

TFT LCD MONITOR

USER MANUAL

16 Channel HDVS IP Series

Models:

L104IP16, L121IP16, L152IP16,
L172IP16, L192IP16

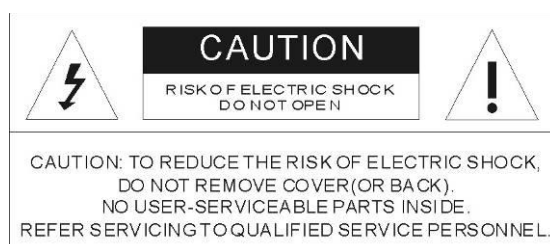


1. **WARNING:**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION:



Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Precautions

Safety-----

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further.

Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat built-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

Installation-----

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust or mechanical vibration.

The unit is not designed to be waterproof. Exposure to rain or water may damage the unit.

Cleaning-----

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzene as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

2. Safety Precautions

Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

- You are cautioned that changes or modifications not expressly approved by that party responsible for compliance could void your authority to operate the equipment.

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received including interference that may cause undesired

About this user manual

This manual aims at assisting the user on how to operate the monitors described in this manual.

This manual is subject to rigid quality control. However, no guarantee can be given that mistakes are not present. We reserve the right to make changes to the manual without prior notice.

Before operating the appliance, please read this manual carefully and retain it for further reference. Verify that all appliance items are included in the delivery. Should items be missing, do not operate the appliance and contact your local dealer.

Never attempt to repair the appliance yourself. This should only be done by qualified service personnel.

Improper handling of the appliance will invalidate the warranty.

Package List

A. LCD IP Monitor	x 1
B. Power Cord	x 1
C. User Manual	x 1
D. 12V Power Adapter	x 1
E. USB Mouse	x 1

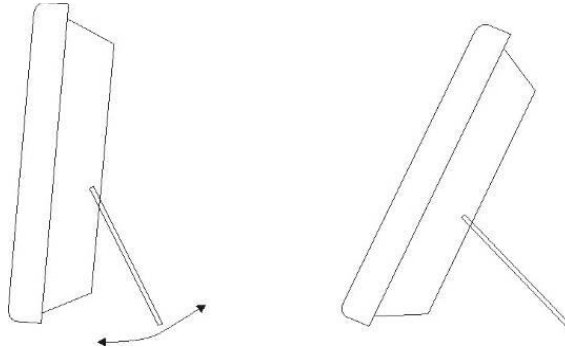
Features

- H.264/H.265 compression format
- Support Max.5MP IP camera.
- Graphical and text interfaces (GUI)
- Use Ethernet connection control
- Support HDMI/VGA/DVI-D input
- Supports Max. 16CH network cameras via HUB/Switch
- Supports ONVIF compliance, Real Time Streaming Protocol
- Protectable Metal casing. VESA standard.

3. LCD Monitor Mounting Guide

A. Desktop

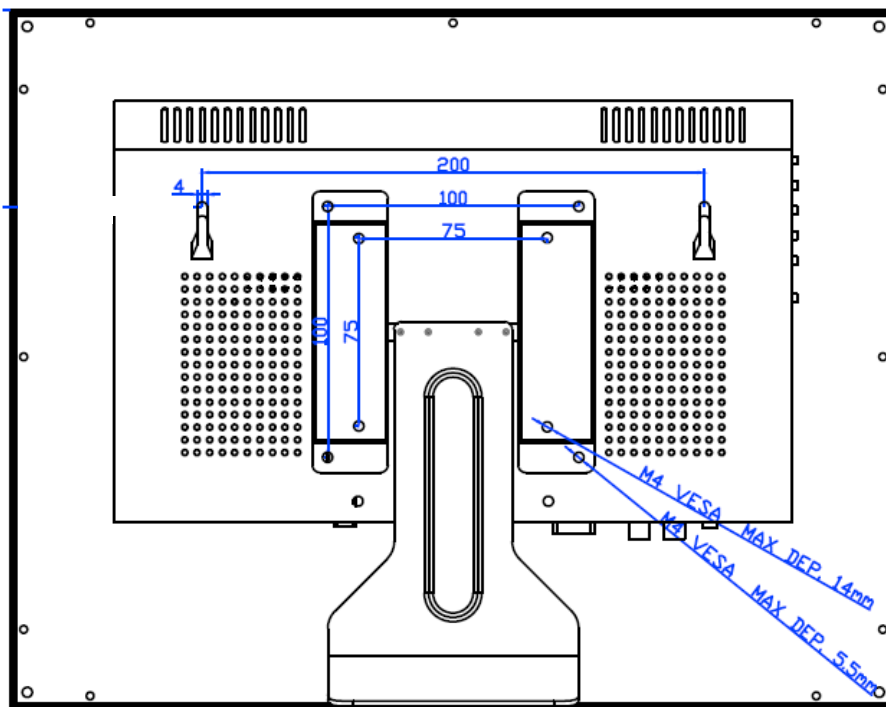
Adjust the viewing angle of LCD to fit most comfortable monitoring status.



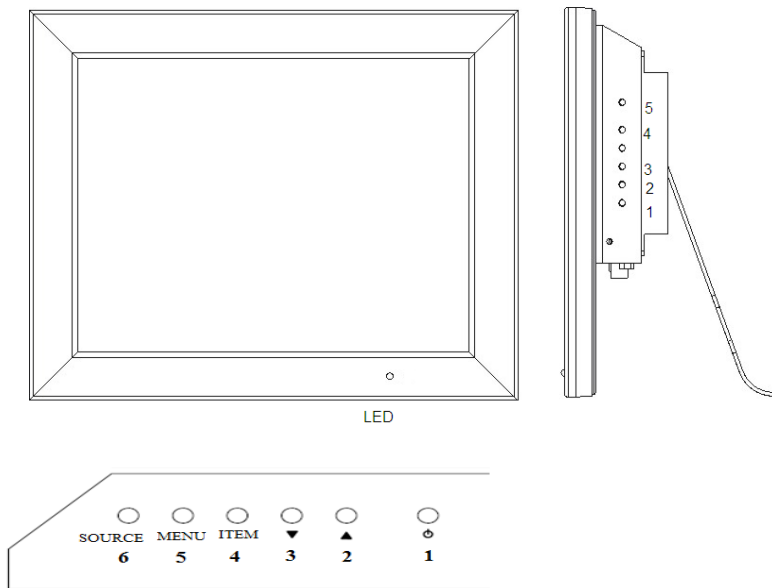
B. Wall mount/ VESA Bracket

Free your space with wall mount design.

Please follow the fix-hole size in back panel to install the LCD to the wall.



4. Monitor Controls



Key Board

1. Power

Push to turn on and turn off the unit.

LED Green light: Power on

LED Red light: Standby mode.

2. / 3. Adjust UP /DOWN

UP: Used as UP function. Or Increase value on the OSD Menu.

And as a hot key for colour adjust function.

DOWN: Used as DOWN function. Or Decrease value on the OSD Menu.

And as a hot key for auto adjust function.

4. Item:

Hot key for OSD adjustments of Volume, Contrast, Brightness, and Red, Green, Blue.

5. Menu

Push to call out OSD menu. Or Used as Confirm function in OSD Menu.

6. Source

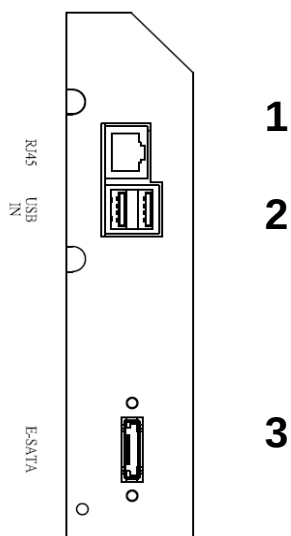
Select input signal from D-SUB, HD, DVI, and IP.

KEY Lock Function:

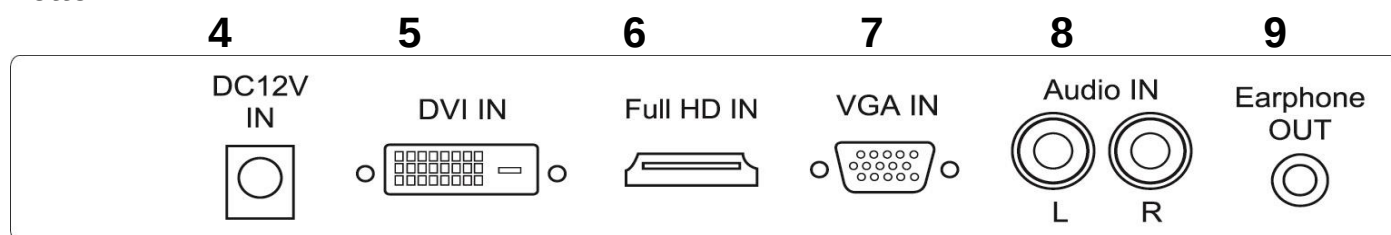
Push "Menu" and "Item", OSD of screen will show "Key Lock on", Into key lock mode.
And push again, OSD of screen will show "Key Lock off ", into key unlock mode.

5. Connections: HDVS IP Series

Side



Bottom



- 1: RJ-45 (Ethernet Interface)
- 2: USB IN *2 (USB Mouse/Record Backup Connector)
- 3: e-SATA
- 4: DC 12V IN
- 5: DVI IN
- 6: Full HD IN
- 7: VGA IN
- 8: AUDIO L/R IN
- 9: Earphone OUT

6. LCD OSD Function

Colour Image Setting OSD Menu Signal Source Audio Misc. Back
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Colour:

Contrast

Adjust background black level of the screen image.

Brightness

Adjust foreground white level of the screen image.

Colour Adjust

Adjust Red, Green, Blue colour deepness for Users.

Colour Temp

Adjust colour temperatures for users.
9300, 6500, 5800, sRGB, USER

Back

Exit OSD menu.

Image Setting:

Clock

Adjust image distortion appearing as vertical or “noise” on the screen.

Phase

Adjust image distortion appearing as horizontal or “noise” on the screen.

Sharpness

Adjust the clarity and focus of the screen images.

H. Position

Move the screen image left or right.

V. Position

Move the screen image up and down.

Back

Exit OSD menu.

OSD Menu:

OSD H. Pos

Move the OSD menu position left or right.

OSD V. Pos

Move the OSD menu position up or down.

OSD Timer

Set the OSD menu display time.

Language

Select the desired language as English, French, German, Spanish,
Traditional Chinese Simplified Chinese, and Japanese.

Back

Exit OSD menu.

Signal source

Select the input signal VGA, HD, DVI, and IP.

Back

Exit OSD menu.

Audio

Volume

Control built-in speakers' output Volumes

Mute

Disable the unit's sound output

Back

Exit OSD menu.

Misc:

Auto Adjust

Adjust the best image.

Colour Adjust

Adjust the best image colour.

Reset

Return to factory default setting.

Screen saver

Use the manual buttons to on/off the screen saver

Back:

Exit the OSD menu.

7. PC Timing

Mode	Resolution
1	800*600@60
2	800*600@72
3	800*600@75
4	1024*768@60
5	1024*768@70
6	1024*768@75
7	1280*1024@60

8. Specification

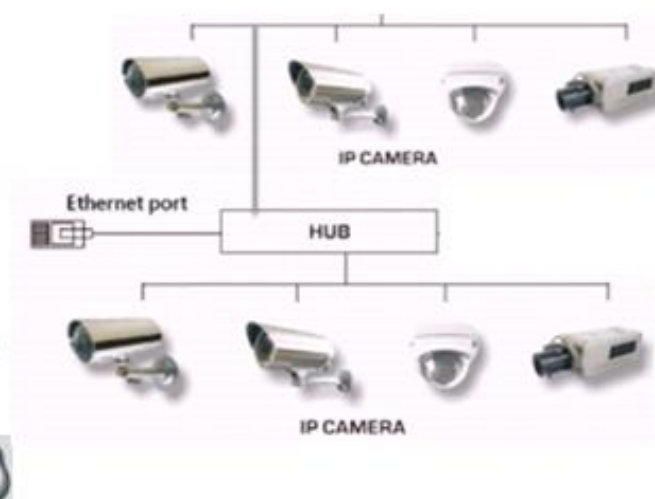
Monitor model	L104IP16	L121IP16
LCD panel	10.4"	12.1"
Visible area (mm)	211.2 x 158.4	245.76 x 184.33
Picture format	4:3	4:3
Max. resolution	1024 x 768	1024 x 768
Pixel dot pitch (mm)	0.2063 x 0.2063	0.240 x 0.240
Colours	16.7M	16.7M
Brightness	350 cd/m ² [LED]	350 cd/m ² [LED]
Contrast	900:1	600:1
Response time (Tr/Tf)	16ms	25ms
View angle (U/D/L/R)	75/75/75/75	80/60/80/80
Full HD input	1 x Full HD	
Audio input(R/L)	2 x (RCA)	
PC input	1 x VGA input 1 x DVI-D input	
Earphone out	1 x Phone jack ,3.5ψ	
Speaker	2 x built-in speaker (2 watt)	
IP Video support	Split Resolution: 1x (2592*1944) / 4x (1280*720) / 8x (720*576) / 16x (640*480)	
OSD setting	Yes	
Network Port	1 x RJ45, 10M/100M	
USB Port	2 x USB 2.0 ports	
HDD Port	1 x e-SATA port	
Power input	AC 100-240V 50/60Hz, Adapter DC 12V/5A	
Power consumption	Approx. 12watts	Approx. 12watts
Dimensions (WxHxD) mm	266 x 214 x 60	300 x 239 x 61
Weight	2.3 kg	2.6 kg
Operating temperature	0° to 50° C	

Subject to technical changes without prior notice. Error excepted.

Monitor model	L152IP16	L172IP16	L192IP16
LCD panel	15.0"	17.0"	19.0"
Visible area (mm)	304.1 x 228.1	337.9 x 270.3	376.32 x 301.056
Picture format	4:3	5:4	5:4
Max. resolution	1024 x 768	1280 x 1024	1280 x 1024
Pixel dot pitch (mm)	0.297 x 0.297	0.264 x 0.264	0.294 x 0.294
Colours	16.2M	16.7M	16.7M
Brightness	300 cd/m ² [LED]	250 cd/m ²	250 cd/m ² [LED]
Contrast	2000 :1	1000 :1	1000 :1
Response time (Tr/Tf)	16/7ms	1.2/3.8ms	3.6/1.4ms
View angle (U/D/L/R)	88/88/88/88	80/80/85/85	80/80/85/85
Full HD input	1 x Full HD		
Audio input(R/L)	2 x (RCA)		
PC input	1 x VGA input 1 x DVI-D input		
Earphone out	1 x Phone jack ,3.5ψ		
Speaker	2 x built-in speaker (2 watt)		
IP Video support	Split Resolution: 1x (2592*1944)/ 4x (1280*720)/ 8x (720*576)/ 16x (640*480)		
OSD setting	Yes		
Network Port	1 x RJ45, 10M/100M		
USB Port	2 x USB 2.0 ports		
HDD Port	1 x e-SATA port		
Power input	AC 100-240V 50/60Hz, Adapter DC 12V/5A		
Power consumption	Approx. 21 watts	Approx. 24 watts	Approx. 25 watts
Dimensions (WxHxD) mm	353 x 278.9 x 60.5	387.1 x 321.5 x 69	430 x 356 x 66.7
Weight	3.2 kg	3.9 kg	5.5 kg
Operating temperature	0° to 50° C		

Subject to technical changes without prior notice. Error excepted

9. HDVS IP Monitor Host Side Operation



10. IP Monitor Operation

10.1 Start System

Plug power cable, the power led will be on and the IP Monitor will start. After booting, the video output default to multi-window output mode. If the booting time is within the record setting time period, the system will auto enable the record function

Notice: Please use the IP Monitor matching power supply instead of any other power supply of any other type or brand.

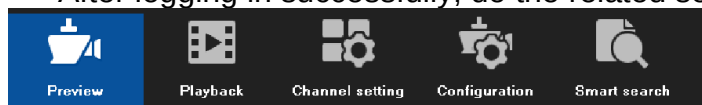


10.2 System Login

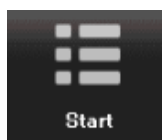
After normal boot, click the **【Start】** icon, or click the right mouse button, there is a shortcut menu, Select Start - login. Input username admin and initial password 123456 or NO Password in the dialogue box.

10.3 Menu Operation

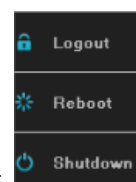
After logging in successfully, do the related setting according to the tool bar on the top of GUI:



10.4 Start Setting



Click **Start** icon on the tool bar, show the image as right



1. Log out: click the "Log out" button, can log out the current user
2. Booting Guide: Click "Booting Guide" button will pop out the setting menu, can set language, monitor resolution and network parameter and mobile App QR code
3. Reboot: click the "Reboot" button, the device will automatically restart.
4. Shutdown: click the "Shutdown" button, the device automatically shut down.

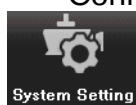
10.5 How to connect IP Monitor with IP Camera

Before do configuration for IP Monitor, need add camera to IP Monitor:

This device supports multi-version Onvif protocols, compatible with main brand IP cameras.

Before connect the IP camera with IP Monitor, please make sure that the IP addresses of the IP camera and the IP Monitor are in a same network section, and the main stream and sub stream are adjusted to be the suggested values (main stream: 2048k, sub stream: 512k), otherwise, these problems may appear: the IP Monitor cannot search the IP camera, the image cannot be connected, the image is not fluent, the image quality is bad and so on.

Connect the IP Monitor with the network cable, and the switch in the LAN. After booting, click



and enter the system configure interface to set the network parameters including the IP address, subnet mask, network gateway of the NVR. User can run the command ping through the PC in the LAN to ping the IP of the IP Monitor to see if the IP Monitor has connected with the LAN.



Then click the right mouse button and appear the below menu :

IVR 5.0

Number of searched devices: 49

Device IP addr	Protocol	Device information	Version number	Edit	Status
10.0.0.216	Onvif	H33-P@FW	-		+
172.20.120.213	Onvif	-	-		+
172.20.120.215	Onvif	-	-		+
192.168.0.5	SLINK	03730002000c0a5a8b	V4.3.20210402		+
192.168.0.9	SLINK	03730002000cf110b3bf	V4.3.20210402		+
192.168.1.4	SLINK	0F3F	V4.3.20200624		Added
192.168.1.12	SLINK	03730002000cf3d0cb7d	V4.3.20210402		+
192.168.1.13	SLINK	03730002000cf3d0cb6d	V4.3.20210402		+

Double-click the IP address to quickly add, click the address bar, the status bar can be sorted and displayed

Number of added devices: 9 Total bandwidth: 40Mbps Current bandwidth: 24.96Mbps

All	Address	Protocol	Port	Device information	Setting	Status	Diagnosis	Delete
CH1	192.168.1.4	SLINK	80	03b400020002e7500f3f		Connection success		
CH2	192.168.1.86	SLINK	80	037a0002001459949b4b		Connection success		
CH3	192.168.1.44	SLINK	80	0373000200102925f34b		Connection success		
CH4	192.168.168.153	SLINK	80	03000002000b0bbb740		Connection success		
CH5	192.168.168.156	SLINK	80	030500020003af11989cf		Connection success		
CH6	192.168.168.31	IP	8081	0900555ABCDF2C17		Connection success		
CH7	192.168.168.30	IP	8081	0904CD32B5C62C43		Connection success		
CH8	192.168.168.165	SLINK	80	03b400020007e4a0eb7d		Connection success		

click "Search", IP Monitor will auto search the IP cameras in LAN, then it will appear IP camera list and add the camera to IP Monitor channel according to your requirement. Additionally, know the IPC IP address, port and so on parameter, can input directly and save, then can add camera to IP Monitor.

The following is for the main 7 functions of the IP Monitor instruction: preview, playback, backup, channel setting, hard disk management, system configuration, system maintenance:

11. Real-time preview

After the device starts normally, it enters the real-time monitoring screen, as shown in the following figure: Among them, the red rectangles are marked with function shortcut keys, and the mouse pointer is corresponding to the text prompts.



The following focuses on the preview interface of the various functions, PTZ control functions, real-time playback.

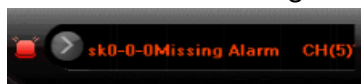
11.1 Interface quick function introduction

There are multiple toolbars on the preview interface. The upper, right and lower toolbars can be hidden manually. Each toolbar has different shortcut functions, and there are some hidden convenient functions.

◆ Top toolbar

After the device starts up, the toolbar will exist in all configuration interfaces if it is not hidden.

➤ Real-time alarm information



When there is an alarm, the indicator will flash and the alarm information will scroll in real time. If

you do not want to display scrolling information, you can click  Button hides information, If you

need to display detailed alarm information, click  to popup following info:

Alarm information			
Channel	Describe information	Alarm type	Occur time
LAN2	-	Network disconnected alarm	2020-10-09 10:44:40
HDD1	-	Hard Disk lost alarm	2020-10-09 10:44:45
HDD3	-	Hard Disk lost alarm	2020-10-09 10:44:45
HDD4	-	Hard Disk lost alarm	2020-10-09 10:44:45

In practical applications, to avoid the impact of the alarm, click on the page **Disarming** button temporarily masks the alarm information (the alarm actually exists, and can be queried in the log). If you need to view the real-time alarm information, click the arming button again.

- Equipment time and date
- Superimposed on the real-time display in the upper right corner of the interface, which can be modified on the Time Settings page

◆ Right Toolbar

- Screen playback mode
There are 3 playback modes. The preview screen can be previewed by "Device List", "Organization" and "Channel Scan" as required. The default is "Device List". Note that "Organization" and "Channel Wheel Tours need to be configured before they can be used.
- Disk Information
Can check the status of the hard disk in real time, and it is convenient to view multiple hard disks.
- Video parameters
Real-time modification of brightness, contrast, saturation, and hue of the currently selected mouse channel, or one-click restore of default values
- PTZ / Preset / Cruise / Track
For detailed operations, see the PTZ control function explained in section 3.3.3.2. The operation method is similar.

◆ Lower toolbar

- Preview split screen mode 
- Channel audio adjustment switch 
- Cycle switch and interval time 
- Linkage preview switch 
- Does the channel show smart rules and smart goals
- Full Screen Capture and Full Screen Video Switch 
- Page turning/grouping (use with split screen/organization structure) 

◆ Exchange channel

Select a channel and drag it to another channel. A prompt box will pop up. There are 3 ways to switch channels :

- Exchange channel connection, all configuration swap
- Exchange channel sequence, exchange preview position, device list information change
- Swap window position, exchange preview position, device list information unchanged

◆ Channel underside floating toolbar

- Current channel capture 
- Switch with IPC front-end intercom 
- Current channel audio switch 
- Current channel manual video switch 
- Real-time playback switch (Section 3.3.3.3 has detailed function description)

◆ Anti-key menu

The non-full-screen and full-screen anti-key menus basically include the commonly used shortcut buttons on the preview interface described above and can be used in practice according to personal habits.

11.2 PTZ control

PTZ Control Before performing PTZ control, please confirm that the PTZ related parameters are set correctly. After setting the parameters, select the channel to be controlled in the preview interface, and then control the direction of the lens in the PTZ operation interface; zoom, zoom, and zoom of the focal length, focus, and aperture; set the speed of the pan/tilt.

Note: In addition to operating the PTZ control function in the toolbar on the right side of the preview interface, the PTZ control operation page (as shown in the right figure) can also be called from the full screen mode of the mouse reverse key shortcut menu. The page explains the detailed setting method of preset point, cruise, track function:

- ◆ **Preset point settings and enable**
 - First, turn the camera to the desired position by the direction button controlled by the PTZ, then select a preset number in the "Preset" drop-down list, and finally click the "Settings" button.
 - Select a preset number to be called in the "Preset" drop-down list, and then click the "Enable" button
- ◆ **"Cruise" settings, calls and deletes**



Select a cruise number in the "Cruise" drop-down list, click on the "Settings" button to enter the "Cruise Settings" page, then select the preset point, cruise time, cruising speed, click on the "Add" button, set the cruise path preset point Add it successfully (can add multiple presets).

- Select a cruise number in the "Cruise" drop-down list and click the "Call" button to call.
- Select a cruise number in the "Cruise" drop-down list and click the "Delete" button to delete.
- ◆ **Track setup and enable**
 - Select a track number in the "Track" drop-down list, click the "Settings" button to start recording, and then perform a series of direction operations. Click the "Settings" button again to stop recording the track. The track memory is successful.
 - Select a track number in the "Track" drop-down list and click the "Call" button to call.

11.3 Real-time playback (Require Connecting Additional Hard Disk)

There is a hidden toolbar on the lower side of each channel screen. The mouse will appear

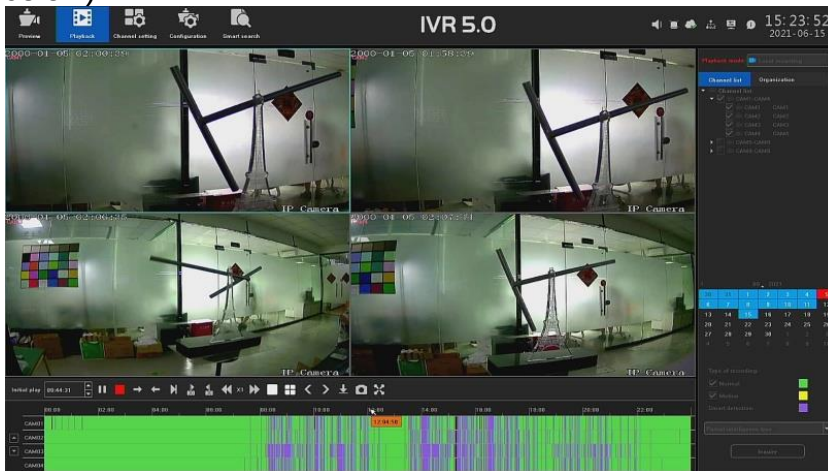


when it slides to the lower side. Click the rightmost button , a progress bar will appear, and the channel screen will be put forward 5 minutes from the current moment. Video recording can be played, reversed, paused or stopped for 5 minutes of recording as required, and the screen can be returned to the real-time monitoring screen after stopping playing. (Note: The default time for real-time playback is 5min, which can be modified)

12. Video Playback (Require Connecting Additional Hard Disk)

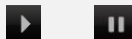


Click the icon  to enter the video playback interface. The playback mode includes the local video, local capture, and external files. The default is the local video interface (as shown below):



12.1 Local video

- Channel selection
The default is to select ch1-ch16 by "channel list" or select the channel to query video according to "organization".
- File search
The default time is the date of the current day of the device. Select the date, search method, and search type as required. Then click the button  in the lower right corner of the interface to search for the video that meets the conditions. The video status will be displayed in the bar area under the interface (Note: Different types of video correspond to different colours of the video).
- Video playback
Retrieve the video bar, the mouse can drag the video bar left and right, you can also use the mouse roller slowly zoom to adjust the 24-hour timeline unit scale, time unit scale: 1h, 0.5h, 15min, 5min, 2min, 1min; mouse When the centre point moves to the colour column time axis, an accurate time prompt will automatically appear, accurate to the second. Double-click the colour column time axis to quickly play back video, adjust the scale according to the precision of the playback, and make the playback time more accurate.
- Quick Button function

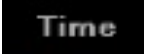
Item	Screenshot	Function Description
Pause / Play		Pause / continue playing the current video
Stop		Stop playing video, screen all closed
Play/ Play Reverse		Play / Play reverse video by time
Single Frame Play		Play video by frames
Skip Forward / Skip Back 30 Seconds		Let the video skip forward / skip back 30 seconds to play
Slow / Fast Play		Let the video played by the speed of 1X / 2X / 4X / 8X / 16X
Split-screen Mode		Switch the playback split-screen mode
Previous / Next Page		Page turning function keys, matching to the split-screen function
Backup		Will pop up a file backup page

Screenshot		Capture the screenshot in the selected channel
Hide/Show Progress Bar		Show / hide the video bar area on the lower side
Full screen		Click the right mouse button, to enlarge full-screen video screen

12.2 Local Snapshot

◆ Right side Toolbar

Switch the playback mode to “Local Screenshot”, after refresh the interface, click “Search” at the under right corner to search all the screenshots on the day, the screenshots will be ranked as thumbnails by the channel numbers by default.

- Click the button  to sort the screenshots by time

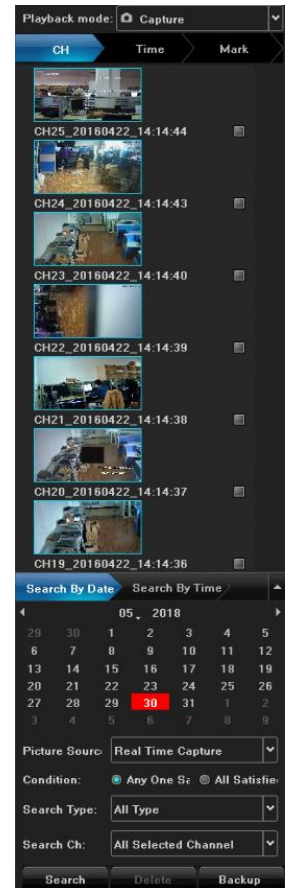
- Heck the right side of the picture , the individual  pictures are marked. You can also click  to perform the operation of “select/uncheck/inverse/sort” the marked picture in the pop-up list.
- By default, the search condition is "search by day", or "search by time"
- "Image Source, Search Criteria, Search Type, Search Channel" is the default value shown on the right. It can also be selected as required.

- Click the  button on the under right corner, the backup dialog box will pop up, then you can back up the marked picture.

● Underside Toolbar:

You can play all the retrieved pictures like a slideshow, and all the buttons on the toolbar are the relevant function buttons, of which functions are similar to local video playback.

It is important to note that the current playing picture can be marked by click this  button during the play.



12.3 External File

- This module is to visit the files in the USB external storage device inserted into the NVR, and all the backup files can be searched in this module.
- Click the “Refresh” button at the under right corner, then the files in the USB external storage device can be retrieved, operate the controls on the toolbar underside the interface, you can do a series of operations to the selected files to play/pause 、stop 、fast play 、audio adjustment. Otherwise, click the “Delete” button at the under right corner can delete the selected files.

12.4 File backup

This product supports backup and download of video and picture files. The following describes the backup conditions:

- Channel selection: no channel is selected By default. You can check the channels that need to be backed up as needed.
- File type: "General" is checked By default, single or multiple check can be selected as required
- File time: full day of the day of the device is checked By default, which can be modified as needed
- File type: "video file" is checked by default, which can be replaced with "picture"
- file format: For video file format, the default is AVI, can be changed to I8
- File size: Click the button  to calculate the size of the backup file that meets the above conditions

After the NVR is plugged into the USB external storage device, you can click  the to detect whether the USB device has been recognized normally. If the IP Monitor is properly identified, the "storage location", "U disk total capacity" and "U disk free space" will automatically flash out the corresponding information.

After all the above conditions are satisfied, click the button  in the lower right corner of the file backup interface to view the backup status from the changes in the Backup Progress bar. When the progress reaches 100%, the backup is completed.

13. Channel Setting

Click on the icon  to enter the disk backup interface. There are five modules in this interface.

Channel connection

This page is the configuration interface for adding channels. There are 3 ways to add channels to the channel list. :

◆ LAN Search Add Channel

Click the button  to search for the IPC that meets the checked protocol in the

LAN. Click the button  to add the selected IPC to the right list. From the Status, you can check whether the channel is connected successfully. If the connection fails, In the state, check whether the IPC is still online or whether it is in the same network segment as the IP address of the NVR.

◆ Automatically added (modify IP address when adding channels)

The IPC that is searched out may not be in the same network segment as the IP address of the IP Monitor (you may not be able to access the screen after adding it). Select the "Add IP Address" function, select the channel to be added, and click the button . The dialog box is displayed. (See the figure on the right), select whether to modify the IP as needed.



◆ Manually Add

After selecting the channel number to be added on the lower channel parameter page, fill in the correct IPC protocol, IP address, port number, username, and password, and then click the Save button to complete the addition. The "Copy To" function copies other information except IP addresses to other channels.

Channel parameters

The module is basically some common configuration of the channel parameters. It should be noted that the IPC front-end parameters need to be supported by the IPC front-end, and the access protocols are different. Some of the functions are also not supported. There are 6 pages in total. The following describes:

◆ display setting

This page can be configured for "local channel name, channel name, time and date format, image settings, and lens parameters" :

- Local channel name: The default is displayed in red font in the upper left corner of the screen, can be modified
- Channel Name:
- Time/date format: Different time/date formats can be selected for the specified channel.
- Image settings: can set the brightness, contrast, saturation, and chroma of the specified channel.
- OSD position: The channel name, time and date are marked on the screen with a yellow rectangle, and the mouse can be dragged anywhere.
- Lens parameters: configuration of the basic parameters of the IPC lens.

Copy To: Copies the configuration parameters of the current channel to other channels.

Note: The above IPC front-end configuration requires IPC front-end support to be saved!

- encoding settings
- Mass stream type: There are two types of composite stream and video stream. When the channel supports audio output, the composite stream must be selected.
- Resolution: Sub- and mainstream resolutions are different, and there are multiple resolutions to choose from (different types of IPC resolution options are different);
- Bit rate type: including fixed rate and variable rate.
- The upper limit of the bit rate: different values can be selected in the drop-down list, and can also be customized.
- Video frame rate: select different values in the drop-down list, the default is "full frame rate".
- Image quality: When the bit rate type is variable bit rate, different image quality can be selected according to the need.
- I frame interval: The interval of I frames is 25.
- Watermark: Save an invisible character in the video to verify that the video file has been tampered with. Enable the watermark, enter the desired character in the watermark string and save it. This character will be hidden and saved in the video. After backing up the video, check whether the watermark information of the backup video is consistent with the setting in [File Backup] - [Watermark Verification].

◆ Motion detection

- Detection mode: The default is "Front-end detection", some NVRs do not support "NVR local detection".
- Sensitivity/proportion: After setting it reasonably, the accuracy of motion detection triggering can be increased.
- Regional settings: Hold down the left mouse button directly on the screen and drag it to the area where you need to move the detection. The red grid area that appears is the selected area for motion detection.
- Arming time: Select the time interval for arming.
- Linkage method: Select the method to be linked
- Full-screen frame: One-click to set the entire screen area as a motion detection area.
- Full Screen Clear: The area of the motion detection previously set on the screen is cleared

◆ Lost video

Video loss configuration page, the default is all-day enabled state, and the default is "Monitor Alert"

◆ Mask Alarm

The setting method is similar to the motion detection. When the painted area is occluded, an alarm will be triggered. Note that the onvif protocol access channel does not support the occlusion alarm function.

Video Tampering The setting method is similar to the motion detection. The painted area will form black blocks on the screen. Note that the onvif protocol access channel does not support the occlusion alarm function.

13.1 Video settings

There are four video modes, the default is "time recording + alarm video", switchable mode:

- Scheduled recording + alarm recording: In the set timing recording period, or alarm triggered recording, the current channel system will perform recording operation.
- Scheduled recording: Only during the scheduled recording period, the current channel system will perform the recording operation.
- Alarm recording: Only when the alarm recording function is triggered, the current channel system will perform the recording operation.
- Stop recording: The current channel stops recording immediately unless the manual recording function is enabled in the preview interface.

Note: The setting of recording period is for "time recording". The pre-recording time and recording delay are for "alarm recording"; otherwise, the setting is not allowed.

13.2 Channel grouping

◆ Organization

The role of setting up the organization structure is to preview the channels in groups and group them according to a certain standard. The following figure is grouped by area, and the same channel can be divided into different groups (such as ch4) as needed.



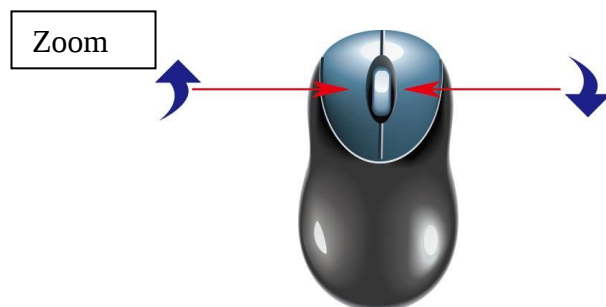
A row of function buttons in the middle of the above figure are: "Create a group, delete a group, modify a group name, add a channel to a group to the right, remove a channel in a group to the left, move a group up, and move a group down".

◆ Preview Tour

The settings of the preview patrol are similar to the above organizational structure settings, and are also grouped according to a certain standard to facilitate the preview tour operations.

14 . Digital Zooming

During image preview and playback, roll mouse roller to do digital zooming, it zooms the image as mouse pointer as the centre. The max can do 15X zooming. Drag the zoomed image by mouse to see image detail.



15 . Troubleshooting for Display Problems

The tables provided below include some problems that the user may encounter while using the display and the corresponding solutions. Please refer to the contents of this section prior to contacting service personnel.

Problem	Possible Causes	Solutions
No picture	1. Is the power cable connected to the unit? 2. Is the unit turned on? 3. Is the signal cable connected to the unit? 4. Is the unit in power saving mode?	1. Make sure the power cable has been properly connected to the unit. 2. Turn on the unit. 3. Make sure the signal cable has been properly connected to the unit. 4. Press any key on computer keyboard.
Strange colour	1. Is the signal cable connected to the unit?	1. Make sure the signal cable has been properly connected to the unit.
Picture distortion	1. Is the signal cable connected to the unit? 2. Is the video input signal within the unit's specified frequency range?	1. Make sure the signal cable has been properly connected to the unit. 2. Make sure the input signal is within the unit's specified frequency range.
Picture is too dim	1. Have the unit's brightness and contrast settings been set to the lowest level?	1. Adjust brightness and contrast
Only sound but no picture	1. Is the connection of the input signal correct?	1. Check connection of input signal. 2. Make sure the signal cable has been properly connected.
Only picture but no sound	1. Is the signal cable connected to the unit? 2. Has the volume been set to the min level? 3. Is the audio cable connected to the unit?	1. Make sure the signal cable has been properly connected to the unit. 2. Adjust the volume to an appropriate setting. 3. Make sure the audio cable has been properly connected to the unit.

Please contact the customer service centre of your local dealer if you have any questions regarding the unit after reading the information provided above.

16 . Troubleshooting for IP Camera Problems

1. Internet disconnected to HDVS IP Monitor system

Possible reasons:

- 1) Please check if your physical network is normal or not.
- 2) Please check your HDVS IP Monitor parameter setting.
- 3) Please if there is IP conflict with each other, please set the gateway correctly.

- 4) Please ensure all the IP addresses in LAN are unique.

2. No preview image

Possible reasons:

- 1) IP cameras time synchronization with HDVS IP Monitor.
- 2) The Onvif device camera needs to select UDP network type.
- 3) The IPCAM device camera needs to select TCP network type.
- 4) Please check the channel select correctly.
- 5) HDVS IP Monitor's username and password should be correctly filled in.

3. IP Camera IP address can be searched, multi-images sub stream and single image mainstream all cannot have image

Possible reasons:

- 1) Please check your IP channel setting "Stream Type"
- 2) Adjustment of stream type, choose "Mainstream" or "Sub stream"
- 3) The username and password should be correctly filled in.

4. The multi-images sub stream has image and single image mainstream is on black screen or still image as well as black-screen playback

Possible reasons:

- 1) Adjustment of stream type to 1080p mode.
- 2) Users need to adjust HDVS IP Monitor mainstream with resolution ratio for 1080p or 720p.

5. The colour garbage preview image

Possible reasons:

- 1) Please check your IP channel setting "Stream Type"
- 2) Adjustment of stream type, choose "Mainstream" or "Sub stream"