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SAFETY INSTRUCTION

Please carefully read the following safety instruction to avoid personal injuries and prevent damage to the equipment and other connected.

1. **Power sources (note: please use the included power supply or one specified by the manufacturer)**
   Never operate the equipment by using an unspecified power supply.

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

3. **Do not put the equipment in a dusty area**
   Do not put the equipment in a dusty area.

4. **Do not place the equipment under rain or in a humid environment**
   Do not place the equipment in a humid environment like a basement. If the equipment is accidentally comes in contact with water, please unplug the power cable and immediately contact your local dealer.

5. **Keep the surface of the equipment clean and dry**
   Use a soft damp cloth to clean the outer case of the DVR (do not use liquid aerosol cleaners)

6. **Do not operate if any problems are found**
   If there are any strange smells or sounds from the DVR, unplug the power cable and contact the authorized dealer or service center.

7. **Do not try to remove the upper cover**
   **Warning**: Do not remove the cap of the DVR to avoid electric shock.

8. **Handle with care**
   If the DVR does not work because of an impact with a hard object, please contact the authorized dealer for repair or replacement.

9. **Use a standard lithium battery (Note: Use the included batteries or one specified by the manufacturer)**
   If the system clock still does not work after cutting off the power supply, please replace the standard 3V lithium battery on the main board.
   **Warning**: Turn off the DVR before replacing the batteries, or you may be suffer a serious electric shock. Please properly dispose of the used batteries.

10. **Put the equipment in a place with good ventilation**
    The DVR system includes a HDD, which produces large amount of heat during operation. To allow the DVR to cool properly during use do not block ventilation openings located on the top, bottom both side and the back. Install or put the equipment in a place with good ventilation.

11. **The attached power adapter can only be used with 1 DVR. Do not connect more equipment, or the DVR may restart repeatedly because of insufficient power.**

12. **Prevent water from dropping or splashing on the equipment. Do not place objects containing water, such as flower vase, on the equipment.**
Chapter 1 Product Overview

1.1 Rear Panel

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIDEO INPUT</td>
<td>Connect with video input devices, standard BNC port</td>
</tr>
<tr>
<td>AUDIO INPUT</td>
<td>Connect with audio input signals, RCA port</td>
</tr>
<tr>
<td>AUDIO OUTPUT</td>
<td>Audio signal output, RCA port</td>
</tr>
<tr>
<td>USB port</td>
<td>Connect the supplied mouse or USB flash memory</td>
</tr>
<tr>
<td>VGA</td>
<td>Connect to your TV or a monitor with VGA input.</td>
</tr>
<tr>
<td>HDMI</td>
<td>Connect to your digital TV or monitor with HDMI input</td>
</tr>
<tr>
<td>LAN</td>
<td>Connect to your home network</td>
</tr>
<tr>
<td>RS-485</td>
<td>Connect to PTZ devices</td>
</tr>
<tr>
<td>Power</td>
<td>Connect to the supplied power adaptor</td>
</tr>
<tr>
<td>Power Switch</td>
<td>Turn on/off power supply</td>
</tr>
</tbody>
</table>
### 1.2 Remote Controller (For Reference Only)

<table>
<thead>
<tr>
<th>No.</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-8</td>
<td>Numeric keys Press to display channel 1~8</td>
</tr>
<tr>
<td>2</td>
<td>9、0</td>
<td>Numeric keys</td>
</tr>
<tr>
<td>3</td>
<td>ALL</td>
<td>Press to display all channels Multiple display mode</td>
</tr>
<tr>
<td>4</td>
<td>Menu</td>
<td>Press to enter or exit the Main Menu</td>
</tr>
<tr>
<td>5</td>
<td>Mute</td>
<td>Mute On/off</td>
</tr>
<tr>
<td>6</td>
<td>Submenu</td>
<td>Go to submenu</td>
</tr>
<tr>
<td>7</td>
<td>▲</td>
<td>Up arrow key; Volume increase</td>
</tr>
<tr>
<td>8</td>
<td>SEL</td>
<td>Press to enter the selected menu item and edit the setting</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Left/Right key; Decrease/increase parameter value of control bar.</td>
</tr>
<tr>
<td>10</td>
<td>▼</td>
<td>Down arrow key; Volume decrease</td>
</tr>
<tr>
<td>11</td>
<td>◀▶</td>
<td>Press to rewind during video playback</td>
</tr>
<tr>
<td>12</td>
<td>◀▶</td>
<td>Press to fast forward during video playback</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Press to play recorded video or enter the recording search menu</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Press to start manual recording</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Press to stop manual recording or stop the video playback</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Press to pause the video playback or enter frame-playback mode</td>
</tr>
</tbody>
</table>
Chapter 2 DVR Installation & Connection

2.1 HDD Installation

Depending on your purchase, the hard drive disk (HDD) may be included. If it is not pre-installed, follow the installation instructions on this user manual.

**Caution:** DO NOT install or remove the HDD while the device power is turned ON.

HDD Installation:

(1) Cut the power, and then remove screws on both sides & the rear panel, and remove the DVR's upper cover.

(2) Connect the data and power cables to the HDD and place the HDD on the DVR case. Carefully flip the DVR case and secure the HDD to the DVR with the screws.

(3) Put the upper cover back carefully, and fix the cover in place with screws.

**Note:** Above procedures are for reference only. The actual installation may be different depending on the DVR you purchased.
2.2 Connection Diagram

Note: Above diagram is for reference only. The actual connection may be different depending on the DVR you purchased.

2.3 Power Supply Connection

Caution: Use only the supplied power adapter that comes with the DVR

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

For some specific models, you may need to press the Power switch to turn on the power.
Chapter 3 DVR Common Operations

3.1 Using the Supplied Mouse

1. **Left Button:**
   - Click to select menu options.
   - During live viewing in split-screen view, double-click on a channel to view it in full-screen. Double-click the channel again to return to split-screen viewing.
   - Click on a channel in Live Viewing screen to open Camera Quick Toolbar.
   - Click and hold to drag sliders and scales on menu mode.

2. **Right Button:**
   - Click once to open the Taskbar on the Live Viewing screen. View Taskbar on 4.2.2 Taskbar.
   - In menus, click to go back / close menus.

3. **Scroll Wheel:**
   - In menus, scroll to move up / down through the menu content.
   - While hovered over the volume control wheel, scroll to turn system volume up / down.

3.2 Using the Virtual Keyboard

You will see the virtual keyboard automatically on the screen when you need to enter data.
3.3 Password

When you first run the DVR, you are required to set a password immediately in order to protect your privacy. Save your username and password in a secure place.

Language: Choose an OSD language
Device ID: Input the device ID in the parentheses. Default ID is 000000. View more about Device ID on 5.6.1 General.
New Admin name: To set your own administrator name.
New Admin Password: To set your own password. The password must be 8 characters.
Confirm Password: Enter your own password again.
Unlock Pattern Enable: Enable or disable unlock pattern. Set a pattern as a quicker alternate password.

Click Apply to confirm your settings and go to the login interface. Enter your user name & password to Login to the DVR system.
NOTE: If you forget your password, you will be unable to login to the system, please contact your reseller to reset the password.
Chapter 4 DVR Starting up

4.1 Start Wizard

The Startup Wizard will help to configure the system and get the DVR working quickly.

4.1.1 Start Wizard

Click the **Start Wizard** to proceed to the next step.

![Start Wizard Image]

4.1.2 Network Configuration

If the connection to a router allows the use of DHCP, please check the **DHCP** box. The router will automatically assign all the network parameters for your DVR. You can also manually set the address by unchecking DHCP and setting the address static.

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

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

![Network Configuration Image]
Gateway: This address allows the DVR to access the Internet. The format of the Gateway address is the same as the IP Address. For example, “192.168.001.001”.

DNS1/DNS2: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually it is enough to enter just the DNS1 server.

Port:

Web Port: This is the port that you will use to log in remotely to the DVR (e.g. using the Web Client). If the default port 80 is already taken by another application, please change it.

Client Port: This is the port that the DVR will use to send information (e.g. using the mobile app or Bolide CMS client). If the default port 9000 is already taken by another application, please change it.

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

UPNP: If you want to log in remotely to the DVR using Web Client, you need to complete the port forwarding in your router. Enable this option if your router supports the UPnP to automatically configure port forwarding on your router. If your router does not support UPnP, make sure the port forwarding is completed manually in your router.

PPPoE and 3G

PPPoE
This is an advanced protocol that allows the DVR to connect to the network more directly via DSL modem.
Check the “Enable PPPOE” box, and then enter the User name & Password of the PPPoE.

3G
Prior to using, you need to connect a 3G dongle to the DVR. Enable the 3G option, enter the APN, Dial Code, User name & password according to the instruction of your 3G dongle device.
4.1.3 Date/Time

This menu allows you to configure the Date, Time, Date Format, Time Format, Time Zone, NTP and DST.

**Date and Time**

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

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

*Time:* Click to set the system time.

*Date Format:* Choose from the dropdown menu to set preferred date format.

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

*Time Zone:* Set the correct time.
NTP

NTP stands for Network Time Protocol. This feature allows you to synchronize the date and time automatically on the DVR over Internet. Therefore, the DVR needs to be connected to the Internet.

Check the "NTP" box, and select the NTP server.

DST

DST stands for Daylight Savings Time.

DST: Enable if Daylight Saving Time (DST) is observed in your region

Time Offset: Select the amount of time to offset for DST

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

Start Time/End Time: Set the start time and end time for daylight saving
4.1.4 IP Camera

This menu allows you to add IP cameras to the DVR.

Click **Search** to search for IP cameras in the same network. Choose the IP camera(s) you want to add, and then click ➔ icon to add to the DVR.

Enter the camera’s user name & password to add the camera(s), you can also click ➔ button to add individual IP camera to a single channel.

Click **Search** button to search for IP cameras. Then click on one of the IP camera in the device list.

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

**Alias:** Name of the IP camera

**Position:** Position of the displayed camera name on the screen.
**Port:** Port of the IP camera

**Protocol:** Choose the protocol of the IP camera from the dropdown menu

**User Name:** User Name of the IP camera

**Password:** Password of the IP camera

**Bind channel:** Choose a channel of the DVR you want to attach

### 4.1.5 Disk

If the HDD is installed in the DVR for the first time, it must be formatted. Select the HDD and then click **Format HDD** button to format the HDD.

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

**Record on ESATA:** If your DVR comes with an e-SATA port on the rear panel, you can record the video to e-SATA HDD.
4.1.6 Resolution

Choose an output resolution that matches your monitor. The DVR automatically adjusts the output resolution to best match the resolution of your monitor when the system is starting up.

4.1.7 Mobile

If your DVR comes with a P2P ID, you can scan the QR code with your mobile app to view the DVR remotely.
4.1.8 Summary

Check the system summary information you have set in the Start Wizard and finish the wizard.
Tick "Don't show this window next time" if you don’t want to display Start Wizard when system reboots next time. Click Finish to save & exit.
4.2 Live View Screen Overview

Camera Title
To display the camera title
A: This indicates that the camera connected is an AHD camera
T: This indicates that the camera connected is a TVI camera
C: This indicates that the camera connected is a CVI camera
IP: This indicates that the camera connected is an IP camera

Status Icons
This indicates that the DVR is currently recording.
This icon appears when the camera has detected motion.
The icon indicates that the external I/O alarm device is triggered.
The icon appears when the camera has Intelligent detected motion.
This icon indicates that there is an error in the HDD
This icon indicates the HDD is unformatted
This icon indicates the HDD is full.

This icon indicates the HDD is read-only.

**VIDEO LOSS:** The analog camera is disconnected.

**No Camera:** IP camera is disconnected.

**Decoding Failed:** The DVR doesn’t support this kind of IP camera compression standard, please change to H.264 compression standard.

Click to open **Quick Add** menu to add IP camera

Click to edit current IP camera

### 4.2.1 Camera Quick Toolbar

In live viewing, click the left button of your mouse on a connected camera to display the Camera Quick Toolbar.

- Click to manually record the channel. If manual recording is in process, the icon will appear in red. Click again to stop manual record.

- Click to save a snapshot of the current camera image. Manual Capture must be enabled to use this feature. For details on enabling Manual Capture, see 5.2.3.1 Capture.

- Click to play the latest 5 minute recording of this channel

- Click to enter PTZ control panel

- Click to zoom-in on the channel. When the icon appears, press and hold the left button of your mouse to drag the area you want to zoom in.

- Click to adjust the color of images on the channel. You can adjust the HUE, BRIGHT, CONTRAST & SATURATION of the image.

- **HD** To switch the live view video stream between HD & SD. HD is mainstream live view, SD is substream live view.

- Click to set white light parameter

- Click to set Siren parameter: Default is set to Disable, you may select Enable this will display “Notice” information, select “OK” icon, the Siren armed.

- Move the mouse to any a live channel, then right click to view the tool bar, then click Tag icon Add Customized Tag.
4.2.2 Taskbar

- Click to open the Start Menu
- Click to choose different layout for live view
- Click to choose more layouts for live view
- Click to start viewing channels in a sequence
- Quick playback. You can choose to play the recording for all channels from the beginning of the day, or you can choose to playback from the latest 5s, 10s, 30s, 1Min, 5Min.
- Click to adjust audio volume
- Click to switch all IP channels between mainstream and substream (for live view resolution)
- Click to switch among real-time, balanced, or smooth view. The View Effect modes only affect the Live View video quality (bitrate and frame rate) but do not affect the recording quality.
- To start or stop Manual Record and Manual Alarm.
- To view system information, channel information, record info and network state.
- This icon will appear if the network is disconnected.

4.2.3 Start Menu

With the Start Menu, you can switch users, search & playback, enter the system setup menu, lock & unlock the screen, shut down, reboot & logout of the system.

- To switch user. To enable multi-user, please view on 5.6.3 Multi-user.
- Search & Playback. View more in Chapter 6 Search, Playback & Backup
- DVR System Setup. View in Chapter 5 DVR System
- Lock & unlock screen. View in 4.2.3.1 Unlock and Lock Screen.
- Shutdown, reboot & logout of the system. View in 4.2.3.2 Shutdown.
4.2.3.1 Unlock and Lock Screen

The screen will be locked if the DVR is not in use for 1 minute to protect unauthorized OSD.

If necessary, you can also lock the screen operation manually. To do so, go to Star Menu, and then click the Lock Screen icon to lock the system.

If the system is locked, you can click the Unlock icon to unlock the system for further use.

4.2.3.2 Shutdown

Click **Shutdown** from the Star Menu, and check the action you want to proceed with.

Click **OK**, the system will require to the Admin password.
If you choose **Logout**, the live viewing screen will disappear. You will need to login to the system for further use.

You need to input the password to login to the system.
Chapter 5 DVR System Setup

Through the Start Menu, you are able to configure the Channel, Record, Alarm, Network, Device, and System for the DVR.

5.1 Channel

In this section, you can configure the camera, live view display, manage IP cameras, adjust IP camera’s image, PTZ setup, motion setup, convert mode, and more.

5.1.1 IP Channels

XVR mode is enabled by default, it allows you to add IP cameras & modify IP channels.
Click **Search** to search for IP cameras in your local network, click **Add** to add an individual IP camera or click **Add All** to add all IP cameras.

Click **Search** to search for IP cameras. Then click one of the IP cameras in the device list.

**Channel**: Channel name of IP camera  
**Alias**: Name of the IP camera  
**Position**: Position of the displayed the camera name on the screen.  
**IP Address/Domain**: IP address or domain name of the IP camera  
**Port**: Port of the IP camera  
**Protocol**: Choose the protocol of the IP camera from the dropdown menu  
**User Name**: User Name of the IP camera  
**Password**: Password of the IP camera  

**Auto Assign IP to Camera(s)**: The added IP camera will be unable to connect if its IP address is not in the same network segment as the DVR. This function assigns an IP address to all added IP cameras.

**Channel Delete**: Choose one or more added IP cameras, and click this button to delete.
5.1.1.2 Protocol Manage

With Protocol Manage, you can create your own RTSP protocol for IP camera connection.

**Custom Protocol:** The system supports a max of 10 custom protocol options.

**Protocol Name:** Give a name to your custom protocol.

**Enable Substream:** Check this box if you want to enable sub-stream.

**Type:** Only RTSP available now.

**Port:** Input the RTSP port of your IP camera.

**Resources Path:** Input the RTSP address of your IP camera.
5.1.2 Live

To configure camera parameters.

**Channel:** Display channel name.

**Setup:** Click icon on the setup page.

- Choose a channel to configure
- Give a name to the camera
- Date format displayed on the camera (for IP camera only)
- Time format displayed on the camera (for IP camera only)
- Choose a camera type (Auto, AHD, TVI, CVI….) for analog camera
- Choose an AHD EQ level to enhance Quality
- Check the box if you want to hide the live image of this channel
- To show the camera name in live view screen
- To show the system time in live view screen
- Adjust the Hue value for the image color
- Adjust the Bright value for the image color
- Adjust the Contrast value for the image color
- Adjust the Saturation value for the image color

Click Default to load default settings, click Apply to save settings, right click to exit.
5.1.3 Image Control

This menu allows you to control the image settings for supported IP cameras.

Channel: Channel name.

Setup: Click icon on the setup page.

- Choose a channel to configure
- Select the desired built-in IR cut filter mode to ensure the camera works properly both in the day and night.
- Set the delay time of IR-CUT switching
- Set the IR-LED (AUTO/ON/OFF)
- Check to enable lens flip and angle flip
- Set the flip angle
- To enable or disable Backlight compensation
- Choose the backlight compensation level (LOW/Middle/High)
- To enable or disable 3D noise reduction function
- Set the 3D noise reduction level
- Enable to automatically adjust the brightness and contrast of the video
- Set the WDR level
- Automatic Gain Control
- Configure white balance

- Set the shutter mode
- Choose the exposure time of the camera
- Use in foggy environments to improve the video quality
5.1.4 PTZ

This menu allows you to configure the PTZ (Pan-Tilt-Zoom) settings for the dome camera.

Channel: Channel name
Signal Type: Analog for analog channels, Analog & Digital for IP channels.
Protocol: Choose the communication protocol between the PTZ capable camera and DVR. If your camera supports UTC (Up the COAX) function, you can choose COAX1 or COAX2 to display your camera OSD menu or control the UTC PTZ function.
Baudrate: The speed of the information sent from the DVR to the PTZ-capable camera. Make sure it matches the compatibility level of your PTZ-capable camera.
DataBit / StopBit: The information between the DVR and PTZ-capable camera is sent in individual packages. The DataBit indicates the number of bits sent, while the StopBit indicates the end of the package and the beginning of the next (information) package. The available parameters for DataBit are: 8, 7, 6, 5. The available parameters for the StopBit are 1 or 2.
Parity: For error check. See the documentation of your PTZ-capable camera, to configure this setting.
Cruise: Enable to use Cruise mode. In order to use Cruise mode, you need to set a number of preset points.
Address: Set the command address of the PTZ system. Please note that each PTZ camera needs a unique address to function properly.
5.1.4.1 PTZ control

After finishing the PTZ setup, you can use the PTZ function to control your PTZ camera.
1) Left click on a channel in Live View to open the Camera Quick Toolbar, and choose the PTZ control icon.
2) PTZ control panel will be displayed.

<table>
<thead>
<tr>
<th>No.</th>
<th>Icon</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image" alt="Channel" /></td>
<td>Channel</td>
<td>Click to select the channel of the PTZ camera.</td>
</tr>
<tr>
<td>2</td>
<td><img src="image" alt="Cruise" /></td>
<td>Cruise</td>
<td>PTZ setup menu for this channel shown in 5.1.4 PTZ.</td>
</tr>
<tr>
<td>3</td>
<td><img src="image" alt="Step" /></td>
<td>Speed</td>
<td>Adjust the PTZ speed, may set to 1/5/20</td>
</tr>
<tr>
<td>4</td>
<td><img src="image" alt="Zoom" /></td>
<td>Zoom</td>
<td>Click to zoom in/out.</td>
</tr>
<tr>
<td>5</td>
<td><img src="image" alt="Focus" /></td>
<td>Focus</td>
<td>Click to adjust the focus</td>
</tr>
<tr>
<td>6</td>
<td><img src="image" alt="Auto Focus" /></td>
<td>Auto Focus</td>
<td>Click to auto focus</td>
</tr>
<tr>
<td>7</td>
<td><img src="image" alt="Restore" /></td>
<td>Restore</td>
<td>Restore factory setting</td>
</tr>
</tbody>
</table>
5.1.5 Video Cover

This menu allows you to create privacy zone(s) if you want to partially cover some part of the image. You can create up to 4 privacy zones of any size and in any location on the camera image. Enable Privacy Zone, and choose how many zones you need. The zone(s) appear as a “red box”. Click the edge of the red box and adjust it to any size to create a privacy zone.

**Note:** The area of the privacy zones you set will be invisible in both live view & the recorded video. This menu allows you to configure motion parameters. When motion has been detected by one or more cameras, your DVR will alert you to a potential threat at your home. It does this by sending you an email alert with an attached image from the camera to use as a reference (if this option is enabled) and/or sending push notifications via the mobile app.
5.1.6 Motion

**Setup:** Click icon on the setup page.

**Motion Detection Area:**
The whole screen is marked for motion detection (red blocks) by default. If you want to disable the motion detection in a certain area, click the grid cursor and drag the mouse to highlight only desired area. After setting is completed, click the right button of your mouse to return and click **Save** to make the area setup effective.

**Switch:** Enable or disable motion detection.

**Sensitivity:** Set the sensitivity level. Level 1 is the lowest sensitivity level while level 8 is the highest sensitivity level.
Click **Alarm** to configure the motion detection alarm function:

Buzzer: The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when motion is detected.

Alarm Out: Optional function. If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

Latch Time: To configure the external alarm time when motion is detected.

Record: Click 🔄 icon and choose which channel(s) you want to record when motion detection is triggered.

Post Recording: You can set how long the DVR will continue to record after an event has occurred. The recommended recording length is 30 seconds but it can be set up to 5 minutes.

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

Send Email: You can set the DVR to send an auto-email when the motion is detected.

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

FTP Upload: To upload alarm images to FTP server when motion is detected. To enable FTP, please view 5.4.4 FTP.
5.1.7 PIR

This is an optional function. If your camera has PIR function, you can configure the PIR recording here.

**Switch**: Enable or disable PIR recording.

**Sensitivity**: Set the sensitivity level. Level 1 is the lowest sensitivity level while level 8 is the highest sensitivity level.

**Setup**: Click icon on the setup page.

**PIR Detection Area**: Click **Select All** to set the whole camera screen as a PIR detection area. Click **Delete All** to clear the area. You can also set an area by drawing a pentagon on the screen. If you want to edit the size of the area, please check the box and change the position. After setup is
completed, right click to return and click Save to make the area setup effective. Click Alarm to configure the PIR detection alarm function:

**Buzzer:** The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when the PIR detection is triggered.

**Alarm Out:** Optional function. If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time:** To configure the external alarm time when PIR detection is triggered.

**Record:** Click icon and choose which channel(s) you want to record when the PIR detection is triggered.

**Post Recording:** You can set how long the DVR will continue to record after an event has occurred. The recommended recording length is 30 seconds but it can be set up to 5 minutes.

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

**Send Email:** You can set the DVR to send an auto-email when PIR detection is triggered.

**Full Screen:** If this function is enabled and PIR detection is triggered in a channel, you will see that channel in full screen.
5.1.8 Deterrence

Click **Deterrence** to enter the Deterrence setup page

![Image of Deterrence setup page]

**Notice:** The Camera must have the White light and Siren function to set and use this parameter.

**Sensitivity:** To setup the Sensitivity from 1~8, default is 4. 1 is the lowest and 8 is the highest sensitivity.

**Light Duration:** To set the duration time of the White light, from 30~180s, default is 30s.

**Light Level:** To set intensity of the white light, you may set it to Low, Middle or High

**Light Deterrence Area Setup:** Click **on** to set the Light deterrence area, used the default set is ok.

![Image of Light Deterrence Area setup]

**Light Schedule:** Click **on** to set the Light Schedule, using the default set is ok.

**Mode:** To set the white light to Light Warning or Light Strobe

**Strobe Frequency:** To set the Strobe Frequency of the white light, you may set Low, Middle or High
**Siren Level**: To set the Siren Level (Low, Middle or High)

**Siren Duration**: To set the Siren duration time from 10~180s, default is 10s.

**Deterrence tools button**: Click a channel with a camera that has the Light and Siren function

Click 🗓️ to set white light parameter, enabled by default, you may select disable if you do not need light.

Click 📣 to set Siren parameters, disabled by default. When you enable it, “Notice” information will be displayed, select “OK”, the Siren is now armed.
5.1.9 Intelligent

Optional intelligent functions include **Perimeter Intrusion Detection, Line Crossing Detection, Stationary Object Detection, Pedestrian Detection, Face Detection, and Cross Counting.**

![User Interface Image]

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the PID function

**Sensitivity:** Sensitivity can be set from 1 to 4. Higher sensitivity will more easily trigger the detection.

**Scene:** Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera is installed.

**Setup:** Click **Setup** to draw a virtual region in the camera picture.
1. Rule Number is the number of PID areas. You can set a maximum of 4 areas for the PID function.
2. **Rule Switch** enables the detection.
3. Choose a **Rule Type**.
   - A → B: DVR will only detect an action from side A to side B;
   - B → A: DVR will only detect an action from side B to side A;
   - A ↔ B: DVR will detect an action from either side B to side A or side A to side B.
4. You can use your mouse to draw a virtual region in the camera image by clicking 4 points. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click **Save** to save your settings.
6. If you want to modify the position or shape of the region, click the red box of the region, the borders will change to red. Press and hold the left button of your mouse to move the position of the region or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box of the region and click **Remove**. Clicking **Remove All** will delete all regions.

**Notice:**
1) The perimeter should not be too close to the edges/corners of the camera picture, since it may fail to trigger the detection when the target passes through the edges/corners.
2) The shape of the regions should not be too narrow/small, since it may fail to trigger the detection when the target passes through the outside of the perimeter.
5.1.9.1 PID (Perimeter Intrusion Detection)

The Perimeter Intrusion Detection function detects people, vehicles or other objects that enter and loiter in a pre-defined virtual region, and sometimes certain actions can be taken when the alarm is triggered; 

Click **Alarm** to set the parameter settings of PID:

**Channel**: Select the channel you want to configure

**Buzzer**: Enable the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone. You can select just Local Alarm or select All to select the external and local device

**Latch Time**: To configure the external or local alarm time when the detection is triggered.

**Record Channel**: To select the channel(s) you want to record when a detection is triggered.

**Post Recording**: You can set how long the DVR will continue to record after an event has occurred.

**Show Message**: A letter “S” will be displayed on the screen when the PID function is triggered.

**Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will go into full screen mode.
5.1.9.2 LCD (Line Crossing Detection)

The Line Crossing Detection function detects people, vehicles or other objects that cross a pre-defined virtual line, and sometimes certain actions can be taken when the alarm is triggered.

**Channel**: Select the channel you want to configure

**Switch**: Enable or disable the LCD function

**Sensitive**: Set the sensitivity level from 1 to 4. Higher sensitivity will more easily trigger the detection.

**Scene**: Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera is installed.

**Setup**: Click Setup to draw a virtual line in the camera picture.
1. Rule Number is the number of LCD lines. You can draw a maximum of 4 lines.
2. **Rule Switch** enables the detection.
3. Choose a **Rule Type**.
   - **A → B**: DVR will only detect an action from side A to side B;
   - **B → A**: DVR will only detect an action from side B to side A;
   - **A <-> B**: DVR will detect an action from either side B to side A or side A to side B.
4. You can draw a virtual line by clicking 2 points with your mouse.
5. Click **Save** to save your settings.
6. If you want to modify the position or length of the line, click the red box next to the line, the will turn red. Press and hold the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.
7. If you want to remove one of the lines from the camera picture, click the red box next to the line and click **Remove**. Clicking **Remove All** will delete all lines.
**Notice:**

1) To avoid any failure to trigger the alarm when the target crosses through it, the lines should not be too close to the edges of the picture.

2) To avoid any failure to trigger the alarm when the target crosses through it, the lines should not be set too short.

**Alarm:** Click **Alarm** to set the parameter settings of LCD:

*Channel*: Select the channel you want to configure

*Buzzer*: Set the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered

*Alarm Out*: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

*Latch Time*: To configure the external alarm time when the detection is triggered.

*Record Channel*: To select the channel(s) you want to record when a detection is triggered.

*Post Recording*: You can set how long the DVR will continue to record after an event has occurred.

*Show Message*: A letter “S” will be displayed on the screen when the LCD function is triggered.

*Send Email*: If an alarm is triggered, an Email will be sent to your preset email account.

*Full Screen*: When the detection is triggered, the channel will go into full screen mode.
5.1.9.3 SOD (Stationary Object Detection)

The Stationary Object Detection function detects stationary or missing objects in a pre-defined region such as baggage, purses, dangerous materials, etc., and a series of actions can be taken when the alarm is triggered.

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the SOD function

**Buzzer:** Enable the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered

**Sensitive:** Set the sensitivity level from 1 to 4, the default setting is 2. Higher sensitivity will more easily trigger the detection.

**Scene:** Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.

**Area:** Click [Setup] to draw a virtual region in the camera picture.
1. Rule Number is the number of SOD areas. You can set a maximum 4 areas.
2. **Rule Switch enables the detection.**
3. Choose a **Rule Type.**
   - Legacy: DVR will only detect stationary objects;
   - Lost: DVR will only detect missing objects;
   - Legacy & Lost: DVR will detect both stationary & missing objects.
4. You can draw a virtual region by clicking four points with your mouse. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click **Save** to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will turn red. Press and hold the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and click **Remove**. Clicking **Remove All** will delete all regions.

**Notice:**

1) The area for detection shall be greater than or equal to the size of the detected object, such as the detection of a white bottle.

2) The detected object cannot be covered.
**Alarm**: Click **Alarm** to set parameter settings of SOD:

![SOD Interface](image)

- **Channel**: Select the channel you want to configure.
- **Buzzer**: Enable the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered.
- **Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.
- **Latch Time**: To configure the external alarm time when the detection is triggered.
- **Record**: Select the channel(s) you want to record when the detection is triggered.
- **Post Recording**: You can set how long the DVR will continue to record after an event has occurred.
- **Show Message**: A letter “S” will be displayed on the screen when the intelligent detection is triggered.
- **Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.
- **Full Screen**: When the detection is triggered, the channel will go into full screen mode.
5.1.9.4 PD (Pedestrian Detection)

The Pedestrian Detection function detects moving people in a pre-defined region, and a series of actions can be taken when the alarm is triggered.

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the PD function

**Level:** Can set to Low, Middle or High. Low is recommended for detecting objects from long distance. High level is recommended for detecting objects from short distance.

**Scene:** Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.

**Setup:** Click Setup to draw a virtual region in the camera picture:
1. Rule Number is the number of PD area.
2. Rule Switch enables the detection.
3. Rule Type, only Normal is available for this detection.
4. You can draw a virtual region by clicking 4 points with your mouse. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click Save to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region turn red. Press and hold the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and click Remove. Clicking Remove All will delete all regions.

Notice:
1) The region for detection should not be in an area that people cannot reach.
2) The detected people need to be completely in the defined region.
**Alarm**: Click to set parameter settings of PD:

<table>
<thead>
<tr>
<th>Channel ID</th>
<th>Buzzer</th>
<th>Alarm Out</th>
<th>Latch Time</th>
<th>Record</th>
<th>Post Recording</th>
<th>Show Message</th>
<th>Send Email</th>
<th>Full Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disable</td>
<td></td>
<td>10 s</td>
<td>ON</td>
<td>20 s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Disable</td>
<td></td>
<td>10 s</td>
<td>ON</td>
<td>30 s</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Channel**: Select the channel you want to configure

**Buzzer**: Enable the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when detection is triggered

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: To configure the external alarm time when the detection is triggered.

**Record**: to select the channel(s) you want to record when a detection is triggered.

**Post Recording**: You can set how long the DVR will continue to record after an event has occurred

**Show Message**: A letter “S” will be displayed on the screen when the intelligent detection is triggered.

**Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will go into full screen mode.
5.1.9.5 FD (Face Detection)

The Face Detection function detects the faces of moving people that appear in a pre-defined region, and a series of actions can be taken when the alarm is triggered.

**Channel**: Select the channel you want to configure  
**Switch**: Enable or disable the CC function  
**Setup**: Click Setup to draw a virtual region in the camera picture.
1. Rule Number is the number of FD areas. You can set a maximum of 4 areas for FD function.
2. Rule Switch enables the detection.
3. Rule Type only Normal is available for this detection.
4. You can draw a virtual region by clicking 4 points with your mouse. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click Save to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will turn red. Press and hold the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and click Remove. Clicking Remove All will delete all regions.

Notice:
1) The region for detection should not be in an area that people cannot reach.
2) The region should completely capture the face.

Alarm: Click to set parameter settings of FD:

Channel: Select the channel you want to configure
Buzzer: Enable the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered
Alarm Out: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.
Latch Time: To configure the external alarm time when the detection is triggered.
**Record:** Select the channel(s) you want to record when the detection is triggered.

**Post Recording:** You can set how long the DVR will continue to record after an event has occurred

**Show Message:** A letter “S” will be displayed on the screen when the intelligent detection is triggered.

**Send Email:** If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen:** When the detection is triggered, the channel will go into full screen mode.

### 5.1.9.6 CC (Cross-Counting)

The Cross-Counting function counts the number of times moving objects or people across the virtual lines.

![Setup Screen]

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the CC function

**Sensitive:** Set the sensitivity level from 1 to 4; 2 is the default value. Higher sensitivity will more easily trigger the detection.

**Scene:** Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera is installed.

**Setup:** Click **Setup** to draw a virtual region in the camera picture.
1. Rule Number is the number of virtual lines you can draw. Maximum 4 lines.
2. **Rule Switch** enables the detection.
3. Choose a **Rule Type**
   - **Object**: Will count only moving objects.
   - **Pedestrian**: Will count only moving people.
4. You can draw a virtual line by clicking 2 points with your mouse. Enter is from Side A to Side B is Enter; Exit is from Side B to Side A.
5. Click **Save** to save your settings.
6. If you want to modify the position or length of the line, click the red box next to the line, the line will turn red. Press and hold the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.
7. If you want to remove one of the lines from the camera picture, click the red box next to the line and then click **Remove**. Clicking **Remove All** will delete all lines.

**Notice:**

1) The lines should not be too close to the edges of the picture, to ensure the alarm is triggered when the target crosses through it.
2) The lines should be in an area that the detected object can reach.
3) The lines should not be set too short, to ensure the alarm is triggered alarm when the target crosses through it.

Learn how to search & view the statistical results of cross counting in **5.1.8.7 Intelligent Analysis**.
**Alarm**: Click the **Alarm** button to parameter setting of FD:

**Channel**: Select the channel you want to configure

**Buzzer**: Enable the buzzer to emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: Configure the external alarm time when the detection is triggered.

**Record**: Select the channel(s) you want to record when a detection is triggered.

**Post Recording**: You can set how long the DVR will continue to record after an event has occurred.

**Show Message**: A letter “S” will be displayed on the screen when the intelligent detection is triggered.

**Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will be enlarged into full screen.
5.1.9.7 Intelligent Analysis

The statistical results for Cross In & Cross Out can be queried by Daily / Weekly / Monthly / Annual

5.1.9.8 Intelligent Schedule
In order to activate the intelligent function, you need to configure the schedule. The schedule will be active 24 hours x 7 days.
To set the schedule, choose one channel then drag the cursor to mark the slots. The sky-blue blocks in the time slots mean the intelligent function is active for that time and day. The schedule is valid only for the selected channel. If you want to use the same schedule for other channels, use the Copy function. Click Save to save your settings.

5.2 Record
This menu allows you to configure the recording parameters

5.2.1 Encode
This menu allows you to configure the recording or network transmission picture quality. Generally, Mainstream defines the recording video quality that will be saved in the HDD; Substream defines the video quality that is being viewed via remote access, for example web client & CMS; Mobilestream defines the video quality that is being viewed via remote access via mobile devices.

**Resolution:** This parameter defines how large the recorded image will be.
**FPS:** This parameter defines the number of frames per second the DVR will record.
**Video Encode Type:** DVR supports both H.264 and H.265 encode type; you may choose either.
**Bitrate Control:** Select the bitrate level. For a simple scene, such as a gray wall, constant bitrate (CBR) is suitable. For more complex scene, such as a busy street, variable bitrate (VBR) is better suited.
**Bitrate Mode:** If you want to set the bitrate by yourself, then choose User-defined mode. If you want to select a predefined bitrate, choose Predefined mode.
Bitrate: This parameter corresponds to the speed of the data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates will be of better quality.

Audio: Select this option if you want to record audio along with video and have a microphone connected to the DVR or use a camera with audio capability.

I Frame Interval: Using the default number is OK.

ETR: If ETR option is checked, this channel will be recorded at the maximum frame rate & bitrate when an alarm (motion or I/O alarm) triggered in this channel.

5.2.2 Record

This menu allows you to configure the channel recording parameters.

5.2.2.1 Record

Record Switch: Check to enable recording in this channel.

Stream Mode: Choose the recording quality. If you choose Dualstream, the system will record in both Mainstream & Substream.

PreRecord: If this option is enabled, the DVR starts recording a few seconds before an alarm event occurs. Use this option if your primary recording type is motion or I/O alarm based.
5.2.2.2 Record Schedule

This menu allows you to specify when the DVR records video and defines the recording mode for each channel. The recording schedule lets you set up a schedule like, daily and hourly by normal (continuous) recording, motion recording, I/O alarm recording & PIR recording (if your DVR supports it). To set the recording mode, first click on the mode radio button (Normal, Motion, IO, PIR), then drag the cursor to mark the slots. The recording schedule is valid only for one channel. If you want to use the same recording schedule for other channels, use the Copy function. Click Apply to save your settings.

Channel: Select the channel to set its recording parameters.

Normal: When the time slot is marked green, this indicates the channel performs normal recording for that time slot.

Motion: When the time slot is marked yellow, this indicates the channel records only when motion is detected during that time slot.

IO: When the time slot is marked red, this indicates the channel records only when the sensor is triggered during that time slot.

PIR: When the time slot is marked purple, this indicates the channel records only when the PIR is triggered during that time slot.

No Record: A time slot marked black means that there is no recording scheduled for the time slot.
5.2.3 Capture

This menu allows you to configure the image capture function.

5.2.3.1 Capture

**Auto Capture**: Select **ON** or **OFF** to enable or disable automatic capturing on the channel.

**Stream Type**: Select the image resolution by mainstream or substream.

**Normal Interval**: Time interval to capture an image in normal recording.

**Alarm Interval**: Time interval to capture an image when motion, IO alarm or PIR is triggered.

**Alarm Resolution**: Select the image resolution of automatic capturing.

**Alarm Quality**: You may select **Good/Better/Best** to change alarm image quality.
5.2.3.2 Capture Schedule

**Channel:** Select the channel to set its capture parameters.

**Normal:** When the time slot is marked green, this indicates the channel performs normal capture for that time slot.

**Motion:** When the time slot is marked yellow, this indicates that the channel captures images only when motion is detected during that time slot.

**IO:** When the time slot is marked red, this indicates that the channel captures images only when the sensor is triggered during that time slot.

**PIR:** When the time slot is marked purple, this indicates that the channel captures images only when the PIR is triggered during that time slot.

**No Capture:** A time slot marked black means that it won’t capture any images for the time slot, but you can manually capture images if you enable the manual capture function in the channel.

5.3 Alarm

In these section, you can configure the alarm parameters.

5.3.1 Motion

Operation is the same as 5.1.6 Motion

5.3.2 PIR

Operation is the same as 5.1.7 PIR
5.3.3 I/O

This is an optional function, it will appear if your DVR supports sensor I/O; you can connect external sensor I/O alarm devices to work with the DVR.

**Alarm In**: I/O channel.

**Alarm Type**: There are 3 types to choose from: Normally-Open, Normally-Close, and OFF. Choose that matches your sensor type, or choose OFF to close the sensor trigger function.

**Buzzer**: The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when a sensor is triggered.

**Alarm out**: Enables an external alarm device to emit an alarm tone when a sensor is triggered.

**Latch Time**: you can set how long the buzzer will sound when external sensor is triggered (10s, 20s, 40s, and 60s).

**Channel**: Click icon and choose which channel(s) you want to record when the motion detection is triggered.

**Post Recording**: You can set how long recording will last after the alarm ends (30s, 1minutes, 2minutes, 5minutes).

**Show Message**: Display the alarm messages on the screen when sensor is triggered.

**Send Email**: Set to send email to specified email when sensor is triggered.

**Full Screen**: When sensor is triggered, the corresponding channel will be switched to the full screen mode.

**FTP Picture Upload**: To upload alarm images to an FTP server when I/O alarm is triggered. To enable FTP, please view 5.4.4 FTP.
FTP Video Upload: To upload alarm images to an FTP server when I/O alarm is triggered. To enable FTP, please view 5.4.4 FTP.

Picture to Cloud: To upload alarm images to a cloud server when I/O alarm is triggered.

Video to Cloud: To upload alarm images to a Cloud server when I/O alarm is triggered.

5.3.4 PTZ Linkage

If you have PTZ cameras connected, you can set a link between the PTZ cameras and Motion Alarm and/or external I/O sensor alarm. With the linkage function, you can also turn your PTZ cameras’ focus to the preset point when motion or I/O alarm happens.

Switch: Enable or disable the PTZ linkage function.

Motion: Motion detection alarm will trigger the PTZ linkage function if it is checked.

IO: IO alarm will trigger the PTZ linkage function if it is checked.

PIR: PIR alarm will trigger the PTZ linkage function if it is checked.

PTZ: Click icon to associate the PTZ cameras with preset points. View preset point at 5.1.4.1 PTZ control.
5.3.5 Exception

This menu allows you to set the type of events that you want the DVR to inform you about.

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

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

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

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

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: Determine how long the external alarm device will sound (10s, 20s, 40s, 60s) if your DVR supports a connection to an external alarm device.

**Show Message**: Check the box to display a message on the screen when No Space on Disk, Disk Error, or Video Loss event happens.

**Send Email**: Let the DVR send you an auto-email when an event occurs.
5.4 Network

This menu allows you to configure network parameters, such as PPPoE, DHCP, and 3G. The most common type is DHCP. Your network type is most likely DHCP, unless the network is manually addressed. If you need to authenticate the user name and password to the Internet, then choose PPPoE. If you want to use a mobile network connection, then choose 3G.

5.4.1 General

If your connection to the router allows the use of DHCP, please check the DHCP box. The router will automatically assign all the network parameters for your DVR. If the network is manually addressed in the Parameters tab:

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

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

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

![Network Configuration Interface](image-url)
**DNS1/DNS2**: DNS1 is the primary DNS server and DNS2 is a backup DNS server. It is usually enough to just enter the DNS1 server address.

### 5.4.4.1 PPPoE

This is an advanced protocol that allows the DVR to connect to the network more directly via a DSL modem.

Check the “Enable PPPOE” box, and then enter the User name & Password of the PPPoE.

Click **Apply** to save, system will reboot to activate the PPPoE setting.
5.4.1.2 3G

Prior to using the mobile network, you need to connect a 3G dongle to the DVR.

Enable the 3G option, enter the APN, Dial Code, User name & password according to the instruction of your 3G dongle device.

Prior to using the mobile network, you need to connect a 3G dongle to the DVR.
5.4.1.3 Port Configuration

**Web Port:** This is the port that you will use to log in into the DVR remotely (e.g. using the Web Client). If the default port 80 is already taken by another application, please change it.

**Client Port:** This is the port that the DVR will use to send information. If the default port 9000 is already taken by another application, please change it.

**RTSP Port:** The default is 554; if the default port 554 is already taken by another application, please change it.

**UPNP:** If you want to log in remotely into the DVR using Web Client, you need to complete the port forwarding. Enable this option if your router supports the UPnP; UPnP needs to be enabled on both the DVR and router. In this case, you do not need to manually configure port forwarding on your router. If your router does not support UPnP, make sure the port forwarding is completed manually.
5.4.2 DDNS

This menu allows you to configure the DDNS settings. The DDNS provides a static address to simplify remote connection to your DVR. To use the DDNS, you first need to open an account on the DDNS service provider’s web page.

**DDNS**: Check to enable DDNS.

**Server**: Select the preferred DDNS server (DDNS_3322, DYNDNS, NO_IP, CHANGEIP, DNSEXIT).

**Domain**: Enter the domain name you created on the DDNS service provider’s web page. This will be the address you type in the URL box when you want to connect remotely to the DVR via PC. For example: dvr.no-ip.org.

**User/Password**: Enter the user name and password you obtained when creating an account on the DDNS service provider’s web page.

After all parameters are entered, click **Test DDNS** to test the DDNS settings. If the test result is “Network is unreachable” or “DNS is incorrect”, please check whether the DDNS information is correct or not.
5.4.3 Email

This menu allows you to configure email settings. Please complete these settings if you want to receive system notifications through email when an alarm is triggered, HDD is full, there is an error in the HDD, or Video Loss occurs.

5.4.3.1 Email Configuration

![Email Configuration Screen]

**Email**: Check to enable.

**Encryption**: Enable if your email server requires the SSL or TLS verification. If you are not sure, set to **Auto**.

**SMTP Port**: Enter the SMTP port of your email server.

**SMTP Server**: Enter the SMTP server address of your email.

**User Name**: Enter your email address.

**Password**: Enter the password of your email.

**Receiver 1~3**: Enter the email address where you want to receive the event notifications from the DVR.

**Interval**: Configure the time interval between email notifications from the DVR.
**NOTICE:** To make sure all settings are correct, click **Test Email**. The system sends an automated email message to your inbox. If you received the test email, it means the configuration parameters are correct.

### 5.4.3.2 Email Schedule

You need to configure the schedule to fully implement the Email notification.

![Email Schedule Diagram]

**Green**: Slot for Motion detection.

**Yellow**: Slot for I/O Alarm (optional).

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

**Purple**: Slot for PIR (optional).
5.4.4 FTP

This menu allows you to enable the FTP function which lets you view and load captured snapshots from your DVR to your storage device over FTP.

FTP Enable: Click to enable FTP function.
Server IP: Enter your FTP server IP address or domain name.
Port: Enter the FTP port for file exchanges.
Name/Password: Enter your FTP server user name and password.
Picture Resolution: To select the resolution of uploaded pictures.
Picture Quality: You can set the picture quality. Options: Good/Better/Best/Bad/Worse.
Video Stream Type: You may select Substream or Mainstream.
Max Package interval: Set the max time interval for hunt picture package of every time.
Directory Name: Enter the default directory name for the FTP file exchanges.
Test FTP: Click to test the FTP settings.
Upload Normal Video: Open the option icon, you may enable all the channels you need
Upload Alarm Video: Open these alarm of the option icon, you may enable all the channels you need for FTP Picture Upload and FTP Video Upload, you can also find more info in 5.1.6 Motion, 5.1.7 PIR, 5.1.9 Intelligent, 5.3.3 I/O
Notice: you must have an FTP server, then enter your FTP server IP address or domain name in the Server IP section of the FTP setup page.
5.4.5 IP FILTER

You can configure the IP FILTER for the NVR.

Enable: Check to setup the Whitelist and Blacklist
Enable Whitelist: Whitelist is enabled by default, you can set it up after checking Enable. Start Address and End Address of the White List.
Start Address: You may enter a start address and click Single Add. The Edit Address list is show below.
End Address: You may enter an end address then click Network Segment Add, the Edit Address list is show below.

Edit: Click ✍ to edit Start Address and End Address, you may edit a single address or a network segment address. You can also click 🔴 to delete single address or network segment Address.
Enable Blacklists: Blacklist is disabled by default. First check Enable Blacklist, then you may refer to the Whitelist setup options to edit the Blacklist.
5. 5 Device

In this section, you can configure the internal HDD & Cloud storage function.

5. 5.1 Disk

This menu allows you to check & configure the internal HDD(s). You only need to format the HDD at the first start up of the DVR or when you replace the HDD.

Format HDD: Select the HDD you want to format then click Format HDD, to start formatting, you need to enter your user name and password then click OK to continue formatting.

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

Record on ESATA: This menu is only displayed when your DVR comes with an e-SATA port on the rear panel. It will allow you to record the video to an external e-SATA HDD to enhance your HDD capacity. If the e-SATA recording function is enabled, the e-SATA backup function will be disabled.

Edit: If your DVR supports the installation of multiple HDDs, the edit icon appears in your system, you can click it to edit the HDD as shown below:
Disk Type: Read-write, read-only, and redundant.

Read write Disk: Read Write mode is the default setting for saving recordings or searching through recordings on the HDD.

Redundance Disk: Redundance can be used to automatically backup video footage on the recording (read-write) hard drive. When a redundant HDD is set, you can set the system to record simultaneously in both the recording hard drive and the redundant hard drive in case of hard drive failure.

Read only Disk: To prevent important video data from being overwritten during cyclic recording, the HDD can be set as read only mode. You will be unable to save new recordings on a read-only HDD. You can still search for recordings to play from a read-only HDD.

5.5.1.1 Disk Group

If your DVR supports the installation of multiple HDDs, you can configure the HDDs to be in different groups. HDD groups allow you to balance recordings across multiple hard drives. For example, you can record channels 1~4 to one hard drive and 5~8 to a second hard drive. This can reduce the amount of wear on the hard drives and may extend the life of the hard drives.
1. Use the dropdown next to **Disk Group Type** to select the type of group.
2. Use the dropdown next to **Disk Group** to select the specific group within the selected group type.
3. Click the numbered boxes representing channels to record those channels to the HDDs in the selected group.
4. Click **Apply** to save.

### 5.5.1.2 S.M.A.R.T

This function can be used to display technical information on the hard drive installed in your DVR. You can also perform a test (there are three types available) to evaluate and detect potential drive errors.

**Self-check Type:** There are three types available:

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

**Long:** This is a longer test that verifies the above as well as performs a surface scan to reveal problematic areas (if any) and forces bad sector relocation.
**Conveyance:** This is a very quick test that verifies that the mechanical parts of the hard drive are working.

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

**Note:** When performing a test, your DVR will continue to work as normal. If an HDD S.M.A.R.T error is found, the HDD can continue to be used, but there will be a risk of losing recording data. It is recommended to replace with a new HDD.

### 5.5.2 Cloud

Your DVR has the ability to upload snapshots to a cloud service via Dropbox which is a free service that allows you to easily store and share snapshots and always have them on hand when you need them.

Before activating the cloud function, we recommend that you create a Dropbox account using the same email address and password used for your DVR. Go to www.dropbox.com, input your name, email address and password, agree to the terms & conditions then click the sign up button.

**Cloud Storage:** Check to enable the function.
Cloud Type: Only Dropbox is currently supported.

Alarm Detection: Enable if you want to upload snapshots to Dropbox when the camera detects motion or an I/O alarm is triggered.

Drive Name: Enter the cloud storage name for your DVR.

Activate Cloud: Click to activate the function. After a short moment, you will see a message on-screen. An activation link has been sent to your email (the email address which you had set to receive email alerts in 5.4.3 Email). Check your email then click the link to activate. You will be taken to the Dropbox website. Click “Allow” to finalize the activation. Repeat these steps if you would like to enable cloud storage for the other cameras available.

5.6 System

Change general system information such as date, time and region, edit passwords and permissions, and more.

5.6.1 General

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

Device ID: Enter the desired ID for your DVR. The device ID is used to identify the DVR, and can only be composed of numbers. For example, 2 DVRs are installed in the same place, the
Device ID is 000000 for one of the DVRs, and 111111 for the other DVR. When you want to operate the DVR with a remote controller, both of the DVRs may receive the signal from the controller & act at the same time. If you want to control only the DVR with ID 111111, you can input the Device ID 111111 on the login page with the remote for further operations.

**Language:** Select a language you would like the system menus to be displayed in. Multiple languages are available.

**Video Format:** Select the correct video standard for your region.

**Menu Timeouts:** Select the time that your DVR will take to exit the Main Menu when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

**Mode:** XVR or DVR. An XVR model will allow you to add IP Cameras to the DVR. If you change the mode from XVR to DVR, all added IP cameras will be deleted.

**Show Wizard:** Click this checkbox if you would like to display the Startup Wizard each time you turn on or reboot your DVR.

### 5.6.1.1 Date and Time

**Date & Time**

**Date:** Click the calendar icon to change the date.

**Time:** Click the box to change the time.

**Date Format:** Select the preferred date format.

**Time Format:** Select the preferred time format.

**Time Zone:** Select a time zone relevant to your region or city.
5.6.1.2 NTP Settings

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

Check **Enable NTP**, and select a **Server Address**, click **Update Now** to manually sync the date & time, click **Apply** to save your settings.

When the NTP function is enabled, the system will update the time at 00:07:50 daily, or every time the system starts up. You can also update any time by clicking **Update Now**.

5.6.1.3 DST Settings

The DST (Daylight Saving Time) function allows you to select the amount of time that Daylight Saving has increased by in your particular time zone or region.

**Enable DST**: If Daylight Savings applies to your time zone or region, check this option to enable.

**Time Offset**: Select the amount of time that Daylight Saving has increased by in your time zone. This refers to the difference in minutes, between Coordinated Universal Time (UTC) and the local time.

**Enable DST**: You can select when Daylight Saving starts and ends:

**Week**: Select the month, day, and time when Daylight Saving starts and ends. For example, 2 a.m. on the first Sunday of a particular month.
**Date:** Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

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

### 5.6.2 Output Configuration

This menu allows you to configure video output parameters.

#### Video Output: May choose **LIVE-OUT** or **SPOT-OUT** of the output mode

#### 5.6.2.1 LIVE-OUT/SPOT-OUT

Choose **LIVE-OUT** from the Video Output drop-down menu.
SEQ Mode: Select how many video channels you would like to display when your DVR is in sequence mode.

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

Output Resolution: Select a display resolution that is suitable for your TV. 1920 x 1080 will suit most TVs. If your DVR supports 4K output resolution, you can select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution that your 4K TV provides.

Scale and Offset: The DVR can be adjusted to the size & position of the display screen to match your monitor or TV. Click Setup to adjust.

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

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

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

Click once or hold the left button of your mouse on the arrow to adjust the size and position, or you can scroll the wheel of the mouse to adjust. Click the right button of your mouse to exit, and click Apply to save your modifications.

Cursor Hidden Delay: Click the drop-down menu to select the time your DVR will take to hide the mouse cursor when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

Cursor Acceleration: To adjust the speed of your mouse’s cursor.

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

5.6.2.2 SPOT-OUT

SPOT-OUT is an optional choice to configure the VGA spot output parameters.
Video Output: select SPOT-OUT model
VGA SPOT: check box enable VGA SPOT
View setup: may select Static or Dynamic
SEQ Mode: Select how many video channels you would like to display when your DVR is in sequence mode.
SEQ Dwell Time: Enter in seconds the maximum length of time you would like to display a video channel in sequence mode before displaying the next video channel (300 seconds is the maximum).
VGA Resolution: Select a display resolution that is suitable for your TV. 1920 x 1080 will suit most TVs. If your DVR supports 4K output resolution, you can select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution that your 4K TV provides.
Full Screen: Check box to display in full screen

5.6.3 Multi-user

This menu allows you to set the user name, password and user permission.

The system supports the following account types:

- **ADMIN — System Administrator**: The administrator has full control of the system, and can change both administrator and user passwords and enable/disable password protection.

- **USER — Normal User**: Users only have access to live viewing, search, playback, and other functions. You may set up multiple user accounts with varying levels of access to the system.
5.6.3.1 Changing Password

To change the password for the administrator or user accounts, click the User Edit icon. The password has to be a minimum of 8 characters and can contain a mixture of numbers and letters. Enter your new password again to confirm, and then click Save to save your new password. You will be required to input your old password to authenticate.

**Password Enable:** It's strongly recommended that the password be enabled to protect your privacy. If you want to disable the password protection, please ensure your DVR is placed in a secure place.

5.6.3.2 Add New Users

Select one of the user accounts that is currently disabled, click the User Edit icon to edit user information

1. Select Enable from the drop-down next to User Enable.
2. Click the field next to User Name to change the user name of the account.
3. Select Enable from the drop-down next to Password Enable.
4. Click the field next to Password to enter the desired password.
5. Click the field next to Confirm to reenter the password.
6. Click Save. You will be required to input your Admin password to authenticate.
5.6.3.3 Setting User Permissions

The administrator account is the only account that has full control of all system functions. You can enable or disable access to certain menus and functions for each user account.

1. Click the edit icon of under the permission tab, to enter the permission edit page.

2. Check the boxes next to any system menus or capabilities you would like the user to access. Click All to check all boxes. Click Clear to clear all of the check boxes.

3. Click Save to save your modifications.
5.6.4 Maintenance

In this section, you will be able to search & view the system log, load default settings, upgrade the system, export & import system parameters and manager system auto reboot.

5.6.4.1 Log

The system log shows you important system events, such as motion alarms and system warnings. You can easily create a backup file of the system log for a certain time period to a USB flash drive.

Log Searching and Backing Up:
1. Click the field next to Start Date & Start Time to choose the starting date & time for your search from the on-screen calendar.
2. Click the field next to End Date & End Time to choose the end date & time for your search from the on-screen calendar.
3. Select the type of events you would like to search for from the dropdown next to Log Type, or select All to see the entire system log for the selected time period.
4. Click Search.
5. Browse system log events in your desired search period:
   - Video events can be played back instantly by clicking in the Playback column. Right-click to return to your search results.
   - Use the ⬅️ ⬅️ / ➤ ➤ buttons in the bottom-right corner of the menu to move between pages of the system log events.
6. Click Backup to create a backup of the system log for your search period. Please make sure your flash derive has been connected to the DVR’s USB port.
7. The backup drive will menu appear. Navigate to the folder you want the backup file to be saved in, then click OK to begin.
5.6.4.2 Load Default

Reset the DVR settings to its out-of-box state. You can choose to reset all settings at once, or just settings on specific menus. Restoring default settings will not delete recordings and snapshots saved to the hard drive.

Check the items you want restore, or check Select All to choose all items. Click Apply to load default settings of your chosen items.
5.6.4.3 Upgrade

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

5.6.4.4 Parameter Management

You can export the main menu settings you have configured to a USB flash drive, or import an exported setting file from USB flash drive to the DVR.

**Save Settings**: Click to save the DVR’s current system settings to the USB device. You will be required to input the Admin password to authenticate.

**Load Settings**: Once you have created a system settings export, you can import the settings on another DVR. Click **Load Settings** to navigate to the system settings file you want to import from your USB flash drive. You will be required to input the Admin password to authenticate.
5.6.4.5 Auto Reboot

This menu allows the system to auto reboot the DVR regularly. It is recommended to leave this function enabled, as it maintains the operational integrity of your DVR.

**Auto Reboot**: Check to enable.

**Time**: You can set the DVR to reboot daily, weekly or monthly.
5.6.5 IP Camera Maintain

This menu allows you to upgrade the IP camera’s firmware and restore the default settings of the IP camera.

5.6.5.1 Upgrade IP Camera

1. Choose one of the IP cameras you want to upgrade the firmware on.
2. Click Select File select the update file from your USB flash drive, then click OK.
3. Click IPC Upgrade to start upgrading. You will be required to input the Admin password to authenticate. Please do NOT power off the DVR and IP camera or remove the USB during the upgrading.
5.6.5.2 Load Default Settings for IP Camera

1. Choose the IP cameras you want to restore.
2. Click **Load Default** to restore settings. You will be required to input the Admin password to authenticate.
5.6.5.3 Reboot IPC

1. Choose the IP cameras you want to reboot.
2. Click Reboot IPC to reboot IPC. You will be required to input the Admin password to authenticate.

5.6.6 System Information

This menu allows you to view the system information, channel information, recording information & network status.
5.6.6.1 Information

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

If your DVR supports P2P function, you will find the P2P ID & P2P QR code in the information page. You can scan this QR cord with the mobile app to remotely view the DVR.
5.6.6.2 Channel Information

View channel information for each connected camera such as alias, mainstream and substream recording specifications, motion detection status & privacy zone.

5.6.6.3 Record Information

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

View network information.

**Total Band Width**: It shows the DVR’s total input band width for IP cameras.

**Used Band Width**: It shows the used band width of IP cameras.
Chapter 6 Search, Playback & Backup

The Search function gives you the ability to search for and play previously recorded videos as well as snapshots that are stored on your DVR’s hard drive. You have the choice of playing video that matches your recording schedule, manual recordings or motion events only. The Backup function gives you the ability to save important events (both video and snapshots) to a USB flash drive.

6.1 Using Search Function

Click Search button in the Start Menu to enter the search section.

1. **Search Options**: The system provides various search & playback methods: General, Events, Sub-periods, Smart & Pictures

2. **Search Date**: Search a date to play back.

3. **Search Type**: The system provides different search types to narrow your search.

4. **Channel Selection**: Choose the channels you want to search & play.

5. **Video Playback Controls**: Control the video playback.
Enlarge the video playback to full screen

Rewind, x2, x4, x8 and x16

Slow Play, 1/2, 1/4 and 1/8, 1/16 speed

Play

Pause

Play frame by frame. Click once to play a frame of the video

Stop

Fast Forward, x2, x4, x8 and x16

Digital Zoom: Click to zoom in then click-and-drag on a camera image during playback to zoom in on the selected area. Right-click to return to regular playback.

Video Clip. Quickly save a section of video to a USB flash drive. View more on 6.1.1.1 Video Clip Backup

Save Video Clip.

Volume Control: Move the slider bar to increase or decrease volume.

Snapshots: to capture a snapshot image to your USB flash drive. If the video playback is in split-screen view, move the mouse cursor to the channel you want to capture, and then click the icon to save the snapshot.

Add Default Tag:

Add Customized Tag:
6. **Timeline:** Continuous recordings are shown with colored bars to represent different types of recording (legend shown in the bottom-left corner of the display). You may check the timeframe options (24h, 2h, 1h, 30m) to view a smaller or larger time period.

   **Different types of recordings shown in different colors:**

   - Continuous Recording is in **Green**;
   - Motion Recording is in **Yellow**;
   - I/O Recording is in **Red**;
   - PIR Recording is in **Purple**;
   - Intelligent Recording is in **Blue**;
   - Motion & I/O Recording is in **Orange**;

7. **Playback Status:** display the video play status.

   - **Play** : Video is playing.
   - **Pause** : Video is paused

6.1. 1 Search & Play Video in General

This menu gives the option to search & play recordings for a selected date.

1. Select a date from the calendar to search for video recordings.
2. Choose a search type.
3. Check channels you would like to search, or check **Channel** to search all connected channels.
4. The search result will be displayed on a timeline from 00:00 to 24:00.
5. Click button to start playback.
6. Control the playback with buttons on the Video Playback Controls.
7. Use the timeframe options (24h, 2h, 1h, 30m) to view a smaller or larger time period.
8. If you want to quickly save a section of the video during playing back to a USB flash drive, use the Video Clip backup function.

6.1.1.1 Video Clip Backup

1. Insert your USB flash drive to the DVR.
2. Start a video recording playback.
3. Click icon.
4. Check the channel(s) you want to make a video clip backup of.
5. Move the mouse cursor on the timeline where you want to start the video clip.
6. Press and hold the left button of your mouse, and drag the drag the cursor on the timeline where you want to end the video clip.
7. The icon has been changed to icon, click to save the video clip.
8. Select a file type for your backup files, click Save button to save the video clips. Please make sure your USB driver has enough space to save the video clips.
9. The backup drive menu will appear. Navigate to the folder you want to save the backup files in.
10. Click OK to begin. The progress bar at the bottom of the window shows you the progress of the backup.
6.1.2 Event Search, Playback & Backup

Event search lets you view the video recordings of a channel, start and end time, and recording type. You can also quickly back up events to a USB flash drive.

To search, play & back up for events:
1. Choose the date & time you want to search.
2. Check the recording types you want to search, or check Search Type to choose all.
3. Choose the channels you want to search, or check Channel to choose all channels.
4. Click icon to start search.
5. Events fitting your search criteria are displayed in a list. You can double click with your mouse on one of the listed events to play the video immediately.
6. Click icons in the bottom-right corner of the menu to browse between the pages of events, or input the page you want to browse.

7. You can switch the list form in by clicking on the icons shown at the bottom right corner of the screen:

- Thumbnails view. You can view snapshots of the events.
- List view. The events will be displayed in a list.
- Detailed view. You can view the details of the events.

In Detailed View, you can lock video events to keep those events from being overwritten in the hard drive. Click the icon to lock or click to unlock the events.

8. When you click on one of the events, the system will show the event information on the bottom left corner of the screen.

9. Check the box next the number of the event to select the file, or check the box next to Select to select all events in the page.

10. The total size information of the selected files will be displayed at the bottom right of the screen.

11. After selecting a file, you can click icon to save the video to USB flash drive. Or click icon in the event playback control window to play the video.
6.1.2.1 Event Playback Control

1. Event List: you can select the events from here.

2. Click icon to save your selected event videos to a USB flash drive. Click icon to play video.

3. Control the playback with buttons on the Video Playback Controls. You can click icon or click right with your mouse to exit the playback and return to the event search window.

4. The event you are playing now will be displayed on the timeline.

5. Use the timeframe options (24h, 2h, 1h, 30m) to view a smaller or larger time period.
6.1.3 Sub-periods Playback

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

To search & play video in sub-periods:
1. Choose the date & time you want to search.
2. Choose the number of split-screens you want the videos to be played in.
3. Check the recording types you want to search, or check Search Type to choose all.
4. Choose the channels you want to search. Please note that this function only allows one channel to be searched & played at a time.
5. Click the play button ▶ to start playing. Control the playback with the buttons on the Video Playback Controls.
6. Videos are being played in split-screens.
7. Click on the desired split-screen to view the time period of the video split-screen on the timeline. The color bar on top of the timeline indicates the time span of the selected video split-screen. The color bar under the timeline indicates the time span for all the videos you have searched.
8. Use these timeframe options (24h, 2h, 1h, 30min) to view a smaller or larger time period.
6.1.4 Smart Search & Playback

Smart mode allows you to easily search & play motion events in one or more specific areas of the channel.

To start a smart search & playback:

1. Choose the date & time you want to search.
2. Check the recording types you want to search, or check Search Type to choose all.
3. Choose the channel you want to search through, the motion recording in the selected channel will be searched for automatically. Please note that this function only allows one channel to be searched & played at a time.
4. Click the play button start playing. Control the playback with buttons on the Video Playback Controls.
5. Videos are being played on the screen.
6. The color bar on top of the timeline indicates the time span of the motion recordings you have searched. The color bar under the timeline indicates the complete time span for all recordings you have specified.
7. Use the timeframe options to view a smaller or larger time period.
6.1.4.1 Smart Search Area

By default the smart search function searches for motion recordings in the whole area of a channel. You can specify one or more particular areas to narrow your search.

Click this icon on the Video Playback Controls, the camera will be shown in full screen and the Smart controls bar will be visible.

You can click and hold the edge of the controls bar to reposition it.

Smart Controls Bar

- Click this to define a full screen detection area
- Click this to delete all areas created.
- Click this to search and play video based on the areas defined.
- Click this to return to the playback interface.

To define one or more specific areas, please do the following:
1. Click and drag to select the area that you want to define. Multiple areas can be defined. You can also use the same action to remove sections of the defined area or to delete it entirely. When finished, click the search button to play video based on the areas defined.
2. You’ll be returned to the playback interface. Segments matching your search criteria will be shown on the timeline in blue.
6.1.5 Tag

6.1.5.1 Add Tag

Move your mouse to any a live channel, then right-click to view the tool bar ( ). Click to add a Customized Tag:

Tag name may be edited. Click Save to set it. Once the tag is set, it can record one minute which is the default setting. You can also go into the Search page, then the General page to the Events page to the Sub-periods page to the Smart page to Add Tag:

: Add Default Tag.
: Add Customized Tag.
6.1.5.2 Search Tag

In the Tag event search page, you can enter Start Time, End Time and Channel, then click , all Tag events will be listed, you may click to playback Tag event, click to Edit Tag name or click to Delete Tag event.

6.1.6 External File

The function can playback a backuped video file from a USB disk, click to playback the video file.
6.1.7 Picture Search & View

This function can be used to search, play and copy snapshots to a USB.

To search, play & back up pictures:
1. Choose the date & time you want to search.
2. Check the picture capture types you want to search, or check Search Type to choose all.
3. Choose the channels you want to search, or check Channel to choose all channels.
4. Click button to start search.
5. Pictures fitting your search criteria are displayed in a list. You can double click one of the pictures to get a larger view.
6. Click icons in the bottom-right corner of the menu to browse between pages of pictures, or input the page you want to browse.
7. You can change the list form by clicking the below icons which are shown at the bottom right corner of the screen:

- Thumbnail view. You can view snapshots of the events.
- List view. The events will be displayed in a list.
- Detailed view. You can view the details of the events.
8. When you click on one of the pictures, the system will show the picture information on the bottom left corner of the screen.

9. Check the box next to the number of the event to select the file, or check the box next to Select to select all pictures in the page.

10. The total size information of the selected files will be displayed at the bottom right corner of the screen.

11. After selecting a file, you can click to save the pictures to a USB flash drive. Or click to go into the picture preview control window.

6.1.5.1 Picture Preview Control

1. Picture List, you can select the pictures from here.

2. Click to save your selected pictures to a USB flash drive. Click to view the pictures in a slideshow.

3. Press button to exit the preview control window and go back to the picture search window. Press button to pause, press to resume slideshow.
Press \(<\) to display the previous snapshot or group of snapshots, press \(>\) to display the next snapshot or group of snapshots.

Click \(\) to view a single snapshot at a time, click \(\) to view four snapshots at a time, press \(\) to view nine snapshots at a time.

Chapter 7 Remote Access via Web Client

Use the Web Client to remotely access your DVR at any time via a PC. Before you access the Web Client, you need to ensure that the internet settings of the DVR are configured properly.

7.1 Basic System Environment Requirements

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

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<th>Minimum</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Intel® Core™ i5 CPU</td>
<td>Intel® Core™ i5 CPU or higher</td>
</tr>
<tr>
<td>RAM</td>
<td>4G or more</td>
<td>8G or more</td>
</tr>
<tr>
<td>Hard Drive</td>
<td>500G or more</td>
<td>1000G or more</td>
</tr>
<tr>
<td>Display RAM</td>
<td>2G or more</td>
<td>4G or more</td>
</tr>
<tr>
<td>Display Resolution</td>
<td>1280*1024</td>
<td>1920*1080</td>
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<td>10/100/1000M Ethernet Adapter</td>
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<td></td>
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<tr>
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<td></td>
</tr>
<tr>
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</tr>
<tr>
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<td>5.1 or above</td>
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7.2 Web Plugin Download and Installation

To access the Web Client, do the following:

For IE/Chrome/Firefox:
1. Launch the web browser on your PC and enter the DVR IP address or DDNS domain name (Host Name) you have set on your DVR in the URL box.
2. The first time you run the web client, the system will require you to install the web client plugin. Click download to download the plugin and install on your computer.
3. After installing the plug-in, close & launch your browser again. Repeat step 1 to open the login page. Input your user name and password to login to the web client.

![Login Screen](image)

**Note:** If you use Google Chrome, please use Version V41 or below. If you use V42 to V44, you need to enable NPAPI plugins. Please enter `chrome://flags/#enable-npapi` in the URL bar to find and enable NPAPI. It doesn’t support V45 or above at the moment.

**For Mac Safari:**

1. Launch Safari on your Mac and enter the DVR IP address or DDNS domain name (Host Name) you have set on your DVR in the URL box.

![Safari Screen](image)

2. Download the plug-in “SurveillanceClient.dmg”, locate the downloaded file and double click it.

![Download Dialogue](image)
3. Click "Continue" -- "Install". Enter user name and password for your Mac computer, Click on "Install Software" -- "Close" to finish installation.

4. Close Safari and open again. Repeat step 1 to open the Web Client login page.
7.3 Web Client Manager

The web client allows you to fully control the DVR with an administrator account. Please make sure to protect your user name & password to prevent any unwanted logins.

7.3.1 Live Interface

This is the first screen that opens after you have logged in to the Web Client. Here you can open or close live preview, record video to local computer manually, take snapshots of the screens, PTZ control, color adjustment, etc.

1- **Channel List:** Open the channel list for quick camera functions
   
   Click [button] to display the Channel List.

   Click [button] to hide the Channel List.

   - [button] Turn the Live video stream on/off. If the button is blue the live video stream is on.
     
     Click again to stop recording. Manual recordings are saved to your computer. The icon will be blue if it is recording.
   - [button] Manual snapshot button. Click to save a snapshot of the current live display to your computer.
   - [button] Bitrate button. Set camera to use mainstream, substream or mobile stream video settings. Mobile stream is available for IP channels only.

2- **Live Video Stream Options:**
   
   **Mainstream:** View all live videos using high-quality mainstream video settings.
   **Substream:** View all live videos using middle-quality substream video settings.
Mobile Stream: View all live video using lower-quality mobile stream video settings to conserve bandwidth. Available for IP channels only.

3- Main Menus:
   Live: View live video from cameras.
   Playback: View recorded video which is saved in the DVR’s HDD.
   Remote Setting: Access the DVR’s setting menus.
   Local Settings: Set download locations for recordings and snapshots taken using Web Client, and choose file type for video files.

4- Information: Hover over to see system details.

5- Exit.

6- Color Controls. Click to display or hide the color controls.

7- PTZ Controls: Click to display or hide the PTZ controls.

8- PTZ Controls
   Directional Arrows: Click to move the PTZ camera Automatic line scan.
   PTZ Speed: Click to set the speed of the PTZ camera’s movement.
   Zoom: Click +/- to zoom in or out.
   Focus: Click +/- to adjust focus.
   Iris: Click +/- to adjust iris.
   Preset Point: Add, remove, or go to preset point.
   Cruise: Start/stop PTZ

9- Live View Control Buttons:
Open the images in Live window.

Close all the Live channels

Original Proportions: Shows live video in the original proportions

Stretch: Stretch live video to fully cover the area for each channel on screen.

To enlarge the web client to full screen.

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

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

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

Volume Control. Volume is mute.

10- Navigation: Shows the current page number for the channels shown on screen. Use the arrow keys to switch between pages.

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

7.3.2 Playback

You can search & play recorded videos stored in the HDD installed in the DVR, and download the videos to your computer.

To search recordings:
1. Click Playback in the top-right corner of the window.
2. Select a day on the calendar to search for recordings. Days with recordings will be underlined in red.

3. Select the recording type from the dropdown next to Type, or select All to search for all recordings.

4. Choose the video stream you want to search & play. If you want to play Substream recordings, please make sure you have set the DVR to record with Dualstream at 5.2.2.1 Record.

5. Check the channels you would like to search through for recordings. Check Synchronous playback to play all channels at once.

6. Click Search.

7. Recordings that fit your search will be displayed in the timeline. Click a section of the video where you would like to begin the playback and click 🎥.

7.3.2.1 Playback Control Buttons

- Play the recordings
- Pause
- Stop
- Go Forward One Frame: Move frame-by-frame through playback. Only available when the Synchronous playback option is not checked.
- Click on one of the channels that is being played and click the record button to record current video to your computer. Click again to stop recording.
- Click on one of the channels that is being played and click the capture button to take a snapshot and save to your computer.
- Opens the Download menu, which allows you to download several video recordings at once.
Choose the files you want to download. Then press **Start Download** to begin; you can see the download status. Press **Stop Download** to stop.

**Playback Speed.** Click to choose the playing speed.

**Play All Channels:** Click to play all the channels you have chosen to be searched. Only available when the **Synchronous playback** option is not checked.

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

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

**Original Proportions:** Shows the playing video at its original proportions.

**Stretch:** Stretch the playing video to fully cover the area of each channel on screen.

**To enlarge the web client to full screen.**
7.3.3 Remote Setting

Here you can remotely configure the settings of the DVR. Please see “Chapter 5 DVR System Setup” for more details on the DVR settings.

7.3.4 Local Setting

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

Record Path: Click to browse for and select the folder where you would like the manual video recordings to be saved on your computer.

Download Path: Click to browse for and select the folder where you would like to save the download video recordings to your computer.

Snapshot Path: Click to browse for and select the folder where you would like the manual capture snapshots to be saved on your computer.

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

Save: Click to save these modifications.
Chapter 8 Viewing Backed Up Video on PC/Mac

This section will help you play the backup files with the video player found in the attached. For Mac users, please install the app "VideoPlayer_x.x.xx_xxxx_xx_x.dmg", for example: VideoPlayer_1.0.15_2017_01_6.dmg. For PC users, please install the software "VideoPlayer_x.x.xx_xxxx_xx_xx.exe", for example: VideoPlayer_1.0.15_2017_01_06.exe.

Minimum System Requirements

- Intel Pentium 4 or above
- Microsoft Windows XP / Vista / 7 / 8 / 10
- 256MB RAM
- 16MB video memory

1. Install the Video Player software in the CD and run.

2. Copy the backup files to your computer.

3. Click Open File or click on the Play List to load single or multiple video files. It can add & play ".rf", ".avi", ".mp4", ".264" and ".265" files. Click to load a folder with backed-up videos.
Video Player Control

1. Play List
   - Add files
   - Remove files
   - To choose play mode: play a single file and stop; play all listed files by sequence; repeat one file; repeat all files.
   - Filter by file name

2. Hide/Show Playlist
   - Click to open files or load a folder.

3. Play Controls
   - Play
   - Pause
   - Stop
   - Play frame by frame. Click once to play a frame of the video
   - Slow Play, 1/2, 1/4 and 1/8, 1/16 speed
   - Fast Forward, x2, x4, x8 and x16

4. Volume control
   - Multi-screen play. It allows you to play multiple videos at a time. When you choose multi-screen, you can drag the video in the Play List to the play screen.

5. Take snapshot
   - To save a video clip to your computer. Press once to start, press again to end the video clip.
   - Keep the video player on top
6. **Advanced Setup Menu** allows you to choose the OSD language of the video player, and configure the settings of video player.

**Basic Settings:** Set on-top mode

**Capture Settings:** Set the format and the path to save snapshots.
Chapter 9 Remote Access via Mobile Devices

The DVR allows remote access via mobile devices on both Android & iOS operating systems.

1) Search Bolide Quick Connect from Google Play Store for android devices or App Store or iOS devices and install.

2) Run the app, it will display the live view screen.

3) Touch the icon into the main menu, then touch icon to open device list page, touch icon to add device.
3.1) Touch the **Online Search** icon to Add online device.

3.2) Touch the **Manual Add** icon to input the DVR information and manually add the device.

**Login Type:** Device ID and IP/DOMAIN
- **Device ID:** For P2P connection.
- **IP/DOMAIN:** IP address or Domain name of the DVR

**Device ID/IP Address:** Input the P2P ID or IP address/Domain name. You can touch the icon to scan the P2P QR code to add device.

**Media Port:** Input the media port in DVR network setting

**User Name / Password:** Input the user name & password of the DVR.
4) After all settings are set, touch **Save** to save, the app will turn to Live view display if the device is well connected.

- ![Photo](image1.png): Click to save a snapshot of the current camera image.
- ![Record](image2.png): Click to manually record the channel. If the manual recording is in process, the icon will be appear in red. Click one more time to stop manual recording.
- ![Layout](image3.png): Click to choose a different layout for live view.
- ![Speaker](image4.png): Click to enable or disable speaker.
- ![Microphone](image5.png): Click to enable or disable microphone.

5) Touch **Menu** icon to open the Menu list where you can check & configure the live view, playback, local recorded videos, captured pictures, push alarm notifications, Device manager, local Setting & Help documents.
Chapter 10 Appendix

10.1 Troubleshooting

1. Q: What can I do if the system does not detect the HDD?
   A: Check if the power supply is properly connected and that the data cord and power cables are securely connected, and if something is wrong with the HDD interface. Or you may check if your HDD is supported by referring to the specifications or descriptions.

2. Q: I have changed the password but forgot the new password, how can I access the system?
   A: If you forget your password, please consult with our technical personnel. We strongly suggest you set a password that is easy to be remember and relatively safe. If you have safety requirements, please do not set a very simply password, such as 000000.

3. Q: We see an abnormal video signal or even no video signal when connecting the camera to the DVR and the power supply for both devices is OK. What is wrong?
   A: Check the network cable on the side of DVR to see if the cable is firmly connected and that it is not worn out and needs to be replaced, or check if NTSC or PAL is selected.

4. Q: How do I prevent the DVR from overheating?
   A: The DVR needs to dissipate heat while it is running. Please place the DVR in a place with good air circulation and away from heat sources to ensure the stability and life of the DVR.

5. Q: The remote controller of the DVR doesn’t work but the monitor screen is OK and panel keys are functional. Why?
   A: Try again by aiming the remote controller directly at the IR receiver on front panel. If it still doesn’t work, please check if the batteries in the remote controller are dead. If not, check if the remote controller is broken.

6. Q: I want to take the HDD out of my PC and install it in the DVR. Can it work?
   A: Any HDDs supported by the system can be used. But remember, once the DVR runs, any data previously saved on the HDD will be lost.

7. Q: Can I playback while recording?
   A: Yes. The system continues to record even while you are playing back video.

8. Q: Can I clear some records on HDD of DVR?
   A: Due to file security, you may not clear part of the records. If you want to remove all the records, you can format HDD.

9. Q: Why can’t I log into the DVR client?
   A: Please check if the network connection settings are correct and RJ-45 port is properly connected. And check if your account and password are correctly input.

10. Q: Why can’t I find any records during playback?
    A: Please check that the data line connection for the HDD is OK and that the system time is properly adjusted. Try a few times and restart. If it still doesn’t work, check if the HDD is broken.

11. Q: Why can the DVR not control the PTZ?
    A: Please check if:
        a) The PTZ is not malfunctioning.
        b) Setting, connection and installation of PTZ decoder are correct.
        c) PTZ settings in the DVR are correct.
d) Protocol of PTZ decoder matches that of the DVR.
e) Address of PTZ decoder matches that of the DVR.
f) If many decoders are connected, 120Ω resistance should be added to the farthest side of line AB of the PTZ decoder to realize reflection suppression and match impedance. Otherwise, the PTZ control will be unstable.

12. Q: Why doesn’t dynamic detection work?
   A: Please check that the motion detection time and motion detection regional settings are correct and that the sensitivity is not set too low.

13. Q: Why doesn’t the alarm work?
   A: Please check that the alarm settings, alarm connection and alarm input signals are correct.

14. Q: Why does buzzer keep vibrating?
   A: Please check the alarm setting, check if the motion detection function is enabled and if object motion is detected all the time and if I/O alarm is set as Always Off. You can also refer to the corresponding HDD alarm settings.

15. Q: Why can’t I stop recording by pressing “STOP” or “Stop Recording” in the context menu?
   A: Pressing Stop or Stop Recording only stops manual recording. If you want to stop Scheduled recording in certain time frame, please change the setting to No Record. To stop Startup recording, please change record mode to scheduled recording or manual recording. Then you may stop recording by the prescribed methods. Another way to stop recording is to set the channel to off status in record setting.

10.2 Usage Maintenance

1. To shut down the DVR, please first shut down the system and then turn off the power. Do not turn off the power directly or the HDD data could be lost or damaged.
2. Please keep the DVR out of hot places or away from heat sources.
3. Clean the internal dust regularly. Make sure the DVR is properly ventilated to ensure good heat dissipation.
4. Please do not hot wire audio and video cables, or cables connected to ports like RS-232 or RS-485. Otherwise the ports may be damaged.
5. Please regularly check the HDD cable and data cable to see if they are aging.
6. Please prevent any interference from other electronics to the audio and video signals of the DVR, and prevent the HDD from being damaged by static electricity or induced voltage. If the network cable is frequently plugged in, it is suggested that you replace the connecting line regularly, or the input signal may be unstable.
7. This is a class A product. It may cause wireless interference. Users should take measures.
10.3 Accessories (For reference only)

- Remote Controller
- Power Adapter
- Warranty Card
- USB mouse
- CD
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The product picture may differ from the actual product, they are only for your reference. The accessories will probably be different according to the region they are sold in. For details on the accessories, please refer to your local distributor.

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SAFETY INSTRUCTION

Please carefully read the following safety instruction so as to avoid personal injuries and prevent the equipment and other connection devices from being damaged.

1. **Power sources** (note: please use the power supply attached or specified by the manufacturer)
   Never operate the equipment by using unspecified power supply.

2. **Never push objects of any kind through openings of DVR**
   Never push objects of any kind through openings of DVR so as to avoid electric shock or other accidents.

3. **Do not put the equipment in the dusty field**
   Do not put the equipment in the dusty field.

4. **Do not place the equipment under rain or humid environment**
   Do not place the equipment under humid environment like basement. If the equipment is accidentally in contact with water, please unplug the power cable and immediately contact your local dealer.

5. **Keep the surface of the equipment clean and dry**
   Use soft damp cloth to clean the outer case of DVR (do not use liquid aerosol cleaners)

6. **Do not operate if any problems are found**
   If there are any strange smell or sound from DVR, unplug the power cable and contact the authorized dealer or service center.

7. **Do not try to remove the upper cover**
   Warning: Do not remove the cap of DVR so as to avoid electric shock.

8. **Handle with care**
   If DVR does not work normally because of hitting on the hard object, please contact the authorized dealer for repair or replacement.

9. **Use standard lithium battery (Note: Use the batteries attached or specified by the manufacturer)**
   After cutting off the power supply, if the system clock cannot continue to work, please replace the standard 3V lithium battery on the main board.
   **Warning:** Turn off DVR before replacing the batteries, or you may be suffered from serious electric shock. Please properly dispose of the used batteries.

10. **Put the equipment in a place with good ventilation**
    The DVR system includes HDD, which produces large amount of heat during operation. As a result, do not block the ventilation openings (on the top, bottom, both sides and the reverse side) for cooling the system during operation. Install or put the equipment in the place with good ventilation.

11. **The attached power adapter can only be used for 1 set of DVR. Do not connect more equipment, or DVR may be restarted repeatedly because of insufficient power.**

12. **Prevent the equipment from water dropping or splashing. Do not place objects containing water, such as flower vase, on the equipment.**
Chapter 1 Product Overview

1.1 Rear Panel

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</thead>
<tbody>
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<td>Connect with video input devices, standard BNC port</td>
</tr>
<tr>
<td>AUDIO INPUT</td>
<td>Connect with audio input signals, RCA port</td>
</tr>
<tr>
<td>AUDIO OUTPUT</td>
<td>Audio signal output, RCA port</td>
</tr>
<tr>
<td>USB port</td>
<td>Connect the supplied mouse or USB flash memory</td>
</tr>
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<td>VGA</td>
<td>Connect to your TV or a monitor with VGA input.</td>
</tr>
<tr>
<td>HDMI</td>
<td>Connect to your digital TV or monitor with HDMI input</td>
</tr>
<tr>
<td>LAN</td>
<td>Connect to your home network</td>
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<tr>
<td>RS-485</td>
<td>Connect to PTZ devices</td>
</tr>
<tr>
<td>Power</td>
<td>Connect to the supplied power adaptor</td>
</tr>
<tr>
<td>Power Switch</td>
<td>Turn on/off power supply</td>
</tr>
</tbody>
</table>
1.2 Remote Controller (For Reference Only)

<table>
<thead>
<tr>
<th>No.</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1   | 1-8  | Numeric keys  
Press to display channel 1~8 |
| 2   | 9、0 | Numeric keys |
| 3   | ALL | Press to display all channels  
Multiple display mode |
| 4   | Menu | Press to enter or exit the Main Menu |
| 5   | Mute | Mute On/off |
| 6   | Submenu | Go to submenu |
| 7   | ▲ | Up arrow key; Volume increase |
| 8   | SEL | Press to enter the selected menu item and edit the setting |
| 9   | ◀▶ | Left/Right key; Decrease/increase parameter value of control bar. |
| 10  | ▼ | Down arrow key; Volume decrease |
| 11  | ◀◀ | Press to rewind during video playback |
| 12  | ◀▶ | Press to fast forward during video playback |
| 13  | ▶ | Press to play recorded video or enter the recording search menu |
| 14  | ● | Press to start manual recording |
| 15  | ■ | Press to stop manual recording or stop the video playback |
| 16  | II | Press to pause the video playback or enter frame-playback mode |
Chapter 2 DVR Installation & Connection

2.1 HDD Installation

Depending on the package you have purchased, the hard disk drive may be included in the full package. If it is not pre-installed, follow the installation instructions on this user manual.

**Caution:** DO NOT install or remove the hard disk drive while the device power is turned ON.

HDD Installation:
(1) Cut power firstly, and then remove screws on both sides & rear panel, and open DVR upper cover.

(2) Connect the data and power cables to the HDD and place the HDD on the DVR case. Carefully flip the DVR case and secure the HDD to the DVR with the screws.

(3) Put the upper cover back carefully, and fix the cover with screws.

**Note:** Above procedures are for reference only. The practical operation may be different depending on the DVR you purchased.
2.2 Connection Diagram

Note: Above diagram is for reference only. The practical connection may be different depending on the DVR you purchased.

2.3 Power Supply Connection

Caution: Use only the supplied power adapter that came with the DVR

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

For some specific models, you may need to press the Power switch to turn on the power.
Chapter 3 DVR Common Operations

3.1 Using the Supplied Mouse

1. **Left Button:**
   - Click to select menu options.
   - During live viewing in split-screen view, double-click on a channel to view it in full-screen. Double-click the channel again to return to split-screen viewing.
   - Click upon a channel on Live Viewing screen to open Camera Quick Toolbar.
   - Click and hold to drag sliders and scales on menu mode

2. **Right Button:**
   - Click once to open the Taskbar on the Live Viewing screen. View Taskbar on 4.2.2 Taskbar
   - In menus, click to go back / close menus.

3. **Scroll Wheel:**
   - In menus, scroll to move up / down through the menu content.
   - While hovering over the volume control wheel, scroll to turn system volume up / down.

3.2 Using the Virtual Keyboard

You will see the virtual keyboard automatically on the screen when you need to enter data

Click to toggle the keyboard to upper case and more punctuation
Click to delete a character
Click to complete the enter
Move the cursor to right
Move the cursor to left
3.3 Password

For the first time when you run the DVR, you must be required to set your own password immediately in order to protect your privacy. Please be sure to record your username and password and save them in a secure place.

Language: Choose an OSD language
Device ID: Input the device ID in the parentheses. Default ID is 000000. View more about Device ID on 5.6.1 General.
New Admin name: To set your own administrator name.
New Admin Password: To set your own password. The password must be a combination of 8 characters.
Confirm Password: Enter your own password again.
Unlock Pattern Enable: Enable or disable unlock pattern. Set the pattern to unlock the alternate password to quickly log in to the NVR.

Click Apply to confirm your settings and goes to the login interface. Enter your user name & password to Login the DVR system.
NOTE: If you forget your password, you will be unable to login the system, please contact your reseller to reset the password.
Chapter 4 DVR Starting up

4.1 Start Wizard

Startup Wizard will help to configure the system and get the DVR works quickly.

4.1.1 Start Wizard

Click the Start Wizard to proceed to the next step

4.1.2 Network Configuration

If you connect to a router allows to use DHCP, please check the DHCP box. The router will assign automatically all the network parameters for your DVR. Unless the network is manually addressed below parameters:

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

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

8
Gateway: This address allows the DVR to access the Internet. The format of the Gateway address is the same as the IP Address. For example, “192.168.001.001”.

DNS1/DNS2: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually should be enough just to enter the DNS1 server address.

Port:

![Port screenshot]

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

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

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

UPnP: If you want to log in remotely to the DVR using Web Client, you need to complete the port forwarding in your router. Enable this option if your router supports the UPnP. In this case, you do not need to configure manually port forwarding on your router. If your router does not support UPnP, make sure the port forwarding is completed manually in your router.

PPPoE and 3G

PPPoE

This is an advanced protocol that allows the DVR to connect to the network more directly via DSL modem.

Check the “Enable PPPOE” box, and then enter the User name & Password of the PPPoE.

3G

This is a prior using the mobile network, you need to connect a 3G dongle to the DVR.

Enable the 3G option, enter the APN, Dial Code, User name & password according to the instruction of your 3G dongle device.
4.1.3 Date/Time

This menu allows you to configure the Date, Time, Date Format, Time Format, Time Zone, NTP and DST.

**Date and Time**

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

![Wizard](image)

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

**Time**: Click to set the system time.

**Date Format**: Choose from the dropdown menu to set preferred date format.

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

**Time Zone**: Set the correct time.
NTP

NTP stands for Network Time Protocol. This feature allows you to synchronize the date and time automatically on the DVR over Internet. Therefore, the DVR needs to be connected to the Internet.

Check the “NTP” box, and select the NTP server.

DST

DST stands for Daylight Savings Time.

**DST**: Enable if Daylight Saving Time (DST) is observed in your region

**Time Offset**: Select the amount of time to offset for DST

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

**Start Time/End Time**: Set the start time and end time for daylight saving
4.1.4 IP Camera

This menu allows you to add IP cameras to the DVR.

![Image of IP Camera Wizard]

Click **Search** to search IP cameras in the same network. Choose the IP camera(s) you want to add, and then click ➔ icon to add to the DVR.

![Image of Add IP Camera]

Enter the camera’s user name & password to add the camera(s), you can also click 🔗 button to add individual IP camera to a single channel.

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

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

**Alias:** Name of the IP camera

**Position:** Position to display the camera name on the screen.
**Port**: Port of the IP camera  
**Protocol**: Choose the protocol of the IP camera from the dropdown menu  
**User Name**: User Name of the IP camera  
**Password**: Password of the IP camera  
**Bind channel**: Choose a channel of the DVR you want to attach

### 4.1.5 Disk

If the HDD is installed in the DVR for the first time, it must be formatted. Select the HDD and then click **Format HDD** button to format the HDD.

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

**Record on ESATA**: If your DVR comes with an e-SATA port on the rear panel, you can enable to record the video to e-SATA HDD.
4.1.6 Resolution

Choose an output resolution matches to your monitor. The DVR supports to adjust the output resolution automatically to match the best resolution of your monitor when the system is starting up.

4.1.7 Mobile

If your DVR come with a P2P ID, you can scan the QR code with your mobile app to view the DVR remotely.
4.1.8 Summary

You can check the system summary information you had set in the start wizard and finish the wizard.

Tick "Don't show this window next time" if you don't want to display Start Wizard when system reboot next time. Click Finish button to save & exit.

<table>
<thead>
<tr>
<th>Summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>1440x900</td>
</tr>
<tr>
<td>Date/Time</td>
<td>07/17/2019 18:63:58, GMT+08:00</td>
</tr>
<tr>
<td>NTP</td>
<td>OFF</td>
</tr>
<tr>
<td>DST</td>
<td>ON</td>
</tr>
<tr>
<td>Network</td>
<td></td>
</tr>
<tr>
<td>DHCP</td>
<td>ON</td>
</tr>
<tr>
<td>IP Address</td>
<td>192.168.6.110</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Gateway</td>
<td>192.168.6.1</td>
</tr>
<tr>
<td>DNS1</td>
<td>192.168.6.1</td>
</tr>
<tr>
<td>DNS2</td>
<td>8.8.8.8</td>
</tr>
</tbody>
</table>
4.2 Live View Screen Overview

**Camera Title**
To display the camera title

- **A**: This indicates that the camera connected is an AHD camera
- **T**: This indicates that the camera connected is a TVI camera
- **C**: This indicates that the camera connected is a CVI camera
- **IP**: This indicates that the camera connected is an IP camera

**Status Icons**

- This indicates that the DVR is currently recording.
- This icon appears when the camera has detected motion.
- The icon indicates that the external I/O alarm device is triggered.
- The icon appears when the camera has Intelligent detected motion.
- This icon indicates that the HDD is in error to work.
- This icon indicates the HDD is unformatted.
This icon indicates the HDD is full.

This icon indicates the HDD is read-only.

**VIDEO LOSS:** The analog camera is disconnected.

**No Camera:** IP camera is disconnected.

**Decoding Failed:** The DVR doesn’t support this kind of IP camera compression standard, please change to H.264 compression standard.

- Click to open **Quick Add** menu to add IP camera
- Click to edit current IP camera

**4.2.1 Camera Quick Toolbar**

In live viewing, click the left button of your mouse on a connected camera to display the Camera Quick Toolbar.

- Click to manually record the channel immediately. If the manually recording is in process, the icon will be in red color. Click one more time to stop manual record.
- Click to save a snapshot of the current camera image. Manual Capture must be enabled to use this feature. For details on enabling Manual Capture, see [5.2.3.1 Capture](#).
- Click to play the latest 5 minutes recording of this channel
- Click to enter PTZ control panel
- Click to zoom-in the channel. When the **icon appears, press and hold the left button of your mouse to drag the area you want to zoom in.**
- Click to adjust the image color of the channel. You can adjust the HUE, BRIGHT, CONTRAST & SATURATION of the image.
- **To switch the live view video stream between HD & SD. HD is mainstream live view, SD is substream live view.**
- Click to set white light parameter
- Click to set Siren parameter: Default is Disable, you may select enable then is show “Notice” information, select “OK” icon, the Siren detonate and start alarm.
  - Move mouse to any a live channel, then click right button to view tools bar, then click Tag icon Add Customized Tag.
4.2.2 Taskbar

- Click to open the Start Menu
- Click to choose different layout for live view
- Click to choose more layouts for live view
- Click to start viewing channels in a sequence
- Quick playback. You can choose to play the latest recording for all channels from the beginning of the day, or you can choose the playback from the latest 5s, 10s, 30s, 1Min, 5Min.
- Click to adjust audio volume
- Click to switch all IP channels between mainstream and substream (for live view resolution)
- Click to switch among real-time, balanced, or smooth view. The view effect modes affect only the live view video quality by bitrate and frame rate but do not affect the recording quality.
- To start or stop Manual Record and Manual Alarm.
- To view system information, channel information, record info and network state.
- This icon will appear if the network is disconnected.

4.2.3 Start Menu

With the start menu, you can switch user, search & playback, enter system setup menu, lock & unlock the screen, shut down, reboot & logout the system.

- To switch user. To enable multi-user, please view on 5.6.3 Multi-user.
- Search & Playback. View more on Chapter 6 Search, Playback & Backup
- DVR System Setup. View on Chapter 5 DVR System
- Lock & unlock screen. View on 4.2.3.1 Unlock and Lock Screen.
- Shutdown, reboot & logout the system. View on 4.2.3.2 Shutdown.
4.2.3.1 Unlock and Lock Screen

The screen will be locked to protect unauthorized OSD operation while the DVR is not in menu operation 1 minute.

If necessary, you can also lock the screen operation manually. To do so, go to Star Menu, and then click the Lock Screen icon to lock the system immediately.

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

4.2.3.2 Shutdown

Click the Shutdown button from Star Menu, and the check the further action you want to move. Click OK button, system will require to input the Admin password to authenticate.
If you choose **Logout** the system, the live viewing screen will be disappeared. You will need to login the system for further operations.

You need to input the password to login system.
Chapter 5 DVR System Setup

Into start menu click setup, you are able to configure the DVR for Channel, Record, Alarm, Network, Device, System.

5.1 Channel

In this section, you are allowed to configure the camera, live view display, manage IP cameras, adjust IP camera’s image, PTZ setup, motion setup, convert mode, and more.

5.1.1 IP Channels

The DVR enable the XVR mode is default, it supports to add IP cameras & modify IP channels.
Click **Search** to search IP cameras from local network, click **Add** to add individual IP camera, click **Add All** to add all IP cameras.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Channel name of IP camera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Name of the IP camera</td>
</tr>
<tr>
<td>Position</td>
<td>Position to display the camera name on the screen.</td>
</tr>
<tr>
<td>IP Address/Domain</td>
<td>IP address or domain name of the IP camera</td>
</tr>
<tr>
<td>Port</td>
<td>Port of the IP camera</td>
</tr>
<tr>
<td>Protocol</td>
<td>Choose the protocol of the IP camera from the dropdown menu</td>
</tr>
<tr>
<td>User Name</td>
<td>User Name of the IP camera</td>
</tr>
<tr>
<td>Password</td>
<td>Password of the IP camera</td>
</tr>
</tbody>
</table>

**Auto Assign IP to Camera(s):** The added IP camera would be not able to connect if its IP address is not in the same network segment with DVR. With this function to reassign an IP address to all added IP cameras.

**Channel Delete:** Choose one or more added IP cameras, and click this button to delete.
5.1.1.2 Protocol Manage

With the Protocol Manage, you can edit your own RTSP protocol for IP camera connection.

**Custom Protocol**: The system support max 10 custom protocol options.

**Protocol Name**: To give a name to your custom protocol.

**Enable Substream**: Check the box if you want to enable sub-stream.

**Type**: Only RTSP available now.

**Port**: Input the RTSP port of your IP camera.

**Resources Path**: Input the RTSP address of your IP camera.
5.1.2 Live

To configure camera parameters.

**Channel:** Display channel name.

**Setup:** Click the icon into the setup page.

- Choose a channel to configure
- Give a name to the camera
- Date format to display for the camera (for IP camera only)
- Time format to display for the camera (for IP camera only)
- Choose a camera type (Auto, AHD, TVI, CVI…) for analog camera
- Choose an AHD EQ level to enhanced Quality
- Check the box if you want to hide the live image of this channel
- To show the camera name in live view screen
- To show the system time in live view screen
- Adjust the Hue value for the image color
- Adjust the Bright value for the image color
- Adjust the Contrast value for the image color
- Adjust the Saturation value for the image color

Click **Default** to load default settings, click **Apply** to save settings, click right buttons of your mouse to exit.
5.1.3 Image Control

This menu allows you to control image settings for supported IP cameras.

**Channel:** Channel name.

**Setup:** Click icon into the setup page.

- Choose a channel to
- Select the desired built-in IR cut filter mode to ensure the camera works properly both in the day and night.
- Set the delay time of IR-CUT switching
- Set the IR-LED is AUTO/ON/OFF
- Check to enable lens flip and angle flip
- Set the flip angle
- To enable or disable Backlight compensation
- Choose the backlight compensation level (LOW/Middle/High)
- To enable or disable 3D noise reduction function
- Set the 3D noise reduction level
- Enable to allow automatically adjust the brightness and contrast of the video when shooting in the darkness with bright
- Set the WDR level
- Automatic Gain Control
- Configure white balance
- Set the shutter mode
- Choose the exposure time of the camera
- Use in foggy environments to improve the video quality

![Image Control Menu](image.png)
5.1.4 PTZ

This menu allows you to configure the PTZ (Pan-Tilt-Zoom) settings for the dome camera.

Channel: Channel name

Signal Type: Analog for analog channels, Analog & Digital for IP channels.

Protocol: Choose the communication protocol between the PTZ capable camera and DVR. If your camera support UTC (Up the COAX) function, you can choose COAX1 or COAX2 to display your camera OSD menu or control the UTC PTZ function.

Baudrate: The speed of the information sent from the DVR to the PTZ-capable camera. Make sure it matches the compatibility level of your PTZ-capable camera.

DataBit / StopBit: The information between the DVR and PTZ-capable camera is sent in individual packages. The DataBit indicates the number of bits sent, while the StopBit indicates the end of the package and the beginning of the next (information) package. The available parameters for DataBit are: 8, 7, 6, 5. the available parameters for the StopBit are 1 or 2.

Parity: For error check. See the documentation of your PTZ-capable camera, to configure this setting.

Cruise: Enable to use the Cruise mode. In order to use the Cruise mode, you need to set a number of preset points.

Address: Set the command address of the PTZ system. Please be noted that each PTZ camera needs a unique address to function properly.
5.1.4.1 PTZ control

After finishing the PTZ setup, you can use the PTZ function to control your PTZ camera.

1) Click left your mouse upon a channel on Live Viewing screen to open Camera Quick Toolbar, and choose the PTZ control icon 🎬.

2) PTZ control panel will be displayed.

<table>
<thead>
<tr>
<th>No.</th>
<th>Icon</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image1" alt="Channel Icon" /></td>
<td>Channel</td>
<td>Click to select the channel of the PTZ camera.</td>
</tr>
<tr>
<td>2</td>
<td><img src="image2" alt="PTZ Icon" /></td>
<td>Cruise</td>
<td>Show is PTZ setup menu for this channel in 5.1.4 PTZ.</td>
</tr>
<tr>
<td>3</td>
<td>Step</td>
<td>Speed</td>
<td>Adjust the PTZ speed, may set 1/5/20</td>
</tr>
<tr>
<td>4</td>
<td>- ZOOM +</td>
<td>Zoom</td>
<td>Click to zoom in/out.</td>
</tr>
<tr>
<td>5</td>
<td>- FOCUS +</td>
<td>Focus</td>
<td>Click to adjust the focus</td>
</tr>
<tr>
<td>6</td>
<td><img src="image3" alt="Auto Focus Icon" /></td>
<td>Auto Focus</td>
<td>Click the icon to auto focus</td>
</tr>
<tr>
<td>7</td>
<td><img src="image4" alt="Restore Icon" /></td>
<td>Restore</td>
<td>Restore factory setting</td>
</tr>
</tbody>
</table>
5.1.5 Video Cover

This menu allows you to create privacy zone(s) if you want to partially cover some certain part of the image. You can create up to 4 privacy zones in any size and location on the camera image. Enable the Privacy Zone, and choose how many zones you need. The zone(s) appear as “red box”. Click the edge of the red box and drag it to any size to create a privacy zone.

Note: The area of privacy zones you had set will be invisible in both live view & recording video. This menu allows you to configure motion parameters. When motion has been detected by one or more cameras, your DVR will alert you to a potential threat at your home. It does this by sending you an email alert with an attached image from the camera to use as a reference (if this option is enabled) and/or sending push notifications via the mobile app.
5.1.6 Motion

**Setup:** Click icon into the setup page.

**Motion Detection Area:**
The whole screen is marked for motion detection (red blocks) as default. If you want to disable the motion detection on a certain area, click the grid cursor and then drag the mouse to highlight the scope to unmark the area into transparent blocks. After setting is completed, click the right button of your mouse to return and click Save to make the area setup effective.

**Switch:** Enable or disable motion detection.

**Sensitivity:** Set the sensitivity level. Level 1 the lowest sensitivity level while level 8 is the highest sensitivity level.
Click **Alarm** button to configure the motion detection alarm function:

**Buzzer**: The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when the motion is detected.

**Alarm Out**: Optional function. If your DVR support to connect to external alarm device, you can set to emit an alarm tone.

**Latch Time**: To configure the external alarm time when motion is detected.

**Record**: Click ![Record icon](image) icon and choose which channel(s) you want to record when the motion detection is triggered.

**Post Recording**: You can set how long after an event occurs that the DVR will continue to record. The recommended recording length is 30 seconds but it can be set higher up to 5 minutes.

**Show Message**: Check the box to display ![Show icon](image) icon on the live view screen when the motion is detected.

**Send Email**: You can let the DVR to send you an auto-email when the motion is detected.

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

**FTP Upload**: To upload alarm images to FTP server when motion is detected. To enable FTP, please view 5.4.4 FTP.
5.1.7 PIR

This is an optional function. If your camera has PIR function, you can configure the PIR recording here.

Switch: Enable or disable PIR recording.

Sensitivity: Set the sensitivity level. Level 1 the lowest sensitivity level while level 8 is the highest sensitivity level.

Setup: Click icon into the setup page.

PIR Detection Area:
Click Select All to set the whole screen of the camera as PIR detection area. Click Delete All to clear the area. You can also set an area in the screen by drawing a pentagon in the screen. If you want to edit the size of the area, please check the box and change the position. After setting is
completed, click the right button of your mouse to return and click **Save** to make the area setup effective.

Click **Alarm** button to configure the PIR detection alarm function:

**Buzzer**: The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when the PIR is detected.

**Alarm Out**: Optional function. If your DVR support to connect to external alarm device, you can set to emit an alarm tone.

**Latch Time**: To configure the external alarm time when PIR detection is triggered.

**Record**: Click **icon and choose which channel(s) you want to record when the PIR detection is triggered.

**Post Recording**: You can set how long after an event occurs that the DVR will continue to record. The recommended recording length is 30 seconds but it can be set higher up to 5 minutes.

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

**Send Email**: You can let the DVR to send you an auto-email when PIR detection is triggered.

**Full Screen**: If this function is enabled and PIR is detected in a channel, you will see that channel in full screen.
5.1.8 Deterrence

Click **Deterrence** into the Deterrence setup page

**Notice:** The Camera must have the Deterrence function of White light and Siren, then you may to set parameter and used.

**Sensitivity:** To setup the touch off Sensitivity within 1~8, default is 4

**Light Duration:** To set continue time of White light, the within 30~180s, default is 30s.

**Light Level:** To set level of the white light, you may set Low, Middle or High

**Light Deterrence Area Setup:** Click to set the Light deterrence area, used the default set is ok.

**Light Schedule:** Click to set the Light Schedule, used the default set is ok.

**Mode:** To set the white light status is Light Warning or Light Strobe

**Strobe Frequency:** To set the Strobe Frequency of the white light, you may set Low, Middle or High
**Siren Level:** To set the Siren Level is Low, Middle or High

**Siren Duration:** To set the Siren duration time, the within 10~180s, default is 10s.

---

**Deterrence tools button:** Click a channel of the Light and Siren function camera

---

Click 📺 to set white light parameter, default is enable, you may select disable if you needn’t light.

---

Click 📣 to set Siren parameter, default is disable, you may select enable then is show “Notice” information, select “OK” icon, the Siren detonate and start alarm.
5.1.9 Intelligent


Channel: Select the channel you want to configure
Switch: Enable or disable the PID function
Sensitive: The sensitivity level is from 1 to 4. Higher sensitivity will be easier to trigger the detection.
Scene: Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.
Setup: Click Setup to draw a virtual region in the camera picture.
1. Choose one of the Rule Number. It is the number of PID area. Maximum 4 areas you can set for PID function.
2. To enable the detection in Rule Switch.
3. Choose a Rule Type.
   - \( A \rightarrow B \): DVR will only detect the action from side A to side B;
   - \( B \rightarrow A \): DVR will only detect the action from side B to side A;
   - \( A \leftrightarrow B \): DVR will detect the action from either side B to side A or side A to side B.
4. Use your mouse to click 4 points in the camera picture to draw a virtual region. The sharp of the region should be a convex polygon. Concave polygon will be not able to save.
5. Click **Save** to save your settings.
6. If you want to modify the position or sharp of region, click the red box in the region, the borders of the region will be changed to red color. Long press the left button of your mouse to move the position of the region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and then click **Remove** button. Click **Remove All** will delete all regions.

**Notice:**
1) The perimeter shall not be too close to the edges/corners of the camera picture, since it may fail to trigger the detection when the target pass through the edges/corners.
2) The shape of the regions shall not be too narrow/small, since it may fail to trigger the detection when the target passes through outside the perimeter.
5.1.9.1 PID (Perimeter Intrusion Detection)

Perimeter Intrusion Detection function detects people, vehicle or other objects which enter and loiter in a pre-defined virtual region, and some certain actions can be taken when the alarm is triggered; Click Alarm to parameter setting of PID:

Channel: Select the channel you want to configure

Buzzer: Disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered

Alarm Out: If your DVR support to connect to external alarm device, you can set to emit an alarm tone, also to select local alarm or select all to alarm of the external and local device

Latch Time: To configure the external or local alarm time when the detection is triggered.

Record Channel: to select the channel(s) you want to record when a detection is triggered.

Post Recording: You can set how long after an event occurs that the DVR will continue to record.

Show Message: A letter “S” will be displayed on the screen when the PID function is triggered.

Send Email: If an alarm is triggered, an Email will be sent to your preset email account.

Full Screen: When the detection is triggered, the channel will be enlarged into full screen.
5.1.9.2 LCD (Line Crossing Detection)

Line Crossing Detection function detects people, vehicle or other objects which cross a pre-defined virtual line, and some certain actions can be taken when the alarm is triggered.

Channel: Select the channel you want to configure

Switch: Enable or disable the LCD function

Sensitive: The sensitivity level is from 1 to 4. Higher sensitivity will be easier to trigger the detection.

Scene: Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.

Setup: Click Setup to draw a virtual line in the camera picture.
1. Choose one of the Rule Number. It is the number of LCD lines. Maximum 4 lines you can draw.
2. To enable the detection in Rule Switch.
3. Choose a Rule Type.
   A→B: DVR will only detect the action from side A to side B;
   B→A: DVR will only detect the action from side B to side A;
   A←→B: DVR will detect the action from either side B to side A or side A to side B.
4. Use your mouse to click 2 points in the camera picture to draw a virtual line.
5. Click Save to save your settings.
6. If you want to modify the position or length of the line, click the red box in the line, the color of the line will be changed to red color. Long press the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.
7. If you want to remove one of the lines from the camera picture, click the red box in the line and then click Remove button. Click Remove All will delete all lines.
Notice:
1) The lines shall not be too close to the edges of the camera picture, to avoid any failure to trigger an alarm when the target cross through it.
2) The lines shall not be set too short, to avoid any failure to trigger an alarm when the target passes outside it.

Alarm: Click to parameter setting of LCD:

Channel: Select the channel you want to configure
Buzzer: Disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered
Alarm Out: If your DVR support to connect to external alarm device, you can set to emit an alarm tone.
Latch Time: To configure the external alarm time when the detection is triggered.
Record Channel: to select the channel(s) you want to record when a detection is triggered.
Post Recording: You can set how long after an event occurs that the DVR will continue to record.
Show Message: A letter “S” will be displayed on the screen when the LCD function is triggered.
Send Email: If an alarm is triggered, an Email will be sent to your preset email account.
Full Screen: When the detection is triggered, the channel will be enlarged into full screen.
5.1.9.3 SOD (Stationary Object Detection)

Stationary Object Detection function detects the objects left over or lost in the pre-defined region such as the baggage, purse, dangerous materials, etc., and a series of actions can be taken when the alarm is triggered.

Channel: to select the channel you want to configure
Switch: to enable or disable the SOD function
Buzzer: to disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered
Sensitive: The sensitivity level is from 1 to 4, with a default value of 2. Higher sensitivity will be easier to trigger the detection.
Scene: Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.
Area: Click [Setup] to draw a virtual region in the camera picture.
1. Choose one of the Rule Number. It is the number of SOD area. Maximum 4 areas you can set for SOD function.
2. To enable the detection in Rule Switch.
3. Choose a Rule Type.
   - Legacy: DVR will only detect the left-over objects;
   - Lost: DVR will only detect the lost objects;
   - Legacy & Lost: DVR will detect both left-over & lost objects.
4. Use your mouse to click 4 points in the camera picture to draw a virtual region. The sharp of the region should be a convex polygon. Concave polygon will be not able to save.
5. Click Save to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will be changed to red color. Long press the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and then click Remove button. Click Remove All will delete all regions.

**Notice:**

1) The area for detection shall be greater than or equal to the size of the detected object, such as the detection of a white bottle.

2) The detected object cannot be covered.
Alarm: Click to parameter setting of SOD:

Channel: Select the channel you want to configure
Buzzer: Disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered
Alarm Out: If your DVR support to connect to external alarm device, you can set to emit an alarm tone.
Latch Time: To configure the external alarm time when the detection is triggered.
Record: to select the channel(s) you want to record when a detection is triggered.
Post Recording: You can set how long after an event occurs that the DVR will continue to record.
Show Message: A letter “S” will be displayed on the screen when the intelligent detection is triggered.
Send Email: If an alarm is triggered, an Email will be sent to your preset email account.
Full Screen: When the detection is triggered, the channel will be enlarged into full screen.
5.1.9.4 PD (Pedestrian Detection)

Pedestrian Detection function detects the moving people in a pre-defined region, and a series of actions can be taken when the alarm is triggered.

- **Channel**: to select the channel you want to configure
- **Switch**: to enable or disable the PD function
- **Channel**: to select the channel you want to configure
- **Switch**: to enable or disable the PD function

**Level**: Low, Middle, High. Low level is recommended to detect objects in long distance. High level is recommended to detect objects in short distance.

**Scene**: Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.

**Setup**: Click Setup to draw a virtual region in the camera picture:
1. Choose 1 of the Rule Number. It is the number of PD area.
2. To enable the detection in Rule Switch.
3. Choose a Rule Type, only Normal available for this detection.
4. Use your mouse to click 4 points in the camera picture to draw a virtual region. The sharp of the region should be a convex polygon. Concave polygon will be not able to save.
5. Click Save to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will be changed to red color. Long press the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and then click Remove button. Click Remove All will delete all regions.

**Notice:**

1) The region for detection shall not be in the area that people cannot reach.
2) The detected people should be completely surrounded in the region.
**Alarm**: Click to parameter setting of PD:

<table>
<thead>
<tr>
<th>Channel</th>
<th>Buzzer</th>
<th>Alarm Out</th>
<th>Latch Time</th>
<th>Record</th>
<th>Post Recording</th>
<th>Show Message</th>
<th>Send Email</th>
<th>Full Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>P CH1</td>
<td>Disable</td>
<td>10 s</td>
<td>ON</td>
<td>OFF</td>
<td>20 s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P CH2</td>
<td>Disable</td>
<td>10 s</td>
<td>ON</td>
<td>OFF</td>
<td>30 s</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Channel**: to select the channel you want to configure

**Buzzer**: to disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out**: If your DVR support to connect to external alarm device, you can set to emit an alarm tone.

**Latch Time**: To configure the external alarm time when the detection is triggered.

**Record**: to select the channel(s) you want to record when a detection is triggered.

**Post Recording**: You can set how long after an event occurs that the DVR will continue to record.

**Show Message**: A letter “S” will be displayed on the screen when the intelligent detection is triggered.

**Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will be enlarged into full screen.
5.1.9.5 FD (Face Detection)

Face Detection function detects the faces of moving people appear in a pre-defined region, and a series of actions can be taken when the alarm is triggered.

Channel: to select the channel you want to configure
Switch: to enable or disable the CC function
Setup: Click Setup to draw a virtual region in the camera picture.
1. Choose one of the Rule Number. It is the number of FD area. Maximum 4 areas you can set for FD function.
2. To enable the detection in Rule Switch.
3. Choose a Rule Type, only Normal available for this detection.
4. Use your mouse to click 4 points in the camera picture to draw a virtual region. The sharp of the region should be a convex polygon. Concave polygon will be not able to save.
5. Click Save to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will be changed to red color. Long press the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and then click Remove button. Click Remove All will delete all regions.

Notice:

1) The region for detection shall not be in the area that people cannot reach.
2) The region should include the complete front face.

Alarm: Click to parameter setting of FD:

Channel: to select the channel you want to configure
Buzzer: to disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered
Alarm Out: If your DVR support to connect to external alarm device, you can set to emit an alarm tone.
Latch Time: To configure the external alarm time when the detection is triggered.
Record: to select the channel(s) you want to record when a detection is triggered.
Post Recording: You can set how long after an event occurs that the DVR will continue to record.
Show Message: A letter “S” will be displayed on the screen when the intelligent detection is triggered.
Send Email: If an alarm is triggered, an Email will be sent to your preset email account.
Full Screen: When the detection is triggered, the channel will be enlarged into full screen.

5.1.9.6 CC (Cross-Counting)

Cross-Counting function counts the times for moving objects or people across the virtual lines.

Channel: to select the channel you want to configure
Switch: to enable or disable the CC function
Sensitive: The sensitivity level is from 1 to 4, with a default value of 2. Higher sensitivity will be easier to trigger the detection.
Scene: Scene setting includes Indoor and Outdoor. Please choose the scene to match with the place your camera installed.
Setup: Click Setup to draw a virtual region in the camera picture.
1. Choose one of the Rule Number. It is the number of virtual lines you can draw. Maximum 4 lines.

2. To enable the detection in **Rule Switch**.

3. Choose a **Rule Type**
   - **Object**: Will count for only moving objects.
   - **Pedestrian**: Will count only moving people.

4. Use your mouse to click 2 points in the camera picture to draw a virtual line. From Side A to Side B is Enter, from Side B to Side A is Exit.

5. Click **Save** to save your settings.

6. If you want to modify the position or length of the line, click the red box in the line, the color of the line will be changed to red color. Long press the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.

7. If you want to remove one of the lines from the camera picture, click the red box in the line and then click **Remove** button. Click **Remove All** will delete all lines.

**Notice:**
1) The lines shall not be too close to the edges of the camera picture, to avoid any failure to trigger an alarm when the target cross through it.
2) The lines should be in the area that detected object can be reach.
3) The lines shall not be set too short, to avoid any failure to trigger an alarm when the target passes outside it.

You are able to search & view the statistical result of cross counting in **5.1.8.7 Intelligent Analysis**.
**Alarm:** Click **Alarm** to parameter setting of FD:

<table>
<thead>
<tr>
<th>Channel</th>
<th>Buzzer</th>
<th>Alarm Out</th>
<th>Latch Time</th>
<th>Record</th>
<th>Full Recording</th>
<th>Show Message</th>
<th>Send Email</th>
<th>Full Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP CH1</td>
<td>Disable</td>
<td></td>
<td>10 s</td>
<td><strong>ON</strong></td>
<td>20 s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP CH2</td>
<td>Disable</td>
<td></td>
<td>10 s</td>
<td><strong>ON</strong></td>
<td>20 s</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Channel:** to select the channel you want to configure

**Buzzer:** to disable or to active the buzzer to emit an alarm tone in 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out:** If your DVR support to connect to external alarm device, you can set to emit an alarm tone.

**Latch Time:** To configure the external alarm time when the detection is triggered.

**Record:** to select the channel(s) you want to record when a detection is triggered.

**Post Recording:** You can set how long after an event occurs that the DVR will continue to record.

**Show Message:** A letter “S” will be displayed on the screen when the intelligent detection is triggered.

**Send Email:** If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen:** When the detection is triggered, the channel will be enlarged into full screen.
5.1.9.7 Intelligent Analysis

The statistical result can be queried by Daily / Weekly / Monthly / Annual for Cross In & Cross Out.

5.1.9.8 Intelligent Schedule
In order to activate the intelligent function, you need to config the schedule. The schedule will be active in 24 hours x 7 days.
To set the schedule, choose one channel then drag the cursor to mark the slots. The sky-blue blocks in the time slots will be active for Intelligent detections. The schedule is valid only for the selected channel each time when you set. If you want to use the same schedule for other channels, use Copy function. Click Save to save your settings.

5.2 Record
This menu allows you to configure the recording parameters

5.2.1 Encode
This menu allows you to configure the recording video or network transmission picture quality. Generally, Mainstream defines the recording video quantily which will be saved in the HDD; Substream defines the video quality which is being viewed via remote access, for example web client & CMS; Mobilestream defines the video quality which is being viewed via remote access via mobile devices.

Resolution: This parameter defines how large the recorded image will be.
FPS: This parameter defines the number of frames per second the DVR will record.
Video Encode Type: DVR support H.264, H.265 encode type, you may choose H.264 or H.265.
Bitrate Control: Select the bitrate level. For a simple scene, such as a gray wall is suitable constant bitrate (CBR). For more complex scene, such as a busy street is suitable variable bitrate (VBR).
Bitrate Mode: If you want to set the bitrate by yourself, then choose User-defined mode. If you want to select the predefined bitrate, choose Predefined mode.
**Bitrate**: This parameter corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

**Audio**: Select this option if you want to record audio along with video and have a microphone connected to the DVR or using a camera with audio capability.

**I Frame Interval**: Used default number is OK.

**ETR**: If ETR option is checked, this channel will be recorded in maximum frame rate & bitrate when an alarm (motion or I/O alarm) happens to this channel.

### 5.2.2 Record

This menu allows you to configure the channel recording parameters.

### 5.2.2.1 Record

**Record Switch**: Check to enable the recording in this channel.

**Stream Mode**: Choose the recording quality. If you choose Dualstream, the system will record in both Mainstream & Substream.

**PreRecord**: If this option is enabled, the DVR starts recording a few seconds before an alarm event occurs. Use this option if your primary recording type is motion or I/O alarm based.
5.2.2.2 Record Schedule

This menu allows you to specify when the DVR records video and defines the recording mode for each channel. The recording schedule lets you set up a schedule like, daily and hourly by normal (continuous) recording, motion recording, I/O alarm recording & PIR recording (if your DVR supports). To set the recording mode, click first on the mode radio button (Normal, Motion, IO, PIR), then drag the cursor to mark the slots. The recording schedule is valid only for one channel. If you want to use the same recording schedule for other channels, use Copy function. Click Apply to save your settings.

Channel: Select the channel to set its recording parameters.
Normal: When the time slot is marked green, this indicates the channel performs normal recording for that time slot.
Motion: When the time slot is marked yellow, this indicates the channel records only when a motion is detected during that time slot.
IO: When the time slot is marked red, this indicates the channel records only when the sensor is triggered during that time slot.
PIR: When the time slot is marked purple, this indicates the channel records only when the PIR is triggered during that time slot.
No Record: A time slot marked black means that there is no recording scheduled for the time slot.
5.2.3 Capture
This menu allows to configure the image capture function.

5.2.3.1 Capture

**Auto Capture**: Select **NO** or **OFF** to enable or disable automatic capturing on the channel.

**Stream Type**: Select the image resolution by mainstream or substream.

**Normal Interval**: Time interval to capture an image in normal recording.

**Alarm Interval**: Time interval to capture an image when motion, IO alarm or PIR is triggered.

**Alarm Resolution**: Select the image resolution of automatic capturing.

**Alarm Quality**: You may select **Good/Better/Best** to change alarm image quality.
5.2.3.2 Capture Schedule

Channel: Select the channel to set its capture parameters.
Normal: When the time slot is marked green, this indicates the channel performs normal capture for that time slot.
Motion: When the time slot is marked yellow, this indicates the channel capture images only when a motion is detected during that time slot.
IO: When the time slot is marked red, this indicates the channel capture images only when the sensor is triggered during that time slot.
PIR: When the time slot is marked purple, this indicates the channel capture images only when the PIR is triggered during that time slot.
No Capture: A time slot marked black means that it won’t capture any images for the time slot, but you can manually capture images if you enable the manual capture function in the channel.

5.3 Alarm

In these section, you can configure the alarm parameters.

5.3.1 Motion

Operation is same as 5.1.6 Motion

5.3.2 PIR

Operation is same as 5.1.7 PIR
5.3.3 I/O

This is an optional function, it will appear if your DVR supports sensor I/O, you connect external sensor I/O alarm devices to work with the DVR.

**Alarm In:** I/O channel.

**Alarm Type:** There are 3 types for your choice: Normally-Open, Normally-Close, and OFF. Choose the one to match your sensor type, or choose OFF to close the sensor trigger function.

**Buzzer:** The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when a sensor is triggered.

**Alarm out:** Tick to enable external alarm device to emit an alarm tone when a sensor is triggered.

**Latch Time:** you can set how long the buzzer will sound when external sensor is triggered (10s, 20s, 40s, and 60s).

**Channel:** Click ![Channel Icon] and choose which channel(s) you want to record when the motion detection is triggered.

**Post Recording:** You can set how long alarm record will last when alarm ends (30s, 1minutes, 2minutes, 5minutes).

**Show Message:** Display the alarm messages on the screen when sensor is triggered.

**Send Email:** Set to send email to specified email when sensor is triggered.

**Full Screen:** When sensor is triggered, the corresponding channel will be switched to the full screen mode.

**FTP Picture Upload:** To upload alarm images to FTP server when I/O alarm is triggered. To enable FTP, please view 5.4.4 FTP.
FTP Video Upload: To upload alarm images to FTP server when I/O alarm is triggered. To enable FTP, please view 5.4.4 FTP.

Picture to Cloud: To upload alarm images to cloud server when I/O alarm is triggered.

Video to Cloud: To upload alarm images to Cloud server when I/O alarm is triggered.

5.3.4 PTZ Linkage

If you had connected the PTZ cameras, you can set the linkage between PTZ cameras and Motion Alarm and/or external I/O sensor alarm. With the linkage function, you can turn your PTZ cameras focus to the preset point when a motion or I/O alarm happens.

Switch: Enable or disable the PTZ linkage function.

Motion: Motion detection alarm will trigger the PTZ linkage function it is checked.

IO: IO alarm will trigger the PTZ linkage function it is checked.

PIR: PIR alarm will trigger the PTZ linkage function it is checked.

PTZ: Click icon to associate the PTZ cameras with preset points. View preset point at 5.1.4.1 PTZ control.
5.3.5 Exception

This menu allows you to set the type of events that you want the DVR to inform you.

Event Type: Select the event type from below options:

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

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

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

**Alarm Out**: If your DVR support to connect to external alarm device, you can set to emit an alarm tone.

**Latch Time**: Determine how long the external alarm device to sound (10s, 20s, 40s, 60s) if your DVR support to connect external alarm device.

**Show Message**: Check the box to display a message on the screen when No Space on Disk, Disk Error, or Video Loss event happens.

**Send Email**: Let the DVR to send you an auto-email when an event occurs.
5.4 Network

This menu allows you to configure network parameters, such as PPPoE, DHCP, and 3G. The most common types are DHCP. Most probably your network type is DHCP, unless the network is manually addressed. If you need an authentication user name and password to the Internet, then choose PPPoE. If you want to use mobile network connection, then choose 3G.

5.4.1 General

If you connect to a router allows to use DHCP, please check the DHCP box. The router will assign automatically all the network parameters for your DVR. Unless the network is manually addressed below parameters:

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

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

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

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**DNS1/DNS2**: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually should be enough just to enter the DNS1 server address.

### 5.4.4.1 PPPoE

This is an advanced protocol that allows the DVR to connect to the network more directly via DSL modem.

Check the “Enable PPPOE” box, and then enter the User name & Password of the PPoE.

Click **Apply** to save, system will reboot to active the PPoE setting.
5.4.1.2 3G

This is a prior using the mobile network, you need to connect a 3G dongle to the DVR.

Enable the 3G option, enter the APN, Dial Code, User name & password according to the instruction of your 3G dongle device.
Prior using the mobile network, you need to connect a 3G dongle to the DVR
5.4.1.3 Port Configuration

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

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

**RTSP Port**: Default is 554, if the default port 554 is already taken by other applications, please change it.

**UPNP**: If you want to log in remotely to the DVR using Web Client, you need to complete the port forwarding. Enable this option if your router supports the UPnP. You need to enable UPnP both, on DVR and router. In this case, you do not need to configure manually port forwarding on your router. If your router does not support UPnP, make sure the port forwarding is completed manually.
5.4.2 DDNS

This menu allows you to configure DDNS settings. The DDNS provides a static address to simplify remote connection to your DVR. To use the DDNS, you first need to open an account on the DDNS service provider’s web page.

**DDNS**: Check to enable DDNS.

**Server**: Select the preferred DDNS server (DDNS_3322, DYNDNS, NO_IP, CHANGEIP, DNSEXIT).

**Domain**: Enter the domain name you created on the DDNS service provider’s web page. This will be the address you type in the URL box when you want to connect remotely to the DVR via PC. For example: dvr.no-ip.org.

**User/Password**: Enter the user name and password you obtained when creating an account on the DDNS service provider’s web page.

After all parameters are entered, click **Test DDNS** to test the DDNS settings. If the test result is "Network is unreachable or DNS is incorrect", please check whether the network works fine, or the DDNS information is correct or not.
5.4.3 Email

This menu allows you to configure email settings. Please complete these settings if you want to receive the system notifications on your email when an alarm is triggered, HDD becomes full, HDD is in error state, or Video Loss occurs.

5.4.3.1 Email Configuration

![Email Configuration Screen]

**Email**: Check to enable.

**Encryption**: Enable if your email server requires the SSL or TLS verification. If you are not sure, set to be Auto.

**SMTP Port**: Enter the SMTP port of your email server.

**SMTP Server**: Enter the SMTP server address of your email.

**User Name**: Enter your email address.

**Password**: Enter the password of your email.

**Receiver 1~3**: Enter the email address where you want to receive the event notifications from the DVR.

**Interval**: Configure the length of the time interval between the notification emails from the DVR.
**NOTICE:** To make sure all settings are correct, click **Test Email**. The system sends an automated email message to your inbox. If you received the test email, it means the configuration parameters are correct.

### 5.4.3.2 Email Schedule

You need to configure the schedule to fully implement the Email notification.

The color codes on email schedule have the following meanings:

- **Green:** Slot for Motion detection.
- **Yellow:** Slot for I/O Alarm (optional).
- **Red:** Slot for Exception (HDD full, HDD error, or Video Loss).
- **Purple:** Slot for PIR (optional).
5.4.4 FTP

This menu allows you to enable FTP function to view and load captured snapshots from DVR to your storage device over FTP.

- **FTP Enable**: Click to enable FTP function.
- **Server IP**: Enter your FTP server IP address or domain name.
- **Port**: Enter the FTP port for file exchanges.
- **Name/Password**: Enter your FTP server user name and password.
- **Picture Resolution**: To select the resolution of upload picture.
- **Picture Quality**: you may set picture quality, options: Good/Better/Best/Bad/Worse/Bad.
- **Video Stream Type**: you may select Substream or Mainstream.
- **Max Package interval**: Set max interval time for hunt picture package of every time.
- **Directory Name**: Enter the default directory name for the FTP file exchanges.
- **Test FTP**: Click to test the FTP settings.

**Upload Normal Video**: Open the option icon, you may enable all channel to you need

**Upload Alarm Video**: Open these alarm of the option icon, you may enable all channel of need

FTP Picture Upload and FTP Video Upload, you can also the view on 5.1.6 Motion, 5.1.7 PIR, 5.1.9 Intelligent, 5.3.3 I/O to understand more on is it.

**Notice**: you must have a FTP servers, then enter your FTP server IP address or domain name in the Server IP option of FTP setup page.
5.4.5 IP FILTER

You are able to configure the IP FILTER for NVR.

Enable: Check Enable, you able to setup the Whitelist and Blacklist
Enable Whitelists: Whitelist default is enable, first to check Enable, after you may to setup Start Address and End Address of the White List.
Start Address: You may key in start Address then click Single Add, the Edit Address list is show in the below.
End Address: You may key in start Address then click Network Segment Add, the Edit Address list is show in the below.

Edit: Click to edit Start Address and End Address, you may edit single address or network segment Address, also click to delete single address or network segment Address.
Enable Blacklists: Blacklist default is disable, first to check Enable Blacklists, after you may refer to the all setup options of Whitelist to edit the Blacklist.
5. 5 Device

In this section, you can configure the internal HDD & Cloud storage function.

5. 5.1 Disk

This menu allows you to check & configure the internal HDD(s). You need to format the HDD only at the first startup and if you replace a new HDD.

Format HDD: Select the HDD you want to format then click Format HDD, to start formatting, you need to enter your user name and password then click OK to continue formatting.

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

Record on ESATA: This menu only displayed when your DVR is coming with an e-SATA port on the rear panel. It will allow to record the video to external e-SATA HDD to enhance your HDD capacity. If the e-SATA recording function is enabled, e-SATA backup function will be disabled.

Edit: If your DVR supports to install multiple HDDs, the edit icon appears in your system, you can click it to edit the HDD as below:
Disk Type: Read-write, read-only, and redundant.  
Read write Disk: read write mode is the normal status for a HDD to save recording or search recording to play.  
Redundance Disk: redundancy disk can be used to automatically backup video footage on the recording (read-write) hard drive. When a redundant HDD is set, the system can be set to record cameras in parallel to both the recording hard drive and the redundant hard drive in case of hard drive failure.  
Read only Disk: To prevent important video data from being overwritten during cyclic recording, the HDD can be set as read only mode. New recording will be not able to save into this read-only HDD. You can still search recording from this read-only HDD to play.

5.5.1.1 Disk Group

If your DVR supports to install multiple HDDs, you can configure the HDD to be different groups. HDD groups allow you to balance recordings across multiple hard drives. For example, you can record channels 1~4 to one hard drive and 5~8 to a second hard drive. This can reduce the amount of wear on the hard drives and may extend the life of the hard drives.
1. Use the dropdown next to **Disk Group Type** to select the type of group to configure.
2. Use the dropdown next to **Disk Group** to select the specific group within the selected group type.
3. Click the numbered boxes representing channels to record channels to HDDs in the selected group.
4. Click **Apply** to save.

### 5.5.1.2 S.M.A.R.T

This function can be used to display technical information on the hard drive installed inside your DVR. You can also perform a test (there are three types available) to evaluate and detect potential drive errors.

**Self-check Type:** There are three types available:
- **Short:** This test verifies major components of the hard drive such as read/write heads, electronics and internal memory.
- **Long:** This is a longer test that verifies the above as well as performing a surface scan to reveal problematic areas (if any) and forces bad sector relocation.
Conveyance: This is a very quick test that verifies the mechanical parts of the hard drive are working.

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

Note: When performing a test, your DVR will continue to work as normal. If an HDD S.M.A.R.T error found, the HDD can be continued to use, but there will be a risk to lose recording data. It is recommended to replace a new HDD.

5.5.2 Cloud

Your DVR has the ability to upload snapshots to the cloud service via Dropbox which is a free service that allows you to easily store and share snapshots and always have them on hand when you need them.

Before activating the cloud function, we recommend that you create a Dropbox account using the same email address and password used for your DVR. Go to www.dropbox.com, input your name, email address and password, agree to the terms & conditions then click the sign up button.

Cloud Storage: Check to enable the function.
**Cloud Type:** Only Dropbox is supported currently.

**Alarm Detection:** Enable if you want to upload snapshots to Dropbox when the camera detects a motion alarm or triggered by I/O alarm.

**Drive Name:** Enter the cloud storage name for your DVR.

**Activate Cloud:** Click to activate the function. After a short moment, you will see a message on-screen. An activation link has been sent to your email (the email address which you had set to receive email alerts in 5.4.3 Email). Check your email then click the link to activate. You will be taken to the Dropbox website. Click “Allow” to finalize the activation. Repeat these steps if you would like to enable cloud storage for the other cameras available.

### 5.6 System

Change general system information such as date, time and region, edit passwords and permissions, and more.

#### 5.6.1 General

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

**Device ID:** Enter the desired ID for your DVR. The device ID is used to identify the DVR, and can only be composed of numbers. For example, 2pcs DVRs are installed in the same place, the
Device ID is 000000 for one of the DVRs, and 111111 for another DVR. When you want to operate the DVR with a remote controller, both of the DVR may receive the signal from controller & act at the same time. If you want to control only the DVR with ID 111111, you can input the Device ID 111111 in login page with remote controller for further operations.

**Language**: Select a language you would like the system menus to be displayed in. Multiple languages are available.

**Video Format**: Select the correct video standard for your region.

**Menu Timeouts**: Click the drop-down menu to select the time your DVR will exit the Main Menu when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

**Mode**: XVR or DVR. XVR model will allow you to add IP Cameras to the DVR. If you change the mode from XVR to DVR, all added IP cameras will be deleted.

**Show Wizard**: Click the checkbox if you would like to display the Startup Wizard each time you turn on or reboot your DVR.

### 5.6.1.1 Date and Time

![Date and Time Settings](image)

**Date & Time**

**Date**: Click the calendar icon to change the date.

**Time**: Click the dialogue box to change the time.

**Date Format**: Select the preferred date format.

**Time Format**: Select the preferred time format.

**Time Zone**: Select a time zone relevant to your region or city.
5.6.1.2 NTP Settings

The NTP (Network Time Protocol) function allows your DVR to automatically sync its clock with a time server. This gives it the ability to constantly have an accurate time setting (your DVR will periodically sync automatically).
Check Enable NTP, and select a Server Address, click Update Now to manually sync the date & time, click Apply to save your settings.

When NTP function is enabled, system will update the system time at 00:07:50 per day, or every time when the system is starting up, handwork to click update Now.

5.6.1.3 DST Settings

The DST (Daylight Saving Time) function allows you to select the amount of time that Daylight Saving has increased by in your particular time zone or region.

Enable DST: If Daylight Saving applies to your time zone or region, check this option to enable.
Time Offset: Select the amount of time that Daylight Saving has increased by in your time zone. This refers to the difference in minutes, between Coordinated Universal Time (UTC) and the local time.
Enable DST: You can select how Daylight Saving starts and ends:
Week: Select the month, a particular day and time when Daylight Saving starts and ends. For example, 2 a.m. on the first Sunday of a particular month.
**Date:** Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

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

### 5.6.2 Output Configuration

This menu allows you to configure video output parameters.

**Video Output:** May choose **LIVE-OUT** or **SPOT-OUT** of the output mode.

#### 5.6.2.1 LIVE-OUT/SPOT-OUT

Choose **LIVE-OUT** from the Video Output drop-down menu.
SEQ Mode: Select how many video channels you would like to display when your DVR is in sequence mode.

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

Output Resolution: Select a display resolution that is suitable for your TV. 1920 x 1080 will suit most TVs. If your DVR supports 4K output resolution, you can select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution that your 4K TV provides.

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

Scale: To adjust the size of the displayed screen by scale.
X Offset: To move the displayed screen to left or right.
Y Offset: To move the displayed screen to up or down.

Click once or long press the left button of your mouse on the arrow to adjust the size and position, or you can scroll the wheel of the mouse to adjust. Click the right button of your mouse to exit, and click Apply to save your modifications.

Cursor Hidden Delay: Click the drop-down menu to select the time your DVR will hide the mouse cursor when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

Cursor Acceleration: To adjust the speed to move the mouse cursor.

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

5.6.2.2 SPOT-OUT

SPOT-OUT is an optional option to configure the VGA spot output parameters.
**Video Output:** select SPOT-OUT model
**VGA SPOT:** check box enable VGA SPOT
**View setup:** may select Static or Dynamic
**SEQ Mode:** Select how many video channels you would like to display when your DVR is in sequence mode.
**SEQ Dwell Time:** Enter in seconds the maximum length of time you would like to display a video channel in sequence mode before displaying the next video channel (300 seconds is the maximum).
**VGA Resolution:** Select a display resolution that is suitable for your TV. 1920 x 1080 will suit most TVs. If your DVR supports 4K output resolution, you can select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution that your 4K TV provides.
**Full Screen:** check check box is full screen to show

### 5.6.3 Multi-user

This menu allows you to configure the user name, password and user permission.

![Multi-user setup screen](image)

The system supports the following account types:

- **ADMIN — System Administrator:** The administrator has full control of the system, and can change both administrator and user passwords and enable/disable password protection.
- **USER — Normal User:** Users only have access to live viewing, search, playback, and other functions. You may set up multiple user accounts with varying levels of access to the system.
5.6.3.1 Changing Password

To change the password for the administrator or user accounts, click the User Edit icon. The password has to be a minimum of 8 characters and can contain a mixture of numbers and letters. Enter your new password again to confirm, and then click Save to save your new password. You will be required to input your old password to authenticate.

**Password Enable:** It's strongly recommended to enable the password to protect your privacy. If you want to disable the password protection, please ensure your DVR is placed in a secure place.

5.6.3.2 Add New Users

Select one of the user accounts that is currently disabled, click the User Edit icon to edit user information

1. Select Enable from the drop-down next to User Enable.
2. Click the field next to User Name to change the user name for the account.
3. Select Enable from the drop-down next to Password Enable.
4. Click the field next to Password to enter the desired password.
5. Click the field next to Confirm to reenter the password.
6. Click Save. You will be required to input your Admin password to authenticate.
5.6.3.3 Setting User Permissions

The administrator account is the only account that has full control of all system functions. You can enable or disable access to certain menus and functions of each user account.

1. Click the edit icon of under permission tab, into the permission edit page.

2. Check the boxes next to any system menus or capabilities you would like the user to access. Click All to check all boxes. Click Clear to clear none of the check boxes.

3. Click Save to save your modifications.
5.6.4 Maintenance

In this section, you will be able to search & view the system log, load default settings, upgrade the system, export & import system parameters and manager system auto reboot.

5.6.4.1 Log

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

Log Searching and Backing Up:
1. Click the field next to **Start Date & Start Time** to choose the starting date & time for your search from the on-screen calendar.
2. Click the field next to **End Date & End Time** to choose the end date & time for your search from the on-screen calendar.
3. Select the type of events you would like to search for from the dropdown next to **Log Type**, or select **All** to see the entire system log for the selected time period.
4. Click **Search**.
5. Browse system log events from your search period:
   - Video events can be played back instantly by clicking in the **Playback** column. Right-click to return to your search results.
   - Use the **< < / > >** buttons in the bottom-right corner of the menu to move between pages of system log events.
6. Click **Backup** to create a backup of the system log for your search period. Please make sure your flash derive has been connected to the DVR’s USB port.
7. The backup drive menu appears. Navigate to the folder you want the backup file to be saved in, then click **OK** to begin.
5.6.4.2 Load Default

Reset the DVR settings to its out-of-box state. You can choose to reset all settings at once, or just settings on specific menus. Restoring default settings will not delete recordings and snapshots saved to the hard drive.

Check the items you want restore, or check Select All to choose all items. Click Apply to load default settings of your chosen items.
5.6.4.3 Upgrade

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

5.6.4.4 Parameter Management

You can export the main menu settings you have configured to a USB flash drive, or import an exported setting file from USB flash drive to the DVR.

Save Settings: Click to save the DVR current system settings to the USB device. You will be required to input the Admin password to authenticate.

Load Settings: Once you have created a system settings export, you can import the settings on another DVR. Click Load Settings button to navigate to the system settings file you want to import from your USB flash drive. You will be required to input the Admin password to authenticate.
5.6.4.5 Auto Reboot

This menu allows the system to auto reboot the DVR regularly. It is recommended to leave this function enabled, as it maintains the operational integrity of your DVR.

**Auto Reboot**: Check to enable.

**Time**: You can set the DVR to reboot by day, week or month.
5.6.5 IP Camera Maintain

This menu allows you to upgrade the IP camera's firmware and restore default settings of IP camera.

5.6.5.1 Upgrade IP Camera

1. Choose one of the IP cameras you want to upgrade firmware.
2. Click Select File select the update file from your USB flash drive, then click OK.
3. Click IPC Upgrade button to start upgrading. You will be required to input the Admin password to authenticate. Please do NOT power off the DVR and IP camera or remove the USB during the upgrading.
5.6.5.2 Load Default Settings for IP Camera

1. Choose the IP cameras you want to restore.
2. Click Load Default to restore settings. You will be required to input the Admin password to authenticate.
5.6.5.3 Reboot IPC

1. Choose the IP cameras you want to reboot.
2. Click **Reboot IPC** to reboot IPC. You will be required to input the Admin password to authenticate.

5.6.6 System Information

This menu allows you to view the system information, channel information, record information & network status.
5.6.6.1 Information

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

If your DVR supports P2P function, you will find the P2P ID & P2P QR code in the information page. You can scan this QR cord with mobile app to remote view the DVR.
5.6.6.2 Channel Information

View channel information for each connected camera such as alias, mainstream and substream recording specifications, motion detection status & privacy zone.

5.6.6.3 Record Information

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

View network information.

**Total Band Width**: It shows the DVR’s total input band width for IP cameras.

**Used Band Width**: It shows the used band width of IP cameras.
Chapter 6 Search, Playback & Backup

The Search function gives you the ability to search for and play previously recorded videos as well as snapshots that are stored on your DVR’s hard drive. You have the choice of playing video that matches your recording schedule, manual recordings or motion events only. The Backup function gives you the ability to save important events (both video and snapshots) to a USB flash drive.

6.1 Using Search Function

Click Search button in the Start Menu to enter search section.

1. **Search Options**: the system provides various search & playback methods: General, Events, Sub-periods, Smart & Pictures
2. **Search Date**: search by a date to play back.
3. **Search Type**: the system provides different search types to narrow your search.
4. **Channel Selection**: to choose the channels you want to search & play.
5. **Video Playback Controls**: to control the video playback.
Enlarge the video playback to full screen

Rewind, x2, x4, x8 and x16

Slow Play, 1/2, 1/4 and 1/8, 1/16 speed

Play

Pause

Play frame by frame. Click once to play a frame of the video

Stop

Fast Forward, x2, x4, x8 and x16

Digital Zoom: Click to zoom in then click-and-drag on a camera image during playback to zoom in on the selected area. Right-click to return to regular playback.

Video Clip. Quickly save a section of video to a USB flash drive. View more on 6.1.1.1 Video Clip Backup

Save Video Clip.

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

Snapshots: to capture a snapshot image to your USB flash drive. If the video playback is in split-screen view, move the mouse cursor to the channel you want to capture, and then click the icon to save the snapshot.

Add Default Tag:

Add Customized Tag:
6. **Timeline:** Continuous recordings are shown with colored bars to represent different types of recording, the legend shown in the bottom-right corner of the display. You may check the timeframe options (24h, 2h, 1h, 30m) to view a smaller or larger time period.

**Different types of recording shown in different colors:**

- Continuous Recording in **Green** color;
- Motion Recording in **Yellow** color;
- I/O Recording in **Red** color;
- PIR Recording in **Purple** color;
- Intelligent Recording in **Blue** color;
- Motion & I/O Recording in **Orange** color;

7. **Playback Status:** display the video play status.

- **Play** : Video play in the works.
- **Pause** : Video play in the pause

### 6.1. 1 Search & Play Video in General

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

1. Select a date to search for video recording from the calendar.
2. Choose a search type.
3. Check channels you would like to search, or check **Channel** to search all connected channels.
4. The search result will display on the timeline from 00:00 to 24:00.

5. Click ▶ button to start playback.

6. Control the playback with buttons on Video Playback Controls.

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

8. If you want to quickly save a section of video during playing back to a USB flash drive, use the Video Clip backup function.

6.1.1.1 Video Clip Backup

1. Insert your USB flash drive to the DVR.

2. Start a video recording playback.

3. Click icon.

4. Check the channel(s) you want to make a video clip backup.

5. Press and hold the left button of your mouse, and drag the cursor to the timeline where you want to end the video clip.

6. The icon has been changed to icon, click to save the video clip.

7. Select a file type for your backup files, click Save button to save the video clips. Please make sure your USB driver has enough space to save the video clips.

8. The backup drive menu appears. Navigate to the folder you want the backup files to save in.

9. Click OK to begin. The progress bar at the bottom of the window shows you the progress of the backup.
6.1.2 Event Search, Playback & Backup

Event search lets you view a list of video recordings with the channel, start and end time, and recording type conveniently summarized. You can also quickly back up events to a USB flash drive.

To search, play & back up for events:
1. Choose the date & time you want to search.
2. Check the recording types you want to search, or check Search Type to choose all.
3. Choose the channels you want to search, or check Channel to choose all channels.
4. Click icon to start search.
5. Events fitting your search criteria are displayed in list form. You can double click the left button of your mouse upon one of the events to play the video immediately.
6. Click icons in the bottom-right corner of the menu to browse between pages of events, or input the page you want to browse.

7. You can switch the view of list form in by clicking below icons which is show at the right bottom corner of the screen:

- **Thumbnails view.** You can view the snapshots of the events.
- **List view.** The events will be displayed in list.
- **Detailed view.** You can view the details of the events.

In the detailed view mode, you can lock the video events to keep events from being overwritten in the hard drive. Click the icon to lock or click icon to unlock the events.

8. When you click the left button of your mouse upon one of the event, system will show the event information on the left bottom corner of the screen.

9. Check the box next the number of the event to select files, or check the box next **Select** to select all events in the page.

10. The number of selected files, total size information will be displayed at the right bottom of the screen.

11. After selecting file, you can click icon to save the video to USB flash drive. Or click icon into event playback control window to play the video.
6.1.2.1 Event Playback Control

1. Event List, you can select the events here.
2. Click [folder] icon to save your selected event videos to USB flash drive. Click [play] icon to play video.
3. Control the playback with buttons on Video Playback Controls. You can click [stop] icon or click right button of your mouse to exit the playback and return to event search window.
4. The event you are playing now will be displayed on the timeline.
5. Use the timeframe options (24h, 2h, 1h, 30m) to view a smaller or larger time period.
6.1.3 Sub-periods Playback

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

To search & play video in sub-periods:
1. Choose the date & time you want to search.
2. Choose the split-screens you want the videos to be played in.
3. Check the recording types you want to search, or check Search Type to choose all.
4. Choose the channels you want to search. Please note that this function only supports to search & play one channel at a time.
5. Click the play button to start playing. Control the playback with buttons on Video Playback Controls.
6. Videos are being played in split-screens.
7. Click the left button of your mouse upon a particular split-screen, the time period of the video split-screen will be displayed on the timeline. The color bar on the top of the timeline indicates the time span of the video split-screen you have clicked. The color bar on the bottom of the timeline indicates the time span for the whole videos you have searched.
8. Use the timeframe options to view a smaller or larger time period.
6.1.4 Smart Search & Playback

Smart mode allows you to easily search & play the motion events in one or more specific areas of the channel.

To start a smart search & playback:

1. Choose the date & time you want to search.
2. Check the recording types you want to search, or check Search Type to choose all.
3. Choose the channel you want to search, the motion recording in the selected channel will be searched automatically. Please note that this function only supports to search & play one channel at a time.
4. Click the play button on the to start playing. Control the playback with buttons on Video Playback Controls.
5. Videos are being played in the screen.
6. The color bar on the top of the timeline indicates the time span of the motion recordings you have searched. The color bar on the bottom of the timeline indicates the complete time span for the whole recordings you have specified.
7. Use the timeframe options to view a smaller or larger time period.
6.1.4.1 Smart Search Area

The smart search function searches the motion recordings in the whole area of channel by default. You can specify one or more particular areas to narrow your search.

Click this icon 🗺️ on Video Playback Controls, the camera will be shown in full screen and the Smart controls bar will be visible.

![Smart controls bar](image)

You can click and hold the edge of the controls bar to reposition it.

**Smart Controls Bar**

- 🗺️ Click this to define a full screen detection area
- 🗿 Click this to delete all areas created.
- 🔍 Click this to search and play video based on the areas defined.
- ⬅️ Click this to return to the playback interface.

**To define one or more specific areas, please do the following:**
1. Click and drag to select the area that you want to define. Multiple areas can be defined. You can also use the same action to remove sections of the defined area or to delete it entirely. When finished, click the search button to play video based on the areas defined.
2. You’ll be returned back to the playback interface. Segments matching your search criteria will be shown on the timeline in blue color.
6.1.5 Tag

6.1.5.1 Add Tag

Move mouse to any a live channel, then click right button to view tools bar ( ). Click to Add the Customized Tag:

Tag name may the edit, then click Save is OK. Set the Tag once, the Tag can record one minute, this is default. Also you may into Search page, then into Genera page、Events page、Sub-periods page、Smart page to Add Tag:

: Add Default Tag.
: Add Customized Tag.
6.1.5.2 Search Tag

Into the Tag event search page, then set Start Time, End Time and Channel, click  all Tag event list is show, you may click  to playback Tag event, click  to Edit Tag name and click  to Delete Tag event.

6.1.6 External File

The function May playback backup video recode file of the USB disk, click  playback the video file.
6.1.7 Picture Search & View

This function can be used to search, play and copy snapshots to a USB flash drive.

To search, play & back up pictures:
1. Choose the date & time you want to search.
2. Check the picture capture types you want to search, or check Search Type to choose all.
3. Choose the channels you want to search, or check Channel to choose all channels.
4. Click  button to start search.
5. Pictures fitting your search criteria are displayed in list form. You can double click one of the pictures to get a larger view.
6. Click icons in the bottom-right corner of the menu to browse between pages of pictures, or input the page you want to browse.
7. You can switch the view of list form in by clicking below icons which is show at the right bottom corner of the screen:
   - Thumbnails view. You can view the snapshots of the events.
   - List view. The events will be displayed in list.
   - Detailed view. You can view the details of the events.
8. When you click the left button of your mouse upon one of the pictures, system will show the picture information on the left bottom corner of the screen.

9. Check the box next the number of the event to select files, or check the box next Select to select all pictures in the page.

10. The number of selected files, total size information will be displayed at the right bottom of the screen.

11. After selecting file, you can click \[\text{button}\] to save the pictures to USB flash drive. Or click \[\text{button}\] to go into picture preview control window.

### 6.1.5.1 Picture Preview Control

1. Picture List, you can select the pictures here.

2. Click \[\text{button}\] button to save your selected pictures to a USB flash drive. Click \[\text{button}\] button to view the pictures in slideshow.

3. Press \[\text{button}\] button to exit preview control window and go back to picture search window.

   Press \[\text{button}\] button to pause, press \[\text{button}\] to resume slideshow.
Press [.previous] button to display previous snapshot or group of snapshots, press [next] to display the next snapshot or group of snapshots.
Click [single view] button to view a single snapshot at a time, click [four view] button to view four snapshots at a time, press [nine view] buttons to view nine snapshots at a time.

Chapter 7 Remote Access via Web Client

Use the Web Client to remotely access your DVR at any time via a PC. Before you access the Web Client, you need to ensure that the internet settings of the DVR are configured properly.

7.1 Basic System Environment Requirements

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

<table>
<thead>
<tr>
<th>Item</th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Intel® Core™ i5 CPU</td>
<td>Intel® Core™ i5 CPU or higher</td>
</tr>
<tr>
<td>RAM</td>
<td>4G or more</td>
<td>8G or more</td>
</tr>
<tr>
<td>Hard Drive</td>
<td>500G or more</td>
<td>1000G or more</td>
</tr>
<tr>
<td>Display RAM</td>
<td>2G or more</td>
<td>4G or more</td>
</tr>
<tr>
<td>Display Resolution</td>
<td>1280*1024</td>
<td>1920*1080</td>
</tr>
<tr>
<td>OS</td>
<td>Windows 7 or above</td>
<td>Mac OS X® 10.9 or above</td>
</tr>
<tr>
<td>DirectX</td>
<td>DirectX 11</td>
<td></td>
</tr>
<tr>
<td>Direct3D</td>
<td>Acceleration Function</td>
<td></td>
</tr>
<tr>
<td>Ethernet Adapter</td>
<td>10/100/1000M Ethernet Adapter</td>
<td></td>
</tr>
<tr>
<td>IE</td>
<td>Microsoft Internet Explorer (Ver. 11,10,9,8). It doesn’t support Edge.</td>
<td></td>
</tr>
<tr>
<td>Mozilla Firefox</td>
<td>V51 or below. It doesn’t support V52 or above version.</td>
<td></td>
</tr>
<tr>
<td>Google Chrome</td>
<td>V44 or below. It doesn’t support V45 or above version.</td>
<td></td>
</tr>
<tr>
<td>Mac Safari</td>
<td>5.1 or above</td>
<td></td>
</tr>
</tbody>
</table>
7.2 Web Plugin Download and Installation

To access the Web Client, do the following:

**For IE/Chrome/Firefox:**

1. Launch the explorer on your PC and enter the DVR IP address or DDNS domain name (Host Name) you have set on DVR in the URL box.
2. For the first time you run the web client, system will require to install the web client plugin. Click **download** to download the plugin and install to your computer.

![Plugin Installation Message]

You haven’t installed the plugin or it is not the latest version.

Please click **download** to download the latest plugin.

Please close browser before plugin installation!!!
3. After installing the plug-in, close & launch again your browser and repeat step 1 to open the login page. Input your user name and password to login the web client.

**Note:** If you use Google Chrome, please use Version V41 or below. If you use V42 to V44, you need to enable NPAPI plugins. Please enter chrome://flags/#enable-npapi on URL bar to find and enable NPAPI. It doesn’t support V45 or above so far.

**For Mac Safari:**
1. Launch the Safari in your Mac, and enter the DVR IP address or DDNS domain name (Host Name) you have set on DVR in the URL box.

2. Download the plug-in “SurveillanceClient.dmg”, locate the downloaded file and double click it.
3. Click on "Continue" --> "Install". Enter user name and password for Mac computer, Click on "Install Software" --> "Close" to finish installation.

4. Close Safari and open again to repeat step 1 to open the Web Client login page.
7.3 Web Client Manager
The web client supports to fully control the DVR with administrator account. Please make sure to protect your user name & password for preventing illegal login.

7.3.1 Live Interface
This is the first screen that opens after you have logged in to the Web Client. Here you can open or close live preview, record video to local computer manually, take snapshots of the screens, PTZ control, color adjustment, etc.

1- **Channel List:** Open the channel list for quick camera function
Click  button to display the Channel List.

Click  button to hide the Channel List.

Turn the Live video stream on/off. The button is in blue color if the live video stream is on.

Manual Recording buttons. Click to start manually recording live stream video. Click again to stop recording. Manual recordings are saved to your computer. While in recording, the button is in blue color.

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

Bitrate button. Set camera to use mainstream, substream or mobile stream video settings. Mobile stream is available for IP channels only.

2- **Live Video Stream Options:**
**Mainstream:** View all live videos using high-quality mainstream video settings.
**Substream:** View all live videos using middle-quality substream video settings.
Mobile Stream: View all live video using lower-quality mobile stream video settings to conserve bandwidth. Available for IP channels only.

3- Main Menus:
   Live: View live video from cameras.
   Playback: View recorded video which is saved in DVR's HDD.
   Remote Setting: Access functions of the DVR setting menus.
   Local Settings: Set download locations for recordings and snapshots taken using Web Client, and choose file type for video files.

4- Information: Hover over to see system details.

5- Exit.

6- Color Controls. Click to display or hide the color controls.

7- PTZ Controls: Click to display or hide the PTZ controls for using PTZ cameras.

8- PTZ Controls

   Directional Arrows: Click to move the PTZ camera
   Automatic line scan.

   PTZ Speed: Click to set the speed of the PTZ camera’s movement.
   Zoom: Click –/+ to zoom in or out.
   Focus: Click –/+ to adjust focus.
   Iris: Click –/+ to adjust iris.

   Preset Point: Add, remove, or go to preset point.

   Cruise: Start/stop PTZ cruise

9- Live View Control Buttons:
Open the images on Live window.
Close all the Live channels
Original Proportions: Shows live video at the original proportions
Stretch: Stretch live video to fit the full area for each channel on screen.
To enlarge the web client to full screen.
Manual Recording: Click to start manually recording for all displayed channels. Click again to stop recording. Manual recordings are saved to your computer.
Snapshot: Click to save snapshots of all current displayed channels to your computer.
Digital Zoom: Click upon on a live image, then click-and-drag over an area of the live image to enlarge. Right-click to return to the normal display.
Volume Control. Volume is mute.

10- Navigation: Shows current page number for the channels shown on screen. Use the arrow keys to switch between pages.

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

7.3.2 Playback
You can search & play recording videos stored in the HDD inside the DVR, and download the videos to your computer.

To search recordings:
1. Click Playback in the top-right corner of the window.
2. Select a day on the calendar to search for recordings from. Days with recordings appear with a red underline.

3. Select the recording type to search for from the dropdown next to Type, or select All to search for all recordings.

4. To choose the video stream you want to search & play. If you want to play Substream recordings, please make sure you had set the DVR to record with Dualstream at 5.2.2.1 Record.

5. Check the channels you would like to search for recordings from. Check Synchronous playback to play all channels at once.

6. Click Search.

7. Recordings that fit your search will be displayed in the timeline. Click a section of video where you would like to begin playback and click the play button.

### 7.3.2.1 Playback Control Buttons

- Play the recordings
- Pause
- Stop
- **Go Forward One Frame**: Move frame-by-frame through playback. Only available when the Synchronous playback option is not checked.
  - Click upon one of the channels which is being played and then click record button to record current video to your computer. Click again to stop recording.
  - Click upon one of the channels which is being played and then click capture button to take a snapshot and save to your computer.
  - Opens the Download menu, which allows you to download several video recordings at once.
Choose the files you want to download, press **Start Download** button to begin, you will see the download status. Press **Stop Download** button to stop.

![Playback Speed](image)

**Playback Speed.** Click to choose the playing speed.

![Play All Channels](image)

**Play All Channels:** Click to play all channels you have chosen to searched. Only available when the **Synchronous playback** option is not checked.

![Stop All Channels](image)

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

![Digital Zoom](image)

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

![Original Proportions](image)

**Original Proportions:** Shows the playing video at the original proportions

![Stretch](image)

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

[To enlarge the web client to full screen.](image)
7.3.3 Remote Setting

Here you can remotely configure the settings of the DVR. Please see "Chapter 5 DVR System Setup" for more details on the DVR settings.

7.3.4 Local Setting

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

**Record Path:** Click ➕ to browse for and select the folder where you would like the manual video recordings to be saved on your computer.

**Download Path:** Click ➕ to browse for and select the folder where you would like to save the download video recordings to your computer.

**Snapshot Path:** Click ➕ to browse for and select the folder where you would like the manual capture snapshots to be saved on your computer.

**File Type:** Choose your preferred file type for manual recordings.

**Save:** Click to save the modifications.
Chapter 8 Viewing Backed Up Video on PC/Mac

This section will help you to play the backup files with the powerful video player which is attached in the CD.

For Mac users, please install the app "VideoPlayer_x.x.xx_xxxx_xx_x.dmg", for example: VideoPlayer_1.0.15_2017_01_6.dmg.

For PC users, please install the software “VideoPlayer_x.x.xx_xxxx_xx_xx.exe”, for example: VideoPlayer_1.0.15_2017_01_06.exe.

Minimum System Requirements
- Intel Pentium 4 or above
- Microsoft Windows XP / Vista / 7 / 8 / 10
- 256MB RAM
- 16MB video memory

1. Install the Video Player software in the CD and run.

2. Copy the backup files to your computer.

3. Click Open File button or click + button on the Play List to load single or multiple video files. It supports to add & play ".rf", ".avi", ".mp4", ".264" and ".265" files. Click button to load a folder with backed-up videos.
Video Player Control

1. Play List
   - Add files
   - Remove files
   - To choose play mode: play a single file and stop; play all listed files by sequence; repeat one file; repeat all files.
   - Filter by file name

2. Hide/Show Playlist
   - Click to open files or load a folder.

3. Play Controls
   - Play
   - Pause
   - Stop
   - Play frame by frame. Click once to play a frame of the video
   - Slow Play, 1/2, 1/4 and 1/8, 1/16 speed
   - Fast Forward, x2, x4, x8 and x16

4. Volume control
   - Multi-screen play. It allows to play multiple videos at a time. When you choose multi-screen, you can drag the video in Play List to the play screen.

5. Take snapshot
   - To save a video clip to your computer. Press once to start, press again to end the video clip.
   - Keep the video player on top
Enlarge the video play screen to full screen

6. **Advanced Setup Menu** allows to choose the OSD language of the video player, and configure the setting of video player.

![Settings Menu]

**Basic Settings**: Set on-top mode

![Basic Settings]

**Output Settings**: Set the format and the path to save snapshots.

![Capture Settings]

**Capture Settings**: Set the format and the path to save snapshots.
Chapter 9 Remote Access via Mobiel Devices

The DVR supports remote access via mobile devices based on Android & iOS operating system.

1) Search Bolide Quick Connect from Google Play Store for android devices or App Store or iOS devices and install.
2) Run the app, it will display the live view screen.

3) Touch the icon into the main menu, then touch Device List icon to open device list page, touch icon to add device.
3.1) Touch **Online Search** icon to Add online device.

3.2) Touch **Manual Add** icon input the DVR information to manual Add device.

**Login Type**: Device ID and IP/DOMAIN
- **Device ID**: For P2P connection.
- **IP/DOMAIN**: IP address or Domain name of the DVR

**Device ID/IP Address**: Input the P2P ID or IP address/Domain name. You can touch the 📌 icon to scan the P2P QR code to add device.

**Media Port**: Input the media port in DVR network setting

**User Name / Password**: Input the user name & password of the DVR.
4) After all settings completed, touch **Save** to save, the app will turn to Live view display if the device is well connected.

- : Click to save a snapshot of the current camera image.
- : Click to manually record the channel immediately. If the manually recording is in process, the icon will be in red color. Click one more time to stop manual record.
- : Click to choose different layout for live view.
- : Click to enable or disable speaker.
- : Click to enable or disable microphone.

5) Touch **** icon to open the Menu list where you can check & configure the live view, playback, local recorded videos, captured pictures, push alarm notifications, Device manager, local Setting & Help documents.
Chapter 10 Appendix

10.1 Troubleshooting

1. Q: What can I do if the system does not detect the HDD?
   A: Check if the power supply system is properly connected and data cord and power cables are securely connected, and if something wrong with the HDD interface. Or you may check if your HDD is supported by referring to the specifications or descriptions.

2. Q: I have changed the password but forget the new password, how can I access the system?
   A: If you forget system password, please consult with our technical personnel. We strongly suggest user to set password easy to be remembered and relatively safe. If you have safety requirement, please do not set very simply password, such as 000000.

3. Q: We see abnormal video signal or even no video signal by connecting the DVR and camera together. Power supply for both devices is OK. What is wrong?
   A: Check network cable at DVR side to see if the cable is firmly connected and if it is worn out and needs to be replaced, or to check if NTSC or PAL is selected consistently.

4. Q: How to prevent DVR from being influenced by heat?
   A: The DVR needs to dissipate heat while it is running. Please place the DVR in a place with good air circulation and away from heat sources to ensure stability and life of the DVR.

5. Q: The remote controller of DVR doesn’t work while the monitor screen is OK and panel keys are functional. Why?
   A: Operate again by aiming the remote controller at the IR receiver on front panel. If it still doesn’t work, please check if the batteries in the remote controller are dying. If not, check if the remote controller is broken.

6. Q: I want to take out HDD from my PC and install it in DVR. Can it work?
   A: All HDDs supported by the system can be used. But remember, once DVR runs, the data on your HDD will be lost.

7. Q: Can I playback while recording?
   A: Yes. The system supports the function of playing while recording.

8. Q: Can I clear some records on HDD of DVR?
   A: In consideration of the file security, you may not clear part of records. If you want to remove all the records, you can format HDD.

9. Q: Why can’t I log in DVR client?
   A: Please check if the network connection settings are correct and RJ-45 port is with good contact. And check if your account and password are correctly input.

10. Q: Why can’t I find any records during playback?
    A: Please check if the data line connection for HDD is OK and system time is properly adjusted. Try a few times and restart. If it still doesn’t work, check if the HDD is broken.

11. Q: Why DVR cannot control PTZ?
    A: Please check if:
        a) PTZ in the front side is malfunctioned.
        b) Setting, connection and installation of PTZ decoder are not correct.
        c) PTZ setting of DVR is not correct.
d) Protocol of PTZ decoder does not match that of DVR.
e) Address of PTZ decoder does not match that of DVR.
f) If many decoders are connected, the farthest side of AB line of PTZ decoder should be added 120Ω resistance to realize reflection suppression and impedance matching. Otherwise, PTZ control will be unstable.

12. Q: Why doesn’t dynamic detection work?
   A: Please check if the motion detection time and motion detection regional setting are correct and if the sensitivity is set too low.

13. Q: Why doesn’t alarm work?
   A: Please check if the alarm setting, alarm connection and alarm input signals are correct.

14. Q: Why does buzzer keep alarming?
   A: Please check the alarm setting, check if motion detection function is enabled and object motion is detected all the time and if I/O alarm is set as Always Off. Besides, refer to corresponding HDD alarm setting.

15. Q: Why can’t I stop recording by pressing “STOP” button or click “Stop Recording” in context menu?
   A: Pressing Stop or Stop Recording can only stop manual record. If you want to stop Scheduled recording in certain time quantum, please change the setting to No Record. To stop Startup recording, please change record mode to scheduled recording or manual recording. Then you may stop recording by the prescribed methods. And another way of stopping recording is to set channel as off status in record setting.

### 10.2 Usage Maintenance

1. To shut down DVR, please firstly shut down the system and then turn off the power. Do not turn off the power directly or HDD data will be lost or damaged.

2. Please keep DVR away from heat sources or places.

3. Clean the internal dust regularly. Make sure the good ventilation of DVR so as to ensure the good heat dissipation.

4. Please do not hot plugging audio and video cables, or cables connected to ports like RS-232 or RS-485. Otherwise the ports will be damaged.

5. Please check the HDD cable and data cable regularly to see if they are ageing.

6. Please prevent the audio and video signals of DVR from being intervened by other electronic devices, and prevent the HDD from being damaged by static electricity and induced voltage. If the network cable is frequently plugged, it is suggested to replace connecting line regularly, or the input signal may be unstable.

7. This is a class A product. It maybe bring wireless interference in life. Under this situation, it need user to make measures.
10.3 Accessories (For reference only)

- Remote Controller
- Power Adapter
- Warranty Card
- USB mouse
- CD
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