Manual screenshot

Manual screenshot are used to take a screenshot of a channel, export to a USB flash drive or send it to the recipient's mailbox as an email attachment. The manual screenshot steps are shown in Figure 5-2 below:

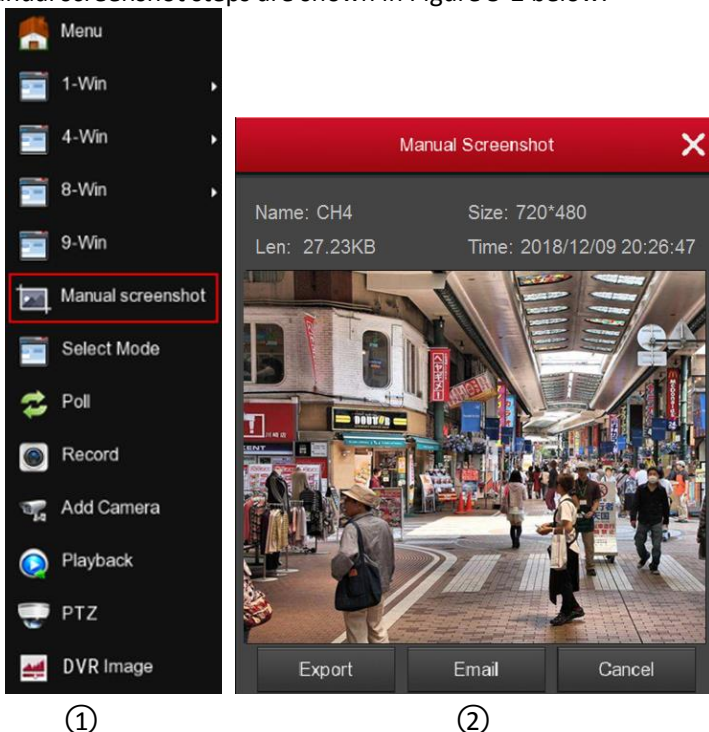


Figure 5-2

- ① In the preview interface, select the channel, click the right mouse button to pop up the shortcut menu, select "Manual screenshot";
- ② Insert a USB flash drive into the device and click Export. The image is saved to the USB flash drive. Or click "Mail", the channel screenshot is sent to the recipient's mailbox as an email attachment.



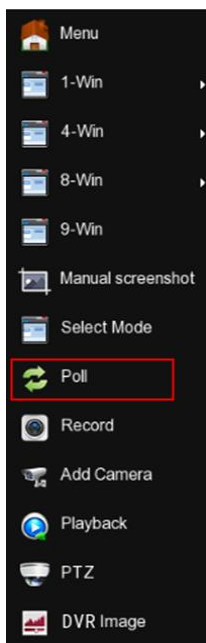
### Instruction

- When selecting "Email", you must first set the mail in " Menu → Configuration → Network → E-mail ", and you must ensure that the device can send mail normally online.

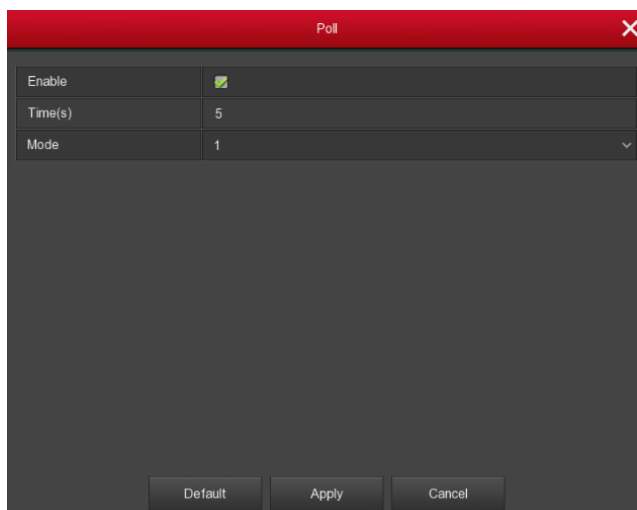
## 5.1.2 Poll

The poll settings are as shown in Figure 5-3 below.

- ① In the preview interface, right-click and select "Poll".
- ② Enable round robin, set polling interval and mode, and click "Apply".



①



②

Figure 5-3

- **Enable:** Turn on/off poll function, default is off.

- **Time(s):** Round trip interface time, default 5 seconds.
- **Mode:** The screen number of split screen, the default single channel display.

### 5.1.3 PTZ Setup

In the preview channel, right-click and select "PTZ" to enter the PTZ control interface (single screen mode). PTZ setup interface is divided into PTZ control and Common control.

#### ■ PTZ control interface

PTZ control interface is used to set the PTZ direction rotation (including upper, lower, left, right, upper left, lower left, upper right and lower right) of the gimbal equipment, focusing, zooming, aperture, rapid positioning and cruising, etc., use with the direction keys when setting.

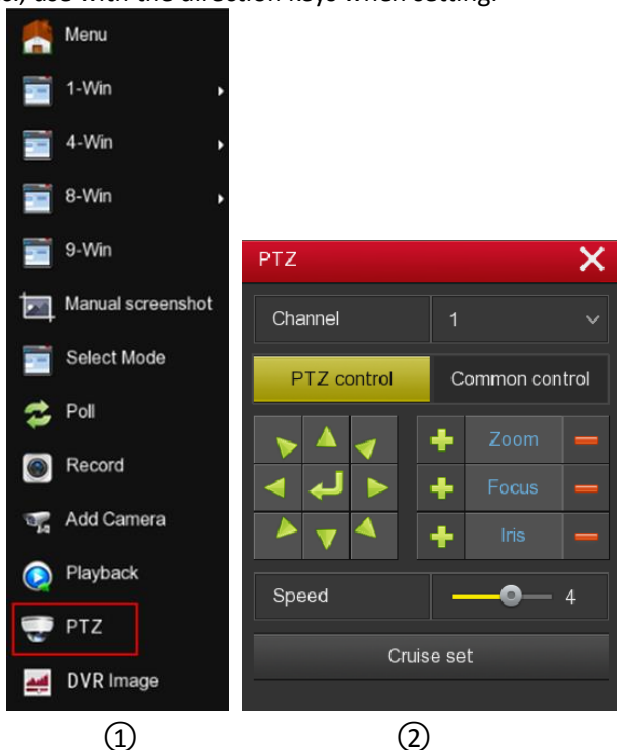















Figure 5-4

- **Channel:** Select the channel where the PTZ device is located.

- **Zoom:** Click  /  to adjust camera zoom in/out.
- **Focus:** Click  /  to adjust camera focusing.
- **Iris:** Click  /  to adjust camera brightness.
- **Speed:** Speed is to control PTZ movement speed. The value ranges from 1 to 7. The speed 7 is faster than speed 1.
- **Direction:** Adjust the direction of the head unit via " /  /  /  /  / ".
- **Confirm:** You can click "" to confirm.
- **Cruise set:** Click to enter the patrol setup interface.
- **Common Control:** Click to enter the common control interface.

## ■ Patrol Setup:

Click "Cruise set" to enter the patrol setup interface, you can set the relevant preset points, cruise line, including the dwell time and cruising speed. Shown in Figure 5-5 ① ②:

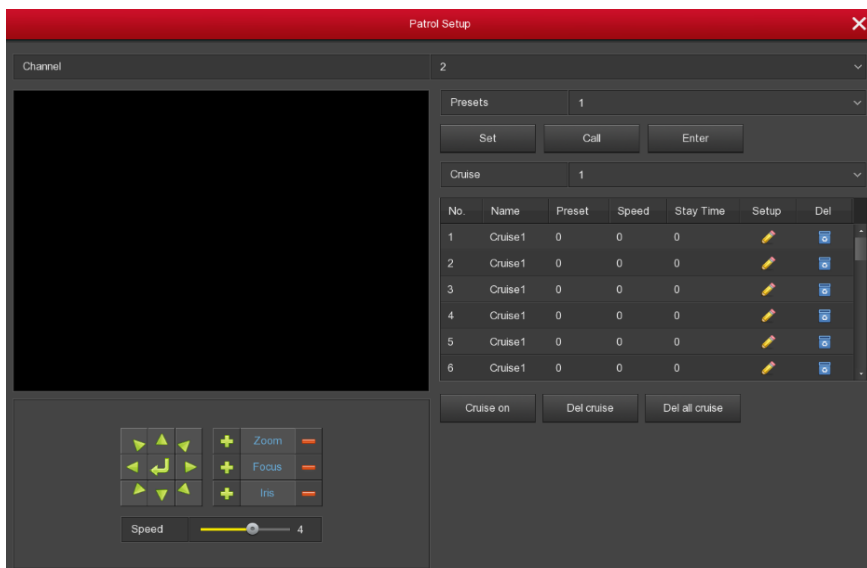


Figure 5-5 ①

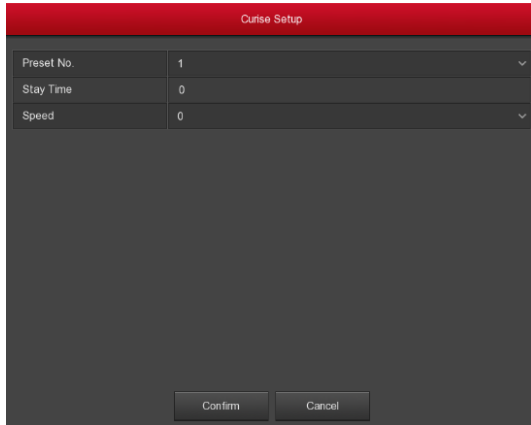


Figure 5-5 ②

- **Preset setting:** In the Patrol Setup interface, use the direction button to rotate the head to the position where it stays when cruising, and then click the "set" button below the preset point to complete the preset point setting.
- **Call:** Click "Call" and the PTZ will jump to the currently selected preset position.
- **Cruise setting:** In the Patrol Setup interface, select the cruise line and click the "🖍️" button. In the pop-up cruise setting interface, select the preset number, stay time (seconds) and speed, click "Confirm" button, return to the cruise setting interface and click again. "Cruise on" saves settings and the device starts cruising. The cruise settings are detailed in 5.3.5.6.
- **Cruise on:** Follow the cruise line to start cruising.
- **Cruise off:** Close the current cruise line.
- **Del cruise:** Select the cruise line, click "🔄" or "Del cruise" to complete the cruise line to remove.
- **Del all cruise:** After clicking, delete all the set cruise lines.
- **Stay Time:** PTZ stays at the preset position.
- **Patrol speed:** PTZ speed when cruising.

## ■ Common control

Common control for calling preset points, Select the cruise line to turn on / off the cruise, as shown in Figure 5-6:

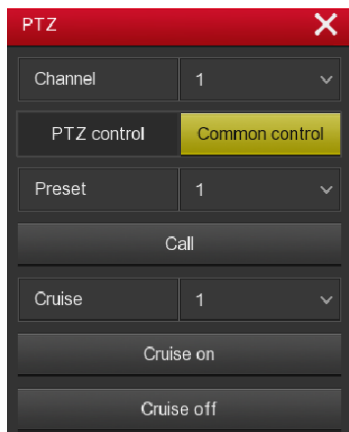


Figure 5-6

- **Preset:** Select a preset point.
- **Call:** Click on the PTZ to jump to the selected preset point position.
- **Cruise:** Select the cruise route you have set and click to turn cruise on/off.
- **Cruise on:** Follow the cruise line to start cruising.
- **Cruise off:** Close the current cruise line.



#### Instruction

- The SDI DVR supports up to 255 preset points, but the actual number of preset positions is limited by the number of preset points that can be set by the camera. The maximum number of preset points supported by different PTZs is not necessarily the same.

### 5.1.4 DVR Image

On the preview interface, right click mouse, select the "Image Color", the Image Color interface is displayed, and then can configure the video properties of IPC. As shown in Figure 5-7.



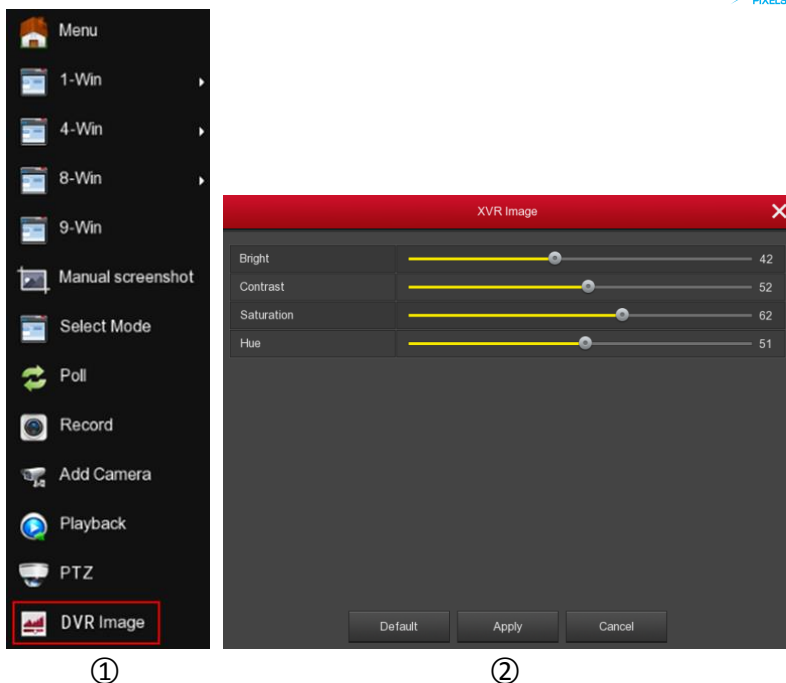


Figure 5-7

- **Bright:** It is to adjust monitor window bright.
- **Contrast:** It is to adjust monitor window contrast.
- **Saturation:** It is to adjust monitor window saturation.
- **Hue:** It is to adjust the overall color of the SDI DVR image.

## 5.2 Main Menu

Main Menu includes Playback, Export, HDD, Record, Camera, Configuration, Maintenance and Shutdown, as shown in Figure 5-8. Select one and click the left mouse button to open the corresponding next menu options.



Figure 5-8

## 5.3 Operating

### 5.3.1 Playback

After entering the main menu, open the "Playback" menu or right-click to choose "Playback" menu in the preview interface, switch to video playback interface, shown in Figure 5-9 ① ②.

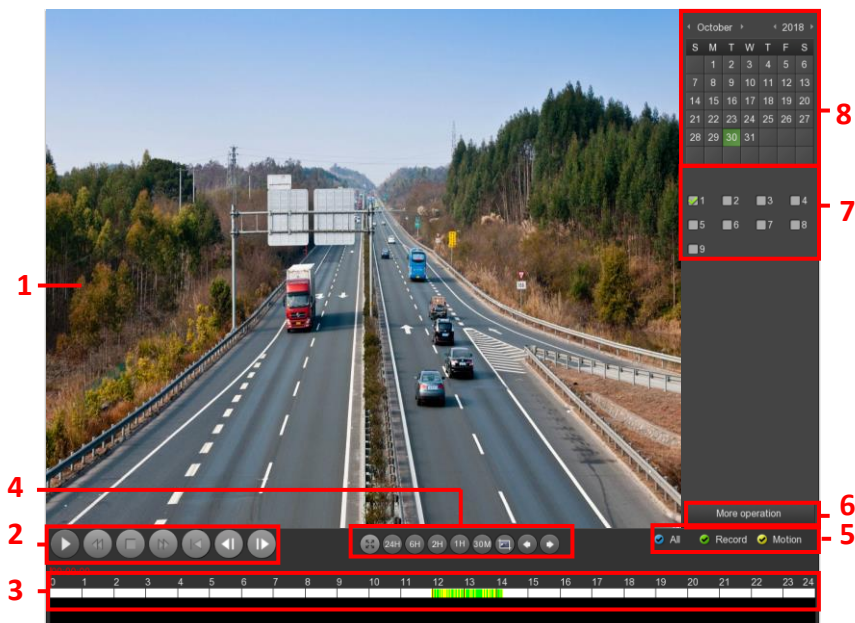


Figure 5-9 ①

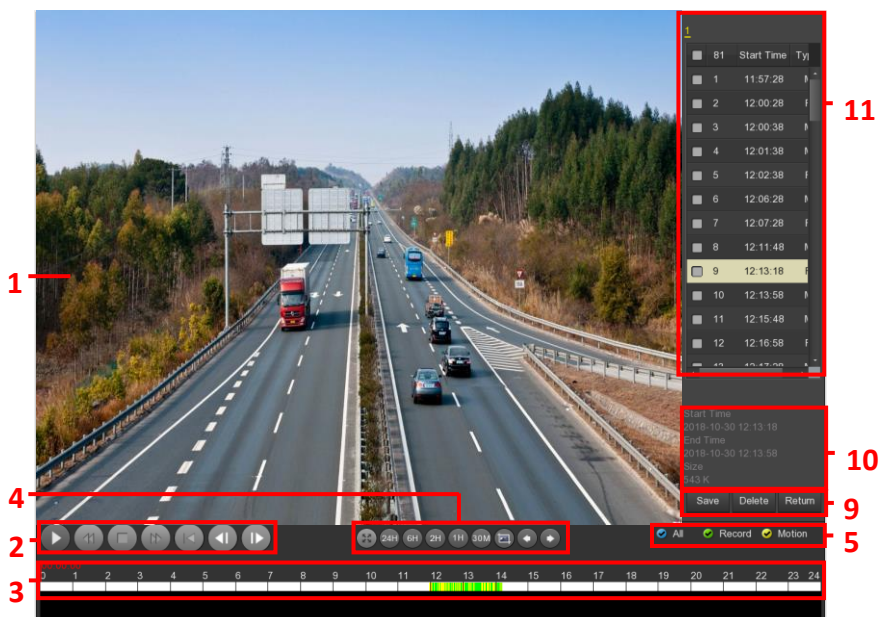







Figure 5-9②

No.	Function	Description
1	Display window	Display searched video, according to different systems, support 1,4,8,16 screen playback at the same time, multi-screen playback, double-click a screen, video playback interface into a single screen playback, right-click at this time, return multi-screen playback.
2	Playback control area 1	Playback control keys, from left to right, play/pause, rewind, stop, fast forward, slow release, frame rewind, frame advance (fast forward, fast rewind speed 2x, 4x, 8x, 16x, 1x, where 1x is played at normal speed, and the "⏮️/⏭️" button is continuously clicked to switch the playback speed. The slow release speed is 1/2, 1/4, 1/8, 1/16, and click "⏪️" switch playback speed.

3	Time axis	Shows the recording type under the current conditions and the time period in which it is located. In the four-screen playback mode, four playback time axes corresponding to the selected four channels can be displayed. In other single-screen playback modes, only one time axis is displayed. Click on a point in the recording area to start playback from that point in time.
4	Playback control area 2	 : Click full-screen playback, full-screen playback, click the right mouse button to exit 24H, 6H, 2H, 1H, 30M: Time axis unit. If 6H is selected, only 6 hours of video will be displayed on the time axis. You can hold down the left mouse button and drag the time axis left and right. The smaller the time unit, the smaller the time. The greater the proportion.  : Manual Screenshot, select the channel being played, click the icon, screenshot, and select "Export" or "Email", save the screenshot to the U disk or recipient mailbox.  : When the timeline zooms in, click the button and the timeline moves to the left or right in the direction of the arrow.
5	Video mode selection area	Select the check box to select the type of recording to be queried, All, Record, Motion.
6	Page turning area	 1/2  (if available): SDI DVR channel page turning. "More operation": Click to enter the video file list interface
7	Channel	Select the channel number to be queried (multiple channels can be selected at the same time, depending on device performance)

8	Calendar	The green highlighted date means there is file. Otherwise, there is no file. In any play mode, click the date you want to see, you can see the corresponding record file trace in the time bar.
9	Save/Return	Save: Enter the video backup interface. Select the files to be backed up in the 11 file list as needed, and click "Save" to enter the video backup interface for backup. Return: Exit the file list interface.
10	Video file details	Displays the start time, end time, and file size of the selected file in the 11 file list.
11	Video file list	The channel recording files are displayed in chronological order. You can view the other channel recording files by switching the recording channels above 1, 2, 3, and 4.

Table 5-1

In the file list interface, you can view the start time of the video file, the type of the video file ("R" indicates normal video; "M" indicates motion detection video), select a video file to view the start time, end time, and file size of the video.


In the file list box, check the " " icon to back up the file, click "Delete" to delete the recording from the hard disk of the device. Click "Save" to enter the video backup interface, as shown in Figure 5-10:



Figure 5-10

In the video backup interface, backup the selected file to an external U disk, backup video file for the avi format. At the same time can choose multiple video files for backup, the user can also in the backup operation menu to cancel the file list box " " icon to cancel file backup.

- **Remaining:** The external capacity of the device U disk capacity space.
- **Required:** Select the total capacity of the backup file.
- **File Format:** Backup video file format.
- **CH:** Video recording channel to which the video file belongs.
- **Type:** video type, with ordinary video and alarm video selection.
- **Start Time / End Time:** The time range of the video file.
- **Refresh:** Refresh the interface, update the data.
- **Backup:** Select the file to be backed up, click Backup, start the backup.
- **Clear:** Clear all the video files in the file list.



### Instruction


- In the right-click menu of the preview interface, click the "video playback" menu to enter the video playback interface.
- Select "Playback" from the context menu of the preview interface, and the channel where the mouse is located will be selected by default.
- The interface shown in Figure 5-9 ① ② is for reference only. The number of channels supported by different models for simultaneous

playback is different and the functions are different. Please refer to the actual interface.

## 5.3.2 File backup

### ■ File backup

Click "Export" icon in the main menu, enter the file backup interface, you can copy and delete the video file operation, as followed Figure 5-11 shows:



The screenshot shows the 'Export' window with a red title bar. Below the title bar, there's a 'Record Export' section with several filters: File type (All), Channel (All), File format (avi), Start time (2000 - 01 - 02 00 : 00 : 00), and End time (2000 - 01 - 02 01 : 08 : 16). Below these filters is a table of video files. The table has columns for a checkbox, ID, Channel, Type, Start time, End time, and Size. There are 12 rows of data. At the bottom of the window, there's a status bar showing 'Required capacity: 4.078 GB' and 'Available/Total capacity: 0.000 MB/0.000 GB'. Below the status bar are five buttons: 'Fast export', 'Search' (highlighted in yellow), 'Clear', 'Start', and 'Cancel'.

	ID	Channel	Type	Start time	End time	Size
<input checked="" type="checkbox"/>	1	3	R	2000-01-02 00:03:52	2000-01-02 00:03:54	11.985 MB
<input checked="" type="checkbox"/>	2	3	R	2000-01-02 00:04:45	2000-01-02 00:09:20	104.319 MB
<input checked="" type="checkbox"/>	3	3	R	2000-01-02 00:10:08	2000-01-02 00:17:09	154.510 MB
<input checked="" type="checkbox"/>	4	3	R	2000-01-02 00:17:56	2000-01-02 00:45:51	611.638 MB
<input checked="" type="checkbox"/>	5	3	R	2000-01-02 00:46:53	2000-01-02 00:52:23	120.863 MB
<input checked="" type="checkbox"/>	6	4	R	2000-01-02 00:02:58	2000-01-02 00:03:15	14.456 MB
<input checked="" type="checkbox"/>	7	4	R	2000-01-02 00:04:45	2000-01-02 00:09:20	105.391 MB
<input checked="" type="checkbox"/>	8	4	R	2000-01-02 00:10:08	2000-01-02 00:17:09	161.460 MB
<input checked="" type="checkbox"/>	9	4	R	2000-01-02 00:17:56	2000-01-02 00:45:52	640.059 MB
<input checked="" type="checkbox"/>	10	4	R	2000-01-02 00:46:58	2000-01-02 00:51:22	101.602 MB
<input checked="" type="checkbox"/>	11	4	R	2000-01-02 00:51:23	2000-01-02 00:52:24	33.627 MB
<input checked="" type="checkbox"/>	12	5	R	2000-01-02 00:03:56	2000-01-02 00:03:56	17.440 MB

Figure 5-11

Before the backup, insert the USB device into the SDI DVR USB interface, select the file type, channel, format, time range, click "Search", the searched video file will be displayed in the list, and click "Start" to start the backup.

- **File type:** Video type, with All, common and motion selection.
- **Channel:** Video channel to which the video file belongs.
- **File Format:** Backup video file format.
- **Start Time / End Time:** The time range of the video file.
- **Required capacity:** Select the total capacity of the backup file.
- **Available/Total capacity:** The external capacity of the device U disk capacity space.

- **Fast export:** Set the recording type, channel, file format, and the time range for 30 minutes to automatically cut.
- **Search:** According to set the video type, channel, file format and time range to the corresponding video file, and displayed in the file list.
- **Clear:** Clear all files that have been queried in the list of video files.
- **Start:** Start the backup.
- **Delete:** Select Query to file and click "Delete" to delete the recording file from the device hard disk.

## ■ FTP Backup

Click "Export→ FTP Backup" icon in the main menu, enter the FTP backup interface, you can back up the video files to the FTP server, as followed Figure 5-12 shows:

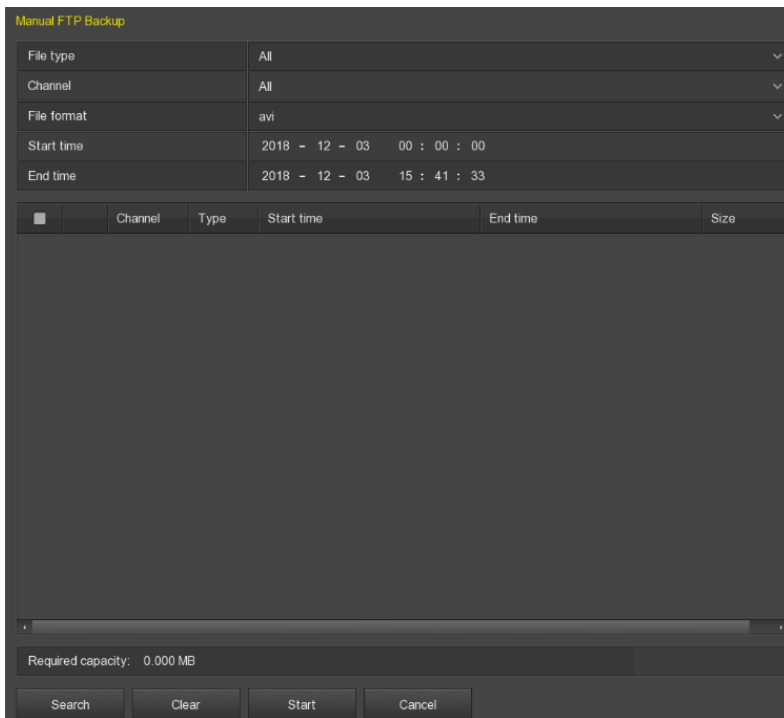


Figure 5-12

Before backup, you need to set the FTP server in "Menu→Configuration→Network→FTP ", select the backup file type, channel, format, time range, click "Search", the searched video file will be displayed in the list, click "Start", the device starts to back up.



- **File type:** Video type, with All, common and motion selection.
- **Channel:** Video channel to which the video file belongs.
- **File Format:** Backup video file format.
- **Start Time / End Time:** The time range of the video file.
- **Required capacity:** Select the total capacity of the backup file.
- **Available/Total capacity:** The external capacity of the device U disk capacity space.
- **Fast export:** Set the recording type, channel, file format, and the time range for 30 minutes to automatically cut.
- **Search:** According to set the video type, channel, file format and time range to the corresponding video file, and displayed in the file list.
- **Clear:** Clear all files that have been queried in the list of video files.
- **Start:** Start the backup.

### 5.3.3 HDD

In the Menu interface, click "HDD" to enter the disk management interface. You can see the hard disk information and format the hard disk. As shown in Figure 5-13:

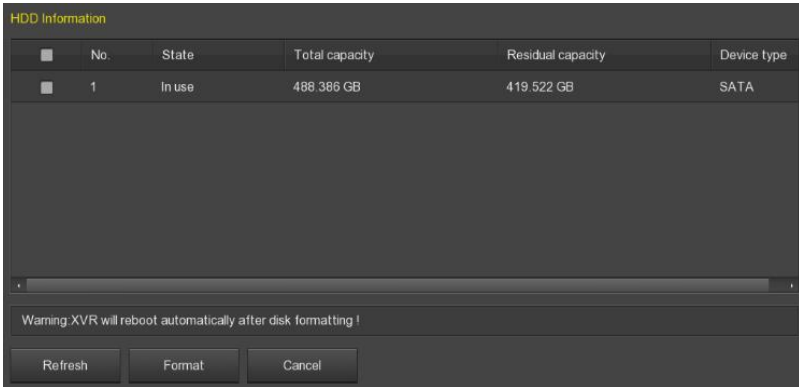


Figure 5-13

- **No.:** The number of HDD that connect the system.
- **State:** Detect the current working status of HDD, you could use only that displays "In use"; after formatting is completed, you need to restart SDI DVR, the status displays "In use".
- **Total Capacity:** The total available HDD capacity, the single HDD capacity can not exceed the maximum capacity: 8TB.
- **Residual Capacity:** Display the residual capacity of the current HDD;
- **Device Type:** SATA.

- **Refresh:** Click update disk list information.
- **Format:** Formatting the HDD, select the HDD → click the "Format" button → click the "Confirm" button.



### Instruction

- "Not connecting disk" indicates that the device is not connected or the hard disk is not detected.
- The hard disk information is displayed on the HDD interface when the hard disk is used normally.
- The hard disk must be formatted first when the hard disk is connected to the SDI DVR for the first time or when "Not formatted" is displayed.
- The device does not need to format the hard disk when the hard disk status shows "In use".
- After formatting the hard disk, restart the SDI DVR to takes effect.

## 5.3.4 Record

### 5.3.4.1 Schedule

In the main menu, click "Record" to enter the recording setting interface. After setting the recording schedule, the system will automatically perform the corresponding type of recording according to the set planning time. The recording setting interface is shown in Figure 5-14:

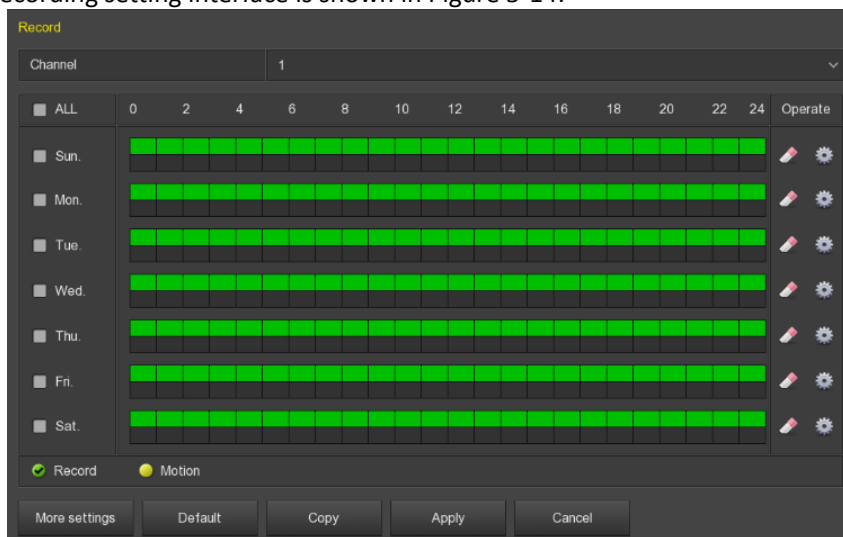




Figure 5-14

- **Channel:** Select the channel for setting the recording to set a different recording schedule for each channel. If you make the same settings for all channels, select "All".
- **Record Type:** Select check the box to select corresponding record type. There are Record and Motion.
- **Week day:** Select the week number. If you select "All", it means to the entire week, or you can select "☐" in front of the number of days to set individual days.
-  : Delete the time period for the currently selected recording type.
-  : Click to enter the Record Schedule.
- **Copy:** After complete the setup, you can click "Copy" button to copy current setup to other channel(s).

## ■ Drawing schedule record

**Step 1:** Select the recording channel to be set (as shown in Figure 5-15 1).

**Step 2:** Select the recording type to be set. Green is normal recording, and yellow is motion detection recording (as shown in Figure 5-15 2).

**Step 3:** Hold down the left mouse button and drag the mouse to draw the time period in the time period diagram (as shown in Figure 5-15 3).

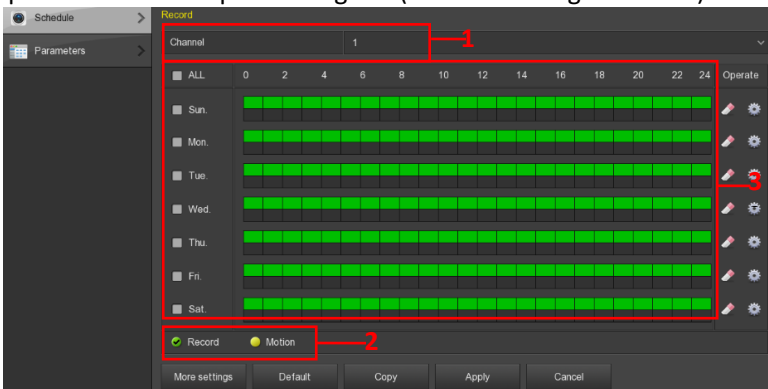


Figure 5-15



## Instruction

- There are 6 time periods available for each day, and the device will start the corresponding type of recording within the set time range.
- Select "All" to edit the time period of all week.

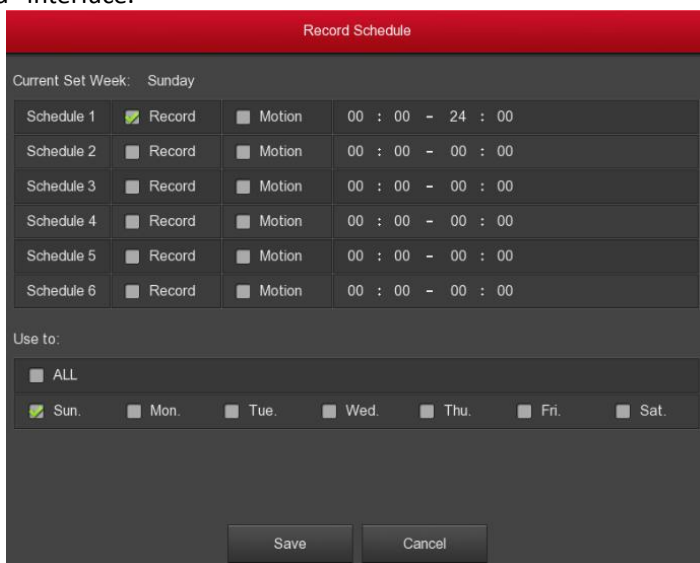
- You can select the front " " in a week and a week, and edit and draw the time period for the selected days.

## ■ Input data to set the schedule record

**Step 1:** Click " " to enter the Record Schedule interface, as shown in Figure 5-16.

**Step 2:** Set the "recording type" for each time period. There are 6 time periods for setting each day. Select the week of "Use to" and apply to the corresponding week.

**Step 3:** Click "Save" to complete the settings. The system returns to the "Record" interface.



The screenshot shows the "Record Schedule" interface. At the top, it says "Current Set Week: Sunday". Below this is a table with 6 rows, each representing a schedule period. Each row has three columns: "Record" (with a checkbox), "Motion" (with a checkbox), and a time range. The time ranges are: Schedule 1: 00 : 00 - 24 : 00; Schedule 2: 00 : 00 - 00 : 00; Schedule 3: 00 : 00 - 00 : 00; Schedule 4: 00 : 00 - 00 : 00; Schedule 5: 00 : 00 - 00 : 00; Schedule 6: 00 : 00 - 00 : 00. Below the table is a section labeled "Use to:" with a row of checkboxes for the days of the week: ALL, Sun., Mon., Tue., Wed., Thu., Fri., and Sat. The "Sun." checkbox is checked. At the bottom of the interface are two buttons: "Save" and "Cancel".

Figure 5-16



## Instruction

- At the same time, normal recording and motion detection recording are enabled at the same time. When motion detection occurs, the device only has motion detection recording and no ordinary recording.

## 5.3.4.2 Parameters

According to the actual network bandwidth, set the video stream parameters, including the encoding type, resolution, and so on.

**Step 1:** In the Menu interface click "Record→Parameters" to enter the Encoding parameters interface, as shown in Figure 5-17.

**Step 2:** According to the actual network bandwidth condition, the video stream parameter settings include resolution, stream type, frame rate, and corresponding channel sub streams.

**Step 3:** Click "Apply" to save the settings.

Encode parameters

Channel	1	
Preview information	NO VIDEO	
Encode Level	Baseline	

	Main stream	Sub stream
Encode Mode	Video	Video
Encode Type	H264	H264
Resolution		
Stream Control	VBR	VBR
I-Frame Interval	0	0
Quality	Lowest	Lowest
Frame Rate	0	0
BitRate(Kb/S)	0	0
Refer Bitrate(Kb/S)	512-8192	128-2048

Apply Cancel

Figure 5-17

- **Channel:** Select the channel you want.
- **Preview information:** Show video preview information.
- **Encode Level:** When connected to analog cameras, there are three options for high, medium and low.
- **H265+/H.264 +:** Turn on/off H.265+/ H.264 +.
- **Encode Mode:** When connecting an analog camera, select the video stream and audio and video streams.
- **Encode Type:** Standard H.264/H.265.
- **Resolution:** Read and set the master and slave stream resolution here, the system supports various resolutions, you can select from the dropdown list. Please note the option may vary depending on the connection to the different series IPC.
- **Stream Control:** When connecting an analog camera, set the variable code stream of the camera with variable and fixed options.
- **I-Frame Interval:** Set the key frame interval by dragging the scroll bar.

- **Quality:** When connecting an analog camera, set the camera quality, there are ordinary, good, better, the best option.
- **Frame Rate:** Set the camera frame rate to 1 frames / sec-25 frames / sec.
- **BitRate (Kb/S):** Setting bit rate can change the picture quality, the larger the bit rate and the better the picture quality.
- **Refer Bitrate (Kb/S):** Shows the bit rate range of the main and sub code streams.
- **Copy:** Copy the channel parameter settings to other channel.

## 5.3.5 Camera

### 5.3.5.1 Add Camera

#### ■ Add Camera

The SDI DVR add device is used to add a network camera, and the interface only displays the IP channel. After adding a network device, you can view the video screen of the network device directly on the SDI DVR, and perform operations such as storage and management. Different devices support different numbers of network devices. You can add required network devices based on actual conditions. Add the device as follows:

**Step 1:** In the Menu interface, click "Camera → Add Camera", or right-click in preview interface and select "Add Camera" to enter the Add Camera interface, as shown in Figure 5-18.

**Step2:** Click "Add → select device to Add → Add →select channel to add→ Save→ Cancel", complete to add device.

**Add Camera** Bandwidth idle: 70/80 Mb

	CH	Edit	Del	Conf.	Link	IP	Port	Protocol	Firmware version
<input type="checkbox"/>	1					172.18.192.15	80	ONVIF	
<input type="checkbox"/>	2					172.10.193.147	80	Private	3516CV300_IMX323_AF_1
<input type="checkbox"/>	3					172.18.193.238	80	Private	3516D_OV4689_W_SD_S
<input type="checkbox"/>	4					172.18.193.244	80	Private	3516D_OV4689_W_6.1.19
<input type="checkbox"/>	5					172.18.193.249	80	Private	3518EV200_IMX323_WIFI
<input type="checkbox"/>	6					172.18.194.178	80	Private	3516D_OV4689_W_7.1.38

Figure 5-18

- **Bandwidth idle:** Real-time display SDI DVR remaining bandwidth.
- **Add:** Click to enter the "Device Search" interface, as shown in Figure 5-19.

**Device Search**

Filter Onvif and Private ▼

	2	Edit	IP	Port	Protocol	Firmware version
<input type="checkbox"/>	1		192.168.1.101	80	Private	
<input type="checkbox"/>	2		192.168.1.168	80	Private	

Figure5-19

- ✓ **Filter:** Filter search device type. On the Add Device interface, the SDI DVR automatically searches for all devices in the LAN that

comply with the Onvif and Private protocol. Select the protocol or network segment device according to the need to display the filter location. Click "Search" to search for the corresponding device in the LAN.

- ✓ **Search:** Click it to search IP address. It includes device IP address, port, and protocol.
- ✓ **Sorting:** Click "IP" in the search list menu bar, the system displays "IP" from small to large will search the device to sort. Click "IP" again and the system displays the order of the IP addresses from big to small. You can also click on other items to sort them for easier viewing.
- ✓ **Add:** Add a selection device to the system.
- ✓ **Select channel:** After selecting the device to search for, click Add to enter the channel selection interface, as shown in Figure 5-20. Configure the channel for the selected device and click "Save" to finish adding the device.

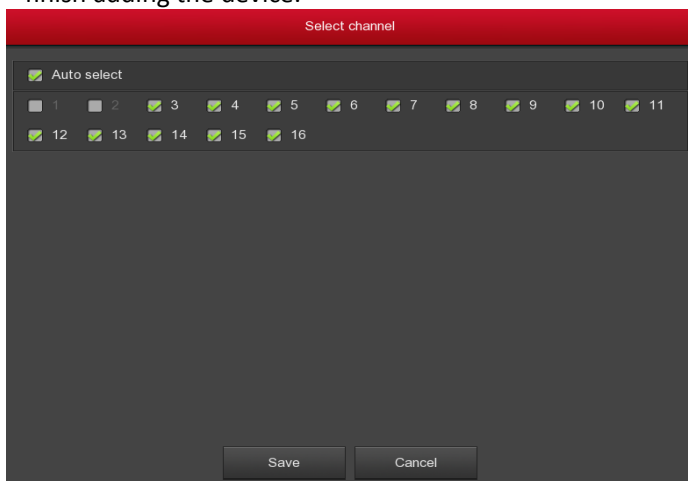
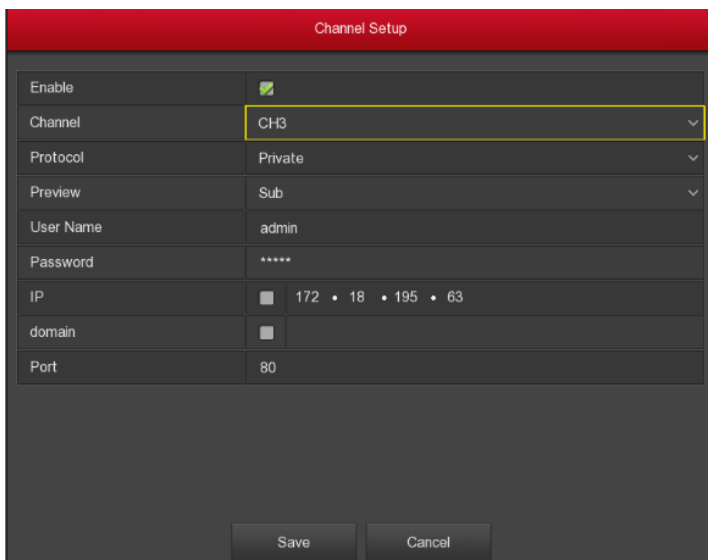


Figure 5-20

- **Manual add:** Click to enter the "Channel Setup" interface. You can close the channel, switch channels, modify the protocol, switch the preview stream or manually input the device related information to add the device, as shown in Figure 5-21.












The image shows a 'Channel Setup' dialog box with a red title bar. It contains several fields for configuring a channel. The 'Channel' field is highlighted with a yellow border and shows 'CH3'. Below it are fields for 'Protocol' (Private), 'Preview' (Sub), 'User Name' (admin), 'Password' (\*\*\*\*\*), 'IP' (172.18.195.63), 'domain', and 'Port' (80). At the bottom are 'Save' and 'Cancel' buttons.

Enable	<input checked="" type="checkbox"/>
Channel	CH3
Protocol	Private
Preview	Sub
User Name	admin
Password	*****
IP	<input type="checkbox"/> 172 • 18 • 195 • 63
domain	<input type="checkbox"/>
Port	80

Figure 5-21

- ✓ **Enable:** The channel enable on/off, defaulting to be off. Tick "Enable" then the related channels can be previewed and recorded normally.
- ✓ **Channel:** Enter the channel number to connect to the IPC device as needed.
- ✓ **Protocol:** Select Add Device Protocol with Onvif, Private, and RTSP options.
- ✓ **Preview:** The default is sub-stream preview, IPC side to be set to dual-stream, and is H264 encoding format to normal preview (support H265 encoding format SDI DVR can also be a normal preview stream), sub-stream resolution can be D1 or CIF format.
- ✓ **User name:** The login user name of IPC (if the defaulted user name is not admin, please change it to be valid user name).
- ✓ **Password:** Login password of IPC (if the defaulted login password is not admin, please change it to be valid password).
- ✓ **IP:** Need to add IPC IP address.
- ✓ **Port:** Access to the port used by IPC, the default is 80.
- **Auto add:** Click to reconfigure all online IPCs in the LAN to automatically add to the SDI DVR.
- **Delete:** Delete the added device. In the list of added devices, click the "  " icon to delete the channel to add the device directly. You can also

click the " " icon to select multiple devices and click the "Delete" button to delete all selected devices.

- **Update:** Insert the upgrade package U disk that is to be upgraded into the SDI DVR, click the button "Update" to search for IPC, select one or more searched " " before the same type of IPC, click "Update", select the upgrade package. And upgrade the batch IPC at the same time.
- **Status:** " " indicates that the connection is successful, and " " indicates that the connection fails. If the connection fails, the connection status will indicate the cause of the failure. If the password is incorrect, the user password will be incorrect.
- **Conf.:** Configuration. Click " " icon to enter the "Parameters" interface, you can modify the encoding type, resolution, bit rate, frame rate and other coding-related information.
- **Edit:** Click the " " icon to enter the channel setup interface. The function is the same as "Manually add".



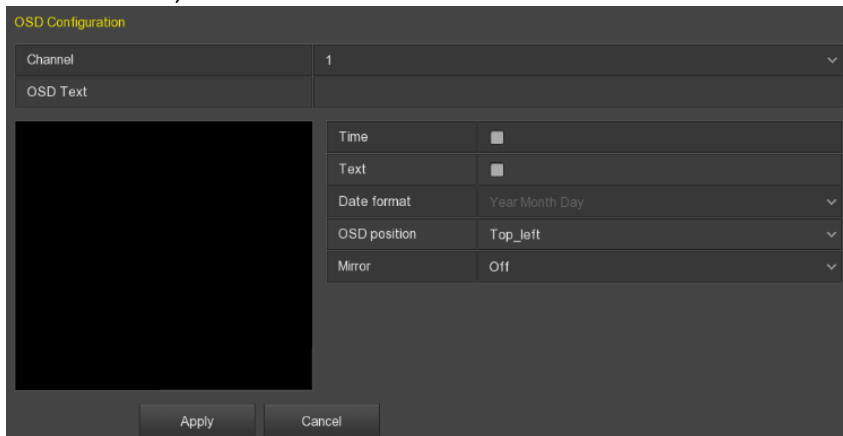
### Instruction

- When no device channel can be added to the device interface, click "Menu→Configuration→Channel config" to enter the channel configuration interface. Set the channel to "IP" as required, and click "Apply→Confirm" to restart the system. Successfully set to IP channel, you can return to the Add Camera interface to add IP devices to the channel.
- If network devices have been added to all digital channels, add them again and the device will prompt that the add fails.
- Click "Auto add", all devices will be reassigned IP address, please use with caution.
- Before using the upgrade function, copy the upgrade package corresponding to the device to be upgraded to the USB flash drive and insert the USB flash drive into the SDI DVR.
- When you upgrade multiple IP devices, you can only select the same IP device. During the upgrade, all IP devices cannot be powered off. Otherwise, the upgrade fails or the device cannot start.

### 5.3.5.2 OSD

On the menu page, choose "Camera → OSD" Settings to enter the OSD management interface, as shown in Figure 5-22. Here you can get and set

the IPC OSD text, time and other device related information.



OSD Configuration	
Channel	1
OSD Text	
Time	<input type="checkbox"/>
Text	<input type="checkbox"/>
Date format	Year Month Day
OSD position	Top_left
Mirror	Off

Apply Cancel

Figure 5-22

- **Channel:** Select to set the channel.
- **OSD Text:** Displays the OSD text information obtained to the IPC.
- **Time:** Turn on / off the IPC display interface time information.
- **Text:** Turn on / off the IPC display interface text message.
- **Date format:** Set the IPC display interface date format, drop-down menu "Year Month Day", "Month Day Year", "Day Month Year" option.
- **OSD position:** Set the time and OSD text location, drop-down menu with the "Top\_ left, Bottom\_ left" options.
- **Mirror:** Set the IPC mirror to flip the direction, drop-down menu with "Off, Horizontal, Vertical, Both" options.



#### Instruction

- The current OSD function only supports the private protocol to add the device to obtain and set.

### 5.3.5.3 Image

On the menu page, select "Camera→ Image" to enter the SDI DVR image color setting interface. You can view and set the brightness, contrast, saturation, and sharpness values of the IPC channel, as shown in Figure 5-23:

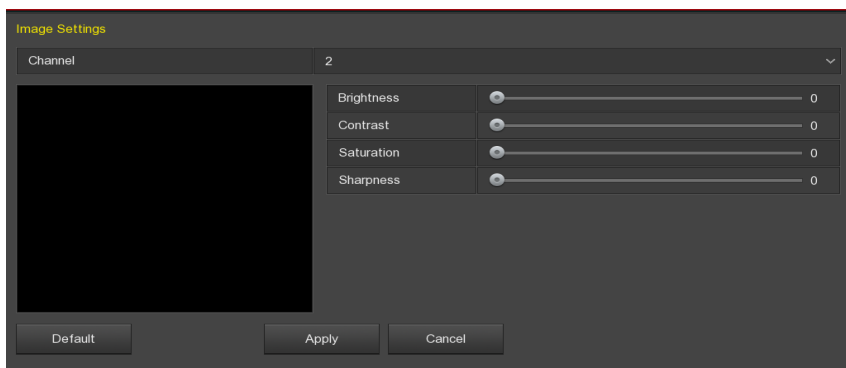


Figure 5-23

- **Channel:** Users can type in the channel number that needs to be connected to the remote device according to their needs.
- **Brightness:** Gets and sets the brightness of the IPC.
- **Contrast:** Gets and sets the contrast of the IPC.
- **Saturation:** Gets and sets the saturation of the IPC.
- **Sharpness:** Gets and sets the sharpness of the IPC.

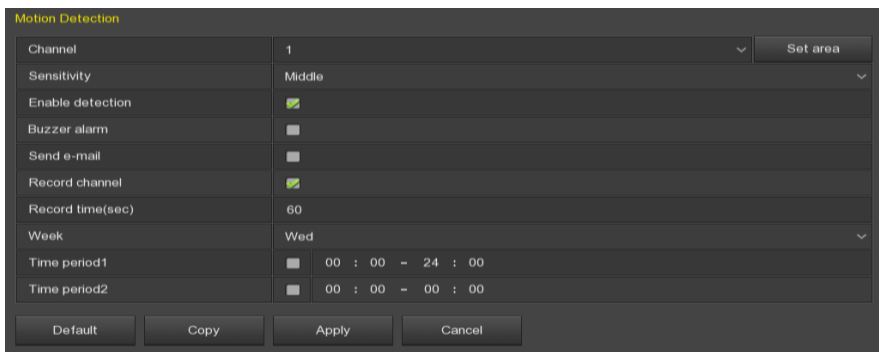
### 5.3.5.4 Motion

Motion detection uses computer vision and image processing techniques to analyze the video images to see if there are enough changes in the images. When the moving target appears on the monitoring screen and the moving speed reaches the preset sensitivity, the system performs an alarm linkage action.

**Step 1:** On the menu page, select "Camera → Motion" to enter the motion detection interface, as shown in Figure 5-24 below.

**Step 2:** Enable motion detection and configure parameters such as channel, area, sensitivity, record, and email.

**Step 3:** Click "Apply" to save the settings.



Motion Detection	
Channel	1 <span>Set area</span>
Sensitivity	Middle
Enable detection	<input checked="" type="checkbox"/>
Buzzer alarm	<input type="checkbox"/>
Send e-mail	<input type="checkbox"/>
Record channel	<input checked="" type="checkbox"/>
Record time(sec)	60
Week	Wed
Time period1	<input type="checkbox"/> 00 : 00 - 24 : 00
Time period2	<input type="checkbox"/> 00 : 00 - 00 : 00

Default Copy Apply Cancel

Figure 5-24

- **Channel:** Select the channel.
- **Set area:** Click to enter the regional settings interface, hold down the left mouse button to select the alarm area, select, the alarm area is gray, select the gray again to cancel the alarm area settings.
- **Sensitivity:** Select the appropriate sensitivity (Highest, Higher, High, Middle, Low, Lower, and Lowest) according to your needs. The default is "Middle" with a total of 7 sensitivity.
- **Enable detection:** Check "☒" to turn on / off motion detection alarm.
- **Buzzer alarm:** Check "☐" to turn on / off the buzzer alarm function.
- **Send e-mail:** Check "☐" to trigger the alarm, SDI DVR sends an email to the set mailbox to notify the user..
- **Record channel:** Check "☒" to turn on / off the channel recording function.
- **Record time (sec):** Set the duration of each recording when the alarm is triggered.
- **Week (Time period1 / Time period2):** The arming period, select the day of the week, set the time period 1&2, the device will only send mail to the recipient's mailbox within the set time range.
- **Copy:** After the channel has been set up, click Copy to apply the setting to another channel.

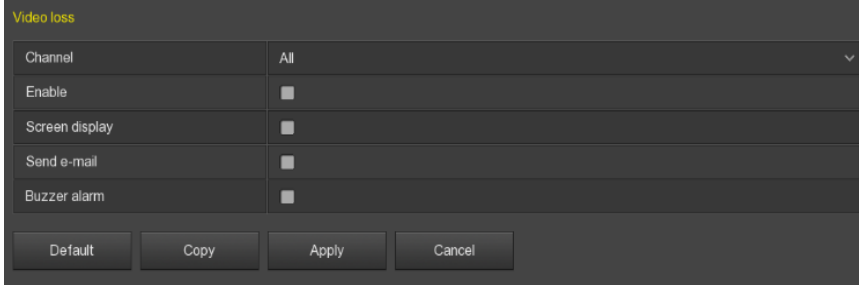


### Instruction

- After setting motion detection to open email notification, click "Main Menu → Configuration → Network → Email" to enter the email setup interface to set up the email. When the system sends a linkage alarm within the set time period, the recipient receives the alarm e-mail.

### 5.3.5.5 Video loss

On the menu page, select "Camera → Video loss" to enter the video loss setup interface is displayed, as shown in Figure 5-25. Here, you can set the corresponding channel when the video is lost when the device makes the appropriate alarm.



Channel	All
Enable	<input type="checkbox"/>
Screen display	<input type="checkbox"/>
Send e-mail	<input type="checkbox"/>
Buzzer alarm	<input type="checkbox"/>

Default Copy Apply Cancel

Figure 5-25

- **Channel:** Select the channel.
- **Enable:** Check "☐" to turn on / off video loss alarm.
- **Screen display:** Check "☐" to turn on / off the device when the screen is displayed.
- **Send e-mail:** Check "☐" to turn on / off when the device alerts the mail function.
- **Buzzer alarm:** Check "☐" to turn on / off the device when the buzzer sounds.



Note

- The current video loss function only supports the acquisition and setup of added analog devices.

### 5.3.5.6 PTZ

On the menu page, click "Camera → PTZ" to enter the PTZ setup interface, as shown in Figure 5-26. In the PTZ setup interface, other channels can be switched to adjust the pan/tilt movement speed and control the pan/tilt movement direction.

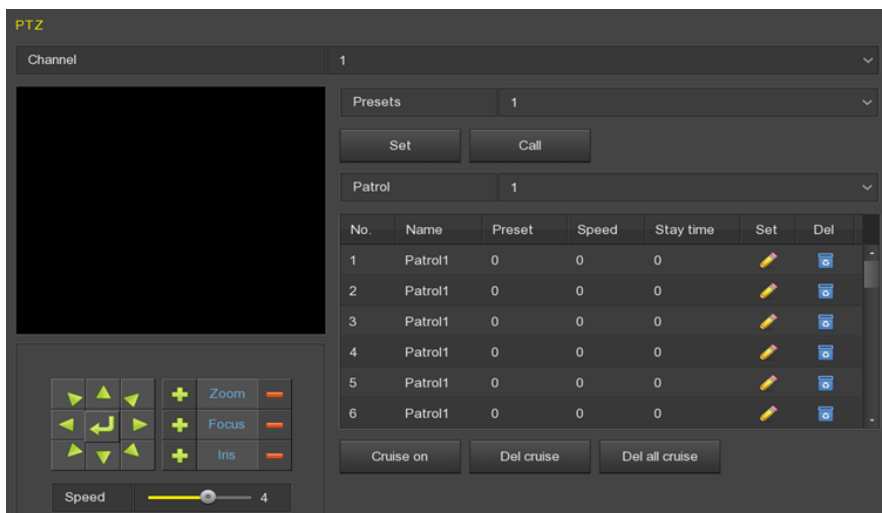









Figure 5-26

PTZ setup interface is used to set the PTZ direction, speed and lens zoom, focus and aperture settings and cruise settings shortcut button.

- **Channel:** Select the channel where the dome camera is connected to the SDI DVR.
- **Zoom:** Adjust the camera magnification by  /  key, long-range / wide-angle function.
- **Focus:** Use the  /  key, zoom in/out function, adjust the camera to focus.
- **Iris:** Use the  /  key, zoom in / out the aperture function, adjust the aperture of the camera.
- **Speed:** It is mainly used to set the pan/tilt rotation speed operation. For example, the rotation speed in step 7 is much greater than the rotation speed in step size 1.
- **Preset setting:** Through the direction of the button to turn the PTZ to the desired location, and then click the preset button below the "set" button to complete the preset point settings.
- **Cruise setting:** Select the cruise line and click the "" button to select the preset number, dwell time (seconds) and cruise speed in the "Cruise Setup" interface, Shown in Figure 5-27, Click the "Confirm" button to return to the cruise settings interface and click "Cruise on" again to save the settings and make the device start cruising.

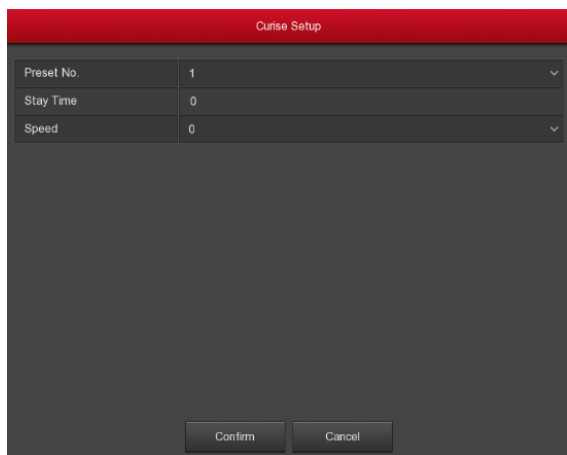


Figure 5-27

- ✓ **Preset No.:** Select preset points.
- ✓ **Stay Time:** Stay time on the Preset.
- ✓ **Speed:** Speed for Cruise.
- **Del cruise:** Select the cruise line, click to "del cruise", and complete the cruise line to remove.
- **Del all cruise:** After clicking, delete all the set cruise lines.



#### Instruction

- The SDI DVR supports up to 255 preset points, but the actual number of preset positions is limited by the number of preset points that can be set by the camera. The maximum number of preset points supported by different PTZs is not necessarily the same.

### 5.3.5.7 PTZ Setup

The pan/tilt setting is used to set the dome or pan/tilt parameters of the analog channel. Before controlling the dome or pan/tilt, please make sure that the RS-485 control cable between the PTZ decoder and the SDI DVR is properly connected, and configure the PTZ decoder parameters in the device.

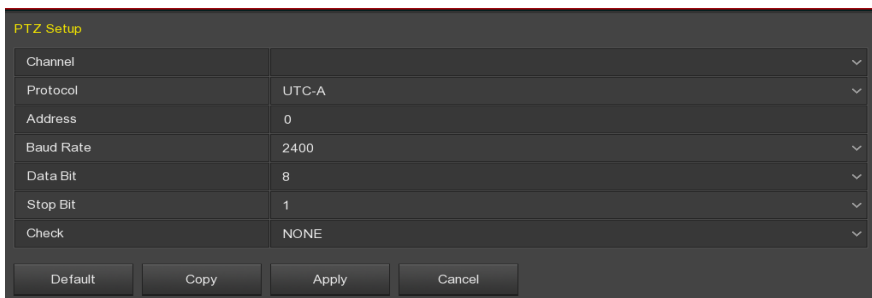
**The steps are as follows:**

**Step 1:** On the menu page, select "Camera → PTZ Setup " to enter the PTZ Setup interface, as shown in Figure 5-28 below.

**Step 2:** Set the pan/tilt parameters of the channel (camera protocol, address, baud rate, data bit, stop bit, check, etc.).

**Step 3:** Click "Apply" to save the settings.





**PTZ Setup**

Channel	
Protocol	UTC-A
Address	0
Baud Rate	2400
Data Bit	8
Stop Bit	1
Check	NONE

Default Copy Apply Cancel

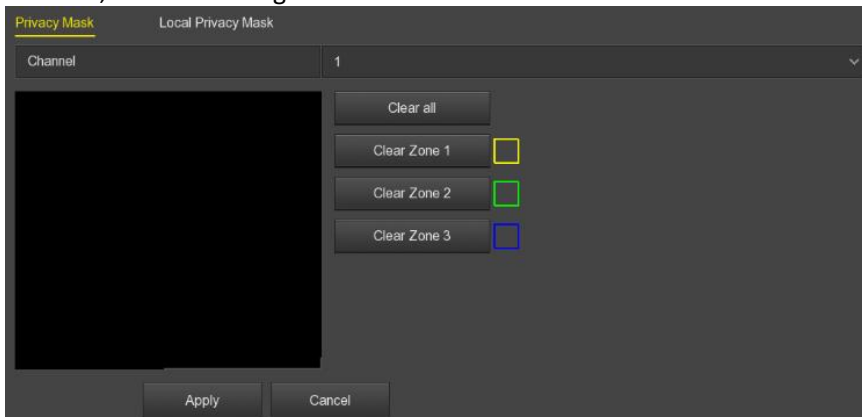
Figure 5-28

- **Channel:** Select the channel with PTZ camera access.
- **Protocol:** Select the PTZ protocol for the access device brand model (eg PelcoD).
- **Address:** Set the address to access the PTZ. The default is 0.
- **Baud Rate:** Select the baud rate used to access the PTZ to control the PTZ and camera of the corresponding channel. The default is 2400.
- **Data Bit:** The default value is 8.
- **Stop Bit:** The default value is 1.
- **Check:** The default value is NONE.
- **Copy:** After the channel is set up, click "Copy" to apply the setting to another channel.

### 5.3.5.8 Privacy Mask

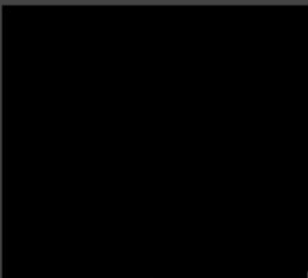
#### ■ Privacy Mask

Privacy Mask is used to set the video occlusion of the video source. On the menu page, click "Camera → Privacy Mask" to enter the Privacy Mask interface, as shown in Figure 5-29.





**Privacy Mask** Local Privacy Mask


Channel 1



Clear all

Clear Zone 1 

Clear Zone 2 

Clear Zone 3 

Apply Cancel

Figure 5-29

- **Channel:** Select the channel.
- **Privacy zone selection:** In the left side of the interface video window, hold down the left mouse button to select the area to be blocked.
- **Clear all:** Clear all selected occlusion areas.
- **Clear Zone 1,2,3:** Clear the selected masked areas 1, 2, 3.

## ■ Local Privacy Mask

Local Privacy Mask is used to occlude the preview video of each channel on the SDI DVR local side. On the menu page, click "Camera → Privacy Mask → Local Privacy Mask" to enter the Local Privacy Mask interface, as shown in Figure 5-30.

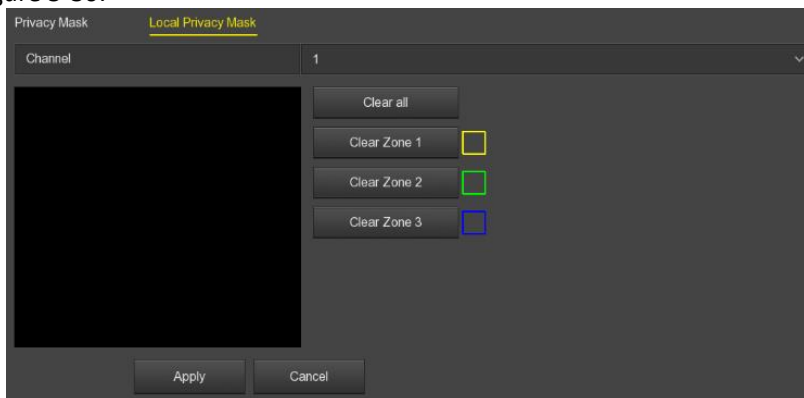


Figure 5-30

- **Channel:** Select the channel.
- **Privacy zone selection:** In the left side of the interface video window, hold down the left mouse button to select the area to be blocked.
- **Clear all:** Clear all selected occlusion areas.
- **Clear Zone 1,2,3:** Clear the selected masked areas 1, 2, 3.



## Instruction

- After the channel is set to privacy mask, the video of the channel is previewed and recorded to show the occluded video.
- After the channel is set to local privacy mask, the channel is only occluded when previewing the video on the SDI DVR side.

## 5.3.5.9 Channel Name

Customize the channel name corresponding to the added device.





### Instruction

- Some SDI DVRs do not support upgrading front-end features.
- Only some IPCs are supported for upgrade, and SDI simulators are not supported.

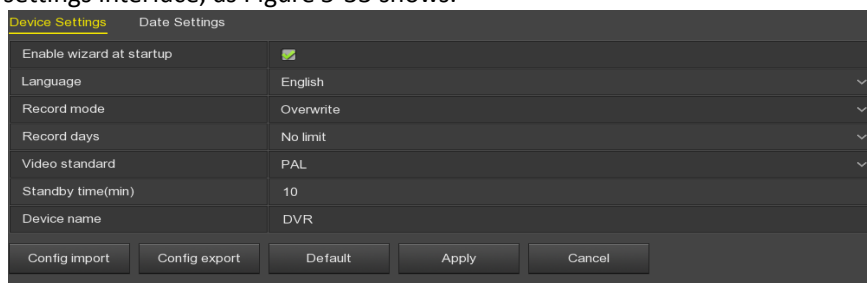
## 5.3.6 Configuration

### 5.3.6.1 General

General settings are divided into two parts: Device settings and Date settings. Here you can get and set the SDI DVR language, record mode, record days, video standards, standby time and date settings and other related information.

#### ■ Device Settings


On the Menu interface, click "Configuration → General" to enter the Device settings interface, as Figure 5-33 shows.



Device Settings	
Enable wizard at startup	<input checked="" type="checkbox"/>
Language	English
Record mode	Overwrite
Record days	No limit
Video standard	PAL
Standby time(min)	10
Device name	DVR

Config import   Config export   Default   Apply   Cancel

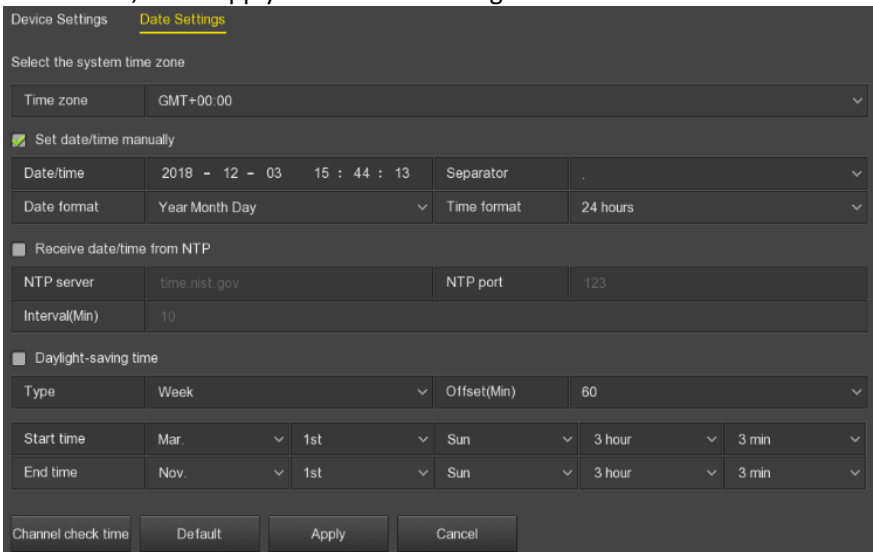
Figure 5-33

- **Enable Wizard at startup:** Click the "", open the startup wizards, and then directly enter the "Startup Wizard" selection interface each time you boot.
- **Language:** Set the default language of the system, currently supports Simplified Chinese, Traditional Chinese, English, Polish, Czech, Russian, Thai, Hebrew, Persian, Bulgarian, Arabic, German, French, Portuguese, Turkish, Spanish, Italian, Hungarian, Roman, Korean, Dutch, Greek and Vietnamese, the default is English.
- **Record mode:** When the disk is full, it will automatically overwrite the oldest video; when the disk is not full, but the number of recording days to reach the user settings, automatically cover the earliest video.

- **Record days:** Set the number of days for SDI DVR recording storage. There are no restrictions, 30, 15, 7, 6, 5, 4, 3, 2, 1 options in the drop-down menu.
- **Video Standard:** According to the local standard selection PAL or NTSC.
- **Standby Time (min) :** The default is 10 minutes, can be set range: 0-120 minutes, where "0" for the permanent standby.
- **Device name:** Fill in the name of the device according to actual needs, the default is SDI DVR.
- **Config import:** Insert the U disk that stores the .ini format SDI DVR configuration file into the SDI DVR. Click "Config import → Confirm". The SDI DVR automatically starts data import and waits for the SDI DVR to start importing the data.
- **Config export:** Insert the USB flash drive into the SDI DVR, and click "Config Export → Confirm ", the configuration file will be stored in the USB flash drive. The configuration file format is ".ini".

## ■ Date Settings

On the Menu interface, click "Configuration →General →Date Settings" to enter the Date Settings interface, as Figure 5-34 shows. After setting the device time, click "Apply" to save the settings.



The screenshot shows the 'Date Settings' interface with the following sections:

- Select the system time zone:** A dropdown menu showing 'GMT+00:00'.
- Set date/time manually:** A section with a checked checkbox. It includes:
  - Date/time:** A field showing '2018 - 12 - 03 15 : 44 : 13'.
  - Separator:** A dropdown menu showing '.'.
  - Date format:** A dropdown menu showing 'Year Month Day'.
  - Time format:** A dropdown menu showing '24 hours'.
- Receive date/time from NTP:** A section with an unchecked checkbox. It includes:
  - NTP server:** A text field showing 'time.nist.gov'.
  - NTP port:** A text field showing '123'.
  - Interval(Min):** A text field showing '10'.
- Daylight-saving time:** A section with an unchecked checkbox. It includes:
  - Type:** A dropdown menu showing 'Week'.
  - Offset(Min):** A dropdown menu showing '60'.
  - Start time:** A row of dropdowns showing 'Mar.', '1st', 'Sun', '3 hour', and '3 min'.
  - End time:** A row of dropdowns showing 'Nov.', '1st', 'Sun', '3 hour', and '3 min'.
- Channel check time:** A section with three buttons: 'Default', 'Apply', and 'Cancel'.

Figure 5-34

- **Select the system time zone:** NTP time-targeted Microsoft time zone format, where the device is located. For example: Beijing GMT +8.

- **Set date/time manually:** When checked "☐", adjust the date / time, date separator, date format, and time format to set the local time.
- **Date/time:** Click on the need to modify the location, pop-up keyboard, enter the date and time through the keyboard.
- **Date format:** Select the date display format, including "Date Month Year", "Month Day Year" and "Year Month Day".
- **Separator:** Select the separator for the date format.
- **Time format:** Choose a 24-hour or 12-hour format.
- **Receive date/time from NTP:** Check "☐", to enable NTP time update function. You can also reset the NTP server by setting the server, port, and selecting the time zone and NTP update interval.
- **NTP Server:** Enter the IP address or domain name where the NTP server is installed.
- **NTP Port:** Set the port of the NTP server.
- **Interval (Min):** The interval between two time intervals can be set to 0-255 minutes for the NTP update interval.
- **Daylight-saving time:** Check "☐", open the daylight saving time function, set the relevant parameters, such as type, date, start time, end time and so on.
- **Channel check time:** Select the channel, click "Save", set the channel time and SDI DVR time consistent.

### 5.3.6.2 Network

#### ■ IP/Port

Set the IP address and DNS server of the SDI DVR to ensure that the other devices in the network can communicate with each other. The IP/Port setup steps are as follows:

**Step 1:** On the Menu interface, click "Configuration → Network → IP/Port" to enter the IP/Port interface, as Figure 5-35 shows.


**Step 2:** Configure related network parameters such as IP address, subnet mask, gateway, and preferred DNS.

**Step 3:** Click "Apply" to save the settings.

IP/Port	DDNS	E-mail	P2P	FTP	UPnP	PPPOE	Cloud Storage	Telnet
IP address	192 • 168 • 1 • 34							
Enable DHCP	<input type="checkbox"/>							
Network mask	255 • 255 • 254 • 0							
Gateway	192 • 168 • 1 • 1							
Primary DNS	172 • 18 • 192 • 1							
Secondary DNS	8 • 8 • 8 • 8							
Broadcast IP	0 • 0 • 0 • 0							
Device MAC	11:22:33:44:55:66							
TCP port	5000							
HTTP port	80							
RTSP port	554							
Private port	6000							
RTSP encryption enable	<input type="checkbox"/>							
Refresh		Default		Apply		Cancel		

Figure 5-35

- **IP Address:** Enter the IP address of SDI DVR.
- **Enable DHCP:** Enable / disable DHCP (Dynamic Host Configuration Protocol) function. "IP address", "subnet mask", and "default gateway" can not be set when DHCP is enabled.
- **Network Mask:** According to the actual situation set.
- **Gateway:** According to the actual situation set, with the IP address in the same network segment.
- **Primary DNS:** It is usually offered by local ISP. Your IP address of domain name server is entered here.
- **Secondary DNS:** Start secondary DNS when the primary one does not work.
- **Broadcast IP:** Reserved.
- **Device MAC:** Displays the physical address of the SDI DVR.
- **TCP Port:** Default value is 5000, according to the actual needs of users to set the port.
- **HTTP Port:** Default value is 80, according to the actual needs of users to set the port.
- **RTSP Port:** Default value is 554, according to the actual needs of users to set the port.
- **Private port:** Default value is 6000, according to the actual needs of users to set the port.

- **RTSP encryption enable:** The default is off, click " " to open, encrypt RTSP stream.
- **Refresh:** Click the refresh interface.



### Instruction

- The IP address and the default gateway must be in the same network segment.
- If SDI DVR enabled DHCP is in effect and you turn off DHCP, you cannot display the original IP information. You need to reset the IP address and other parameters.

## ■ DDNS

After the DDNS (Dynamic Domain Name Server) parameter is set, when the IP address of the SDI DVR device changes frequently, the system can dynamically update the relationship between the domain name and the IP address on the DNS server. You can use the domain name to access the SDI DVR directly without recording the constantly changing IP address.

### Prerequisites

Before configuring DDNS, make sure that the device supports the type of domain name resolution server, and log in to the DDNS service provider's website to register user name, password, domain name, and other information on the WAN PC.

### Configure DDNS as follows:

**Step 1:** On the menu page, select " Configuration →Network →DDNS " to enter the DDNS interface, as shown in Figure 5-36.

**Step 2:** Enable DDNS, select the DDNS type, and enter the refresh time (seconds), username, and password.

**Step 3:** Click "Apply" to save the DDNS configuration.

**Step 4:** Enter the domain name in the PC web browser and press [Enter]. If you can display the web interface of the device, the configuration is successful. If it is not displayed, the configuration fails.



IP/Port	<u>DDNS</u>	E-mail	P2P	FTP	UPnP	PPPOE
Enable DDNS		<input type="checkbox"/>				
DDNS type		ORAY				
Refresh time(sec)		60				
User name						
Password						
Domain						
Default		Apply		Cancel		

Figure 5-36

- **Enable DDNS:** Enabling DDNS domain resolving function.
- **DDNS type:** Select the DDNS type by dynamic domain name resolution server. (At present, the device supports multiple DDNS, including ORAY, NO-IP, DYN, CHANGEIP, A-PRESS, MYQSEE, SKDDNS, SMART-EYES. These multiple DDNSs can coexist at the same time, and the user can select and set them as needed).
- **Refresh Time (sec):** Do not register frequently. The interval between two registrations shall be more than 60 seconds. Too many registration requests may result in server attack.
- **User name:** The account registered in the DNS service provider.
- **Password:** The password to the account registered in the DNS service provider.
- **Domain:** The domain name registered in the DNS service provider.



### Instruction

- After setting up DDNS, ensure that the NVR is connected to the WAN to access the device through the DDNS domain name.

### Email

After setting the email information and enabling the alarm linkage email function, the system automatically sends an email to inform the user when an alarm event occurs on the SDI DVR device.

The configuration email operation steps are as follows:

**Step 1:** On the main menu page, click "Configuration → Network → E-mail" to enter the E-mail setting interface, as shown in Figure 5-37 below.

**Step 2:** Enable e-mail alarm notifications, configure SMTP server, SMTP port,

user name, password, sender, subject, message interval, and select encryption type, attach file and other parameters.

**Step 3:** Click "E-mail test" and the message "Success. Check the inbox." is displayed. Then the mail configuration is successful. If the message "E-mail can't be delivered!" is displayed, the mail configuration fails.

**Step 4:** After the email is sent successfully, click "Apply" to save the email configuration.

IP/Port	DDNS	<u>E-mail</u>	P2P	FTP	UPnP	PPPOE	Cloud Storage	Telnet
Enable E-mail notifications		<input type="checkbox"/>						
SMTP server		Custom <span>▼</span>						
Custom SMTP server		smtp.MailServer.com						
SMTP port		465						
User name		User						
Password		*****						
Sender		User						
Sender's address		User@domain.com						
Select recipients		Recipient1 <span>▼</span>						
Recipient		receiver1@domain.com						
Subject		DVR ALERT						
Message interval(Min)		1						
Encryption		SSL <span>▼</span>						
Attach file		<input type="checkbox"/>						
Time period1		00 : 00 - 24 : 00						
Time period2		00 : 00 - 00 : 00						
Enable auto E-mail		<input type="checkbox"/>						
Email interval(min)		10						
E-mail test		Default		Apply		Cancel		

Figure 5-37

- **Enable e-mail alarm notifications:** Enable / disable mail sending.
- **SMTP server:** Please input your email SMTP server IP or server domain name (if the domain name requires confirmation that the DNS settings are correct, the domain name can be parsed correctly).
- **SMTP port:** Please input corresponding port value here.
- **User name:** Please input the user name to login the sender email box.
- **Password:** Please input the corresponding password here.
- **Sender:** Please input sender email box here.
- **Sender's address:** Outbox address.

- **Select recipients:** Recipient e-mail address, you can choose to set three, send only three e-mail.
- **Recipient:** Inbox address.
- **Subject:** Please input email subject here. System support English character and Arabic number, default " DVR ALERT ".
- **Message interval (Min):** The interval between sending emails. After the email sending interval is set, when the alarm is triggered, the system does not trigger the immediate sending of the email according to the alarm signal. Instead, the email is sent according to the interval time of the same type of event email. Avoid frequent alarms and generate a lot of mail, causing the mail server to be overstressed. The time range is 0~600 minutes, and 0 minutes means that the mail is sent without interval.
- **Encryption:** Select the Mailbox server encryption, including NONE, SSL, TLS, and default "SSL".
- **Attach File:** Turn on/off the email attachment function. After the alarm is turned on, the system can send snap shots when the alarm is sent.
- **Time period (1/2):** Set the time range for sending mail. After setting, send the alarm message at that time; do not send mail at other times.
- **Enable auto E-mail:** Enable / disable automatic email sending.
- **Email interval (min):** Mail sending interval.
- **E-mail test:** Test email sending and receiving functions are normal. In the correct configuration, the receiving email will receive a test email. Before the email test, you must click Apply to save the email configuration information.

## ■ P2P

P2P is a private network penetration technology. It does not need to apply for a dynamic domain name, perform port mapping, or deploy a transit server. You can directly scan the QR code to download a mobile client. After registering an account, you can add and manage multiple IPC, NVR, SDI DVR devices simultaneously on the mobile client.

You can add devices in the following two ways to manage multiple devices.

- 1) Scan the QR code for the mobile phone system, download the App and register the account. For details, see the App User Manual on the website.
- 2) Log on to the P2P platform, register an account, and add the device via the serial number.



## Instruction

- With this function, the device must be connected to an external network; otherwise it will not work properly.

### P2P steps are as follows:

**Step1:** On the main menu page, click "Configuration → Network → P2P" to enter the P2P interface, as shown in Figure 5-38 below.

**Step2:** Make sure that the SDI DVR accesses the external network and click "Enable P2P".

**Step 3:** Click "Apply" to save the configuration.

**Step 4:** Click "Refresh" and the status shows "Online". This indicates that P2P is enabled and can be used normally.

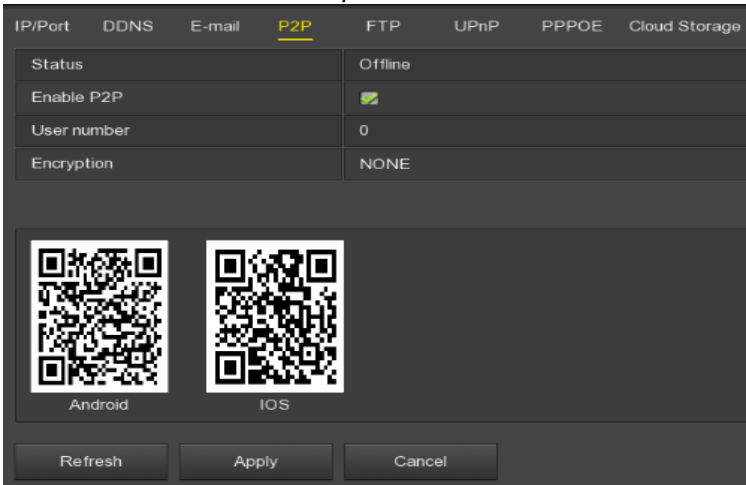


Figure 5-38

- **Status:** Display device P2P online status.
- **Enable P2P:** Turn on / off device P2P function.
- **User number:** Displays the current user viewing the NVR channel video number on the App client.
- **Encryption:** Select the encryption type. After the device is enabled, all signaling communication between the device and the server is encrypted.
- **Android:** Download Link of P2P client for Android system.
- **iOS:** Download Link of P2P client for iOS system.
- **SN:** Displays the serial number of the device P2P. This serial number is unique.
- **Refresh:** Refresh the P2P interface related information.




### App Client operation example

The following content is introduced by taking the operation of the mobile phone client (BitVision App) as an example. The steps are as follows:

**Step 1:** Use the Android or iOS phone to scan the corresponding QR code to download and install the BitVision App.

**Step 2:** Run the client and log in to the account (No account is required to register first).

**Step 3:** Add devices to the mobile client.

After login, click "", "", and " Add device", select "SN Add", enter the device user name, password and verification code after scan the QR code (the verification code printed on the label), click "Add" to set device note and group, click "Send" after add successfully.

#### **Step 4: Live preview**

Select "REAL TIME" and "+" to enter the device list in the main interface, select the touching pen and the channel to be previewed in the group, you will see the live video after click " Done ".

### ■ FTP

With FTP (File Transfer Protocol) server, you can store alarm pictures on the FTP server.

#### **Prerequisites**

You need to purchase or download the FTP service tool and install the software on your PC.



#### **Instruction**

- To create an FTP user, you must set FTP folder write permission. Otherwise, the picture will not be uploaded successfully.

#### **Configure FTP operations as follows:**

**Step1:** On the main menu page, click "Configuration → Network → FTP" to enter the FTP interface, as shown in Figure 5-39 below.

**Step2:** Select "Enable FTP" and enter parameters such as the FTP server, port, user name, password, and the FTP file upload path.

**Step 3:** Click "Apply" to save the configuration.

**Step 4:** Click "Test" to determine whether the network connection and FTP configuration are correct.



#### **Instruction**

- If the test fails, recheck the network or FTP configuration.

IP/Port	DDNS	E-mail	P2P	<b>FTP</b>	UPnP	PPPOE	Cloud Storage
Enable FTP	<input type="checkbox"/>						
FTP server	0 . 0 . 0 . 0						
FTP port	21						
User name							
Password							
File upload							
Channel	1						
Week	Sun						
Time period1	<input type="checkbox"/>	00 : 00 - 00 : 00					
Time period2	<input type="checkbox"/>	00 : 00 - 00 : 00					
Test		Default		Apply		Cancel	

Figure 5-39

- **Enable FTP:** Turn on / off the device FTP function.
- **FTP Server:** Host IP address of the FTP server.
- **FTP Port:** The default FTP port is 21, if your FTP server is different; you need to use the same port name with your FTP server.
- **User Name:** Please input the user name to login the FTP server.
- **Password:** Please input the corresponding password here.
- **File Upload:** Create folders according to the rules in the FTP account directory.
  - ✓ When the remote directory is empty, the system automatically creates different folders according to IP and time.
  - ✓ Enter the name of the remote directory, the system will create a folder with the corresponding name in the FTP root directory, and then press IP, time to create a different folder.
- **Channel:** For uploading video file settings, the week, time period, and video type of the uploaded video can be set separately for each channel.
- **Week:** Select the time to upload the FTP file according to the week. You can set two time periods each week.
- **Time period 1 & 2:** Set the time period for uploading FTP files in one day.
- **Test:** Click "Test", test SDI DVR can successfully upload files to the FTP server

## ■ UPnP

After the mapping between the internal network and the external network is

established through the UPnP protocol, the external network user can use the external network IP address to directly access the SDI DVR device on the intranet.

### Prerequisites

- 1) Log in to the router and set the IP address of the router's WAN port to access the external network.
- 2) Make sure that the router is a first-level router (or virtual first-level router) and turn on the UPnP function.
- 3) Connect the device to the LAN port of the router and access the private network.
- 4) In the main menu, select "Configuration → Network → IP/Port", set "IP address" as the router's private IP (for example: 192.168.1.101) or select "DHCP" to obtain the IP address automatically.

### The steps are as follows:

**Step 1:** On the main menu page, click "Configuration → Network → UPnP" to enter the UPnP interface, as shown in Figure 5-40 below.

**Step 2:** Enable the UPnP function and configure related parameters such as intranet IP, external IP, and port mapping information of the UPnP route.

**Step 3:** Click "Apply" to save the configuration.

IP/Port	DDNS	E-mail	P2P	FTP	<u>UPnP</u>	PPPOE	Cloud Storage
Enable					<input type="checkbox"/>		
State							
Internal IP					0 . 0 . 0 . 0		
External IP					0 . 0 . 0 . 0		
Port mapping table							
<input type="checkbox"/>	No.	Server name	Protocol		Internal port	External port	
Add	Delete	Default	Apply		Cancel		

Figure 5-40

- **Enable:** Turn on/off the device UPnP function.
- **State:** Displays the mapping status of UPnP.

- **Internal IP:** Enter the router's LAN port address. After the mapping is successful, the IP address will be automatically obtained without setting.
- **External IP:** Enter the router's WAN port address. After the mapping is successful, the IP address will be automatically obtained without setting.
- **Port mapping table:** This corresponds to the UPnP mapping table information on the router.
  - ✓ **Service Name:** The web server name.
  - ✓ **Protocol:** The type of agreement.
  - ✓ **Internal port:** The port that the local machine needs to map.
  - ✓ **External port:** The port mapped on the router.
- **Add:** Click "Add" to increase the mapping, enter the service name, internal port, and external port.
- **Server Name:** Enter the service name and define it yourself.
- **Internal Port:** You need to enter the corresponding HTTP port, RTSP port, TCP port.
- **External Port:** Can be self-defined, and the internal port can be the same, but can not and SDI DVR other ports repeat.
- **Delete:** Select the mapping information in the port mapping table and delete the mapping relationship.



### Instruction

- When setting the external port of the router mapping port, try to use the port between 1024 and 65535. Avoid using the well-known port 1~255 and the system port 256~1023 to avoid conflict.
- When deploying multiple devices in the same LAN, plan the port mapping to avoid mapping multiple devices to the same external port.
- When performing port mapping, ensure that the mapped port is not occupied or restricted.
- TCP internal and external ports must be consistent and cannot be modified.

### ■ PPPOE

PPPoE (Point-to-Point Protocol over Ethernet) is one of the ways in which SDI DVR devices access the network. After obtaining the PPPoE user name and password provided by the Internet Service Provider, you can establish a



network connection through PPPoE dialup. After the connection is successful, the SDI DVR device automatically obtains a dynamic IP address of the WAN.

**The steps are as follows:**

**Step 1:** On the menu page, select "Configuration → Network → PPPOE" to enter the PPPOE configuration interface, as shown in Figure 5-41 below.

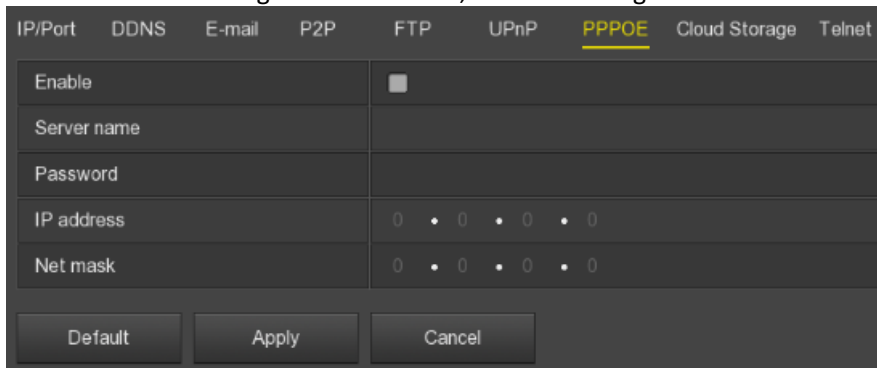


Figure 5-41

**Step 2:** Select "Enable", input the user name and password of the PPPoE.

**Step3:** Click "Apply" to save the configuration.

After the PPPoE configuration is successful, the obtained public IP address is displayed in real time. Users can access the device through this IP address.

- **Enable:** Turn on/off the device PPPoE function.
- **Server Name:** The PPPoE user name provided by the ISP (Internet Service Provider).
- **Password:** The password corresponding to the user name.
- **IP Address:** After successful PPPoE dialing, and the device is accessed through the IP address.
- **Net mask:** After successful PPPoE dialing, he obtained public network subnet mask is displayed here.



### Instruction

- After the configuration is complete, the IP address of the TCP/IP interface cannot be modified.

### ■ Cloud Storage

Set cloud storage. When the device triggers an alarm, it can store the captured alarm image of the device on the cloud server.

### Prerequisites

- 1) You need to have a Dropbox or Google Cloud Storage account.

2) Using this function, the device must be connected to an external network; otherwise it will not work properly.

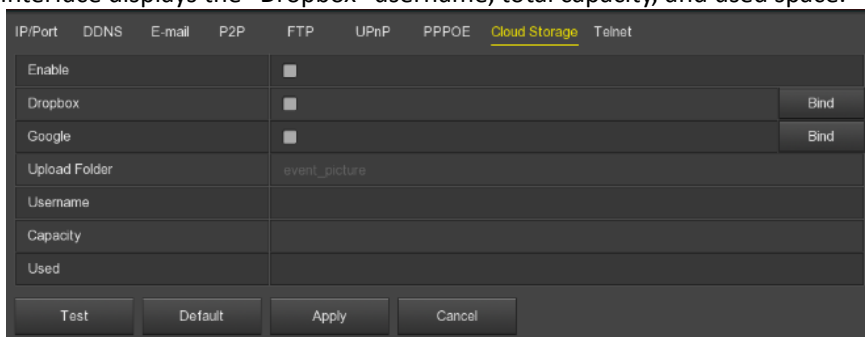
### Set up cloud storage as follows:

**Step 1:** On the main menu page, select "Configuration → Network → Cloud Storage" to enter the cloud storage setting interface, as shown in Figure 5-42 below.

**Step 2:** Enable cloud storage, select the cloud storage type, Dropbox or Google, click Bind, follow the prompts to log in to the corresponding website using a browser on the computer, and enter the obtained "Authorization Code" as "Binding" In the "Authorization code" column of the interface, click "Confirm".

**Step 3:** Click "Apply" to save the settings.

**Step 4:** Click "Test" to test whether the SDI DVR can successfully upload files to the cloud server. After the binding is successful, the cloud storage interface displays the "Dropbox" username, total capacity, and used space.



IP/Port	DDNS	E-mail	P2P	FTP	UPnP	PPPOE	Cloud Storage	Telnet
Enable							<input checked="" type="checkbox"/>	
Dropbox							<input type="checkbox"/>	Bind
Google							<input type="checkbox"/>	Bind
Upload Folder							event_picture	
Username								
Capacity								
Used								
Test				Default		Apply		Cancel

Figure 5-42

- **Enable:** Turn on/off the device cloud storage function.
- **Dropbox:** Select a cloud storage Type.
- **Google:** Select a cloud storage Type.
- **Upload Folder:** Set the upload cloud space folder name.
- **Username:** Displays the user name for the corresponding cloud storage type.
- **Capacity:** After the cloud storage binding is successful, the total capacity of the cloud space is displayed.
- **Used:** Cloud storage binding is successful; the display of cloud space has been used capacity.
- **Test:** Bind and click on the test to save whether the cloud storage binding is successful.

## ■ Telnet

On the main menu page, select "Configuration → Network → Telnet " to enter the Telnet interface, as shown in Figure 5-43 below.



Figure 5-43

- **Enable:** Enable / disable the remote Telnet login function, default is off.

### 5.3.6.3 Display

Set the display effect of the device preview interface, including output resolution, transparency, display OSD time, display channel name, and show after boot.

**The steps are as follows:**

**Step 1:** On the menu page, select "Configuration → Display" to enter the video display interface, as shown in Figure 5-44.

**Step 2:** Configure resolution, transparency, and other related parameters.

**Step 3:** Click "Apply" to save the configuration.

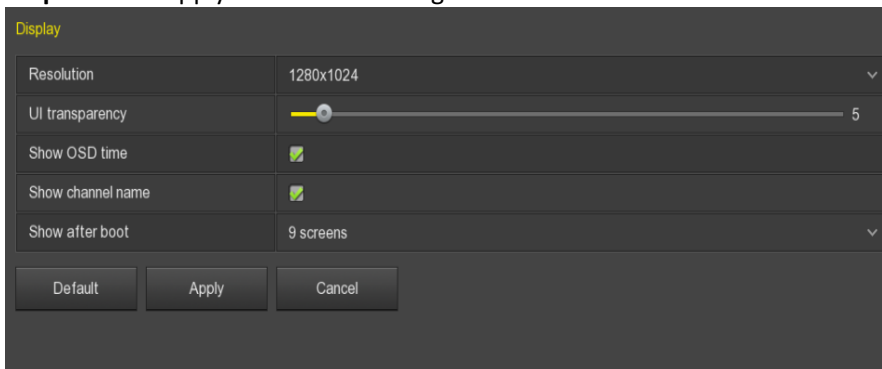


Figure 5-44

- **Resolution:** The selectable values are 1024×768, 1280×720, 1280×1024, 1920×1080, 2560×1440, 3840×2160, and the default resolution is 1280×1024. After the parameters are saved, the device can be restarted to take effect. The 4K SDI DVR HD interface supports up to 4K resolution output.
- **UI Transparency:** The higher the percentage, the more transparent device local menu.

- **Show OSD Time:** Turns on / off the device time information displayed on the monitor screen.
- **Show channel name:** Turns on / off the channel name information displayed on the monitor screen.
- **Show after boot:** Select the number of split screen display screen.

#### 5.3.6.4 Exceptions

Set the alarm mode of abnormal events. When an abnormal event occurs during the operation of the SDI DVR device, the system executes the alarm linkage action.

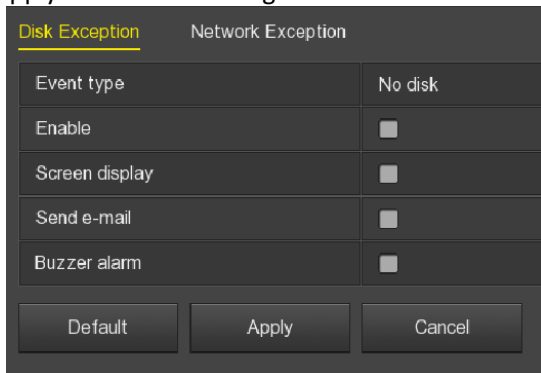
##### ■ Disk Exception

The steps are as follows:

**Step 1:** On the menu page, select "Configuration → Exceptions → Disk Exception" to enter the disk exception setting interface, as shown in Figure 5-45.

**Step 2:** Select the event type, click "Enable", and enable the sending of mail and buzzer alarm.

**Step 3:** Click "Apply" to save the configuration.



Disk Exception		Network Exception
Event type	No disk	
Enable	<input type="checkbox"/>	
Screen display	<input type="checkbox"/>	
Send e-mail	<input type="checkbox"/>	
Buzzer alarm	<input type="checkbox"/>	
Default		Apply Cancel

Figure 5-45

- **Event type:** Including No Disk and Disk Error in two cases.
- **Enable:** Turns on / off disk exception alarm.
- **Screen display:** Turns on / off the screen display when the device is alarmed.
- **Send e-mail:** Turns on / off the sending mail function that occurs when a disk exception, send mail to the specified mailbox.
- **Buzzer alarm:** Turn on / off the device beep alarm function, that is, the buzzer sounds when a disk error occurs.

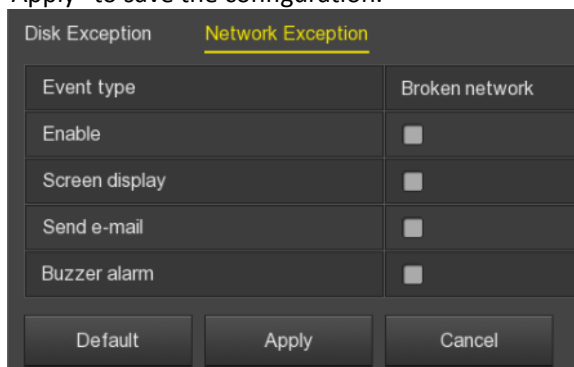
##### ■ Network Exception

The steps are as follows:

**Step 1:** On the menu page, select "Configuration → Exceptions → Network Exception" to enter the network exception setting interface, as shown in Figure 5-46.

**Step 2:** Select the event type, click "Enable", and enable the sending of mail and buzzer alarm.

**Step 3:** Click "Apply" to save the configuration.



Event type	Broken network
Enable	<input type="checkbox"/>
Screen display	<input type="checkbox"/>
Send e-mail	<input type="checkbox"/>
Buzzer alarm	<input type="checkbox"/>

Default Apply Cancel

Figure 5-46

- **Event type:** Including Broken network and IP conflict in two cases.
- **Enable:** Turns on / off network exception alarm.
- **Screen display:** Turns on / off the screen display when the device is alarmed.
- **Send e-mail:** Turns on / off the sending mail function that occurs when a network exception, send mail to the specified mailbox.
- **Buzzer alarm:** Turn on / off the device buzzer alarm function, that is, the buzzer sounds when a network error occurs.

### 5.3.6.5 User

On the menu page, select "Configuration → User" to enter the user management interface, as shown in Figure 5-47. The SDI DVR user management can add, modify, and delete users.




#### Instruction

- The factory default administrator admin group, administrator user admin user, admin group and admin user can not delete or modify their permissions.
- Users in the group can modify permissions in this group of permissions.
- Each user must belong to only one group. When you select the group to which the user belongs, the user's authority can only be a subset of the group's authority. The authority attribute of the group cannot be exceeded.

- The default password of the admin administrator user is 12345. The administrator admin user can add, delete, or edit users, add users in the group, and set user rights control.
- The user level has two levels, the operator and the ordinary user. The default permissions of the two levels are different. ("Remote Permissions", the operator has default remote normal settings, remote network settings, remote display settings, remote exception settings permissions, ordinary users do not have).
- To facilitate user management, it is recommended to set the operator permission to be lower than the normal user permission.

User Management

No.	User name	Security	Level	Authority	Modify	Delete
1	admin	Weak password	Administrator	-		-

Add user Cancel

Figure 5-47

- **User list:** Displays all current users of the device; where admin is an administrator user and can only change its password and cannot modify its permissions.


## ■ Add user

The steps are as follows:

**Step 1:** Click the "Add User" button to enter the Add User interface.

**Step 2:** Fill in the user information, select the level, click "Save".

**Step 3:** Setting authority.

Select the added user and click the corresponding " " button below the Authority to enter the permission setting interface and set the user authority.




## Authority Instruction

Authority are divided into local configuration, remote configuration, channel configuration,

- **"Local Config"**: Include All, Local Poll, Local HDD, Local Camera Setup, Local Configuration, Local Network, Local Display, Local Exceptions, Local User, Local System Information, Local Log, Local Manual Update, Local Online Update, Local Auto Maintain, Local Restore Default, Local Shutdown Reboot, Local Channel Config, Local Alarm.
- **"Remote Config"**: Include All, Remote Poll, Remote HDD, Remote Camera Setup, Remote Configuration, Remote Network, Remote Display, Remote Exceptions, Remote User, Remote System Information, Remote Log, Remote Manual Update, Remote Auto Maintain, Remote Restore Default, Remote Shutdown Reboot, Remote Channel Config, Remoter Alarm.
- **"Channel Config"**: Local Preview, Local PTZ, Local Playback , Local Record, Local Encode Parameters, Local OSD, Local Image, Local Motion, Local Export, Local Privacy Mask, Local Video Loss, Remote Preview, Remote PTZ, Remote Playback, Remote Record, Remote Encode, Remote OSD, Remote Image, Remote Motion , Remote Export, Remote Privacy Mask, Remote Video Loss for all channel.

### ■ **Modify the user**

**The steps are as follows:**


**Step1:** Select the user to click modify to correspond to the " " button to enter the Modify User interface.

**Step2:** Modify the user password or user level and click "Save" to complete the modification.

### ■ **Delete the user**

**The steps are as follows:**

**Step1:** To determine the login user for the administrator user, in the user management interface to select the user to delete, click delete below the

corresponding " " button, pop-up prompt.

**Step2:** Click "Confirm" to delete the user and return to the user management interface.

### ■ **Modify password**

✓ **The first step to change the administrator password is as follows:**

**Step 1:** On the menu page, select "Configuration → User → Modify" to enter the modify password interface, as shown in Figure 5-48.

**Step 2:** Input the new password and confirm password.

**Step 3:** Select security questions 1, 2, 3 and set the corresponding answer, click "Save".

**Step 4:** Insert the USB disk into the device, click "Export key" to complete the change of the administrator password.

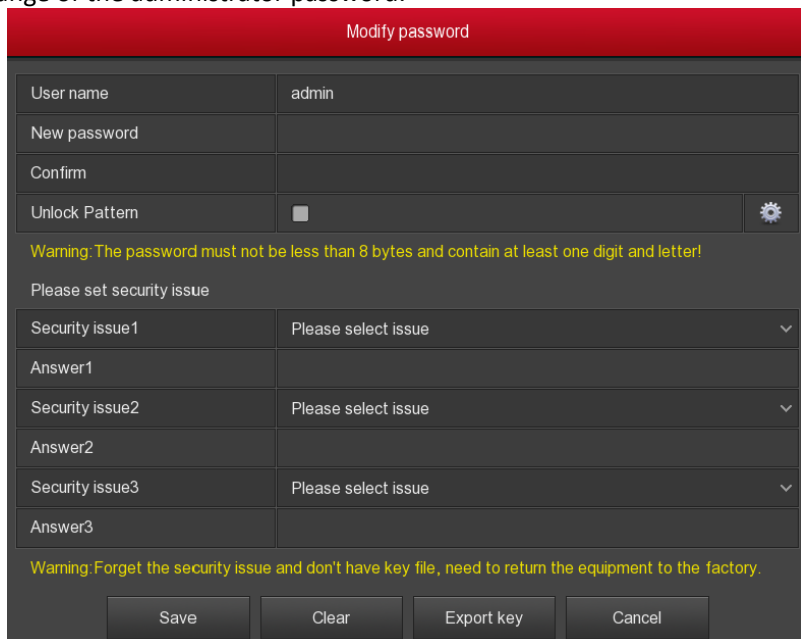


Figure 5-48



### Instruction

- The security question and corresponding answer must be set when the administrator password is modified for the first time.
- When you change the administrator password, you do not export the key.

✓ **The steps to modify the administrator password again are as follows:**

**Step 1:** On the menu page, select "Configuration → User → Modify" to enter the modify password interface.

**Step 2:** Check the Change Password check box to enter the old password, new password, and confirm password.



**Step 3:** Reset security issues and corresponding answers, export keys.

**Step 4:** Click "Save" to complete the password modification.



### Instruction

- When you change the device password again, you do not need to set security issues and export keys.

## 5.3.6.6 Channel config


Different models of devices support different numbers of IP channels. The device supports increasing the number of IP channels by disabling analog channels.

**The steps are as follows:**

**Step 1:** On the menu page, select "Configuration → Channel config" to enter the Channel configuration interface, as shown in Figure 5-49.

**Step 2:** Check the channel access type on demand. When the channel is connected to the analog camera, select HD, when the channel is connected to the network camera, select IP.

**Step 3:** Click "Apply" to save the configuration.



CH	HD	IP
CH1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CH4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CH5		<input checked="" type="checkbox"/>
CH6		<input checked="" type="checkbox"/>
CH7		<input type="checkbox"/>
CH8		<input type="checkbox"/>
CH9		<input type="checkbox"/>

Default Apply Cancel

Figure 5-49



### Instruction

- When selecting signal connected mode for single-channel, user need to follow certain rules, the interface will automatically reflect the options in accordance with the rules.

- The actual access signal must match the signal mode that checked. If the "HD" mode is selected for one channel, it can be connected to TVI / CVBS / AHD / CVI signals; when the switching signal causes an abnormality to be displayed, the video cable can be reconnected; if the channel is selected as "IP" mode, then it is an IP channel and IP device can be connected.
- For preview interface, when the HD (TVI / CVBS / AHD / CVI) channel without video signal, the channel name will be prompted "HD VIDEO". When the IP channel without video signal, the channel name will be prompted "NO VIDEO".

### 5.3.6.6 Local Alarm

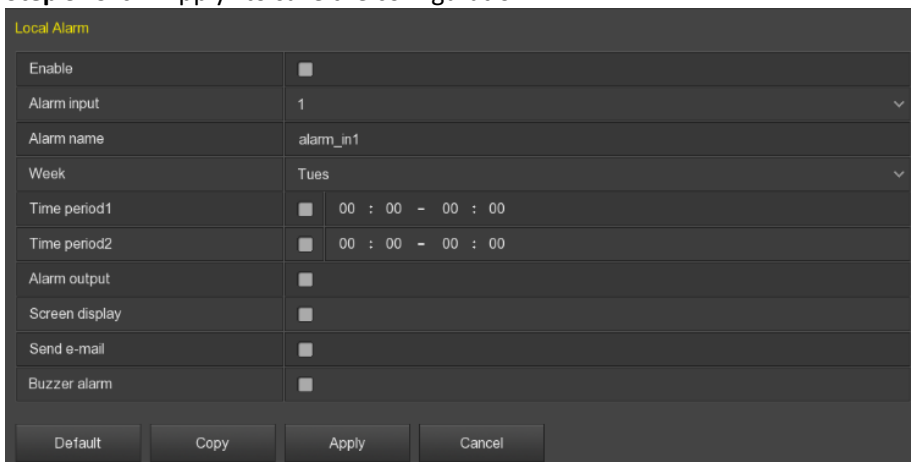
After the SDI DVR device is connected to the alarm device through the alarm input port, when the alarm signal is transmitted to the SDI DVR device through the alarm input port, the system performs an alarm linkage action.

**The steps are as follows:**

**Step 1:** On the menu page, select "Configuration → Local Alarm" to enter the local alarm configuration interface, as shown in Figure 5-50.

**Step 2:** Check the Enable "☐" to open the local alarm, select the alarm input port according to the actual needs, configure the alarm name, time period and corresponding linkage alarm, such as "Screen display", "Send mail" and "Buzzer alarm".

**Step 3:** Click "Apply" to save the configuration.



Local Alarm	
Enable	<input type="checkbox"/>
Alarm input	1
Alarm name	alarm_in1
Week	Tues
Time period1	<input type="checkbox"/> 00 : 00 - 00 : 00
Time period2	<input type="checkbox"/> 00 : 00 - 00 : 00
Alarm output	<input type="checkbox"/>
Screen display	<input type="checkbox"/>
Send e-mail	<input type="checkbox"/>
Buzzer alarm	<input type="checkbox"/>
<input type="button" value="Default"/> <input type="button" value="Copy"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Figure 4-50

- **Enable:** Turns on / off local alarm.
- **Alarm input:** Select the alarm input.

- **Week, Time period1&2:** The arming time period, select the day of the week, set the time period 1&2, and activate the corresponding configuration item to start the alarm within the set time range.
- **Alarm output:** The alarm device (such as light, siren) is connected to the alarm output port. When an alarm occurs, the SDI DVR device transmits the alarm information to the alarm device.
- **Screen display:** Check ☐ and when the alarm occurs, the alarm message will be displayed on the local host screen.
- **Send e-mail:** Check ☐. When an alarm occurs, the device sends an email to the specified mailbox to notify the user.
- **Buzzer alarm:** Check ☐. When an alarm occurs, the device starts buzzer sounds an alarm.
- **Copy:** After setting a channel, you can click "Copy" to apply the settings of this channel to other channels.

## 5.3.7 Maintenance

### 5.3.7.1 System

#### ■ Stream Information

The code stream refers to the data traffic used by the video file in unit time. You can sing the real-time stream and stream waveform changes of each channel.

**The steps are as follows:**

On the menu page, select "Maintenance→ System→ Stream Info" to enter the Stream Information interface, as shown in Figure 5-51.

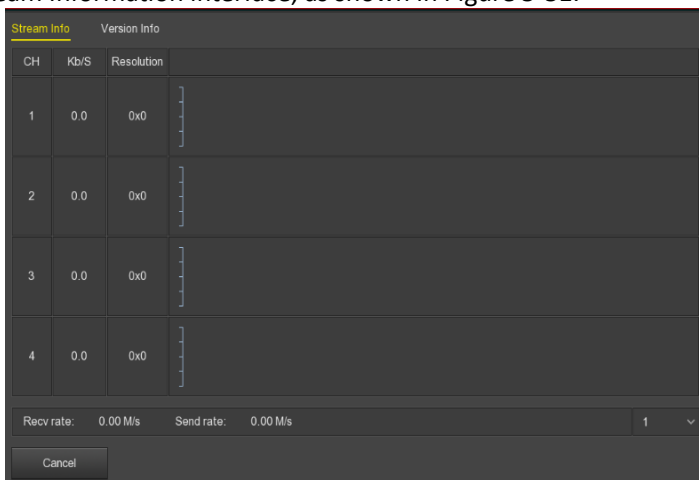


Figure 5-51

## **Version Information**

Here you can view the system version information, including product model, version number and version date.

### **The steps are as follows:**

On the menu page, select "Maintenance→ System→ Version Info" to enter the Version Information interface, as shown in Figure 5-52.

Stream Info <u>Version Info</u>	
Device name	Digital Video Recorder
Model No	4-CHANNEL
Version	SDI_DVR_3521A_334S_4_v7.1.49.1
Date	Nov 27 2017   08:41:49
Cancel	

Figure 5-52

- **Device name:** Display the device full name, fixed to Digital Video Recorder.
- **Model NO.:** Displays the maximum number of channels supported by the device.
- **Version:** Displays the version number of the program.
- **Date:** Displays the date the program was created.

## **5.3.7.2 Log**

Here you can view and export the system's log information.

### **The steps to view the log are as follows:**

**Step1:** Select "Menu → Maintenance → Log" to enter the Log interface, as shown in Figure 5-53.

**Step2:** Select the log type; search time period (start time and end time) as required.

**Step 3:** Click the "Query" button to view the log.

### **The steps to export the log are as follows:**

**Step1:** Select "Menu → Maintenance → Log" to enter the Log interface, as shown in Figure 5-53.

**Step2:** Select the log type; search time period (start time and end time) as required.

**Step 3:** Insert the USB flash drive into the device and click "Export" to export all the log information under the current search conditions to the USB flash drive. Or click "Export all" to export all the log information in the device to the USB flash drive.

- **Type:** Select the type of information you request.
- **Start Time/End Time:** Enter the time range for the search log.
- **Export:** Export the log information under the current search conditions to the USB flash drive.
- **Export all:** Export all log information from the device to the USB flash drive.
- **Query:** Click the query log.
- **PgUp/PgDn:** Flip function; click to view other log information.
- **Clear:** Clear all information.

Insert the USB device with the upgrade file into the SDI DVR to upgrade the system version of the SDI DVR. If the device detects the upgrade file in the U disk, the upgrade package information (number, name, size, date) will be displayed in the list.

**Step 1:** Insert the USB device with the upgrade file (named xxxxx\_update\_x\_Vx.x.xx.x.bin) into the SDI DVR.

**Step 3:** Click "Refresh". Select the upgrade file and click "Upgrade → Confirm". Wait for the interface to go through the progress bar and the device will restart automatically to complete the upgrade.

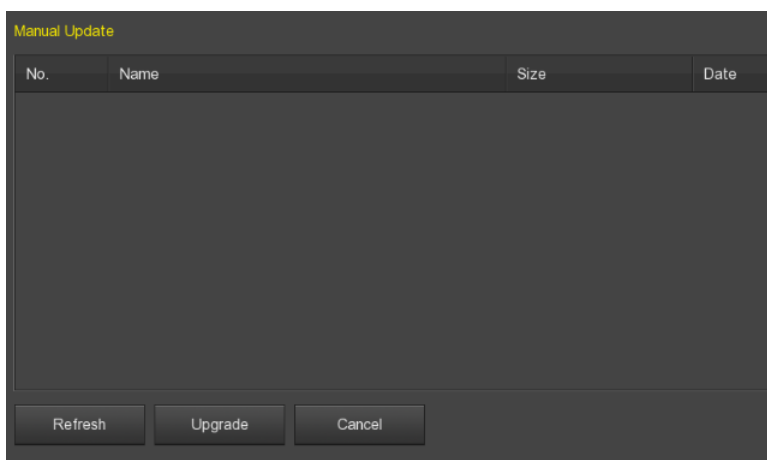


Figure 5-54

- **Refresh:** Refresh the current interface information.
- **Upgrade:** Click the device to start the upgrade.



### Instruction

- When you try to refresh or detect the upgrade package several times, check whether the U disk is in good contact with the USB port of the device and whether the upgrade file name is correct.
- During the upgrading process, please do not cut off the power or take off your U disk. After the upgrading, your system will restart automatically. (This process will take about 1 to 6 minutes.). Here, we advise you to restore factory Settings after the upgrading.

### 5.3.7.4 Online update

After the SDI DVR is connected to the public network, the system can be upgraded through an online upgrade. Online upgrade is divided into automatic upgrade and manual detection upgrade, and the current device system version is displayed.

**The automatic online upgrade procedure is as follows:**

**Step 1:** On the menu page, select "Menu → Maintenance → Online Update" to enter the device upgrade interface, as shown in Figure 5-55.

**Step 2:** Select "Auto Update";

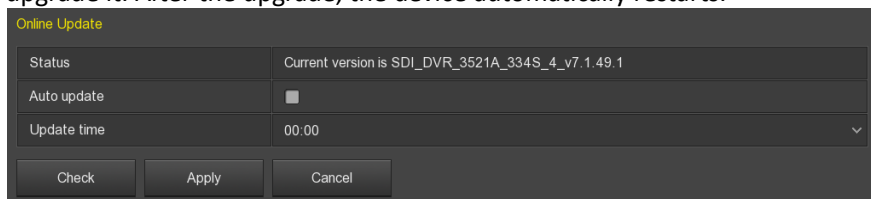
**Step 3:** Set the device update time and click "Apply". When there is a new version in the cloud, the system will automatically detect the version to upgrade the device at the set time.

**The manual online upgrade steps are as follows:**

**Step 1:** On the menu page, select "Menu → Maintenance → Online Update" to enter the device upgrade interface, as shown in Figure 5-54.

**Step 2:** Click "Check" to view the latest version of the device in the cloud in real time. If a new version is detected, the system will prompt to discover the relevant information of the new version.

**Step 3:** Click "Update". Wait for the device to download the upgrade file and upgrade it. After the upgrade, the device automatically restarts.



Online Update	
Status	Current version is SDI_DVR_3521A_334S_4_v7.1.49.1
Auto update	<input type="checkbox"/>
Update time	00:00

Check Apply Cancel

Figure 5-55

- **Status:** The current version of device.
- **Auto update:** Click "☐" to enable the system automatic upgrade function. When the device detects the new online version, it will automatically upgrade according to the set upgrade time.
- **Update time:** Set the automatic update time.
- **Check:** Click check latest online version.



### Instruction

- Before testing a new online version, make sure that the SDI DVR is properly connected to the network.
- During the upgrading process, please do not cut off the power or take off your U disk. After the upgrading, your system will restart automatically. (This process will take about 1 to 6 minutes.) Here, we advise you to restore factory Settings after the upgrading.

### 5.3.7.5 Auto Maintain

When the device runs for a long time, you can set the device to restart during idle time to increase the speed of the device.

**The Auto Maintain procedure is as follows:**

**Step 1:** On the menu page, select "Maintenance → Auto Maintain" to enter the automatic maintenance interface, as shown in Figure 5-56.

**Step 2:** Select the time of "Reboot device automatically".

**Step 3:** Click "Apply" to complete the auto maintain setup.

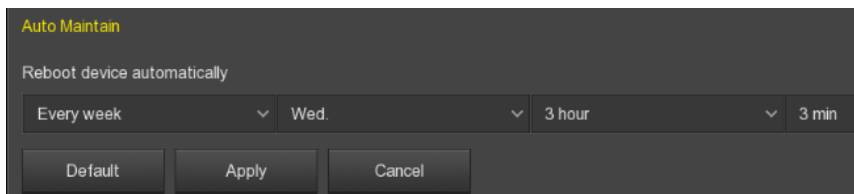


Figure 5-56



### Instruction

- Automatic restart the system can be in accordance with the cycle at a fixed time (Every day, Every week, Every month) set to restart the device, you can also choose "Never", equipment is not automatically maintained.

#### 5.3.7.6 Restore Default

When the SDI DVR device runs slowly, configuration errors, etc., you can try to solve the problem by restoring the default.

**The default procedure for recovery is as follows:**

**Step 1:** On the menu page, select "Maintenance → Restore Default" to enter the default interface, as shown in Figure 5-57.

**Step 2:** Select the configuration item that needs to be restored to factory settings.

**Step 3:** Click "Apply → Confirm". The SDI DVR device selects and configures the system parameters to restore to the factory default settings.

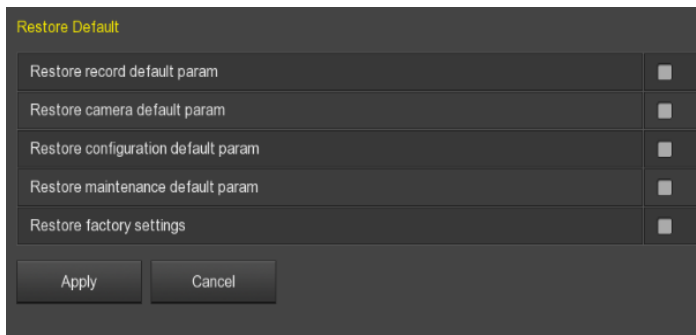


Figure 5-57

- **Restore record default param:** Select / Cancel Resume Record all interface configuration parameters to the default values.
- **Restore channel default param:** Select / Cancel Resume Camera all interface configuration parameters to the default values.



- **Restore configuration default param:** Select / Cancel Resume Configuration all interface configuration parameters to the default values.
- **Restore system maintenance default param:** Select / Cancel Resume Maintenance all interface configuration parameters to the default values.
- **Restore factory settings:** Select / Cancel all SDI DVR configuration parameters to the default.



#### Instruction

- After the factory settings are restored, the corresponding functions will be restored to the factory settings. The existing configuration of the user may be lost. Exercise caution.

### 5.3.8 Shutdown

In the menu page, select "Shutdown" to enter the shutdown system interface, you can log off the system; restart the system, shutdown operation. As shown in Figure 5-58:

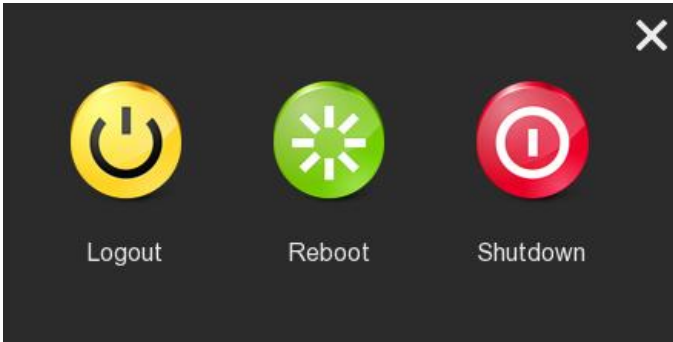


Figure 5-58

- **Logout:** Logout the current user, switch to user login interface.
- **Reboot:** Reboot the device.
- **Shutdown:** Shut down the device, just like computer safe shutdown mode.

## Chapter 6 WEB Operation



### Instruction

- Different types of devices have different interface displays. The following screenshots are for reference only. Please refer to the actual ones.
- The SDI DVR supports accessing and managing devices on the PC through the Web.
- The WEB page provides application modules such as real-time preview, playback, configuration, and logout.
- The device supports a variety of browser monitoring, such as IE browser, 360 browser, Firefox browser (52 or less version), Google Chrome (Chrome45 or less version).

### 6.1 Internet connection

Before using the browser to log in to the web interface, check whether the network between the PC and the SDI DVR is normal.

**Step 1:** Confirm that the SDI DVR device is properly connected to the network.

**Step 2:** Set the IP address, subnet mask, and gateway for the PC and SDI DVR devices, respectively.

- ✓ If there is no routing device on the network, allocate the IP address of the same network segment: If there is a routing device on the network, you need to set the corresponding gateway and subnet mask.
- ✓ The default IP address of the SDI DVR device is 192.168.1.88.

**Step 3:** Check whether the network between the PC and the SDI DVR device is normal. The method is as follows. When the network between the PC and the SDI DVR device is normal, you can log in to the web interface of the SDI DVR through the PC.

- ✓ On the PC, ping\*\*\*.\*\*\*.\*\*\*.\*\*\* (SDI DVR IP address) verifies that the network is connected and the returned TTL value is generally equal to 255.
- ✓ Log in to the local interface of the SDI DVR device, and fill in the IP address of the PC on the “Network Test” interface to test whether the network is connected. For details, see 5.3.7.7 Network Detection.

## 6.2 Browser Login

To make sure SDI DVR connects to Internet successfully, open Browser, input required IP address, the default setting is 192.168.1.88, and enter the login interface, as below Figure 6-1.

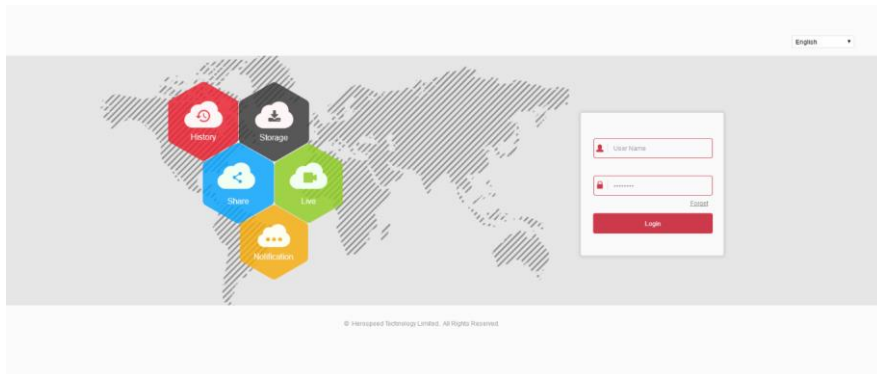


Figure 6-1

In the upper right corner of the interface, select the system language (currently supports Chinese Simplified, Chinese Traditional, English, German, French, Portuguese, Turkish, Spanish, Italian, Hungarian, Roman, Korean, Dutch, Greek, and Vietnamese, the default is English), enter the user name and password, the default user name is **admin**, password is **12345**, click "login" to log on remotely.



### Instruction

- If you forget the password, you need to go to the local login page of the device, click "Forget", follow the prompts to recover the password, and return to the WEB interface to log in again.

## 6.3 Active X install

The first time you log in to the device, you need to download and install the browser plug-in for the first time, as shown in Figure 6-2, click "Please click here to download the browser plug-in, please close the browser when the download is finished" and follow the prompts to complete the installation.

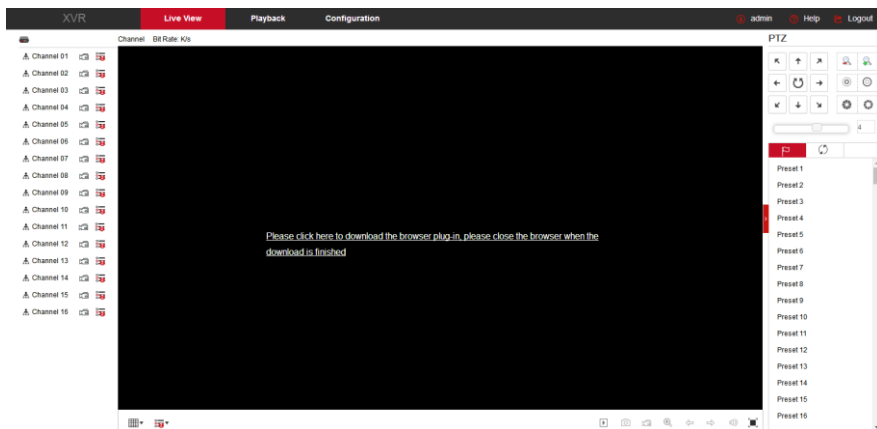
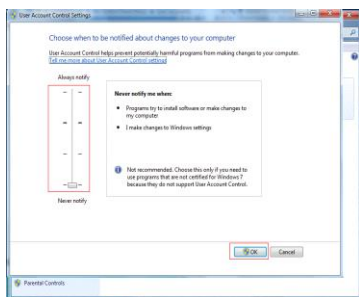


Figure 6-2

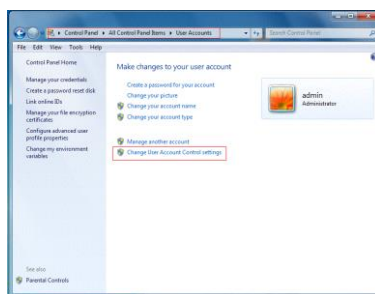


## Instruction

- After the SDI DVR upgrades to a new version, you need to delete the original control and download and install the control again.
- For WIN 7 could have problems for backup and recording, if so, please check the Admin setting, procedure as follows:



WIN7-1



WIN7-2

- The Active X can't be loaded. Please adjust the security level and firewall setting to the lowest, and make some adjustment to IE as well:  
Tool-Internet Option- Custom level-ActiveX- enables all the options below ActiveX and click OK! Finally, the Active X will be downloaded and installed automatically, please refer to the Figure 6-3.

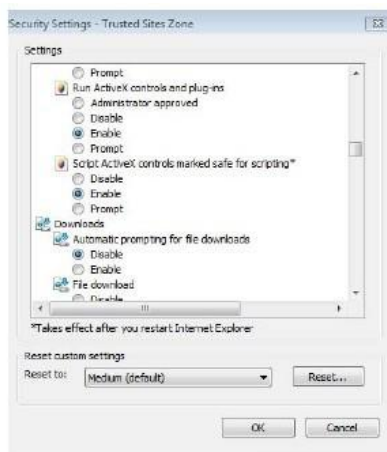


Figure 6-3

## 6.4 Live View

After login the client successfully, entering live preview interface. The interface as below Figure 6-4:

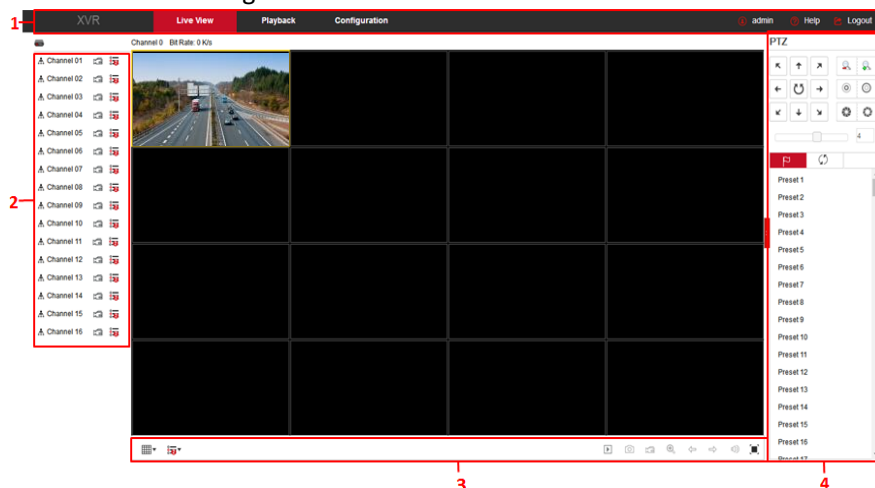


Figure 6-4

**1. System Menu.** Including Live View, Playback, Configuration, Help, Logout, and show login user name.

**2. Real-time Monitoring Channel.** Open/Close Preview, record and stream switching.












Mark	Specification
CH1-CH9	Display all channels of the device.
 Channel 01	Open or close corresponding preview channel.
	Start/stop recording, save video on local computer hard drive.
	Main and sub bit stream switching

Table 6-1

### 3. Preview channel shortcut button

Mark	Specification
	Preview window toggle. From left to right are: 1 split screen, 4 split screen, 9 split screen. According to the number of channels supported by the device, the preview window will be different. Please refer to the actual situation.
	Switch all preview channel master, sub code streams, and turn on preview
	Open / Close all preview channels.
	Click this icon to take a picture. The default storage path of the picture is C:\Record. You can enter the Configuration → Local Config interface to modify it.
	Click this icon to start recording on all channels; click the icon again to stop recording. The default storage path of the recording is C:\Record. You can enter the Configuration → Local Config interface to modify it.
	Local electronic zoom, click this icon to open the electronic zoom function, select to enlarge the channel, hold down the left mouse button to select the area to be zoomed in, release the left button, and select the area to be enlarged; in the zoom channel, click the right mouse button to restore the original status.
	1 Split screen preview, click to switch channels
	Turn on / off the speaker. If the audio is not turned on, there is no sound when listening.


	Full-screen playback, press the keyboard Esc to exit the full screen
---	--

Table 6-2

#### 4. PTZ setting operation window













Mark	Specification
	PTZ control direction button
	PTZ self-test
	Zoom button
	Focus button
	Aperture control button
	The step size is mainly used for speed control. The larger the value, the faster the rotation speed. For example, the rotational speed of step 7 is much larger than the rotational speed of step 1.
	Preset settings
	Call preset
	Setting
	Delete settings
	Cruise path settings
	Turn on / off cruise

Table 6-3

## 6.5 Configuration

### 6.5.1 Local Config

In the main interface, click "Configuration → Local Config" to enter the local configuration interface, as shown in Figure 6-5. Here you can set the device video file, capture and clip corresponding to the local computer's save path, click "Browse" to select the path to save, click "Save" to complete the path settings.

Figure 6-5

### 6.5.2.1 Add Camera

**Add Camera**

Figure 6-6




### 6.5.2.2 OSD

In the main interface, click " Configuration→Camera→OSD" to enter the OSD setting interface, as shown in Figure 6-7. Here you can view and set the device text, date and other related information, the relevant parameters are consistent with the SDI DVR-side settings.

OSD

Channel

CH01



Time

☒

Text

☐

Date Format

Day Month Ye

OSD Position

Top\_Left

Channel Name

Mirror

Off

Save

Figure 6-7


### 6.5.2.3 Image

In the main interface, click " Configuration→Camera→Image" to enter the Image setting interface, as shown in Figure 6-8. Here you can view and set the IPC channel brightness, contrast, saturation and sharpness, the relevant parameters are consistent with the SDI DVR-side settings.

Image

Channel

CH01



Brightness

Contrast

Saturation

Sharpness

Restore Default

Figure 6-8

### 6.5.2.4 Motion Detection


In the main interface, click " Configuration→Camera→Motion Detection" to enter

the motion detection setting interface, as shown in Figure 6-9. Here you can view and set the device's motion detection related information, the relevant parameters are consistent with the SDI DVR-side settings.

#### Motion Detection

Channel
 

CH01

Draw Area

Clear All

☒ Enable
 

Sensitivity
 

Middle

☐ Buzzer Alarm
 

Record Time(Sec)
 

60

☒ Record Channel
 

Week

Thu.

0

:

0

~

24

:

0

☐ Send E-mail
 

Time Period1

0

:

0

~

0

:

0

Time Period2

0

:

0

~

0

:

0

Save

Figure 6-9

#### 6.5.2.5 Video Loss

In the main interface, click " Configuration→Camera→Video Loss" to enter the video loss setting interface, as shown in Figure 6-10. Here you can set the channel when the channel video is lost when the device to make the appropriate alarm mode, the relevant parameters are consistent with the SDI DVR-side settings.

103

## Video Loss

Channel CH05 ▼

☐ Select All

☐ Enable

☐ Screen Display

☐ Send E-mail

☐ Buzzer Alarm

Alarm Out

☐ 1

Save

Figure 6-10



### Instruction

- The current video loss feature only supports setting up the added analog device.

### 6.5.2.6 PTZ Setup

In the main interface, click " Configuration→Camera→PTZ Setup" to enter the video PTZ Setup interface, as shown in Figure 6-11. Here you can view and set the information about the PTZ control for each channel, the relevant parameters are consistent with the SDI DVR-side settings.

**PTZ**

Channel	CH01
Protocol	PelcoD
Address	0
Baud Rate	2400
Data Bit	8
Stop Bit	1
Check	NONE

Save

Figure 6-11

### 6.5.2.7 Volume

The volume screen is used to view and adjust the volume of each analog channel.

**The steps are as follows:**

**Step 1:** In the main interface, click " Configuration→Camera→Volume" to enter the volume setting interface, as shown in Figure 6-12.

**Step 2:** Select the configuration channel, check the mute check box or slide the slider of the volume to adjust the size of the audio output.

**Step 3:** Click "Save" to complete the setup.

**Volume**

Channel	CH01
---------	------

☒ Mute

Output Gain
 

88

Save

Figure 6-12


### 6.5.2.8 Privacy Mask

In the main interface, click " Configuration→Camera→Privacy Mask " to enter the privacy mask setting interface, as shown in Figure 6-13. Here you can view and set the privacy of the channel area settings and other related information, the relevant parameters are consistent with the SDI DVR-side settings.

## Privacy Mask

Channel
 

CH01

☐ Private Masking1
 ☐ Private Masking2
 ☐ Private Masking3

Save

Figure 6-13

### 6.5.2.9 Channel Name

In the main interface, click " Configuration→Camera→Channel Name" to enter the channel name setting interface, as shown in Figure 6-14. Here you can view and set the channel names, the relevant parameters are consistent with the SDI DVR-side settings.

Channel Config

CH1	<input type="text" value="CH1"/>
CH2	<input type="text" value="CH2"/>
CH3	<input type="text" value="CH3"/>
CH4	<input type="text" value="CH4"/>
CH5	<input type="text" value="CH5"/>
CH6	<input type="text" value="CH6"/>
CH7	<input type="text" value="CH7"/>
CH8	<input type="text" value="CH8"/>
CH9	<input type="text" value="CH9"/>
CH10	<input type="text" value="CH10"/>
CH11	<input type="text" value="CH11"/>
CH12	<input type="text" value="CH12"/>
CH13	<input type="text" value="CH13"/>
CH14	<input type="text" value="CH14"/>

Figure 6-14

## 6.5.3 Record

### 6.5.3.1 Record

The steps are as follows:

**Step 1:** In the main interface, click " Configuration→ Record→ Record " to enter the record setting interface, as shown in Figure 6-15.

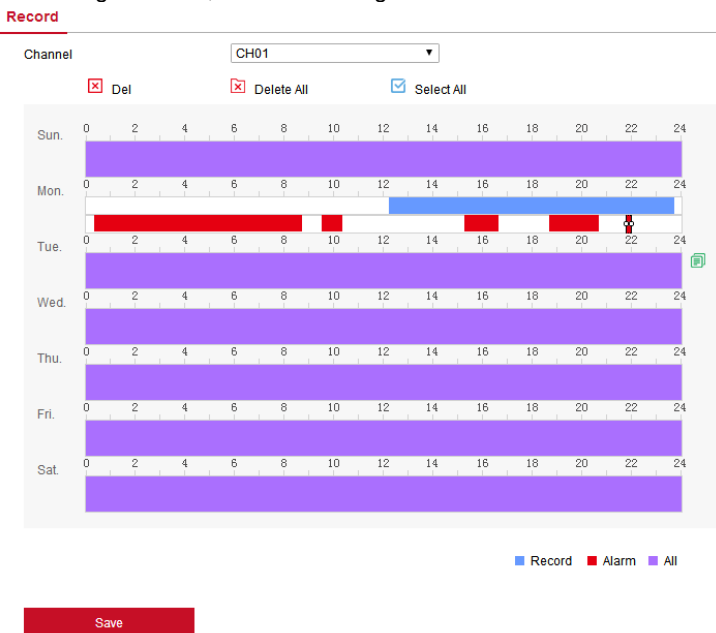


Figure 6-15

**Step 2:** Set the parameters as detailed in the table below.

Parameter	Description
Channel	Select the channel number for setting the recording, and you can set different recording plans for different channels. If you set the same for all channels, select "All".
Del	Delete the selected recording time period.
Delete All	Click to delete all recording settings.
Selected All	Click to set all channels to normal video and motion detection recording from Monday to Sunday.
Copy to	After you set a day, you can click "Copy to" to apply the day's settings to other times of the week.

Time period setting	Click one of the set recording time periods, pop up the time period setting, select the recording type, set the time period, and click "Save" to complete the setting. When you click "Del", the selected time period is deleted.
More Settings	Click to enter the pre-record setting interface, set the pre-recorded action status 0 seconds to 30 seconds before the recording, click "Ok".

Table 6-4

**Step 3:** Click "Save" to complete setting.

### 6.5.3.2 Encode

In the main interface, click " Configuration→Record→Encode" to enter the encode setting interface, as shown in Figure 6-16 below. Here you can view and set the channel access device encoding parameter values, the relevant parameters are consistent with the SDI DVR-side settings.

#### Encode

Channel	CH01 ▼
Preview information	IPC 2592x1944
Encode Level	Main Profile ▼
Encode Format	Main Stream ▼
Encode Type	H265 ▼

Main Stream

Encode Mode	Video ▼
Resolution	2592x1944 ▼
Stream Control	VBR ▼
I-Frame Interval	<input type="text" value="3"/>
Quality	Ordinary ▼
Frame Rate	<input type="text" value="15"/>
Bitrate(Kb/s)	1536
Refer Bitrate(Kb/S)	512-8192

Save

Figure 6-16

### 6.5.4 HDD

In the main interface, click "Configuration → HDD → HDD" to enter the disk management interface, as shown in Figure 6-17. Here you can view the connection

device disk information, but also format the hard disk, hard disk format and SDI DVR settings consistent.

#### HDD

NO.	State	Total Capacity	Residual Capacity	Device Type
<input type="checkbox"/> 02	Using	488.386GB	345.776GB	SATA
<div> <div>Format</div> <div>Warning:The device will reboot automatically after disk formatting!</div> </div>				

Figure 6-17

## 6.5.5 System

### 6.5.5.1 General

#### ■ Device Setting

In the main interface, click "Configuration→System→General→Device Setting" to enter the device setting interface, as shown in Figure 6-18. Here you can view and set the device's language, record mode, record days, resolution and other information, and click "Save" to complete the configuration.

Device Setting	Date	Dst
Language	English	▼
Record Mode	Overwrite	▼
Record Days	No Limit	▼
Video Standard	PAL	▼
Resolution	1280x1024	▼
Standby Time(Min)	10	
Device Name	DVR	
<div>Save</div>		

Figure 6-18



## ■ Date

Set the system date of the device, and manually set the system time, synchronize with the computer, or set the system date using the Network Time Protocol (NTP) function as required.

### Set the system date as follows:

**Step 1:** In the main interface, click "Configuration → System → General → Date" to enter the date setting interface, as shown in Figure 6-19 below.

**Step 2:** Select the setting date type, there are the following three ways.

- ✓ Turn on the Set date/time manually; manually select the date and time, click "Save", the system automatically synchronizes with the manual setting time.
- ✓ Turn on synchronization with the computer, click "Save", the system automatically synchronizes the time to the computer that logs in to the WEB page.
- ✓ Turn on the Receive date/time from NTP, select NTP server (or select custom server, enter custom server domain name), select the device's time zone, enter NTP port, set NTP interval, date format, date separator, time format, single Click "Save" to synchronize the system time with the NTP server time.

**The date setting parameters are described in the following table:**

Parameter	Description
NTP Server	Select the server domain name where the NTP service is installed.
Custom NTP server	When the NTP server selects "Custom", enter the NTP server domain name.
NTP Port	Enter NTP server port.
Date Format	Set the date display format for SDI DVR devices, including year, month, day, day and month.
Time Format	Set the time format of SDI DVR devices, including 24-hour and 12-hour.
Date Separator	Set the separator between year, month, and day.
Time Zone	Set the time zone of the SDI DVR device.
Channel Check Time	Select the SDI DVR channel.

Table 6-5

### Set the channel check time as follows:

**Step 1:** In the main interface, click "Configuration → System → General → Date" to enter the date setting interface.

**Step 2:** Select the channel you want to use, or select “All” and click “Save” to complete the configuration.

Device Setting
 

Date

 Dst

---

Time Zone
 

GMT+00:00 Dublin, Edinburgh, Lisbon, London, Monrovia, Ca ▼

☒ Set date/time manually

Date/Time
 

2018-11-15
 15
 46
 47

☐ Synchronize with the computer
 

2018-11-15 15:47:23

☐ Receive date/time form NTP

NTP Server
 

time.nist.gov

NTP Port
 

123

NTP Interval(Min)
 

10

Date Format
 

Year Month Day ▼

Date Separator
 

. ▼

Time Format
 

24Hour ▼

Channel Check Time

☐ Select All

☒ CH01
 ☒ CH02
 ☒ CH03
 ☒ CH04
 ☒ CH05
 ☒ CH06
 ☒ CH07
 ☒ CH08
 ☒ CH09
 ☒ CH10
 ☒ CH11
 ☒ CH12
 ☒ CH13
 ☒ CH14
 ☒ CH15
 ☒ CH16

☒ CH17
 ☒ CH18
 ☒ CH19
 ☒ CH20
 ☒ CH21
 ☒ CH22
 ☒ CH23
 ☒ CH24
 ☒ CH25
 ☒ CH26
 ☒ CH27
 ☒ CH28
 ☒ CH29
 ☒ CH30
 ☒ CH31
 ☒ CH32

Interval (Min)
 

60

Save

Figure 6-19

## ■ Dst

**Set the Dst as follow:**

**Step 1:** In the main interface, click "Configuration →System →General →Dst" to enter the Dst setting interface, as shown in Figure 6-20 below.

**Step 2:** Turn on daylight saving time, set the type, start time, end time, and offset.

**Step 3:** Click "Save" to complete the configuration.

Device Setting
 

Date

Dst

---

☐ Daylight-saving time

Type
 

Week ▼

Start Time
 

Mar. ▼
 1st ▼
 Sun. ▼
 03 ▼
 03 ▼

End Time
 

Nov. ▼
 1st ▼
 Sun. ▼
 03 ▼
 03 ▼

Offset(Min)
 

60 ▼

Save

Figure 6-20

## 6.5.5.2 Network

### ■ IP/Port

In the main interface, click "Configure→System→Network→IP/Port" to enter the IP/Port setting interface, as shown in Figure 6-21. Here you can set the IP address of the device, subnet mask, gateway, port, DNS and other network information, IP / Port and SDI DVR settings consistent.

IP/Port	DDNS	Email	P2P	FTP
<b>NIC Settings</b>				
Enable DHCP <input type="checkbox"/>				
IP Address	172.18.195.253			
Network Mask	255.255.248.0			
Gateway	172.18.192.1			
TCP Port	5000			
RTSP Port	554			
HTTP Port	80			
Private port	6000			
Device MAC	11:22:33:44:55:66			
Broadcast IP	0.0.0.0			
<b>DNS</b>				
Primary DNS	202.96.134.133			
Secondary DNS	172.18.192.1			
<b>Other setting</b>				
RTSP encryption enable <input type="checkbox"/>				
<b>Save</b>				

Figure 6-21

### ■ DDNS

In the main interface, click "Configure→System→Network→DDNS" to enter the DDNS setting interface, as shown in Figure 6-22. Here you can open and set the DDNS function, DDNS and SDI DVR settings consistent.

IP/Port	DDNS	Email	P2P
DDNS			
Enable DDNS	<input type="checkbox"/>		
DDNS Type	ORAY		
Refresh Time(Sec)	60		
User Name			
Password			
Domain			

Figure 6-22

## ■ Email

In the main interface, click "Configure→System→Network→Email" to enter the email setting interface, as shown in Figure 6-23. Here you can open and set the mail function, the relevant parameters are consistent with the SDI DVR-side settings.

IP/Port	DDNS	Email	P2P	FTP
<input type="checkbox"/> Enable e-mail alarm notifications				
SMTP Server	Custom			
Custom SMTP Server	smtp.MailServer.com			
Sender	User			
Sender's Address	User@domain.com			
Port	465			
<input type="checkbox"/> Attach File				
Subject	DVR ALERT			
Message Interval(Min)	1			
Encryption	SSL			
User Name	User			
Password	••••••••			
Confirm	••••••••			
Select Receivers	Recipient1			
Recipient	receiver1@domain.com			
Time Period1	0 : 0 ~ 24 : 0			
Time Period2	0 : 0 ~ 0 : 0			
<input type="checkbox"/> Enable Auto Email				
Email Interval(min)	10			

Figure 6-23

## ■ P2P

In the main interface, click "Configure→System→Network→P2P" to enter the P2P setting interface, as shown in Figure 6-24. Here you can enable/disable P2P function, view the device serial number, scan the corresponding mobile phone system QR code to download the app, the P2P are consistent with the SDI DVR-side settings.




IP/Port	DDNS	Email	<b>P2P</b>	FTP
<div> <input checked="" type="checkbox"/> <b>BitVision</b> </div> <div> <div>  <p>1000000000041</p> </div> <div>  <p>Android</p> </div> <div>  <p>iOS</p> </div> </div> <div> <div>Status:</div> <div>On line</div> </div> <div> <div>Encryption</div> <div>NONE ▼</div> </div> <div> <div>Save</div> </div>				

Figure 6-24

## ■ FTP

In the main interface, click "Configure→System→Network→FTP" to enter the FTP setting interface, as shown in Figure 6-25. Here you can open and set the FTP server function, the relevant parameters are consistent with the SDI DVR-side settings.

IP/Port	DDNS	Email	P2P	<b>FTP</b>	UPnP
<b>FTP</b>					
<input type="checkbox"/> Enable FTP					
FTP Server	0.0.0.0		<input type="button" value="Test"/>		
Port	21				
User Name					
Password					
Confirm					
File Upload					
Channel	CH01		<input type="button" value="v"/>		
Week	Thu.		<input type="button" value="v"/>		
Time Period1	<input checked="" type="checkbox"/>	0 : 0 ~ 24 : 0			
Time Period2	<input type="checkbox"/>	0 : 0 ~ 0 : 0			
<input type="button" value="Save"/>					

Figure 6-25

## ■ UPnP

In the main interface, click "Configure→System→Network→UPnP" to enter the UPnP setting interface, as shown in Figure 6-26. Here you can turn on and set UPnP function, the relevant parameters are consistent with the SDI DVR-side settings.

IP/Port
DDNS
Email
P2P
FTP
UPnP

☐ Enable

State

Internal IP

External IP

Port Mapping Table

<input type="checkbox"/>	Index	Server Name	Protocol	Internal Port	External Port

Add
Del

Figure 6-26

## ■ PPPOE

In the main interface, click "Configure→System→Network→PPPOE" to enter the PPPOE setting interface, as shown in Figure 6-27 below. Here you can open and set the PPPOE function, the relevant parameters are consistent with the SDI DVR-side settings.

IP/Port
DDNS
Email
P2P

PPPOE

☐ Enable

User Name

Password

IP Address

Network Mask

Save

Figure 6-27

## ■ Cloud Storage

In the main interface, click "Configuration →System →Network →Cloud

Storage" to enter the Cloud Storage setting interface, as shown in Figure 6-28. Here you can turn on and set Cloud Storage function, the relevant parameters are consistent with the SDI DVR-side settings.

IP/Port	DDNS	Email	P2P	FTP	UPnP	PPPOE
<b>Cloud Storage</b>						
<input type="checkbox"/> Enable						
<input type="checkbox"/> DropBox		<input type="button" value="Bind"/>				
<input type="checkbox"/> Google		<input type="button" value="Bind"/>				
Cloud Web		<input type="text"/>				
Verification Code		<input type="text"/>				
<input type="button" value="Test"/>						
Upload Folder		<input type="text" value="event_picture"/>				
User Name		Capacity	Used			
		0.00MB	0.00MB			
<input type="button" value="Save"/>						

Figure 6-28

### 6.5.5.3 Exception

In the main interface, click "Configure→System→Exception" to enter the exception setting interface, as shown in Figure 6-29. Here you can set the abnormal alarm; the relevant parameters are consistent with the SDI DVR-side settings.

**Exception**

Event Type
<input type="checkbox"/> Select All
<input type="checkbox"/> Enable
<input type="checkbox"/> Send E-mail
<input type="checkbox"/> Buzzer Alarm
<input type="checkbox"/> Screen Display

No Disk  
 Disk Error  
 Broken Network  
 IP Conflict

Figure 6-29

### 6.5.5.4 User

In the main interface, click "Configure→System→User" to enter the user management interface, as shown in Figure 6-30. Here you can add, delete, edit the user, the relevant parameters are consistent with the SDI DVR-side settings.



Add user

Figure 6-30

In the main interface, click "Configure→System→Channel Config" to enter the channel configuration interface, as shown in Figure 6-31 below. Here you can select the device access signal, the relevant parameters are consistent with the SDI DVR-side settings.

CH	HD	IP
CH1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CH2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CH3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CH4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CH5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH6	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH7	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH9	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH11	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH12	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH13	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure 6-31

## 6.5.5.6 Local Alarm

In the main interface, click "Configure→System→Local Alarm" to enter the local alarm interface, as shown in Figure 6-32. Here you can configure the alarm linkage related parameters; the relevant parameters are consistent with the SDI DVR-side settings.

After the device is connected to the alarm device through the alarm input port, when the alarm signal is transmitted to the SDI DVR device through the alarm input port, the system performs an alarm linkage action.

### Local Alarm

☐ Enable

Alarm Input

Alarm Name

Week

☐ Time Period1  :  ~  :

☐ Time Period2  :  ~  :

Alarm Out ☐ 1

☐ Screen Display

☐ Send E-mail

☐ Buzzer Alarm

Save

Figure 6-32

## 6.5.6 Maintain

### 6.5.6.1 Version Info

In the main interface, click "Configure→Maintain→Version Info" to enter the version information interface, as shown in Figure 6-33. Here you can see information about the device version.

### Version Info

Device Name:

Model No.:

Version:

Date:

WEB Version:

Plugin Version:

Figure 6-33



## Manual Upgrade

Reboot System

Reboot

Upgrade

Firmware

Browse

Upgrade

Connection status

**Note** The upgrade process will take about 1-10 minutes, please do not turn off the power, The device reboots automatically after upgrading.

Figure 6-35

### 6.5.6.4 Auto Maintain

In the main interface, click "Configuration → Maintain → Auto Maintain" to enter the auto maintain interface, as shown in Figure 6-36. Here you can set the device reboot time, the auto maintenance settings and NVR settings consistent.

## Auto Maintain

Every Week

Wed.

03

Hour

03

Min

Save

Figure 6-36

### 6.5.6.5 Restore Default

Set the restore default to restore the device default parameters to the factory defaults.

**The default steps to restore are as follows:**

**Step 1:** In the main interface, click "Configuration → Maintain → Restore Default" to enter the restore default interface, as shown in Figure 6-37.

**Step 2:** Select the parameters you want to restore, such as "Record".

**Step 3:** Click "Save" and the selected parameters are restored to the factory defaults.

## Restore Default

Restore Default

Record

Record

Camera

Camera

System

System

Maintain

Maintain

Restore Factory Setting

☐ Restore Factory Setting

Save

Figure 6-37

## 6.6 Playback

In the main interface, click "Playback" to enter the playback interface, as shown in Figure 6-38. Here you can view the equipment, video capture, download and other actions, video query and SDI DVR side of the same set.

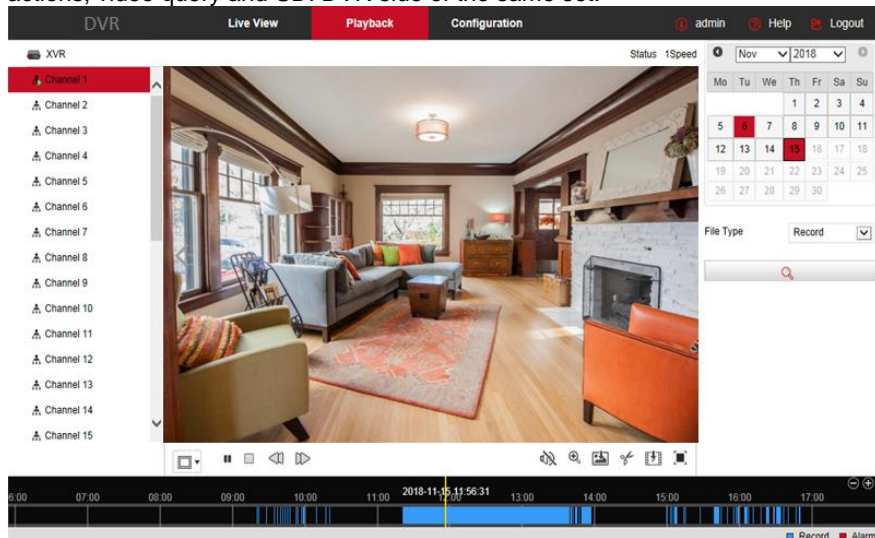

















Figure 6-38

- **Timeline:** Displays the type of recording under the current conditions and the time period in which it is located. In the four-picture playback mode, four playback time axes corresponding to the selected four channels can be displayed. In the other single-screen playback modes, only one time axis is

displayed. Use the mouse to click a point in the blue area and drag to the yellow line position, that is, playback from that point in time.

- **Layout:** Click " /  to toggle the video playback window.
- **Play/Pause:** After querying the video file, click " /  to start / pause playback of the searched video.
- **Stop:** When the video is played, press " to stop playing the video.
- **Slow forward:** When the video is played, click " " video will play slowly, the specific speed of choice 1/2, 1/4, 1/8. After switching, you can check the current playback speed in the current status of the upper right corner of the preview interface.
- **Fast forward:** When the video is played, click " " video will be slow to play, the specific speed of choice 2, 4, 8. After switching, you can check the current playback speed in the current status of the upper right corner of the preview interface.
- **Mute/Open the sound:** When the video is played, click " /  " to turn on / off the sound of the recorded video.
- **Enable Electronic Zoom:** When the video is played, click " /  " to turn on / off the electronic zoom function of the recorded video. Turn on the electronic zoom function, hold down the left mouse button, select the position to zoom in on the playback screen, release the mouse, select the location screen is placed, click " ", the magnification screen is restored.
- **Snapshot:** When the video is played, click " " to capture the settings to the local configuration settings.
- **clip:** When the video is played, click " " to start recording, and then click Save Clip File again, which is stored in the local configuration settings.
- **Download:** After querying the video file, click " " to enter the video file list, select the download file, click "Download", the video file starts to download in order, stored in the local configuration settings location. The file download interface is shown in Figure 6-38. The "First Page", "Prev Page", "Next Page" and "Last Page" are used to scroll through all video files. The video file can be re-searched by the right calendar, file type, and channel location.

<input type="checkbox"/>	Index	File Name	Start Time	Stop Time	File Size	Set date/time manually	Progress
<input type="checkbox"/>	1	record_0001_0111_20181115091957_20181115092018.avi	2018-11-15 09:19:57	2018-11-15 09:20:18	3.972 MB	Edit	
<input type="checkbox"/>	2	record_0001_0111_20181115092127_20181115092146.avi	2018-11-15 09:21:27	2018-11-15 09:21:46	3.498 MB	Edit	
<input type="checkbox"/>	3	record_0001_0111_20181115092755_20181115092816.avi	2018-11-15 09:27:55	2018-11-15 09:28:16	3.567 MB	Edit	
<input type="checkbox"/>	4	record_0001_0111_20181115093355_20181115093409.avi	2018-11-15 09:33:55	2018-11-15 09:34:09	2.617 MB	Edit	
<input type="checkbox"/>	5	record_0001_0111_20181115093642_20181115093732.avi	2018-11-15 09:36:42	2018-11-15 09:37:32	8.618 MB	Edit	
<input type="checkbox"/>	6	record_0001_0111_20181115093919_20181115094007.avi	2018-11-15 09:39:19	2018-11-15 09:40:07	8.285 MB	Edit	
<input type="checkbox"/>	7	record_0001_0111_20181115094127_20181115094210.avi	2018-11-15 09:41:27	2018-11-15 09:42:10	7.629 MB	Edit	
<input type="checkbox"/>	8	record_0001_0111_20181115094305_20181115094339.avi	2018-11-15 09:43:05	2018-11-15 09:43:39	5.679 MB	Edit	
<input type="checkbox"/>	9	record_0001_0111_20181115094512_20181115094540.avi	2018-11-15 09:45:12	2018-11-15 09:45:40	4.906 MB	Edit	
<input type="checkbox"/>	10	record_0001_0111_20181115094705_20181115094750.avi	2018-11-15 09:47:05	2018-11-15 09:47:50	7.962 MB	Edit	
<input type="checkbox"/>	11	record_0001_0111_20181115095224_20181115095253.avi	2018-11-15 09:52:24	2018-11-15 09:52:53	5.075 MB	Edit	
<input type="checkbox"/>	12	record_0001_0111_20181115095348_20181115095414.avi	2018-11-15 09:53:48	2018-11-15 09:54:14	4.635 MB	Edit	
<input type="checkbox"/>	13	record_0001_0111_20181115095641_20181115095657.avi	2018-11-15 09:56:41	2018-11-15 09:56:57	2.907 MB	Edit	
<input type="checkbox"/>	14	record_0001_0111_20181115095757_20181115095915.avi	2018-11-15 09:57:57	2018-11-15 09:59:15	13.456 MB	Edit	
<input type="checkbox"/>	15	record_0001_0111_20181115100856_20181115100927.avi	2018-11-15 10:08:56	2018-11-15 10:09:27	5.316 MB	Edit	
<input type="checkbox"/>	16	record_0001_0111_20181115101636_20181115101702.avi	2018-11-15 10:16:36	2018-11-15 10:17:02	4.596 MB	Edit	
<input type="checkbox"/>	17	record_0001_0111_20181115102014_20181115102056.avi	2018-11-15 10:20:14	2018-11-15 10:20:56	6.531 MB	Edit	
<input type="checkbox"/>	18	record_0001_0111_20181115112030_20181115112510.avi	2018-11-15 11:20:30	2018-11-15 11:25:10	8.785 MB	Edit	
<input type="checkbox"/>	19	record_0001_0134_20181115112510_20181115133904.avi	2018-11-15 11:25:10	2018-11-15 13:39:04	126.294 MB	Edit	
<input type="checkbox"/>	20	record_0001_0134_20181115134011_20181115134058.avi	2018-11-15 13:40:11	2018-11-15 13:40:58	2.614 MB	Edit	
				Open Folder		Download	

Nov


2018

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

File Type: Record

Channel: 1

Figure 6-38

- **Full Screen:** When the video is played, click “” the full-screen playback video. Press “Esc” on the keyboard to exit the full-screen playback interface.
- **Drag and drop:** the video playback, the left mouse button click on the time axis to play the position, drag left and right, drag it to the middle of the yellow time point position, playback channel to play the point in time recording.

## Chapter 7 Appendixes

### 7.1 Q&A

1. How to do when can't detect the hard disk?

**Answer:** If the system does not detect the hard disk, kindly please check the data line and the power line of hard disk whether are connected well, whether there is a problem about the interface of hard disk on the motherboard, or kindly please check hard disk whether is supported by the SDI DVR in specification.

2. After modifying password, what can you do when you forget the password?

**Answer:** When the administrator forget password, kindly please get in touch with our technical staff. The easy to remember and relatively safe password is recommended when you set the password (if you have security needs, kindly please don't try to set simple passwords such as 123).

3. What results will maybe happen due to the heat when SDI DVR is working?

**Answer:** It will produce some heat when SDI DVR is working, kindly please put the SDI DVR in the place where is safe and ventilated to stop the stability and life of the system be affected due to long-term high temperature of SDI DVR.

4. Whether can use if i install the hard disk drive of computer to SDI DVR?

**Answer:** If the hard disk you use can be supported by the system of SDI DVR, it can work, but you need note, if the SDI DVR begins to work, all data in your hard disk will loss.

5. Whether can playback when recording?

**Answer:** Yes.

6. Whether can remove a part of video recordings of hard disk of SDI DVR?

**Answer:** Considering the security of document, you can't remove a part of video recording, if you need remove all video recordings, you can format the hard disk.

7. Why can't login to SDI DVR client?

**Answer:** Kindly please check configuration of network connection whether is right, connection of RJ-45 interface whether is fine, if also can't work, kindly please check whether the user name and password are right.

8. Why can't find any recording information when playback?

**Answer:** Kindly please check whether the connection of data line of hard disk is good, whether the time of system is changed, whether the query condition that is not set to save video files. If also have the question after restarting, kindly please check whether the hard disk is damaged.

### 7.2 Maintenance

1. When SDI DVR shutdowns, kindly please don't turn off the power switch directly, should use the shutdown button of system to avoid data loss or damage of the hard disk.



2. Ensure SDI DVR away from high temperature heat source and place.
3. Remove the dust deposited in the body timing, keep the good ventilation around chassis, it is good for radiating.
4. About the audio/video signal line and RS-485 interfaces, kindly please don't hot swap, or these port will be damaged easily.
5. Check the HDD power cable and data cable of the SDI DVR regularly and look whether they are aging.
6. Avoid the audio/video signal affected by other circuits and devices as much as possible, prevent the hard disk damaged by electrostatic or induced voltage.



**CCTV**

Analog Camera, IP Camera  
Dome & Bullet Cameras  
Hidden Cameras  
4K Cameras  
PTZ Cameras



**Wireless  
Cameras**

Panoramic Camera  
4K Action Camera | Car Cameras  
Battery Cameras  
WiFi Door Bells  
Hidden Cameras



**Biometric  
Devices**

Fingerprint | Face | Card |  
Access PIN Reader  
Electromagnetic Lock  
Exit Button | Break Glass  
Video Door Intercom



## PIXELS CONNECT PTE LTD

1013, Geylang East Ave 3, #01-144 Singapore 389728

pixelsconnect@gmail.com | [www.pixelsconnect.com.sg](http://www.pixelsconnect.com.sg) | Tel: +65 6440 0023