Foreword

Notice:
Welcome to use our video recorder (HVR). For your safety, please read the manual carefully. Here are the right method to use our HVR, preventing danger and the loss of your property. Please follow when use it.

1. Installation environment:
   - Please place and use the HVR from 0°C-50°C.
   - While install and use the HVR, it should be placed horizontally. Avoid tilt, and not invert.
   - Avoid placing or installing in a high temperature, damp, dusty or smoking situation.
   - HVR should not be suffered from the water-drop or water splash. Do not put something filled with liquid like vase on it. Also, do not put other devices on it.
   - To make sure the HVR cool properly, please install it in a well ventilated environment. (cooling fan is installed inside)
   - Please maintain a gap of 6CM or more between the back and the wall to cool fast during installation.
   - Please install the lightning arrester when use at high-lightning areas to avoid being damaged by thunderstroke.

2. Notice:
   - Please do not touch the power switch with your wet hands or wet items to avoid the electric shock.
   - Make sure the product lying on the ground after finish installation. To avoid the video and voice signal being disrupted, and damaging the product.
   - Please make sure the stable power supply for HVR. Try to use stable voltage, less ripple interference power to input. Do not disconnect the main switch to turn off HVR.
   - Do not spill liquid or metal on HVR to avoid internal short circuit or fire.
   - HVR does not include the hard disk, please install the hard disk correctly before use it. Or it can not playback.
   - HVR PCB board will cause short circuit after the dusts settle on damp. To make it work well for long hours,
   - Please use the brush to clear the dust regularly for the PCB board, accessory, inside housing and the cooling fan.
   - When shut down HVR, do not turn off the power switch directly. Please press the panel's
shutdown button to make HVR power off automatically to avoid damaging the hard disk.

- HVR system supports formatting function. If the hard disk is already used, please note the formatting. Please format the hard disk when first use our HVR, or it causes error.
- Do not open the housing while HVR is working.
- To ensure the video integrity, please change the hard disk timely when it breaks down. (there is wrong record about the hard disk). Or use HardDiskSentinel to check the hard disk by computer.

2. Description:

- Please comply with the actual instrument. The instruction is for reference only.
- HVR version updates in time. Please understand there is no any notice if update.
- Please contact our technology department for the newest program and supplementary documentation.
- Our company has the final power of interpretation if there is doubt or controversy in the product description.

This instruction is provided for a number series products for reference. So, the specific management won’t be listed one by one. If any questions, please contact our technology department.
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<td>4CH/8CH</td>
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<td>Analog input</td>
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<td>960H/720P/1080P/3MP/4MP</td>
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<td>Video stream and composite stream (video and audio stream)</td>
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<td>Support hard disk, USB, network storage and backup</td>
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<td>Mouse, remote, front panel keypad</td>
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<td></td>
<td>4CH Analog + 4CH IP</td>
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<td>8CH IP</td>
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<td></td>
<td>16CH Analog</td>
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<td>8CH Analog + 8CH IP</td>
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<td>4CH/8CH/16CH analogue input / audio input</td>
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<td>4CH/8CH/16CH Analog / network audio, RJ45 interface</td>
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<td>Video output</td>
<td>1CH HDMI, 1CH VGA, 1CH CVBS</td>
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<tr>
<td>Alarm output</td>
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<tr>
<td>WLAN</td>
<td>Via USB mount 7601 NIC chip support</td>
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<td>Hard disk</td>
<td>1/2SATA</td>
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<td>Max capacity</td>
<td>Each supports up to 8TB</td>
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<td>Mobile monitor</td>
<td>Support iPhone, Android smart phone, <strong>APP: XVR PRO</strong></td>
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<td>Power</td>
<td>DC12V</td>
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<td>Consumption</td>
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## Chapter 1 Product Introduction

### 1.1 Product Overview

This product is only designed for video surveillance, which is used for encoding and recording. It's combined with H.264 video compression, max capacity hard disk, TCP/IP, embedded Linux operating system and other advanced electronic information technology. This achieves high quality image, low bitrate recording and good system stability.

This product has a variety of functions: record, playback and monitor simultaneously. Also, it can achieve the synchronization of video and audio. It has advanced control technology and powerful network data transmission capability.

### 1.2 Main Functions

The following functions are different because of the different products and hardware versions.

- real time monitor
- compression function

---

### hardware configure

- **CPU:** HI3520DV2_HI3520DV3_HI3521AV1
- **Board Models:** HVR5004HF_5008HF_5016HF_6004H_6008H_8004U
- **PCB board model:** NVP6134C
- **Coding chip:** HI3520DV2_HI3520DV3_HI3521AV1
- **Encoding chip:**
- **Power:** DC12V
- **Hard disk:** WD/ST_SV35 the best
- **Dongle:** support

---

### Appendix

- **temperature:** -10°C ~ +55°C
- **humidity:** 10% - 90%
- **size:** HVR: packing:
- **weight (without hard disk):**
  - net weight: 
  - gross weight: 
- **Container:**
- **Installation mode:** On desk
Chapter 2  Installation Guide

2.1 Unboxing
When you receive this product, please check according to the "Network Digital Video Recorder List" in the box.

2.2 Hard Disk Installation
Installation preparation:
Please prepare a cross screwdriver. 1 to 9 hard disks can be installed in this series of network digital video recorders, hard disk capacity unlimited.

Hard disk installation steps:
3.1 Hard disk installation steps:
1. Unscrew screws at the side of the housing, open the upper shell.

2. Connect the hard disk data cable and wire.

3. Fix the hard disk to the lower shell of the housing with screws.
Cover up and upper shell with screws.
Chapter 3 Local Operation Guide

1. 3.1 Start Up and Shutdown

3.1.1 Start Up

Plug in the power cable, press the start up button, power indicator light on, video recorder powering up. After starting up, default video outputting mode as multi-screen output, if powering time is in the preset video recording time, the system will automatically start the timing recording function.

Notice: Please use the power/adapter supplied with the network digital video recorder. Do not use other types or brands of power supply instead of the original power adapter.

3.1.2 Shutdown

*To shutdown the device, long press the start up button at the front panel

*Go to 【Right-click menu】 → 【Shut down system】 , select 【shutdown】.(Hint: It is recommended to use this method when shutting down to avoid damage to equipment and hard disk when accidental power off).

Note: Before replacing the hard disk, make sure the device has been shut done.

3.1.3 Power Off Recovery

When the video recorder is recording, if the system power is cut off or forced to shut down, you can turn on the DVR, then it will automatically save the video before powering off, and automatically resume to the status before the powering off.

3.2 Login System

After normal start up, click the right mouse button to select the main menu will pop up the user login interface, please enter the correct user name and password to log into the system (default user name: admin password: 123456).

3.3 Menu Operation

After the user successfully login, follow the menu bar on the interface for the relevant settings:

3.3.1 Sign out

Click on the [Close System] icon on the menu, the interface will be shown on the right:

Logout: Click the "Cancellation" button to log out of the current user;
3.3.2 Camera Adding

**Analogue camera:**
Connect the analog camera / coaxial camera directly to the VIDEO IN port of the DVR.
Support inputting devices are AHD (720P 1080P 3MP 4MP)
TVI (720P 1080P)
CVI (720P 1080P)
Analogue (960H)

**IP Camera:**
Please switch to the mixed mode or IPC mode by this order: 【Right-click Menu】 → 【Main Menu】 → 【System Setting】 → 【Mode Switch】

This product supports multi-version of ONVIF protocol, compatible with most popular brand IPC on the market.

Before connecting to HVR, please ensure that the IPC’s IP address and HVR are in the same network segment, and the main stream and sub-stream need to be adjusted to the recommended value, otherwise it may have the following issues: unable to search IPC, no image showing, image hanging, low picture quality, black image, beyond the decoding capacity and so on.

Connect the HVR with Internet and connect to LAN switch. After powering on, click the icon on the main menu and set the NVR IP address, subnet mask and gateway on the basic configuration page. You can use the ping command on the PC host in the LAN to ping the HVR to detect whether the NVR is connected to the LAN.

**Automatically adding IPC:**
In the [right-click menu] → [Add auto] icon, click OK, the device will automatically search and add the IPC.
To add a IPC manually:

In the [right-click menu] → [network channel] icon, enter the IP channel management interface, as shown below:

![IP Channel Management]

- Click on the channel "+" button, HVR will automatically search all IPC in the LAN, search completed, double-click the IP address which is needed to add to the HVR. You can also click on the manual adding, manually enter the IP address and port to add the IP camera.
3.3.3 Real-time Preview

After powering on the device starts normally, it will enter the real-time monitoring screen, as shown in the following picture:

3.3.3.1 Overview of Related Functions

* Image color modification
In the [right-click menu] → [image color] icon, as shown below:

![Image Color Settings](image1)

Video mode settings

In the [right-click menu] → [video mode settings] icon, as shown below: switchable to AHD / TVI / CVI

![Video Mode Settings](image2)

Electronic zoom function

In the [right-click menu] → [electronic zoom] icon, as shown below: the lower right corner of the small map to draw the area that you want to enlarge the area of the image, double-click to restore to the preview page.

![Electronic Zoom](image3)
Channel Switching

Select a channel, drag to another channel, you can switch the window position.

Remark: The preview position is switched but the device information won't changed

3.3.3.2 PTZ control

485 Mode Control:

Before making PTZ control, please make sure that the relevant parameters of PTZ are set correctly. Need to match the high-speed ball-related settings to set the corresponding channel value, as shown below

After setting the parameters, select the channel that need to be controlled, in the preview interface, and then in the [right-click menu] → [PTZ control] icon to control the direction of the lens; focal length, focus, aperture zoom in and zoom out; PTZ speed settings. Advanced functions can be set in the lower right drop-down menu. As shown below
*Preset point of the settings and calls, (camera need to have this function)

First, through the PTZ control direction button to turn the camera to the desired position, and then in the "preset" list, select a preset number, and finally click "Settings" button.

Select a preset number to be called in the Presets drop-down list and click the Callback button.

*Cruise settings, call (camera need to have this function)

In the "Cruise" list, select a cruise number, click the "Settings" button to enter the "cruise settings" page, as shown below:

And then select the preset point, cruise speed, retention time, click the "join" button, set the cruise path preset point(you can add multiple preset points).

In the "cruise" drop-down list, select a cruise number, click the "call" button.

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*Set and call tracks

In the "track" drop-down list, select a track number, click the "Settings" button to start recording, and then a series of directional operations, click the "set" button again to stop the record track, the track memory is successful. In the "track" drop-down list, select a track number, click the "call" button, then you can call.

**Coaxial mode control (The device must have UTC function)**

Before making coaxial control, make sure that the PTZ related parameters are set correctly. You need to set HVR to coaxial control mode. As shown below

Set the parameters, in the preview interface to select the channel needed to be controlled, and then in the [right-click menu] → [PTZ control] icon to control the camera's menu function application. As shown below.
3.3.4 Video playback

Click 【right-click menu】 → 【video check】 to enter the video playback interface. The playback page includes playback video, playback capture, and default playback video. The following detailed description:

3.3.4.1 Playback

*Channel Select(right area)
By default, ch1-ch4 is selected by "channel" and is automatically selected from channel 1.

*Time search (right area + lower area)

The default time is the date of the device's date, according to your needs to select the year / month / day, the video will be in the bar on the bottom of the interface area display (Note: different types of video has different color bar)

*video playback

To 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 time axis unit scale, time unit scale: 1h, 0.5h, 15min, 5min, 2min, 1min; When the center point moves to the color column timeline, the exact time prompt is automatically displayed, accurate to seconds. Double-click the color column timeline to quickly playback the video, according to the accuracy of playback needs to adjust the scale, so that playback time more accurate positioning.

*Quick Function

<table>
<thead>
<tr>
<th>Name</th>
<th>Icon</th>
<th>Function description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause / Play</td>
<td></td>
<td>Pause / play current video</td>
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<tr>
<td>Stop</td>
<td></td>
<td>Stop the video, all screen closed</td>
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<tr>
<td>Fast Forward / Rewind</td>
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<td>Screen splitting mode</td>
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<td>Switch to playback screen splitting mode</td>
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<td>Backup</td>
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<td>to enter the backup page</td>
</tr>
<tr>
<td>Capture</td>
<td></td>
<td>Capture picture at the selected channel</td>
</tr>
<tr>
<td>Full Screen</td>
<td></td>
<td>Single-click to enter full screen</td>
</tr>
<tr>
<td>Electronic zoom</td>
<td></td>
<td>Use the mouse to draw at the lower right corner area to zoom in</td>
</tr>
<tr>
<td>Exit Playback</td>
<td></td>
<td>Exit the playback page, return to preview page</td>
</tr>
</tbody>
</table>
3.3.4.2 Local Snapshot

In the upper right corner of the video playback page select the playback picture, switch to the playback page, see below:

![Local Snapshot](image)

Playback mode will automatically switch to "File Management", after the interface is refreshed, click the button in the lower right corner to retrieve the same day the channel 1 all the capture file, the default channel number sort, followed by the file style.

* Channel Selection (right area)

By default, select channel 1 and use the left and right buttons to select other channels.

*Time Search (right area)

The default time is the date of the device, select the year / month / day as needed.

*Click the right button you can start the specified time, specify the channel capture file.

*Click the button below to back up the marked image.

3.3.5 Backup

In the [right-click menu] → [main menu] → [video backup], enter the file backup interface, the default backup settings main interface as shown below:

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This product supports video backup download, the following description is about the backup conditions:

Data Type: Default AVI Format: it is universal for All Players.
MP4 format: private format, need to use MP4 player (proprietary)
RAW format: common format, professional application.

disk group selection: the defaulted as the general disk group, when the category disk group show, it can be selected.

Start time: Set the time at which the backup file starts. Defaulted as the current day
End time: The time at which the device backup file was completed. Defaulted as the current day backup capacity: after set the start time and the end time, then update the capacity to confirm the time period file size.

channel selection: the default is empty, need to select the backup channel, the maximum choice of 2 channels.

HVR Insert USB external storage device, click the button of to detect whether the USB device is properly recognized, such as normal identification, "backup device", "device partition" and "device partition space" will automatically brush out the corresponding information.

After the above conditions are met, select the channel, set the start time and end time, update the backup capacity. Click the button below the main interface, you can view from the "progress" changes in the backup situation, the progress of 100% when the backup is complete.
After the above conditions are met, select the channel, set the start time and end time, update the backup capacity. Click the button of the Start button below the main interface, you can view from the changes of "progress" to check the backup situation, when the progress up to 100% the backup is complete.

3.3.6 Video Configuration

In the right-click menu → [main menu] → [video configuration], enter the basic configuration interface, as shown below

- channel: defaulted as channel 1, please select the corresponding channel to set.
- stream type: video stream represents a separate video, composite stream represents video and audio
- video quality: according to your need to choose a different image quality.
- Resolution: automatically according to the signal provided by the camera to identify the corresponding resolution.
- bit rate limit: in the left and right options can choose different values, but also can be set by yourself;
- frame rate: in the left and right can choose a different value, the default is "full frame rate";
3.3.6.1 Video Program

The page is used to configure scheduled routes, you can schedule scheduled video recording or motion detection video, shown as the following figure:

- channel: default as channel 1, please select the corresponding channel to set
- The default use is 7 * 24 hours timer recording. System according to 7 * 24 hours to develop a video program, blue color represents regular video, green color represents motion detection video. It is valid when the recording mode is set as automatic

3.3.6.2 Extended Function Application

Click-menu → Main menu → System setting → Output mode As shown below:
- Channel name: the name of the corresponding image on the upper left corner of the channel display.
- Video cover: After starting this function, you can set up four cover areas.
- Video detection: start the function, when detect that video is loss, or video abnormalities, according to set the corresponding linkage or alarm. Note: products need support alarm function.
- Motion detection: When this function is enabled, there are 3 kinds of sensitivity options. When dynamic picture is detected, it will be linked or alarmed according to the settings. Shown as below:

- Image parameters: can set the brightness, contrast, saturation, and other information

3.3.6.3 Output Configuration
In the 【right-click menu】 → 【main menu】 → 【system settings】 → 【output mode】 output configuration shown as below:
- menu background contrast: you can set the transparency of menu item background, divided into opaque / three to one / four to one;
- screen protection time: set the automatically turn off screen time
- Main display resolution: set the current VGA, HDMI output resolution

3.3.7 Hard Disk Management
In the [right-click menu] → [main menu] → [hard disk management], as shown below
- disk type: as the code of the product model.
- disk capacity: as the total capacity available for the disk.
- free space: the remaining capacity after the disk has been recorded or used capture
- Status: Current working status of the disk:
- Initialize the hard disk: the disk format operation.
- Note: The hard disk used for the first time must be formatted. And often check the log situation.

3.3.8 System Configure

Right-click menu–main menu–system setting–system configure, as shown in the picture
3.3.8.1 Time Setting

- System time: click the set button after the system time, then you can set the HVR time manually. After the modification time of the device is valid, the time of the channel is automatically updated;

- Time zone: switch time zone, the system time will automatically update the date and time, some time zone exist daylight saving time;
3.3.8.2 Network Parameters

Right-click menu--main menu--network configure, as shown in the picture

- Basic Setting
  - Network card type: you can choose different network card based on your needs
  - MAC address: display physical address of the current network interface, can not modify
  - Obtain an IP address automatically: IP/mask/gateway can’t be modified when select DHCP. If DHCP works, it will get new IP/mask/gateway assigned by the router (remote login requires a new IP address). If not, it's still the old IP/mask/gateway (can use the old one to remote log in).
  - Update: can re-obtain a DHCP lease
  - IP address: enter the corresponding number to modify the default IP address
  - Subnet mask: enter the corresponding subnet mask
  - Gateway: enter the corresponding gateway
WALN mode: multiple network card need to set the default router, can visit the external network through this channel.

- DDNS setting (advanced setting)

Please select DDNS and set in advanced setting.

Notice: please make sure the device can visit external network when use this function.

![DDNS Parameters](image)

- Server type: there are 3 types corresponded to 3 servers in the default list.
- User domain name: every type of server is correspond to the applied user domain name.
- User name & password: enter the right user name and password

- E-mail setting (advanced setting)

This function is used in conjunction with "email" of Linkage configure. Please enter the right email address and password of sender and receiver, DNS and port of Email at the right column.

There are other additional functions.

Click “test” icon, to send an email to the recipient's email, it will be prompted if success or not.

Notice: please make sure the network environment is good, HVR can access external network smoothly when using Email Linkage configure.

Notice: It is recommended to use a self-built mailbox server, the mailbox server on the market with a firewall, sending multiple messages by the same account may be blocked by the firewall or blocked link mail server.

- PPPOE (advanced setting)
Enable PPPoE: need to fill in the correct PPPoE user name and password, if the network is connected, it can get the dynamic address of the device.

- port setting:
  The port numbers are 80, 5050, 6050 and 8050 respectively, and the port number can be modified.

3.3.8.3 Alarm Management

Right-click menu—main menu—system setting—alarm setting:

- alarm input
  - Select the channel and alarm status
  - Start "alarm" function
  - Alarm time & Linkage mode: select the alarm time zone and linkage mode
  - Copy: copy the above configuration to other channels

- alarm output
  - Alarm output: select the channel
  - Output alarm delay: select the alarm output time or custom setting
  - Alarm time: select the alarm time zone
  - Copy: copy the above configuration to other channels

- Exception configuration
  - Exception type: 6 types
  - Trigger mode: all
  
  Linkage setting
  You can query, add, modify, delete all alarm type and all channel's linkage information on this interface.

3.3.8.4 User Management

Right-click menu—main menu—system setting—user management, as shown in the picture
3.3.9 System Maintenance

- Add user: add a new user
- Delete user: delete the selected user (except the admin and default user)
- Edit user: edit an existing user
- User authorization: set the selected user's permission

Right-click menu → system setting → HVR version: as shown in the picture
3.3.9.1 System Info-Stream Statistics

- Right-click menu--system info--stream statistics
- Stream info: All channels’ real time main stream info are calculated by per second and per hour.

3.3.9.2 System Info-Log Info

Right-click menu--system info--log info

You can check the different type and time log info on this interface. There are 3 main type: management, exception, alarm. Each main type has multiple subtypes. (The system default is to search all type logs.) It can check the log time across a day, a week or month.

3.3.9.3 System Info-Export Configuration

- Right-click menu--system info--export configuration
- Please export the system configuration to USB.

3.3.9.4 System Info-Import Configuration

Right-click menu--system info--import configuration
- Please import the system configuration saved in the USB. It works after reboot.
3.3.9.5 System Update

Right-click menu--main menu--system setting--system update, as shown in the picture.

![USB Upgrade Interface](image)

Please update the version on this interface. Please insert the USB with newest system file, after choose it, then click and start update. Please reboot after finish update.

Also, it can use network or WEB to update.

Notice: Do not manage the HVR or remote control while updating. Or it causes unrepairable error!

Notice: It took 3-5 minutes for update, do not power off.
Chapter 4 Network Operation Guide

4.1 WEB browser operation guide

4.1.1 Internet connection

Verify that the network digital video recorder is properly connected to the network;

Set the IP address, subnet mask and gateway to the host computer and HVR respectively. If there is no route in the network, please assign the IP address of the same network segment. If there is a route in the network, you need to set the corresponding gateway and subnet mask. About the network setting of digital video recorder, please consult “network setting”

Make sure the IP address is set correctly. After the IP address is set, you can use the system’s own ping tool to check whether the network digital video recorder is properly connected to the network.

4.1.2 Control installation and user logout

◆ After the network digital video recorders connected to the network, you can log on through the IE browser to access network digital video recorders;

◆ You can download and install IE plug-in from the network and NVR, after installation, run the plug-in, and then in the IE browser, entering the network digital video recorder IP address, user name, password, the connection successfully and then will pop up the following interface:
After landing correctly, then you can enter the network preview interface, the operation method of the network side is similar to the host side.

Chapter 5 Mobile Operator Guide

This operating guide is for how to install and use mobile phone client in Android, iOS phone. As to our company’s products, we commonly used mobile client app is XVR PRO, customers can customize the APP according to their needs, about how to use these APP the methods are similar, following, we will explain how to use with the APP XVR PRO as an example.

Mobile phone client software supports Android 4.0 and above system version (mobile phones include the current market commonly used brands such as Huawei, millet, HTC, etc.), and iOS 6.0 and above system version (mobile phones including iPhone, iPad, etc.).
Installation and operating instructions

1. Download the current latest version of the XVR PRO installation file from the application treasure;

2. Online installation;

3. After installation, click the appropriate program icon, open the app, please see the right figure.

Note: In actual use, the phone performance and network status will affect the preview effect. If the network conditions are poor, you can appropriately reduce the bit rate / frame rate, to ensure preview image smoothly.

The functions of common buttons as follow:

<table>
<thead>
<tr>
<th>Function Keys</th>
<th>Names</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Device Adding" /></td>
<td>Device Adding</td>
<td>Select adding method then add the device</td>
</tr>
<tr>
<td><img src="image" alt="Capture" /></td>
<td>Capture</td>
<td>Capture the current channel image (the capture file is saved to mobile phone’s default album)</td>
</tr>
<tr>
<td><img src="image" alt="Manual Recording" /></td>
<td>Manual Recording</td>
<td>Manually record the video of the current channel (videos will be saved to the default mobile phone video directory)</td>
</tr>
<tr>
<td><img src="image" alt="Audio Switch" /></td>
<td>Audio Switch</td>
<td>Open the audio of that channel</td>
</tr>
<tr>
<td><img src="image" alt="Intercom switch" /></td>
<td>Intercom switch</td>
<td>After switching on you can send voice to the camera end</td>
</tr>
<tr>
<td><img src="image" alt="File Management" /></td>
<td>File Management</td>
<td>View all captured pictures and videos</td>
</tr>
<tr>
<td><img src="image" alt="Video Playback" /></td>
<td>Video Playback</td>
<td>Enter video playback interface to view the video</td>
</tr>
<tr>
<td><img src="image" alt="Settings" /></td>
<td>Settings</td>
<td>Enter the setup interface</td>
</tr>
<tr>
<td><img src="image" alt="PTZ control + zoom" /></td>
<td>PTZ control + zoom</td>
<td>To achieve PTZ control up, under, left and right and lens zoom in and out</td>
</tr>
<tr>
<td><img src="image" alt="Focal Length" /></td>
<td>Focal Length</td>
<td>Focus length adding or reducing</td>
</tr>
<tr>
<td><img src="image" alt="Aperture" /></td>
<td>Aperture</td>
<td>Aperture adding or reducing</td>
</tr>
</tbody>
</table>
The device can not be started or restarted

- possible reason:
  - network digital video recorders use the wrong procedures to update cause the system software is be damaged;
  - network digital video recorder boards failure, please contact the supplier to repair;
  - hard disk failure, please replace the hard disk;
  - There is a problem with the power supply. Please try to replace the power supply.

**Can not use remote controller**

- possible reason:
  - Please check whether the battery in the remote control is properly installed, especially the positive and negative polarity;
  - Please Check whether there is enough battery power in the remote control battery;
  - Please Check whether the remote control window is obscured
  - Please Check whether the remote address of the network digital video recorder matches the remote control address

**PTZ can not be controlled**

possible reasons:

- The connection of RS-485 interface cable is not correct, A, B port connected reversely;
- The setting of PTZ decoder type, protocol, baud rate, address bit is not correct;
- RS-485 bus connect number of PTZ cause several signal reflection, need to parallelly connect a 120Ω resistor in distal;
- RS-485 interface of the DVR board failure.

**DVR preview without picture, black and white image, or blurred screen**
possible reasons:
Video input system does not match, if the camera is NTSC standard, network digital video recorder use the PAL system, there will be a preview image.
The video input mode does not match. AHD, TVI, CVI signal need to be corresponding among the camera and the video recorder.

◆ Network digital video recorder playback show blurred screen or can not query the video possible reasons:

➢ program read error, please try to restart the network digital video recorder;
➢ There is an error of the hard disk data because of bad sectors, bad cluster, please check the hard disk, if hard disk damaged, please replace the hard disk;
➢ Network digital video recorder hardware failure, please contact the supplier.

Can not connect to network digital video recorder through network possible reasons:

➢ Please check whether the network physical connection is normal
➢ Please check the network parameter configuration of the network digital video recorder
➢ Please check whether there is an IP conflict in the network

◆ The downloaded or backed up video can not be played normally possible reasons:

➢ does not install the player correctly
➢ backup with U disk or mobile hard disk file system error
➢ You do not install graphics driver or install above DX9.0 graphics acceleration software.