Digital Video Recorders
User Manual

Manual Version: V1.02

1 Before You Begin

Please be aware that the parameters that are grayed out on the system user interface (UI) cannot be modified. The parameters and values displayed may vary with device model, and the figures in this manual are for illustration purpose only.

User Login

Use the default username **admin** and password **123456** for your first login.

CAUTION!

The default password is intended only for the first login and should be changed to a strong one containing at least nine characters including letters, digits and special characters after your first login to ensure security.

1. Right-click anywhere in the window and then choose **Menu**. The login dialog box is displayed.
2. Select the username from the drop-down list, enter your password, and then click **Login**.

Local Operations

You can refer to Initial Configuration and complete a quick configuration.

NOTE!

Unless otherwise specified, all operations described in this manual are performed with a mouse by the right hand. See Mouse Operations for details.

Mouse Operations

Table 1–1 Mouse Operations

Name	Action	Description
Left button	Click	• Selector confirm an item. • Select to edit digits, symbols, upper-case or lower-case letters in a field.
	Double-click	Enter or exit full screen mode in live view.
	Drag	Draw or move a rectangle on the screen, for example, a motion detection area.
Right button	Click	• Show the shortcut menu. • Exit zoom. • Exit the current window when **Cancel** or **Exit** is displayed.
Wheel	Scroll up or down	Scroll up or down a list or a window; or zoom in or out on a playback progress bar.
	Long press	Restore to lowest resolution

This manual describes how to use your DVR locally or on the Web interface.

In this manual, the terms IP camera and IPC refer to the same thing: network camera, which requires a connection to the network. And the IP device mentioned in this manual refers to an IP camera (also known as network camera) or a Digital Video Server (DVS).

2 Initial Configuration

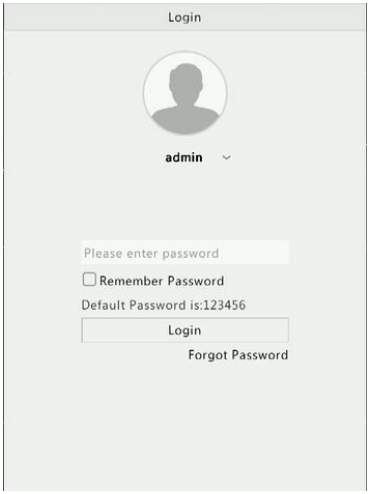
Preparation

- Make sure that at least one monitor is correctly connected to the VGA or HDMI interface on the rear panel of the DVR.

- Verify that the hard disk(s) are correctly installed. For detailed steps to install a hard disk, please refer to the quick guide shipped with your DVR.

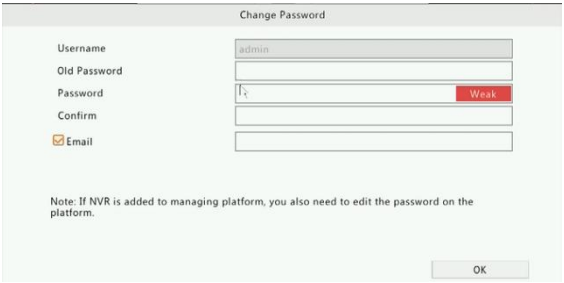
Device Login

The login page appears after the DVR starts up.

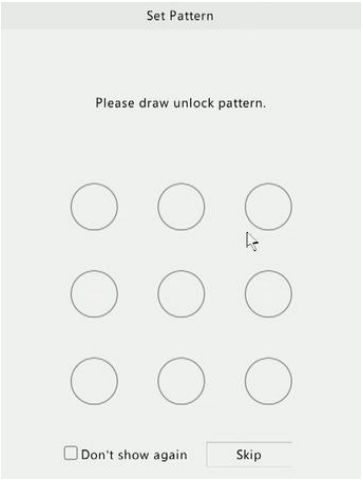


1. Enter the default admin password 123456, click **Login**, and then click **Yes** to change the password.

2. Change the password into a strong one, then click **OK**.



3. Set the unlock pattern.

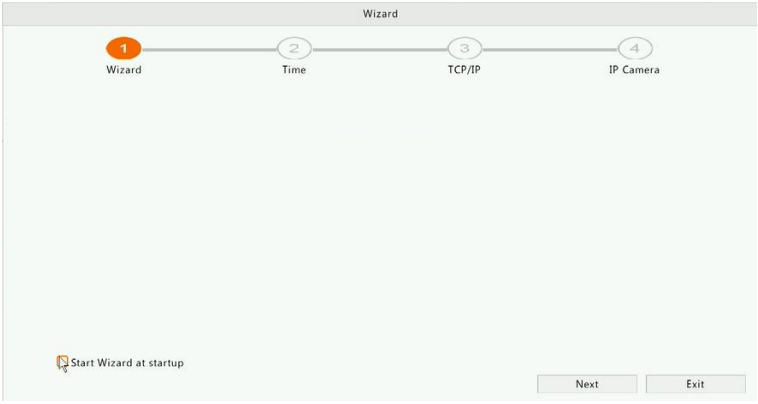


NOTE!

To disable unlock pattern, click **System > User**. See User Configuration for details.

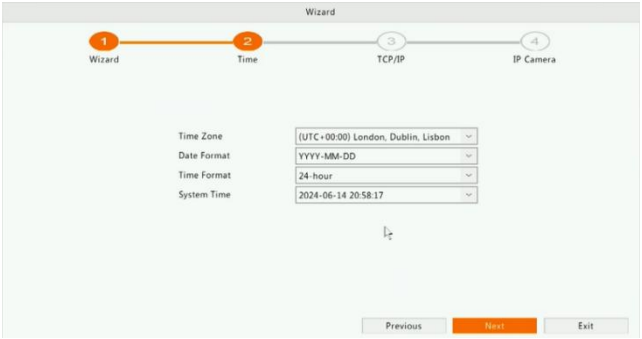
Wizard

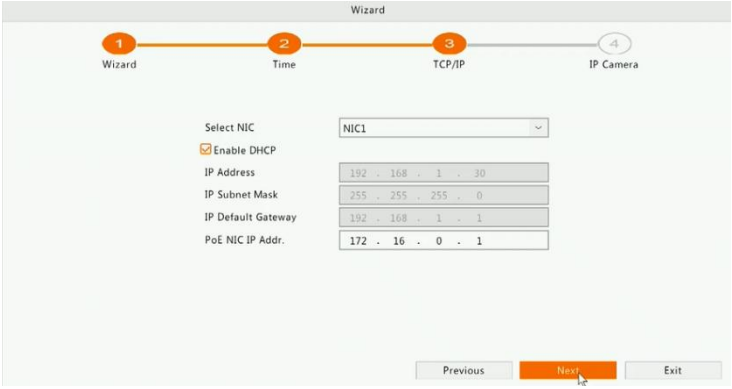
The wizard can guide you to complete the most basic setup. The following page appears after your login:



1. Enable or disable the wizard as needed and then click **Next**.

2. Select the time zone, date and time format, set the system time, and then click **Next**.





3. Complete network configuration, and then click **Finish**.

3 Live View

Live View Status

The following icons are used to indicate alarms, recording status, and audio status in a live view window.

Table 3–1 Live View Window Icons

Icon	Description
	Tampering alarm
	Motion detection alarm
	Recording
	Two-way audio

Shortcut Menu

A shortcut menu as shown below appears when you right-click in a window. Some menu items are described in Shortcut Menu Description.

Table 3–2 Shortcut Menu

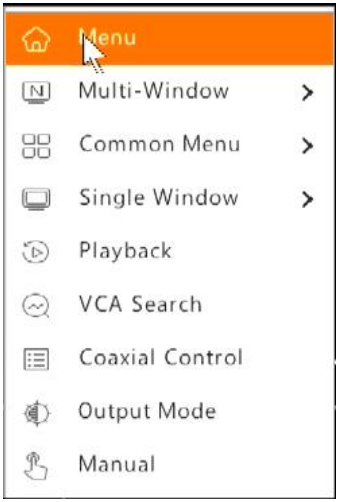


Table 3–3 Shortcut Menu Description

Item	Description
Menu	Display the main menu.
Common Menu	Go to the **Camera**, **Network**, and **Recording** page.
Single Window	Switch to single window.
Multi-Window	Select the screen layout, including 4/6/8/9 windows.
Playback	Play the video of the current day for the camera linked to the current window. You can also choose to play videos from other days as needed.
Preview Mode	Switch between **Normal Mode** and **Smart**. The default is **Normal** mode.
VCA Search	Search the VCA snapshots and recordings in the **Behavior Search** page. See Behavior Search for details.
Coaxial Control	Go to the **OSD Menu Control** Page.
Output Mode	Choose a video output mode, including standard, soft, bright, vivid, and custom. Brightness, saturation, and other parameters are also configurable.
Manual	Manual settings include manual recording, manual snapshot, and manual alarm, buzzer, let through manually. See Manual Operations for details.

4 Channel Configuration

OSD Configuration

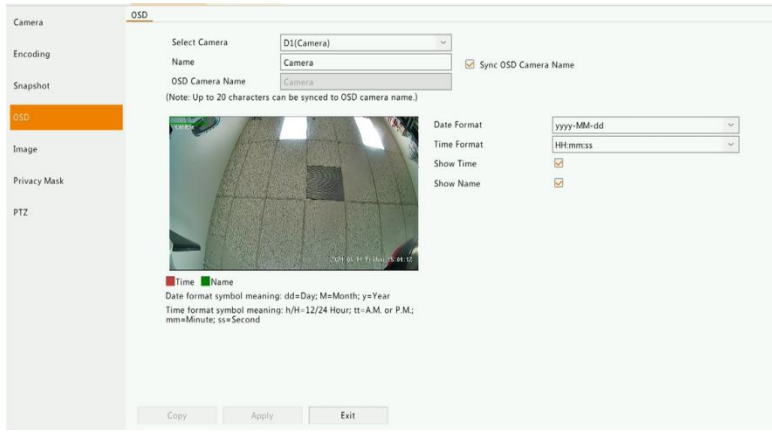
On Screen Display (OSD) are characters displayed with video images, for example, camera name, date and time, and people counting statistics.

1. Click **Camera > OSD;** or click 

on the preview window toolbar.

2. Select the desired camera.

3. Set camera name to display. Enable **Show Name** first, and set OSD camera name as needed:



- If camera name is less than 20 characters, and camera name and **OSD Camera Name** (i.e., the camera name you want to overlay on video image) are same:

  a. Select **Sync OSD Camera Name**, then the OSD name will be synchronized with the camera name. This function is enabled by default.

  b. Enter the camera name in the **Name** field. The name will be displayed on video image.

NOTE!

If camera name exceeds 20 characters, only the first 20 characters will be used as the OSD camera name.

If camera name exceeds 20 characters, and you want to overlay a different camera name on video image:

a. Deselect **Sync OSD Camera Name**.

b. Enter the camera name in **Name** field.

c. Enter the OSD camera name.

4. Set time to display. Select **Show Time**, and select date and time formats.

5. Set people counting statistics to display. Select **Count People**. You need to configure people counting function first. See People Countingfor details.

6. Set font size and color as needed.

NOTE!

You may click **Copy** to apply the same settings to other cameras.

7. Click **Apply** to save the settings.

5 Recording

Video recording has different levels of priority, which from high to low is: event recording, manual recording, and scheduled recording.

NOTE!

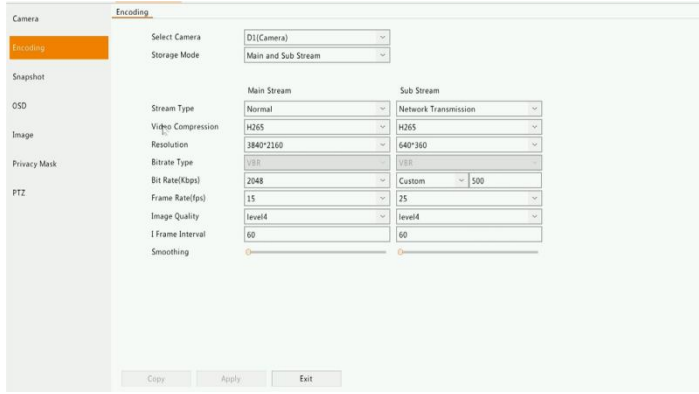
Snapshot is supported by certain device models only.

Encoding Settings

Recording

The parameters and options displayed may vary with camera model and version. Some functions may be unavailable if the camera version is too low. In this case, you need to upgrade the camera first.

1. Click **Camera > Encoding.**



Select the camera and then edit settings as needed. Some parameters are described in the table below.

Table 6–1 Encoding Settings

Parameter	Description
Storage Mode	Five storage modes are available: Main Stream, Sub Stream, Main and Sub Stream, Main and Third Stream, Sub and Third Stream. **Note:** Only certain models support all the five modes.
Capture Mode	Combinations of resolutions and frame rates. **Note:** This parameter is effective only when the camera is connected to the DVR via the private protocol.
Stream Type	• Normal: main stream that is intended for scheduled recording. • Event: main stream that is intended for recording triggered by events such as alarm inputs or motion detection alarms. • Sub Stream: low resolution video that is intended for local or remote real-time monitoring.
Video Compression	Video compression standard, for example, H.264, H.265. The listed options depend on the standards supported by the camera.
Resolution	Image resolution.
Bitrate Type	• CBR: Constant Bit Rate (CBR) is used to maintain a specific bitrate by varying the quality of video streams. CBR is preferred when limited bandwidth is available. The disadvantage is that video quality will vary and may decrease significantly with increased motion in the scene. • VBR: When using Variable Bit Rate (VBR), video quality is kept as constant as possible, at the cost of a varying bitrate, and regardless of whether or not there is motion in the image. VBR is ideal when high quality is a requirement, especially when there is motion

Parameter	Description
	in the picture.
Bit Rate(Kbps)	Number of bits transferred per second. Select a value or select **Custom** and then set a value as needed.
Range	Bit rate range. Currently the range is fixed.
Frame Rate(fps)	Number of frames per second.
Image Quality	This parameter is effective only when **Bitrate Type** is set to **VBR**. 9 levels are provided.
I Frame Interval	Number of frames between two adjacent I frames.
I Frame Range	Range of I frames. Currently the range is fixed.
Smoothing	Use the slider to control the sudden increase of bitrate.
Audio Stream	Enable or disable audio stream.
Smart Encoding	The advanced mode achieves higher compression ratios.

2. (Optional) Click **Copy** to apply some current settings such as bit rate and frame rate to other cameras.
3. Click **Apply** to save the settings.

3. Click **Apply** to save the settings.

Draw or Edit a Schedule

Make a recording or snapshot schedule by drawing (pressing and dragging) or by editing (using the **Edit** button). The operations for recording and snapshot are similar, so this section only describes how to make a recording schedule.

1. Click **Storage > Recording.**
2. Select the camera from the list. Schedule is enabled by default. If it is disabled, select to enable it.

3. Set **Pre-Record** and **Post-Record** as needed.

4. (Applicable to some DVR models) To save a redundant copy of recordings, select **Enable Redundant Recording** and configure a

redundant hard disk (see Disk Management for detail

5. Click a color icon on the right under the **Edit** button and then draw a schedule on the left. You may also click **Edit** and set schedule details in the **Edit Schedule** window.

NOTE!

When editing a schedule, you may clear the **All Day** check box and set up to eight different periods for each day. To apply the settings to other day(s), select the day(s) right to **Copy To**.

6. Click **Apply**.

7. (Optional) Click **Copy** to apply the same settings to other cameras.

Scheduled Recording

Scheduled Recording

Scheduled recording records video according to the set schedule and it is different from manual recording and alarm-triggered recording. A 24×7 recording schedule is enabled by default and may be edited as needed to record video in specified periods only.

See Draw or Edit a Schedule for the detailed steps. Make sure the schedule type is **Normal**. The set schedule appears in blue, which stands for scheduled recording.

Motion Detection Recording

When enabled, a motion detection alarm occurs if an object inside the detection area moves to a certain extent (see Motion Detection for more details). Motion detection alarms can trigger actions including recording and snapshot.

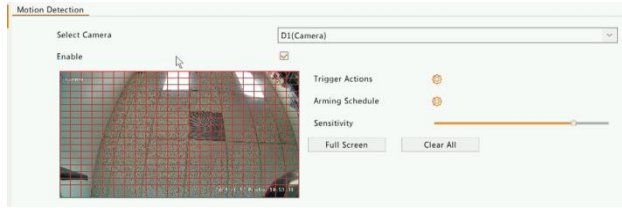
Motion Detection Recording

1. Click **Alarm > Motion.**
2. Select the camera from the list, and then select the check box to enable motion detection.

NOTE!

- Motion detection is enabled on the DVR by default. Unless modified, the detection area covers the full screen, and recording is triggered only for the current camera. The settings remain if you disable motion detection and then enable it.
- An alarm icon appears in the upper right corner when motion is detected.

3. In the preview window on the left side, click and drag your mouse to specify a motion detection area (red grid). Use the slider to adjust detection sensitivity.



4. Configure motion detection recording: click  right to **Trigger Actions**, click the **Recording** tab, select the desired camera, and then click **OK**.

5. (Optional) Configure an arming schedule (time when actions will be triggered): click  right to **Arming Schedule** and then set time periods as needed.

6. Set a recording schedule under **Storage > Recording**. For the detailed steps, see Draw or Edit a Schedule. Make sure the schedule type is **Motion**. The set schedule appears in green, which stands for motion detection recording. The following figure shows an example.

Manual Recording

Right click on the preview window, select **Manual** in the shortcut menu. Click the **Manual Recording** tab, select the desired camera and then click **Start**. To stop manual recording, select the camera and then click **Stop**.

6 Playback

Instant Playback

Instant playback plays the video recorded during the last 5 minutes and 30 seconds. If no recording is found, it means there is no recording during this period.

1. Click the desired window, and then click  on the toolbar to start instant playback.
2. You may drag the slider to control the progress. Pause and resume as needed.

Playback Toolbar

Table 7–1 Playback Toolbar Buttons

Button	Description
	Show playback progress. **Note**: ● A small window displaying video of the selected window is displayed as you drag the slider, helping locate the part of the video you want to view. ● The first progress bar indicates playback progress of the video playing in the highlighted window. The second indicates the overall playback progress for all the selected cameras.
	Timeline.
	Zoominor out on the timeline. **Note:** Alternatively, scroll your mouse wheel.
	Play, pause, stop, and reverse.
	Rewind or forward 30 seconds.
	Slowdown or speed up. **Note:** Click  to restore the normal playback speed after clicking  , and viceversa.
	Forward by frame.
	Start or stop clipping video.
	Take a snapshot. The window borders will flash white.
	Lock.

Button	Description
	Manage files (clips, snapshots, locked files, tags).
	Zoom in on images. For more details, see Zoom.
	Set fisheye mounting mode and display mode.
	Turnoff/on audio.
	Adjust sound volume for the current window.

Playback by Camera and Date

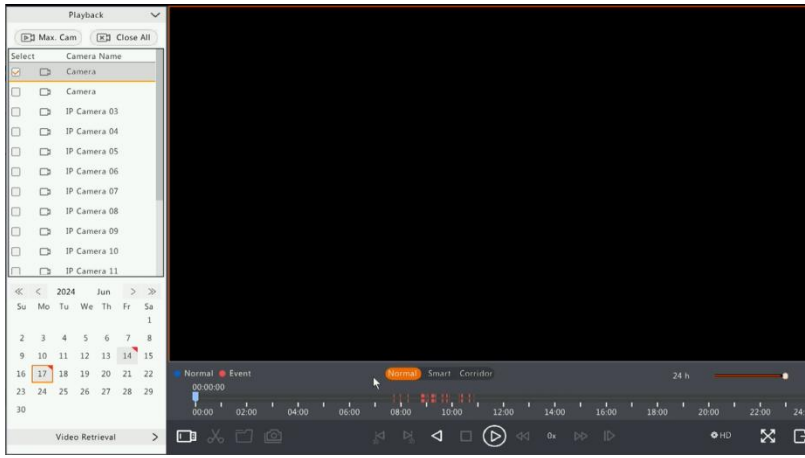
Use this method to search and play recordings by camera and date.

1. Click on the preview window, then right click and choose **Playback** to start playback.

NOTE!

In playback window, you can select multiple cameras for synchronous playback. Clicking **Max. Camera** selects the maximum number of cameras allowed, and clicking **Close All** stops playback for all cameras. The performance varies with DVR model.

2. Select the desired date on the calendar and then click  to start playback. Double-clicking the date will start playback directly.



NOTE!

- The calendar uses different flags to indicate different recording types. No flag means no recording. The blue flag means normal recording. The red flag means event-triggered recording.
- In the drop-down list right to playback mode: **HD** means video recorded with the main or sub stream; **SD** means video recorded with the third stream.

File Management

File management allows you to manage video clips, tags, snapshots taken during playback, and lock or unlock files.

1. Take snapshot during playback.
   a. In playback page, play the recording until the desired image appears.
   b. Click  in the playback window to take a snapshot.

c. Click  and then click the **Playback Image** tab to view the snapshot.

d. Select the desired image file(s) and then click **Backup** to save them to the storage device.

NOTE!

The image resolution depends on the resolution from the output interface and the number of windows displayed when the snapshot is taken.

2. Lock files.

Use this function to lock a recording file so it will not be overwritten. To lock a recording file will prevent all the files stored in the same disk partition (254.4MB in size) from being overwritten.

a. Play the recording you want to lock.

b. Click  in the playback window.

c. Click  and then click the **Locked File** tab to view the locked file. To unlock a file, click  , and the icon changes to  . To back up a file, select the file and then click **Backup**.

7 Backup

Recording Backup

Backup, also known as recording backup, is the process of querying video stored on a hard disk of the DVR and then saving to a USB storage device.

Recording backup has the following conditions:

- Back up using a USB storage device: format the partition in FAT32 or NTFS format; connect the storage device correctly to the DVR.
- Permission is required.
- The recording to back up is stored on a hard disk of the DVR.

NOTE!

- The default file format is .mp4 when you back up recordings to a USB storage device.

Normal Backup

1. Click **Backup > Recording.** All cameras are selected by default.
2. Set search conditions and then click **Search**. Search results are displayed.

NOTE!

You can lock/unlock and play recording files in this window.

3. Select the desired recording(s) and then click **Backup**.

4. Select a partition.

- Back up to USB storage device

Set the destination in the USB storage device and then click **Backup**. The recording(s) will be saved to the specified directory.

NOTE!

- You may want to create a new folder for the recording(s) by clicking **New Folder**.
- If the connected storage device has a capacity that is greater than 2T, clicking **Format** will format the device to NTFS file system; if the capacity is 2T or less, the device will be formatted to FAT32 or NTFS. Only certain devices can format a storage device that has a greater capacity than 2T.
- A progress bar (e.g., **Exporting** *X/Y*) is displayed to indicate the progress, where *X* indicates the current number being backed up, and *Y* indicates the total number of recordings. To cancel the operation, click **Cancel**.
- A backup file is named in this format: *camera name-recording start time*.file extension. For example, Ch9-20150630183546.mp4.

Video Clip Backup

A recording can be clipped and saved to a USB storage device.

1. Open the playback window. For the detailed steps, see Playback.

2. After playback starts, click  on the playback toolbar to clip videos.

3. Click  and then click the **Video Clip** tab to view videoclips.

4. Select the desired videoclip(s) and then click **Backup**.

5. Select a destination in the USB storage device and then click **Backup**. The selected video clips are saved to the specified directory.

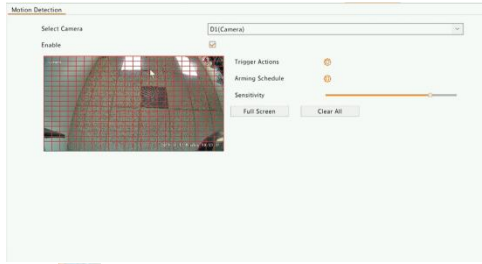
7 Alarm

Motion Detection

When enabled, a motion detection alarm occurs if an object inside the detection area moves to certain extent, and an alarm icon appears in the upper right corner.

Motion detection is enabled on the DVR by default. Unless modified, the detection area covers the full screen, and recording is triggered only for the current camera. The settings remain if you disable motion detection and then enable it.

1. Click **Alarm > Motion.**
2. Select the desired camera and then select **Enable** to enable motion detection.
3. Use the mouse to draw a detection area, and drag the slider to set detection sensitivity, target object size, and duration. The higher the sensitivity, the more likely a moving object will be detected.



4. Click  right to **Trigger Actions** and set action(s) to trigger.

NOTE!

- The default schedule is 24×7. You may change it as needed and set up to eight different periods for each day. Time periods cannot overlap.
- To apply the same arming schedule to other days, select the intended days right to **Copy To**.

5. Click **Apply** to save the settings.
6. (Optional) Click **Copy** to apply the same settings to other cameras.

Video Loss

A video loss alarm occurs when the DVR loses video signals from a camera. Video loss alarm is enabled by default.

1. Click **Alarm > Video Loss**. To disable video loss alarm for a channel, click , which then changes to .
2. Click  under **Trigger Actions** and set action(s) to trigger. For more details, see Alarm-Triggered Actions.

NOTE!

Video loss alarm cannot trigger recording, preset, preview (live view) and snapshot actions for the current camera.

3. Click  under **Arming Schedule** and then set the time when actions will be triggered.
4. (Optional) Click **Copy** to apply the same settings to other cameras.

8 Network Configuration

Network configuration is required if your DVR operates in a network.

Basic Configuration

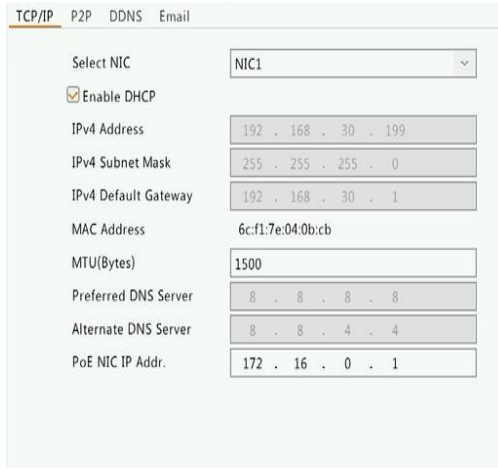
TCP/IP

1. Click **Network > Basic**.

2. Set the network parameters as needed. DHCP is enabled by default. You can choose a working mode if your DVR has two NICs:

- Multi-address mode: The two NICs work independently and can be configured separately. Either NIC can be chosen as the default route, and data will be forwarded through this NIC when the DVR connects to the extranet.
- Load balance mode: The two NICs are bound to the same IP address and work together to share network traffic.
- Net fault-tolerance mode: The two NICs are bound to the same IP address. In cases where one NIC fails, the other takes over service seamlessly from the faulty one to ensure network connectivity.

3. Click **Apply** to save the settings.



NOTE!

- For an DVR with multiple NICs, you can configure the NICs and choose a default route (currently NIC1).
- If your DVR has a PoE port or a switching port, you can configure an internal NIC IPv4 address.

CAUTION!

- If you switch the working mode, the enabled 802.1x and ARP protection will be disabled automatically.
- The valid MTU ranges from 576 to 1500 (1280-1500 for IPv6). To use IPv6, make sure the DVR and PC can connect to each other using IPv6 addresses. To view live or recorded videos, make sure the IPv4 addresses are also connectable.

P2P

The DVR allows access from the cloud website or from the mobile surveillance app. You need to sign up for a cloud account at www.star4live.com first.

1. Click **Network** > **Basic** > **P2P**.
2. P2P is enabled by default.
3. To add the DVR to cloud at the cloud website: Log in to your account at www.star4live.comand then add the DVR by entering the register code and device name.
4. To add the DVR to cloud using the app: Scan the QR code with the app. You need to download and install the app on your mobile phone first.

NOTE!

- You may access the DVR through cloud if the device status is **Online**. The username is your cloud account name, and the device name is the name you entered at the cloud website.
- If the device is offline, the possible causes will be displayed for your reference.
- To delete the DVR from cloud, click **Delete**.

5. Click **Apply** to save the settings.

9 System Configuration

Basic Configuration

1. Click **System > Basic.**
2. Configure the parameters.

NOTE!

- Only admin can set **Enable Password**.
- If **Enable Password** is not selected, no password is required for local login at system startup. However,a username and password are still required when you login after a logout.

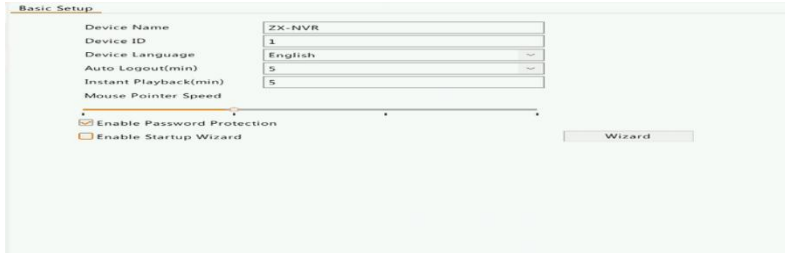
- Some DVR models support Intelligent Mark. When the DVR and IP camera are both enabled, the latest areas/lines or VCA data configured for face detection, intrusion detection, and cross line detection will be displayed on the **Preview, Behavior** and **Alarm** windows in realtime.
- Intelligent mark is displayed on the screen as areas/lines in different colors. Yellow means areas/lines configured for face detection, intrusion detection, and cross line detection; green means VCA data has changed but not triggered rules; red means rules are triggered in the configured area (rules are configured for VCA alarms), and VCA alarm has occurred.
- You may also set startup Wizard hereby clicking **Wizard**.

3. Click **Apply** to save the settings.

Time Configuration

1. Click **System > Time**

2. Select the correct time zone, and then set date and time formats and the system time. The following shows an example.



3. To use Network Time Protocol (NTP), enable auto update, set the address and port number of the NTP server, and the update interval.

4. Click **Apply** to save the settings.

DST

1. Click **System > Time > DST.**

2. Enable DST by selecting the check box, and then set the start time, end time, and DST bias correctly.

3. Click **Apply** to save the settings.

Time Synchronization

Use this function to synchronize camera time with the DVR. Time sync is enabled by default, and cameras will synchronize time with the DVR after getting online, and then synchronize once every 30 minutes.

1. Click **System > Time > Time Sync.**

2. Select **Sync Camera Time** and then click **Apply**.

CAUTION!

Use this function with caution if you have more than one DVR on the network. An IP camera synchronizing time with multiple DVRs at the same time will cause chaotic recordings.

User Configuration

Add, delete users or edit user permissions. Only admin can perform these operations. Device password is required for user configuration.

A user type is a set of permissions in the system. When a user type is assigned to a user, this user has all the permissions specified for the user type.

There are four user types in the system:

- Admin: Default super administrator in the system, has full system access. Its initial password is **123456**.
- Default: Default user reserved in the system, cannot be created or deleted, and only has access to live view and two-way audio. If the default user is denied access, the corresponding channel is locked when no user is logged in, and  appears in the window.
- Operator: Has basic permissions and access to cameras.

- Guest: Only has access to cameras by default.

1. Click **System > User.**
2. To add a user, click **Add**, and then set the username and password, select user type, permissions and whether to enable unlock pattern as needed. Click **OK** to save the settings.
3. To edit or delete a user, click  as needed. If you change the password for a user, the new password takes effect at the user's next login.

FAQs

Problem	Possible Cause and Solution
Forgot the login password.	Click **Forgot Password** in the login page as admin, then follow the on-screen instructions to retrieve password.
Cannot load the Web plugin.	• Close your web browsers when the installation starts. • Disable the firewall and close the anti-virus program on your PC. • Enable your Internet Explorer (IE) to check for newer versions of the stored pages every time you visit the webpage (**Tools** > **Internet Options** > **General** > **Settings**). • Add your DVR's IP address to the trusted sites in your IE (**Tools** > **Internet Options** > **Security**). • Add your DVR's IP address to the Compatibility View list in your IE (**Tools** > **Compatibility View Settings)**. • Clear your IE's cache.
No images are displayed in live view on the Web interface.	Check if the bit rate is 0Mbps in the live view window. • If yes, check if the firewall/anti-virus program is disabled on your PC. • If not, check if the graphics card driver on your PC is working properly. Try

	installing the driver again.
A camera is offline, and **No Link** is displayed.	Click **Menu > Maintenance** > **System Info**. The cause is displayed under **Status**. Common causes include disconnected network, incorrect username or password, weak password, and insufficient bandwidth. • Check network connection and other configuration. • If it indicates incorrect username or password, check that the camera password set in the DVR is the one used to access the camera's Web interface. • If it indicates denied access for weak password, log in to the camera's Web interface and set a strong password. • If it indicates insufficient bandwidth, delete other online IP devices on the DVR.
The DVR displays live video for some cameras and **No Resource** for others.	• Set the camera to encode the sub stream, and decrease its resolution to D1. • Set the DVR to use the sub stream first for live view.