Standalone DVR Quick Start Guide
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Welcome

Thank you for purchasing our DVR!
This quick start guide will help you become familiar with our DVR in a very short time.
Before installation and operation, please read the following safeguard and warning carefully!

Important Safeguard and Warning

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

2. Transportation security
   Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3. Installation
   Keep upwards. Handle with care.
   Do not apply power to the DVR before completing installation.
   Do not place objects on the DVR.

4. Qualified engineers needed
   All the examination and repair work should be done by the qualified service engineers.
   We are not liable for any problems caused by unauthorized modifications or attempted repair.

5. Environment
   The DVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

6. Accessories
   Be sure to use all the accessories recommended by manufacturer.
   Before installation, please open the package and check all the components are included:
   Contact your local retailer ASAP if something is missing in your package.

7. Lithium battery
   Improper battery use may result in fire, explosion, or personal injury!
   When replace the battery, please make sure you are using the same model!
   RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
   DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Caution
FOR YOUR DEVICE SAFETY, PLEASE CHANGE SYSTEM DEFAULT PASSWORD AFTER YOU FIRST LOGIN IN!
1 Hardware Installation and Connection

Note: All the installation and operations here should conform to your local electric safety rules.

1.1 Check Unpacked DVR

When you receive the DVR from the forwarding agent, please check whether there is any visible damage. The protective materials used for the package of the DVR can protect most accidental clashes during transportation. Then you can open the box to check the accessories.

Please check the items in accordance with the list. (Remote control is optional). Finally you can remove the protective film of the DVR.

Note
Remote control is not a standard accessory and it is not included in the accessory bag.

1.2 About Front Panel and Rear Panel

For detailed information of the function keys in the front panel and the ports in the rear panel, please refer to the User’s Manual included in the resource CD.

The model label in the front panel is very important; please check according to your purchase order.

The label in the rear panel is very important too. Usually we need you to represent the serial number when we provide the service after sales.

1.3 After Remove the Chassis

Please check the data cable, power cable, COM cable and main board cable connection is secure or not.

1.4 HDD Installation

1.4.1 HDD Calculation

Calculate total capacity needed by each DVR according to video recording (video recording type and video file storage time).

Step 1: According to Formula (1) to calculate storage capacity \( q_i \), that is the capacity of each channel needed for each hour, unit Mbyte.

\[
q_i = d_i \div 8 \times 3600 \div 1024
\]

(1)

In the formula: \( d_i \) means the bit rate, unit Kbit/s

Step 2: After video time requirement is confirmed, according to Formula (2) to calculate the storage capacity \( m_i \), which is storage of each channel needed unit Mbyte.

\[
m_i = q_i \times h_i \times D_i
\]

(2)

In the formula:

\( h_i \) means the recording time for each day (hour)
$D_i$ means number of days for which the video shall be kept.

Step 3: According to Formula (3) to calculate total capacity (accumulation) $q_T$ that is needed for all channels in the DVR during **scheduled video recording**.

$$q_T = \sum_{i=1}^{c} m_i$$ (3)

In the formula: $c$ means total number of channels in one DVR.

Step 4: According to Formula (4) to calculate total capacity (accumulation) $q_T$ that is needed for all channels in DVR during **alarm video recording (including motion detection)**.

$$q_T = \sum_{i=1}^{c} m_i \times a\%$$ (4)

In the formula: $a\%$ means alarm occurrence rate.

You can refer to the following sheet for the file size in one hour per channel. (All the data listed below are for reference only.)

<table>
<thead>
<tr>
<th>Bit stream size (max)</th>
<th>File size</th>
<th>Bit stream size (max)</th>
<th>File size</th>
</tr>
</thead>
<tbody>
<tr>
<td>96K</td>
<td>42M</td>
<td>128K</td>
<td>56M</td>
</tr>
<tr>
<td>160K</td>
<td>70M</td>
<td>192K</td>
<td>84M</td>
</tr>
<tr>
<td>224K</td>
<td>98M</td>
<td>256K</td>
<td>112M</td>
</tr>
<tr>
<td>320K</td>
<td>140M</td>
<td>384K</td>
<td>168M</td>
</tr>
<tr>
<td>448K</td>
<td>196M</td>
<td>512K</td>
<td>225M</td>
</tr>
<tr>
<td>640K</td>
<td>281M</td>
<td>768K</td>
<td>337M</td>
</tr>
<tr>
<td>896K</td>
<td>393M</td>
<td>1024K</td>
<td>450M</td>
</tr>
<tr>
<td>1280K</td>
<td>562M</td>
<td>1536K</td>
<td>675M</td>
</tr>
<tr>
<td>1792K</td>
<td>787M</td>
<td>2048K</td>
<td>900M</td>
</tr>
<tr>
<td>3072Kbps</td>
<td>1350M</td>
<td>4096K</td>
<td>1800M</td>
</tr>
<tr>
<td>6144Kbps</td>
<td>2700M</td>
<td>8192Kbps</td>
<td>3600M</td>
</tr>
</tbody>
</table>

Note:
- All information listed in the above sheet for reference only. We are not reliable for any damage or loss resulting from it.
- For the space marked by the HDD manufacturer, 1K=1000, while for the computer OS, 1K=1024. So, the space recognized by the computer system is less than the marked space on the HDD. Please pay attention to it.
- All HDD space marked by the HDD manufacturer is shown as below: 1T=1000G, 1G=1000M, 1M=1000K, 1K=1000.
- All HDD space marked by the HDD manufacturer shall become the computer OS space after the corresponding calculation. For example: 1T (marked by the HDD manufacturer) = 1000G / (1.024*1.024*1.024) = 931G (OS space), 500G=500G / (1.024*1.024*1.024) = 465G

### 1.4.2 HDD Installation

⚠️ **Important**
Shut down the device and unplug the power cable before you install the HDD.
Always use the HDD for the surveillance product recommended by the manufacture.
All figures listed below for reference only. Slight difference may be found on the front or rear panel.

You can refer to the User’s Manual for recommended HDD brand. Please follow the instructions below to install hard disk. This series DVR max supports 8 SATA HDDs. Please use HDD of 7200rpm or higher.

① Loosen the screws of the upper cover and side panel. Remove the cover.
② Fix four screws in the HDD (Turn just three rounds).
③ Place the HDD in accordance with the four holes in the bottom.
④ Turn the device upside down and then turn the screws in firmly.
⑤ Connect the HDD cable and power cable.
⑥ Put the cover in accordance with the clip and then place the upper cover back. Secure the screws in the rear panel and the side panel.

1.5 Front Panel
The front panel is shown as in Figure 1-1.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATUS</td>
<td>Status indicator light</td>
<td>The blue light is on when the device is working properly.</td>
</tr>
<tr>
<td>HDD</td>
<td>HDD status indicator light</td>
<td>The blue light is on when the HDD is malfunction.</td>
</tr>
<tr>
<td>Icon</td>
<td>Name</td>
<td>Function</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>NET</td>
<td>Network status indicator light</td>
<td>The blue light is on when the network connection is abnormal.</td>
</tr>
<tr>
<td>POWER</td>
<td>Power status indicator light</td>
<td>The blue light is on when the power connection is OK.</td>
</tr>
<tr>
<td>☑</td>
<td>USB2.0 port</td>
<td>Connect to peripheral USB 2.0 storage device, mouse, burner and etc.</td>
</tr>
</tbody>
</table>

### 1.6 Rear Panel

#### 1.6.1 Panther5-32 Series

The rear panel is shown as below. See Figure 1-2.

![Figure 1-2](image)

Please refer to the following sheet for detailed information.

<table>
<thead>
<tr>
<th>SN</th>
<th>Icon</th>
<th>Name</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MIC OUT</td>
<td>Audio output port</td>
<td>Audio output port. It is to output the analog audio signal to the devices such as the sound box.</td>
</tr>
<tr>
<td>2</td>
<td>MIC IN</td>
<td>Audio input port</td>
<td>Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.</td>
</tr>
<tr>
<td>3</td>
<td>VIDEO OUT</td>
<td>Video output port</td>
<td>Connect to video output devices such as TV.</td>
</tr>
<tr>
<td>4</td>
<td>AUDIO OUT</td>
<td>Audio output port</td>
<td>Audio output port. It is to output the analog audio signal to the devices such as the sound box.</td>
</tr>
<tr>
<td>5</td>
<td>AUDIO IN</td>
<td>Audio input port</td>
<td>It is to receive the analog audio signal output from the devices such as microphone.</td>
</tr>
<tr>
<td>SN</td>
<td>Icon</td>
<td>Name</td>
<td>Note</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
</tbody>
</table>
| 1~16 |  | Alarm input port 1~16 | ● There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types: NO (normal open)/NC (normal close).  
● When your alarm input device is using external power, please make sure the device and the NVR have the same ground. |
| NO1~NO5 |  | Alarm output port 1~5 | ● 5 groups of alarm output ports. (Group 1: port NO1~C1, Group 2:port NO2~C2, Group 3:port NO3~C3, Group 4: port NO4~C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.  
● NO: Normal open alarm output port.  
● C: Alarm output public end.  
● NC: Normal close alarm output port. |
<p>| C1~C5 |  |  |  |
| NC5 |  |  |  |
| A |  | RS-485 communication port | RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. |
| B |  |  | RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ. |
| T+, T-, R+, R- |  | Four-wire full-duplex 485 port | Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire. |
| CTRL 12V |  | Control power output | Controller 12V power output. It is to control the on-off alarm relay output. |
| 12V |  | +12V power output port | +12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A. |
|  |  |  |  |
|  |  | Ground | Ground |
| 7 | VGA | VGA video output port | VGA video output port. Output analog video signal. Can connect to the monitor to view analog video output. |</p>
<table>
<thead>
<tr>
<th>SN</th>
<th>Icon</th>
<th>Name</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>![Power switch icon]</td>
<td>Power switch</td>
<td>Power on/off button.</td>
</tr>
<tr>
<td>9</td>
<td>![Power socket icon]</td>
<td>Power socket</td>
<td>Power socket</td>
</tr>
<tr>
<td>10</td>
<td>![Ground terminal icon]</td>
<td>Ground terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>11</td>
<td>![HDMI1 icon]</td>
<td>High Definition Media Interface 1</td>
<td>High definition audio and video signal output port. It outputs the same video source as VGA/TV. Support mouse operation and control.</td>
</tr>
<tr>
<td>12</td>
<td>![HDMI2 icon]</td>
<td>High Definition Media Interface 2</td>
<td>High definition audio and video signal output port. Support multiple-window video matrix output. Support tour function.</td>
</tr>
<tr>
<td>13</td>
<td>![eSATA icon]</td>
<td>eSATA port</td>
<td>External SATA port. It can connect to the device of the SATA port. Please make sure there is power supplying when there is peripheral connected HDD.</td>
</tr>
<tr>
<td>14</td>
<td>![USB port icon]</td>
<td>USB port</td>
<td>Connect to USB storage device, mouse, burning DVD-ROM and etc.</td>
</tr>
<tr>
<td>15</td>
<td>![RS-232 icon]</td>
<td>RS232 debug COM.</td>
<td>It is for general COM debug to configure IP address or transfer transparent COM data.</td>
</tr>
<tr>
<td>16</td>
<td>![Network port icon]</td>
<td>Network port</td>
<td>1000Mbps Ethernet port</td>
</tr>
<tr>
<td>17</td>
<td>![VIDEO IN icon]</td>
<td>Video input port</td>
<td>Connect to analog camera, video input signal.</td>
</tr>
</tbody>
</table>

**1.6.2 Panther5-16 Series**

The rear panel is shown as below. See Figure 1-3.

![Panther5-16 Series rear panel](image)

Figure 1-3

Please refer to the following sheet for detailed information.

<table>
<thead>
<tr>
<th>SN</th>
<th>Icon</th>
<th>Name</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>![GND icon]</td>
<td>GND</td>
<td>Alarm input ground port.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>SN</th>
<th>Icon</th>
<th>Name</th>
<th>Note</th>
</tr>
</thead>
</table>
| 2  | ![Image](image1.png) | Alarm input port 1~8(16)     | • There are two types; NO (normal open)/NC (normal close).  
• When your alarm input device is using external power, please make sure the device and the DVR have the same ground. |
| 3  | ![Image](image2.png) | Alarm output port 1~3         | • 3 groups of alarm output ports. (Group 1: port NO1~C1, Group 2: port NO2~C2, Group 3: port NO3~C3). Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.  
• NO: Normal open alarm output port.  
• C: Alarm output public end. |
| 4  | ![Image](image3.png) | Video input port              | Connect to analog camera, video input signal.                                                                                      |
| 5  | ![Image](image4.png) | Audio input port              | Connect to audio input device such as speaker.                                                                                     |
| 6  | ![Image](image5.png) | VGA video output port         | VGA video output port. Output analog video signal. Can connect to the monitor to view analog video output.                          |
| 7  | ![Image](image6.png) | Power switch                  | Power on/off button.                                                                                                               |
| 8  | ![Image](image7.png) | Audio output port             | Connect to video output device such as sound box.                                                                                  |
| 9  | ![Image](image8.png) | USB2.0 port                   | Connect to USB storage device, mouse, burning DVD-ROM and etc.                                                                      |
| 10 | ![Image](image9.png) | Network port                  | 100M Ethernet port                                                                                                                 |
| 11 | ![Image](image10.png) | RS485 (RS-485) communication port | RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.  
RS485_B. It is the cable B. You can connect to the control devices such as speed dome PTZ. |
| 12 | ![Image](image11.png) | Power input port              | Input 12V DC.                                                                                                                      |
| 13 | ![Image](image12.png) | Power cable fastener          | Use clamp to secure the power cable on the device in case there is any loss.                                                       |

**Important**

When connect the Ethernet port, please use crossover cable to connect the PC and use the straight cable to connect to the switch or router.
1.7 Connection Sample

Please refer to Figure 1-4 for connection sample. The following figure is based on the Panther5-16 series product.

![Connection Diagram](image)

Figure 1-4

1.8 Alarm Input and Output Connection

Please read the followings before connecting.

1. Alarm input
   a. Please make sure alarm input mode is grounding alarm input.
   b. Grounding signal is needed for alarm input.
   c. Alarm input needs the low level voltage signal.
   d. Alarm input mode can be either NC (normal Open) or NO (Normal Close)
   e. When you are connecting two DVRs or you are connecting one DVR and one other device, please use a relay to separate them,

2. Alarm output
   The alarm output port should not be connected to high power load directly (It shall be less than 1A) to avoid high current which may result in relay damage. Please use the co contactor to realize the connection between the alarm output port and the load.

3. How to connect PTZ decoder
   a. Ensure the decoder has the same grounding with DVR, otherwise you may not control the PTZ. Shielded twisted wire is recommended and the shielded layer is used to connect to the grounding.
   b. Avoid high voltage. Ensure proper wiring and some thunder protection measures.
c. For too long signal wires, 120Ω should be parallel connected between A, B lines on the far end to reduce reflection and guarantee the signal quality.

d. “485 A, B” of DVR cannot parallel connect with “485 port” of other device.
e. The voltage between of A,B lines of the decoder should be less than 5v.

4. Please make sure the front-end device has soundly earthed.
Improper grounding may result in chip damage.

1.8.1 Alarm Input and Output Details
You can refer to the following sheet for alarm input and output information.

**Important**
The interface is shown as below.

![AB cable connection](image)

You can refer to the following sheet for alarm input and output information.

<table>
<thead>
<tr>
<th>1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16</th>
<th>ALARM 1 to ALARM 16. The alarm becomes active in low voltage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO1 C1, NO2 C2, NO3 C3, NO4 C4, NO5 C5 NC5</td>
<td>The first four are four groups of normal open activation output (on/off button) NO5 C5 NC5 is a group of NO/NC activation output (on/off button)</td>
</tr>
<tr>
<td>CTRL 12V</td>
<td>Control power output. The power output is off when the alarm is canceled.</td>
</tr>
<tr>
<td>+12V</td>
<td>It is rated power output.</td>
</tr>
<tr>
<td></td>
<td>Earth cable.</td>
</tr>
<tr>
<td>485 A/B</td>
<td>485 communication port. They are used to control devices such as PTZ. Please parallel connect 120TΩ between A/B cables if there are too many PTZ decoders.</td>
</tr>
<tr>
<td>T+, T-, R+, R-</td>
<td>They are four-wire double duplex RS485 port T+ T-: output wire R+ R-: input wire</td>
</tr>
</tbody>
</table>

1.8.2 Alarm Input Port
Please refer to the following sheet for more information.

- Normal open or Normal close type.
- Please parallel connect COM end and GND end of the alarm detector (Provide external power to the alarm detector).
- Use the controllable +12V power to reset the smoke sensor remotely.
- Please parallel connect the Ground of the DVR and the ground of the alarm detector.
- Please connect the NC port of the alarm sensor to the DVR alarm input(ALARM)
• Use the same ground with that of DVR if you use external power to the alarm device.

![Diagram of alarm input and output]

**Figure 1-6**

### 1.8.3 Alarm Output Port

- Provide external power to external alarm device.
- For controllable +12V, it can be used to provide power to devices such as reset smoke sensor.
- To avoid overloading, please read relay parameters sheet in the *User’s Manual* carefully.
- RS485 A/B cable is for the A/B cable of the PTZ decoder.

#### Relay Specification

<table>
<thead>
<tr>
<th>Model: JRC-27F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material of the touch</strong></td>
</tr>
<tr>
<td><strong>Rating (Resistance Load)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Insulation</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Surge voltage</strong></td>
</tr>
<tr>
<td><strong>Length of open time</strong></td>
</tr>
<tr>
<td><strong>Length of close time</strong></td>
</tr>
<tr>
<td><strong>Longevity</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
</tr>
</tbody>
</table>
2 Overview of Navigation and Controls

Please note the following figures for reference only. For detailed operation instruction, please refer to the User’s Manual included in the resources CD.

Before operation, please make sure:
- You have properly installed HDD and all the cable connections.
- The provided input power and the device power are matched.
- Always use the stable current, if necessary UPS is a best alternative measure.

2.1 Boot up & Shut Down

2.1.1 Boot up

Please follow the steps listed below to boot up the device.
- Connect the device to the monitor and then connect a mouse.
- Connect power cable.
- Click the power button at the front or rear panel and then boot up the device. After device booted up, the system is in multiple-channel display mode by default.

2.1.2 Shut Down

Note
- When you see corresponding dialogue box “System is shutting down…” Do not click power on-off button directly.
- Do not unplug the power cable or click power on-off button to shutdown device directly when device is running (especially when it is recording.)

There are three ways for you to log out.
- Main menu **(RECOMMENDED)**: From Main Menu->Operation->Shutdown, click shutdown button, you can see device shuts down. See Figure 2-1.

![Figure 2-1](image)

- From power on-off button on the front panel or remote control. Press the power on-off button on the DVR front panel or remote control for more than 3 seconds to shutdown the device.
- From power on-off button on the rear panel.
2.1.3 Auto Resume after Power Failure
The system can automatically backup video and resume previous working status after power failure.

2.1.4 Replace Button Battery
Please make sure to use the same battery model if possible. We recommend replace battery regularly (such as one-year) to guarantee system time accuracy.

⚠️ Important
Before replacement, please save the system setup, otherwise, you may lose the data completely!

2.2 Change/Reset Password
2.2.1 Change Password
For your own safety, please change your administrator default password after your first login.
After system booted up, you can see the following interface if it is your first login or you have restored default setup. See Figure 2-2. Please input old password and then input new password twice to confirm the change.
- The default administrator user name is admin and the password is admin.
- You can set security questions here to reset the password in case you forgot. System supports customized setup. Please note you need to set two security questions at the same time. When you reset the password, you need to answer these two security questions too.
- For reset information, please refer to chapter 2.2.2.

![Figure 2-2](image)
Click Cancel button, system pops up the following interface for you to confirm. See Figure 2-3. Check the box here, system will not pop up the change password interface the next time.

![Figure 2-3](image)

2.2.2 Reset Password

Once you forgot password, you can answer the security question you set in chapter 2.2.1 to reset the password.

In login interface, click . See Figure 2-4.

![Figure 2-4](image)

System pops up the following dialogue box, please answer the security questions and then input the new password twice. See Figure 2-5.
2.3 Startup Wizard

After changed admin password interface, system goes to the startup wizard interface. See Figure 2-6 (General series) and Figure 2-7 (Hybrid series).

Please refer to the user’s manual for detailed startup wizard operation information.

Tips

Check the box Startup button here, system goes to startup wizard again when it boots up the next time.

Cancel the Startup button, system goes to the login interface directly when it boots up the next time.
The system login interface is shown as in Figure 2-8.

System consists of three accounts:

- **Username:** admin, **Password:** admin. (administrator, local and network)
- **Username:** 888888, **Password:** 888888. (administrator, local only)
- **Username:** default, **Password:** default (hidden user)

You can use USB mouse, front panel, remote control (not included in the accessory bag) or keyboard to input. About input method: Click 123 to switch between numeral, English character (small/capitalized) and denotation.

![System Login Interface](image)

**Important**

- For security reason, please change factory default password after you first login.
- Continuous three times login failure will result in system alarm and five times login failure will result in account lock!
- Please reboot the device or wait for 30 minutes if your account has been locked. You can go to main menu->Setting->Event->Abnormality->Network->Illegal login to set customized account lock time.
2.4 Preview

After you logged in, the system is in live viewing mode by default. You can see system date, time and channel name. See Figure 2-9. If you want to change system date and time, you can refer to general settings (Main Menu->Setting->System->General). If you want to modify the channel name, please refer to the channel name settings (Main Menu->Setting->Camera->CAM Name).

At the right corner of the each window, you can see there is a window serial number. Once the channel sequence is random or you have changed the channel name, you can use this window number to confirm current channel name so that you can search the record or playback.

![Figure 2-9](image)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>When current channel is recording, system displays this icon.</th>
<th></th>
<th>When video loss alarm occurs, system displays this icon.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>When motion detection alarm occurs, system displays this icon.</td>
<td></td>
<td>When current channel is in monitor lock status, system displays this icon.</td>
</tr>
</tbody>
</table>

**Tips**
- Preview drag: If you want to change position of channel 1 and channel 4 when you are previewing, you can left click mouse in the channel 1 and then drag to channel 4, release mouse you can switch channel 1 and channel 4 positions.

2.5 Realtime Playback (Instant Playback)

Move you mouse to the top centre of the video of current channel, you can see system pops up the preview control interface. See Figure 2-10 (The image at the top left). If your mouse stays in this area for more than 6 seconds and has no operation, the control bar automatically hides.
Click \( \square \) you can go to the realtime playback interface. It is to playback the previous 5-60 minutes record of current channel.

Please go to the Main Menu->Setting->System->General to set real-time playback time. System may pop up a dialogue box if there is no such record in current channel.

2.6 Manual Record

Note:
You need to have proper rights to implement the following operations. Please make sure the HDD has been properly installed.

There are three ways for you to go to manual record menu.
- Right click mouse and then select Manual->Record.
- In the main menu, from Storage->Record.
- In live viewing mode, click record button in the front panel or record button in the remote control.

Manual record menu is shown as in Figure 2-11.

System supports main stream and sub stream. There are three statuses: schedule/manual/stop. Please highlight icon “○” to select corresponding channel.
- Manual: The highest priority. After manual setup, all selected channels will begin ordinary recording.
- Schedule: Channel records as you have set in recording setup (Main Menu->Setting->System->Schedule)
- Stop: Current channel stops recording.
- All: Check All button after the corresponding status to enable/disable all-channel schedule/manual record or enable/disable all channels to stop record.
2.7 Search & Playback

Click search button in the main menu, or right click mouse and then select Search button when you are previewing, search interface is shown as below. See Figure 2-12.

Usually there are three file types:
- R: Regular recording file.
- A: External alarm recording file.
- M: Motion detection recording file.
Please refer to the following sheet for more information.

<table>
<thead>
<tr>
<th>SN</th>
<th>Name</th>
<th>SN</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Display pane</td>
<td>2</td>
<td>Search engines</td>
</tr>
<tr>
<td>3</td>
<td>Calendar</td>
<td>4</td>
<td>Playback mode and channel</td>
</tr>
<tr>
<td>5</td>
<td>Card search button</td>
<td>6</td>
<td>Mark file list button</td>
</tr>
<tr>
<td>7</td>
<td>File list switch</td>
<td>8</td>
<td>Playback control</td>
</tr>
<tr>
<td>9</td>
<td>Time bar</td>
<td>10</td>
<td>Time bar unit</td>
</tr>
<tr>
<td>11</td>
<td>Backup</td>
<td>12</td>
<td>Clip button</td>
</tr>
<tr>
<td>13</td>
<td>Record type</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.8 Schedule

**Note:**
You need to have proper rights to implement the following operations. Please make sure the HDDs have been properly installed.

After the system booted up, it is in default 24-hour regular mode. You can set record type and time in schedule interface.

In the main menu, from Setting->Storage->Schedule, you can go to schedule menu. See Figure 2-13.
- Check the redundancy box you can backup the record on the redundant HDD.
- Check the ANR box, DVR can auto record once the network camera is offline.

Please check icon to select the corresponding function. After completing all the setups please click save button, system goes back to the previous menu.

![Figure 2-13](image)

### 2.9 Network

From the main menu->Setting->Network, you can go to the following interface. The single network adapter interface is shown as in Figure 2-14 and the dual network adapters interface is shown as in Figure 2-15.

Here is for you to input network information such as IP address, subnet mask, default gateway and etc.
2.10 PTZ

2.10.1 PTZ Setup
From main menu->Setting->System->PTZ, you can see the following interface. See Figure 2-16.

- **PTZ type:** There are two options: local/remote. Local refers to the analog channel and the remote refers to the IP channel. Please select remote if you are connecting to the network PTZ.

- **Control mode:** There are two options: Serial/HD-AVS. Serial is for RS485 mode. In serial mode, the control signal is transmitted via the RS485 to control the PTZ. The HD-AVS is for coaxial mode, the control signal is transmitted via the coaxial cable to control the PTZ.

After completed all the setups please click save button, system goes back to the previous menu.
2.10.2 PTZ Operation

In one window display mode, right click mouse (click “Fn” Button in the front panel or click “Fn” key in the remote control) and then select PTZ, the interface is shown as in Figure 2-17.

Click icon and to adjust zoom, focus and iris.

Please refer to the following sheet for detailed information.

<table>
<thead>
<tr>
<th>Name</th>
<th>Button</th>
<th>Function</th>
<th>Shortcut key on the front panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom</td>
<td></td>
<td>Near</td>
<td>Slow play ◀▶</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Far</td>
<td>Fast forward ◀▶</td>
</tr>
<tr>
<td>Focus</td>
<td></td>
<td>Near</td>
<td>Previous ◀</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Far</td>
<td>Next ◀</td>
</tr>
<tr>
<td>Iris</td>
<td></td>
<td>Close</td>
<td>Backward ◀</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Open</td>
<td>Pause/Play ◀▶</td>
</tr>
</tbody>
</table>
In Figure 2-17, click to open the menu, you can set preset, tour, pattern, scan and etc. See Figure 2-18.

Figure 2-18
Please refer to the following sheet for detailed information.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Preset" /></td>
<td>Preset</td>
<td><img src="image" alt="Flip" /></td>
<td>Flip</td>
</tr>
<tr>
<td><img src="image" alt="Tour" /></td>
<td>Tour</td>
<td><img src="image" alt="Reset" /></td>
<td>Reset</td>
</tr>
<tr>
<td><img src="image" alt="Pattern" /></td>
<td>Pattern</td>
<td><img src="image" alt="Aux" /></td>
<td>Aux</td>
</tr>
<tr>
<td><img src="image" alt="Scan" /></td>
<td>Scan</td>
<td><img src="image" alt="Aux on-off button" /></td>
<td>Aux on-off button</td>
</tr>
<tr>
<td><img src="image" alt="Rotate" /></td>
<td>Rotate</td>
<td><img src="image" alt="Go to menu" /></td>
<td>Go to menu</td>
</tr>
</tbody>
</table>

2.10.3 Coaxial Control

Important
- Coaxial control function is for some series cameras only
- Please refer to the user's manual for detailed information.

In Figure 2-18, there are two ways for you to call the menu and set.
- a) Click “Iris +” to call the OSD menu of the HD-AVS camera. See Figure 2-19. Use direction buttons to select the parameters and click the “Iris +” to confirm.
b) Click , you can view menu operation interface. See Figure 2-20. Click the Enter button, you can see the OSD menu of the HD-AVS camera. See Figure 2-19. Use direction buttons to select the parameters and click the “OK” to confirm.

![Figure 2-20]

**2.11 Channel Type**

It is to set channel type.

- For analog channel (CVBS signal or HD-AVS HD signal), you can select coaxial cable or UTP cable. Please check first and then save setup. There is no need to reboot.
- You can switch analog channel type to digital channel type if you want to connect to network camera. The IP channel shall start from the last channel. System needs to reboot to activate current setup.

**Note**

If there is no connected channel, the channel type here just displays previous connection record. System supports self-adaptive after camera connection. The interface is shown as in Figure 2-21.
Important notice

- Nowadays, there are mainly two analog signal types on today market: analog standard definition (CVBS) and analog HD (AVS, AHD or Other). For penta-brid series product, each channel supports all types of signal connection (analog signal/IP signal). For analog signal connection, the default setup is AUTO, that is to say, no matter what analog signal (CVBS, AVS, AHD or other analog HD signal) connected; the penta-brid can automatically recognize the signal and display the proper image. There is no need to set manually.

- If the auto recognition error occurred, penta-brid series product supports manual setup too. The manual setup featuring high recognition speed and usually there is no error. For example, in Figure 2-22, you can set channel 1 to connect to AVS camera, channel 2 to connect to AHD camera, channel 3 to connect to CVBS camera.
**Important**

Add/cancel IP CAM function is for some 4/8/16-channel series product only.

- Add IP CAM: Click it; you can add corresponding X IP channels. Here X refers to the product channel amount such as 4/8/16. System needs to restart to activate new setup. See Figure 2-23.
For example, there is a 4-channel analog device, after the A/D switch, it can max supports 4 analog channels and 4 IP channels. Once it has become the 3+1 mode (3 analog channels+1 IP channel), you click the Add IP CAM button, system becomes 3+5 mode (3 analog channels+5 IP channel).

- Cancel IP CAM: Click it, you can cancel IP channel. System needs to restart to restore original status.

![Figure 2-24](image)

### 2.12 Remote Device

**Note**
You can see this interface after you set IP channel in chapter 2.11. System supports ONVIF standard protocol.
In the main menu, from Camera ->Remote, you can go to an interface shown as in Figure 2-25. Here you can add/delete remote device and view its corresponding information.
IP search: Click it to search IP address. It includes device IP address, port, device name, manufacturer, type. Use your mouse to click the item name, you can refresh display order. Click IP address, system displays IP address from small to large. Click IP address again, you can see icon, system displays IP address from large to small. You can click other items to view information conveniently.

Add: Click it to connect to the selected device and add it to the Added device list. Support Batch add.

You can see the corresponding dialogue box if all digital-channel has connected to the front-end.

System can not add new device if the device you want to add has the same IP and TCP port as the device in the list.

Show filter: You can use it to display the specified devices from the added device.

Edit: Click button or double click a device in the list, you can change channel setup.

Delete: Please select one device in the Added device list and then click  to remove.

Status: means connection is OK and means connection failed.

Delete: Select a device on the Added device list, click Delete button, system disconnect device first and then remove its name from the list.

Manual add: Click it to add the IPC manually. The port number is 37777. The default user name is admin and password is admin.

Change IP:

Click , you can change the information such as IP address, subnet mask, default gateway of the checked device. See Figure 2-26.
You can check several devices at the same time and then click the edit button. See Figure 2-27. Please check Batch modify button and then input start IP, end IP and default gateway.
3  Web Operation
Slightly difference may be found in the interface due to different series.

3.1  Network Connection
Before web client operation, please check the following items:
- Network connection is right
- DVR and PC network setup is right. Please refer to network setup(main menu->Setting->Network)
- Use order ping ***.***.***.***(* DVR IP address) to check connection is OK or not. Usually the return TTL value should be less than 255.
- Current series product supports various browsers such as Safari, fire fox browser, Google browser. Device supports multiple-channel monitor, PTZ control, DVR parameter setup on the Apple PC.

3.2  Login
Open IE and input DVR address in the address column. For example, if your DVR IP is 10.10.3.16, then please input http:// 10.10.3.16 in IE address column.
System pops up warning information to ask you whether install control or not. Please click Install button.
After installation, the interface is shown as below. See Figure 3-1.
Please input your user name and password.
Default factory name is admin and password is admin.
Note: For security reasons, please modify your password after you first login.

![WEB SERVICE](image)

Figure 3-1

3.3  Main Window
3.3.1  LAN Login
For the LAN mode, after you logged in, you can see the main window. See Figure 3-2.
Click the channel name on the left side; you can view the real-time video.
3.3.2 WAN Login
In WAN mode, after you logged in, the interface is shown as below. See Figure 3-3.

For detailed operation introduction, please refer to our resource CD included in your package for electronic version of the User’s Manual.

Note
● Slight difference may be found in user interface. All the designs and software here are subject to change without prior written notice.
• All trademarks and registered trademarks mentioned are the properties of their respective owners.
• If there is any uncertainty or controversy, please refer to the final explanation of us.
• Please visit our website for more information.