

TVR-AI200

TVR-AI200

User Guide



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1. Important Information

Original Packaging

Please keep the original packaging and packaging materials. If you want to return the product or send it for repairs, please use the original packaging to avoid damage.

QNAP reserves the right not to provide a refund or warranty service for products that are damaged due to improper packaging.

Hardware Defects

If your QNAP product has hardware defects, return the product to QNAP or a QNAP-authorized service center for maintenance or replacement. Any attempt to repair or perform maintenance procedures on the product by you or an unauthorized third party invalidates the warranty.

QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications.

For details, see the QNAP Warranty Terms and Conditions.

Safety information

The following instructions help ensure personal safety and environmental safety. Read these instructions carefully before performing any operation.

General Instructions

- The device should be stored in a secure location with restricted access, controlled through the use of a tool, lock and key, or any means of security.
- Only qualified, skilled, and authorized persons with knowledge of all restrictions, safety precautions, and installation and maintenance procedures should have physical access to the device.

WARNING



To avoid potential injury or damage to components, ensure that the drives and other internal system components have cooled before touching them.



Observe electrostatic discharge (ESD) procedures to avoid potential injury or damage to components.

Power

WARNING



To reduce the risk of fire or electric shock, ensure that you only connect the power cord to a properly grounded electrical outlet.



To avoid serious injuries, a trained service technician must disconnect all PSU cords from the device before installing or replacing system components.

Moving Parts

WARNING



Moving fan blades: Keep your body parts away from any moving fan blades while the device is connected to a power source.



Moving components: Keep your body parts away from any other moving components.

The device is not suitable for use in locations where children are likely to be present.

System Battery

WARNING



INGESTION HAZARD

- This product may contain a button battery.
- · Keep batteries out of reach of children.
- If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.
- If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.
- To avoid potential battery explosion, causing injury or damage to components, ensure that you replace the existing battery with a battery of the same type.
- Dispose of used batteries properly according to local regulations or the instructions of the battery manufacturer.

- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- For information on the type and voltage of the button battery in your device, please see the hardware specification table.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat, or incinerate. Doing so may result in injury due to venting, leakage, or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, or different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

Rail Kits

Rackmount models may require rail kits for installation onto a server rack or cabinet.

To ensure equipment and personal safety, please carefully read the installation instructions for your rail kit before you install the rail kit and mount your device.

To check if your device is a rackmount unit, see the hardware specification table.

⚠ WARNING

- When the rail kit is installed on the server rack, do not fully extend and unlatch the rails except when mounting or unmounting a device.
- Leaving the rails fully extended out and unlatched may cause heavy equipment to fall. This can cause equipment damage and severe or even fatal injuries.
- Before you prepare the rails for device mounting or unmounting, please carefully read and ensure you understand the installation instructions.
- Do not place any objects or add any extra load onto the device or rails when mounting or unmounting a device.
- When mounting a device, slide the device all the way into the server rack to fully latch the rails and secure the device to the server rack.

2. Product Overview

This chapter provides basic information about your QNAP device.

About the TVR-AI200

The TVR-AI200 is equipped with a cost-effective ARM-based processor, supporting real-time video and audio surveillance, high-quality recording, and playback across multiple IP cameras. It operates AI video recognition and search functions independently, allowing users to configure event detection and alarm notifications based on their needs. This provides small and medium-sized businesses and small offices with an affordable all-in-one AI surveillance solution.

The TVR-AI200 comes with QNAP's next-generation QVR Surveillance software, which supports 190 camera brands and is compatible with up to 95% of ONVIF® IP cameras on the market. Users can enhance their security management with QNAP's smart surveillance applications: QVR Face offers real-time AI facial recognition for access control or attendance management, while QVR Human provides people-counting solutions that offer operational insights through traffic analysis. Additionally, QVR Smart Search enables users to quickly locate specific events from numerous camera feeds based on customizable conditions. Administrators can use the QVR Center centralized management system to centrally manage and monitor real-time footage from the TVR-AI200 and other QVR recording servers, while also receiving event notifications. This is ideal for distributed environments or multi-location deployments.

Hardware specifications

Warning

- If your QNAP product has hardware defects, return the product to QNAP or a QNAPauthorized service center for maintenance or replacement. Any attempt to repair or perform maintenance procedures on the product by you or an unauthorized third party invalidates the warranty.
- QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications.
- For details, see the QNAP Warranty Terms and Conditions.

Tip

Model specifications are subject to change without prior notice. To see the latest specifications, go to https://www.qnap.com.

Ordering P/N	Drive bays	СРИ	Memory	Power supply
TVR-AI200	2	ARM Cortex-A55	4 GB	Single

Component	TVR-AI200	
Processor		
CPU	ARM Cortex-A55	
Frequency	Quad-core 2.0 GHz	
Architecture	ARM 64-bit	
Encryption engine	AES-NI	
Memory		
Pre-installed memory	4 GB RAM	
Maximum memory	4 GB	
Flash memory	4 GB eMMC	
Storage		
Drive bays	2 x 3.5-inch SATA 6 Gbps	
	Tip The drive bays are backward compatible with SATA 3 Gbps drives.	
Drive compati-	3.5-inch bays:	
bility	• 3.5-inch SATA hard disk drives	
	• 2.5-inch SATA hard disk drives	
	2.5-inch SATA solid-state drives	
	Note For the list of compatible drive models and expansion cards, go to https://www.qnap.com/compatibility.	
Network		
Gigabit network interface	1 x GbE RJ45	

Component	TVR-AI200	
PoE Switch	16 ports: [10/100 Mbps each port; Max. output power of single port: 25.5W; Total output power: 130W]	
	 *Supports 2 modes for each port: PoE (AF), PoE+ (AT) 	
	 *Supports 3 priorities for each port: Critical, High, Low (If multiple ports share the same priority, a lower-numbered port has priority over a higher-numbered port.) 	
External I/O Ports &	Expansion Slots	
USB ports	Front: 1 x USB 2.0 Rear:	
	• 1 x USB 2.0	
	• 1 x USB 3.2 Gen 1 (5 Gbps) Type-A	
HDMI ports	1 x HDMI 1.4b (up to 3840 x 2160 resolution at 30 Hz)	
Interface		
Buttons	• Power	
	• Reset	
Dimensions		
Dimensions (H x W x D)	360 x 333 x 44 mm (14.17 x 13.11 x 1.73 inch)	
Net weight	2.5 kg (5.51 lbs)	
Others		
Power supply unit	1 x 190W, 100-240V DC, 50/60Hz	

Component	TVR-AI200
System battery	CR2032 lithium battery (3V, 225 mAh)
	 Warning This battery is a button battery. If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours. Keep batteries out of reach of children. To avoid potential battery explosion, causing injury or damage to components, ensure that you replace the existing battery with a battery of the same type. Important Dispose of used batteries according to local regulations or the instructions of the battery manufacturer.
Fans	1 x 40 mm 12V DC fan
Operating temperature	0°C to 40°C (32°F to 104°F)
Relative humidity	 Non-condensing relative humidity: 5% to 95% Wet-bulb temperature: 27°C (80.6°F)
Security slot	Kensington security slot

Tip

For the list of compatible drive models and expansion cards, go to https://www.qnap.com/ compatibility.

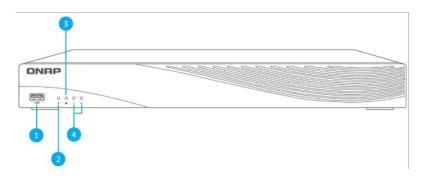
Package contents

Item	Quantity
TVR-AI200	1
Power cords	1
Ethernet cable	1 x 1 GbE (Cat5e)
Screws for 3.5-inch drives	12

Item	Quantity
Screws for 2.5-inch drives	8
Quick Installation Guide (QIG)	1

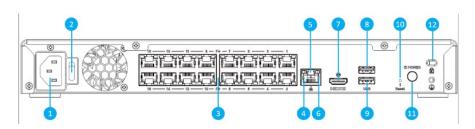
Components

Front panel



No.	Component	No.	Component
1	USB 2.0 Type-A port	3	LAN LED
2	Status LED	4	Drive LEDs

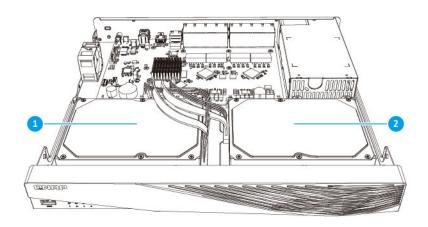
Rear panel



No.	Component	No.	Component
1	Power input	7	HDMI 1.4b port
2	Power supply switch button	8	USB 2.0 Type-A port
3	PoE switch ports	9	USB 3.2 Gen 1 Type-A port

No.	Component	No.	Component
4	Gigabit Ethernet activity LED	10	Reset button
5	Gigabit Ethernet port (RJ45)	11	Power button
6	Gigabit Ethernet speed LED	12	Kensington security slot

Drive numbering



Note

This image shows the TVR-AI200 drive bay with the cover removed.

Installation requirements

Category	Item
Environment	• Room temperature: 0°C to 40°C (32°F to 104°F)
	 Non-condensing relative humidity: 5% to 95%
	• Wet-bulb temperature: 27°C (80.6°F)
	 Flat, anti-static surface without exposure to direct sunlight, liquids, or chemicals

Category	Item
Hardware and peripherals	 Storage drives For the list of compatible drive models, go to https://www.qnap.com/compatibility. Network cable
Tools	 Phillips #1 or #2 screwdriver Flat head screwdriver Anti-static wrist strap

Support and other resources

QNAP provides the following resources:

Resource	URL
Documentation	https://download.qnap.com
Compatibility List	https://www.qnap.com/compatibility
NAS Migration Compatibility	https://www.qnap.com/go/nas-migration
Expansion Unit Compatibility	https://www.qnap.com/go/compatibility-expansion
Service Portal	https://service.qnap.com
Product Support Status	https://www.qnap.com/go/product/eol.php
Downloads	https://download.qnap.com
QNAP Community	https://community.qnap.com
QNAP Accessories Store	https://shop.qnap.com

3. Installation and Configuration

This chapter provides specific hardware and firmware installation and configuration steps.

Hardware installation

This section provides information on installing drives.

Drive installation

The TVR-AI200 series is compatible with 3.5-inch hard drives, 2.5-inch hard drives, and 2.5-inch solidstate drives.

Installing hard drives or solid-state drives

Warning

- Installing a drive deletes all data on the drive.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.

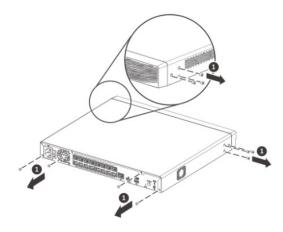


Moving fan blades: Keep your hands and other body parts away from moving fan blades.

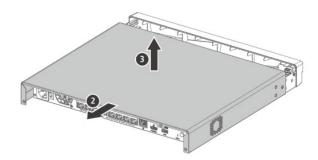


Other moving components: Keep your hands and other body parts away from other moving components.

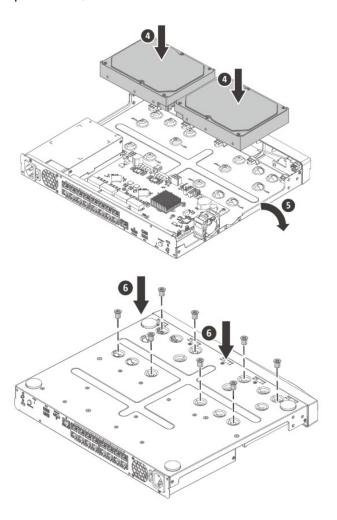
- **1.** Power off the device.
- **2.** Disconnect all cables.
- **3.** Remove the screws on the left, right, and rear side.



4. Remove the top cover.

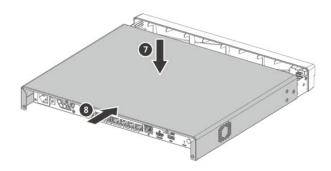


5. Position the hard drives on the screw holes on the device, turn the device and the hard drives upside down, and attach the screws.

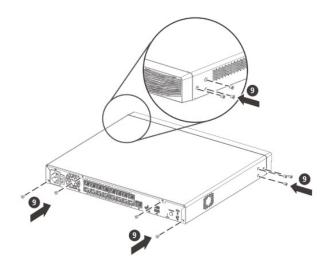


- **6.** Place the device in its normal upright position.
- **7.** Attach the case cover.
 - **a.** Place the cover on the device.

b. Slide the case cover to the front.



c. Attach the screws on the left, right, and rear side.



8. Power on the device.

Setting up the TVR-AI200

Important

A USB keybord and USB mouse must be connected to the TVR-AI200 to complete the initialization process.

For more information on TVR-AI200 compatible devices, go to https://www.qnap.com/go/ product/tvr-ai200.

- 1. Connect the cameras to the PoE switch on the device.
- **2.** Connect a USB keyboard and mouse to the device.
- **3.** Connect an HDMI display to the device.
 - **a.** Connect the HDMI cable to the HDMI port on the device.
 - **b.** Connect the HDMI cable to the HDMI port on the HDMI display.

- **4.** Connect the device to a power source.
 - **a.** Connect the device to a power core.
 - **b.** Connect the device power core to an electrical outlet.
- 5. Power on the device.

Initializing the TVR-AI200

Warning

Formatting a hard disk will delete all data on the disk.

Note

Hard disks are required and need to be purchased separately.

1. Power on the device.

The **Language** page appears. It may take a few minutes to load.

2. Select a language.

The **Disk Initialization and Recording Space Setup** page appears.

- **3.** Configure the disks to create recording space.
- 4. Select Start.

The **Disk Initialization** page appears.

The **QNAP Software Terms of Use** page appears.

5. Click the check box and select **Next**.

The **Create a system administrator account** page appears.

6. Fill in the username and password and then click **Next**.

The **Set Date and Time** page appears.

7. Set the time zone and date/time option and then click **Next**.

The **Configure network settings** page appears.

8. Select Next.

The **Configure PoE Switch Mode on Your Device** page appears.

9. Select the mode to fit your scenario and then click **Next**.

The **Applying the settings** page appears.

The **Camera Settings** page appears.

- 10. Select Add Camera.
- **11.** Add the cameras and fill in the usernames and passwords.
- 12. Select Done.
- **13.** Select **Next**.

The **Create Another User** page appears.

- **14.** Optional: Select **Skip** to skip creating another user or fill in the username and password to create another user account.
 - The **Smart Installation Completed** page appears.
- **15.** Select a user and then select **Log In** to launch the QVR Client login page.
- **16.** Fill in the password and log in to view the main page of QVR Client.

4. Basic Operations

This chapter describes basic TVR-AI200 operations.

Power supply unit button

Operation	User Action	Result
Power on	Switch the button to "I"	The device powers on.
Power off	Switch the button to "O"	The device powers off.

Note

For thermal safety design reasons, the power supply unit fan will keep spinning when the power supply unit is turned on.

You can directly power off the device and remove the power cord when all LEDs on the front panel are off.

Power button

Operation	User Action	Result
Power on	Press the button once.	The device powers on.
Force power off	Press and hold the button for 10 seconds.	The device powers off.
		Important Use this method only when the device is unresponsive.

Reset button

If you forgot the password, you can reset the device and log in to manage your account and password. A temporary account "system-maintainer" is created after the device is reset. Log in with the "system-maintainer" account to change the default "user" account password. The "user" account has administrator privileges.

For security reasons, the "system-maintainer" account is only valid for 24 hours. You must log in and manage your account settings within 24 hours, or you would need to reinitialize the device again.

Operation	User Action	Result
Basic system reset	Press and hold the button for 3 seconds.	The following settings are reset to default: • System maintainer password: the default password is your device's Cloud Key. Tip You can find the Cloud Key with Qfinder Pro or attached to a label on the device. • Reset to the default "system-maintainer" account.
Reinitialize the device	Press and hold the button for 15 seconds.	All data and settings will be deleted.

Audio alerts

Duration	Frequency	Description
Short beep (0.5 seconds)	1	 The device is starting up. The device is shutting down. The user pressed the reset button.
	3	The operating system was updated.
Long beep (1.5 seconds)	2	A disk volume is about to reach its full capacity.A disk volume has reached its full capacity.
	1	The device was powered off by force shutdown (hardware shutdown).

LEDs

LEDs indicate the system status and related information when the device is powered on. The following LED information applies only when the drive is correctly installed and when the device is connected to the network or to a host.

For details on the location of the LEDs, see Components.

System Status LED

Status	Description
Flashes green and red alternately every 0.5 seconds	A drive is being formatted.
	The device is being initialized.
	The operating system is being updated.
	RAID rebuilding is in progress.
	Online RAID Capacity Expansion is in progress.
	Online RAID Level Migration is in progress.
	Important
	When updating the firmware, do not remove the power cord or USB cable, and do not force-exit the application.
Red	A drive is invalid.
	A volume has reached its full capacity.
	A volume is about to reach its full capacity.
	A system fan is not functioning.
	An error occurred when accessing (read/write) the data.
	A bad sector is detected on a drive.
	• The device is in degraded read-only mode (two member drives failed in RAID 5 or RAID 6 but the data can still be read).
	A hardware self-test error occurred.
Flashes red every 0.5 seconds	The device is in degraded mode (one member drive failed in RAID 1)
Green	The device is ready.
Flashes green	The device is not configured.
every 0.5 seconds	A drive is not formatted.
Off	All drives are in standby mode.

Drive LED

Status	Description
Flashes red 5 times per second	The drive is being located in the operating system.
Red	A drive read/write error occurred.
Flashes green	The drive is being accessed.
Green	The drive is ready.
Off	No drive was detected.

Gigabit LAN LED (Front)

Status	Description
Amber	The device is connected to a 1 GbE network.
Flashes amber	The device is being accessed from the network.
Off	The device is not connected to a network.

Gigabit LAN LED (Rear)

Status	Description
Left green	The ethernet port is connected to a 1 GbE network.
Left amber	The ethernet port is connected to a 10/100 Megabit network.
Left off	The ethernet port is not connected to a network.
Right amber	The Ethernet port is connected to a network.
Right flashes amber	The device is being accessed on this Ethernet port.
Right off	The ethernet port is not connected to a network.

10/100 LAN within PoE Switch per port LED

Status	Description
Left green	The link speed is is operating at 100 Mbps.
Left flashes green	Data is being transmitted.
Left amber	The link speed is is operating at 10 Mbps.
Left flashes amber	Data is being transmitted.
Left off	There is no network connection.
Right green	The PoE status is normal.
Right flashes amber	A fatal PoE error occurred.
Right off	There is no PoE connection.

HDMI display interface

QVR Client shown on HDMI display is the main user interface for TVR-AI200. You can view live streams, playback recording streams, add camera streams, create and edit AI tasks, and perform smart search from QVR Client.

5. QVR Smart Client

Adding a camera

- 1. Click the add (+) button.
- 2. Click Add Camera.

The **Add Camera** screen appears in QVR Surveillance.

- **3.** Select a camera from the list.
- 4. Click Next.

The **Edit Camera Selection** screen appears.

5. Specify the camera information, including the account name and password.

Tip

You can click **Test** to verify camera connection.

6. Click Next.

The Camera Stream screen appears.

- **7.** Configure the stream and recording settings.
- 8. Click Next.

The **Successful** screen appears.

9. Click Finish.

The camera is added to the QVR Smart Client.

Adding a page

- 1. Click the add (+) button to add another page.
- **2.** Select the content you want to see on the new page.

Note

The choices are Live / Playback, Event, Face, and Camera.

The new page appears.

Adding a View

- 1. Click the add (+) button.
- **2.** Select one of the following three options.
 - Add new view: you can drag the camera to set the layout.
 - Create by template: choose the default layout you want.

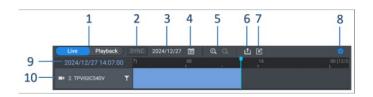
• Custom layout: enter the number of views to customize your own layout.

The new View layout appears.

3. Optional: Click the □ button to save the layout.

Live / Playback View

Time Navigator



No.	Element	Possible User Actions
1	Live / Playback	Click the button to switch between Live and Playback modes.
2	Sync	Click the button to synchronize the time on all live and recorded videos on the selected view.
3	Date	This indicates the current date. It is used for the timeline and can be specified by users.
4	Calendar	Click the button to specify the timeline date during Playback mode.
5	Timeline Zoom Control	 Click to zoom in. Click to zoom out.
6	Export Recordings	 Click the button to open the Export Recordings window. Configure the recording type, start time, duration, destination, and file name to export recordings.
7	Bookmark	Click the button to add a bookmark at the current timeline position.
8	Show / hide Live Panel	 Click to show the live PTZ control panel. Click to hide the live PTZ conrol panel. Click to show the playback control panel. Click to hide the playback control panel.

No.	Element	Possible User Actions
9	Live / Playback time	 You can see the current date and time when a camera is displaying a live stream.
		 You can see the recording date and time when a video recording is playing.
		Note The date and time displayed here are based on the time zone currently used on the server.
10	Select Recording type and stream option.	Click the to select Recording type and Stream option.

Live PTZ controls

QVR Smart Client enables a live control panel for cameras with pan-tilt-zoom (PTZ) support.

Note

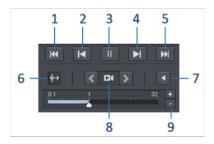
Some controls may not be available depending on your camera type.



No.	Element	Possible User Actions
1	Direction controls	Click the buttons to move the camera in the specified direction.
2	Zoom controls	Click + to zoom in.Click - to zoom out.
3	Focus in	Click the button to increase focus on a subject.
4	Focus out	Click the button to decrease focus on a subject or extend the focal distance.
5	Auto focus	Click the button to enable automatic focus.

No.	Element	Possible User Actions
6	Home point	Click the button to return to the Home point.
7	Enable auto cruising	Click the button to start auto cruising. Click the button again to stop. Note You must specify at least two preset points using the Preset
		point list to use this feature.
8	Preset point list	Click the button to specify the Home point and preset point list.

Playback controls



No.	Element	Possible User Actions
1	Backward 5 minutes	Click the button to replay the last 5 minutes of the video
2	Backward 1 frame	Click the button to replay the last frame.
		Tip You can also press the left arrow key on your keyboard.
3	Play / pause	Click the button to play or pause the video.
		Tip You can also press the space bar on your keyboard.
4	Forward 1 frame	Click the button to play the next frame.
		Tip You can also press the right arrow key on your keyboard.

No.	Element	Possible User Actions
5	Forward 5 minutes	Click the button to fast forward the video by 5 minutes.
6	Display keyframes only	Click the button to reduce system load.
7	Rewind	Click the button to rewind the recording.
8	Previous / next event	Click < to view the previous event.Click > to view the next event.
9	Decrease / increase speed	Click - to decrease playback speed.Click + to increase playback speed.

Menu bar



No.	Element	Possible User Actions
1	Video Wall	Click the button to show surveillance images on up to 8 displays for better monitoring coverage.
		Important Depending on your model, this function may not appear.
2	Full screen	Click the button to switch to full screen.
3	Audio volume	Click the button to set the volume.
4	Background tasks	Click the button to see the background tasks.
5	Notifications	Click the button to see notifications. For more details, see Notifications.
6	Settings	Click the button to set General, Alerts, and other settings.
7	Resource Monitor	Click the button to see Server and Client information.
8	More	Click the button to set quick settings.

No.	Element	Possible User Actions
9	Log out	Click the button to log out QVR Smart Client.
10	User	Click the button to watch the user information.

Notifications

Viewing Event Notifications recordings

- **1.** Click the Notifications (button on the Menu bar. The **Event Notifications** screen appears on the right side.
- **2.** Click the Event Notifications () button on the top. The **Event Notifications** screen appears on the right side.
- **3.** Drag the recording you want to see to the center area. The recording will start to play.

Viewing and stop viewing QVR Face events

After setting tasks in QVR Face, you can see the task data in QVR Smart Client.

- **1.** Click the Notifications (button on the Menu bar. The **Event Notifications** screen appears on the right side.
- **2.** Click the QVR Face () button on the top. The **QVR Face** screen appears on the right side.
- 3. Click the bar and select a task to view.



4. Optional: Select **None** in the QVR Face bar. The QVR Face events will not be displayed.

Viewing and stop viewing QVR Human tasks

After setting tasks in QVR Human, you can see the task Trends and Details in QVR Smart Client.

- **1.** Click the Notifications (button on the Menu bar. The **Event Notifications** screen appears on the right side.
- Click the QVR Human (button on the top.
 The QVR Human screen appears on the right side.

3. Click the bar to select a QVR Human task.



4. Select a Task and date.



The **Trends and Details** screen appears.

5. Optional: Select **None** in the QVR Human bar under Tasks. The QVR Human analytics will not be displayed.

Viewing QVR Face / Human live analytics

- 1. Click the M button.
- 2. Select a task that has been created. The task live information appears in the view window.

Updating the firmware

- 1. Click the More (1) button on the menu bar.
- 2. Click Check for updates. The **Firmware Updates** screen appears.
- 3. Click Update.

System settings

QNE Desktop provides Control Panel, Network Manager, Storage Space, QuLog Center, and Resource Monitor for users to configure operating system settings. Users can also take advantage of QNAP support from Helpdesk, myQNAPcloud, and Security Center.

For details, see QNE Desktop.

Surveillance settings

QNE Desktop provides Recording Storage, Camera Settings, Event Rules, Surveillance Logs, and Surveillance Privileges for users to view and configure more surveillance settings.

For details, see QVR Surveillance.

6. QVR Surveillance

Recording space

A recording space is composed of one or more volumes allocated for video surveillance. By creating a dedicated storage space for video recordings, QVR Surveillance transforms your device into a powerful video recording device.

Adding a recording space

Users can add a recording space to allocate a fixed amount of storage space for video recordings.

- **1.** Open **Recording Storage** from the desktop or main menu.
- 2. Go to Recording Space.
- 3. Click one of the following buttons.

Button	Description
Create Recording Space	Click to add the first recording space.
Add	Click to add more recording spaces.

The **Add Recording Space** screen appears.

- **4.** Specify the name for the recording space.
- **5.** Select a volume from the list of available volumes.
- **6.** Specify the allocated size.
- 7. Click Next.
- **8.** Optional: Assign a spare volume if space is available.
 - **a.** Select a volume from the list of available volumes.
 - **b.** Specify the allocated size.
- 9. Click Next.

Tip

On the confirmation screen, click **Back** to modify the settings or click **Next** to proceed.

- 10. Click Next.
- 11. Click Finish.

The new recording space is created. QVR Surveillance creates a shared folder using the name Public DataVol1.

Editing recording space settings

Users can edit the recording space name, change the retention ratio, expand the allocated volume, or add a spare volume.

- **1.** Open **Recording Storage** from the desktop or main menu.
- 2. Go to Recording Space.
- **3.** Select a recording space, and then click **Edit** () under **Action**. The **Edit Recording Space Settings** screen appears.
- 4. Specify a name for the recording space under Allocated Volume(s).
- **5.** Assign a spare volume under **Spare Volume(s)**.
 - **a.** Select a volume from the list of available volumes
 - **b.** Specify the allocated size.
- **6.** Click **Apply** to save all changes.

Deleting a recording space

Users can delete an existing recording space if you no longer need the space or if you want to re-allocate the volume.

- 1. Open Recording Storage from the desktop or from the main menu.
- 2. Go to Recording Space.
- **3.** Select the recording space and then click under the **Action** column. A confirmation message appears.
- **4.** Review the recording space details and then click **Delete**. A warning message appears.
- **5.** Type the password and then click **OK**. The recording space is deleted.

Recording location and days

QVR Surveillance allows users to specify where to save recorded videos. Users can also specify the number of days that normal and event recording streams are recorded, the maximum file size for the saved files, and whether or not to overwrite files older files to make space for new recordings.

Editing channel recording settings

- 1. Open **Recording Storage** from the desktop or from the main menu.
- 2. Go to Recording Location and Days.
- **3.** Locate the camera in the list and click ... The **Edit Channel Recording Settings** screen appears.

4. Modify the following settings as required.

Stream Type	Possible User Actions
Regular	Select the recording location.
Event	Specify the minimum and maximum number of days.
	Specify the maximum file size.
	 Select Enable or Disable to specify whether or not to overwrite older files.

5. Click **Apply** to save all changes.

Camera settings

The **Camera Settings** screen enables you to manage the cameras in your network.

Note

The maximum number of cameras allowed depends on the device model.

There are several ways to add a camera:

- · Add a camera that is connected to the network. For details, see Adding a camera connected to the network.
- Add a camera manually. For details, see Adding a camera manually.
- Add a batch of multiple cameras. For details, see Batch adding multiple cameras.

Adding a camera connected to the network

QVR Surveillance displays the list of added cameras on the **Camera Settings** screen. Perform the following task to add a camera that is connected to the network.

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Click one of the following buttons.

Option	Description
Add Camera	Click to add the first camera.
Add	Click to add more cameras.

The **Camera Selection** screen appears.

- **3.** Select a camera from the list.
 - QVR Surveillance automatically scans the network for available cameras.
 - To add a camera from a different network, use the Advanced Search feature. To add a camera of a specific brand or model, use the Filter feature.

4. Click Next.

The **Edit Camera Selection** screen appears.

5. Specify the camera information, including the account name and password.

Tip

You can click **Test** to verify the camera connection. For details, see Testing the camera connection.

6. Click Next.

The **Camera Stream** screen appears.

7. Configure the stream recording settings.

Note

For details, see Camera stream settings

- **8.** Depending on your selection in the previous step, perform one of the following steps.
 - · Modify the camera settings. For details on the camera settings, see Editing the camera settings.
 - Proceed to the next step.
- 9. Click Finish.

The camera is added to the QVR Surveillance server.

Adding a camera manually

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Click one of the following buttons.

Option	Description
Add Camera	Click to add the first camera.
Add	Click to add more cameras.

The **Camera Selection** screen appears.

3. Click Next.

4. Click Add Manually.

A new entry is added to the list.

5. Specify the following information.

Field	Task
Brand, Model	Specify the brand and the model of the camera.
IP Address	Specify the IP address.
Port	Modify the port number. The default value is 80.
RTSP Port	Modify the real time streaming protocol (RTSP) port number. The default value is 554.
HTTPS Port	Modify the Hypertext Transfer Protocol Secure (HTTPS) port number.
Account	Specify the camera username.
Password	Specify the camera password.

Tip

You can click **Test** to verify the camera connection. For details, see Testing the camera connection.

6. Click Next.

The Camera Stream screen appears.

7. Configure the stream and recording settings.

Note

For details, see Camera stream settings.

- **8.** Depending on your selection in the previous step, perform one of the following steps.
 - · Modify the camera settings. For details on the camera settings, see Editing the camera settings.
 - Proceed to the next step.
- 9. Click Finish.

The camera is added to the QVR Surveillance server.

Batch adding multiple cameras

You can batch add multiple cameras to the QVR Surveillance server if they share the same login credentials.

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Click one of the following buttons.

Option	Description
Add Camera	Click to add the first camera.
Add	Click to add more cameras.

The **Camera Selection** screen appears.

3. Click Next.

The **Edit Camera Selection** screen appears.

4. Select the cameras from the list.

To add cameras from a different network, use the Advanced Search feature. To add cameras of specific brands or models, use the Filter feature.

- **5.** Select the cameras that share the same login credentials.
- 6. Click Batch Login.
- **7.** Specify the following information.

Field	Task
Username	Specify the camera username.
Password	Specify the camera password.
Port	Specify the port number.
RTSP Port	Specify the real time streaming protocol (RTSP) port number.

- 8. Click Apply.
- 9. Click Next.

A Camera Stream Settings screen appears.

10. Configure the stream and recording settings.

Note

For details, see Camera stream settings.

- **11.** Depending on your selection in the previous step, perform one of the following steps.
 - Modify the camera settings. For details on modifying the camera settings, see Editing the camera settings.
 - Proceed to the next step.

12. Click Finish.

The cameras are added to the QVR Surveillance server.

Editing the camera settings

• After adding a camera, you can click **Edit** (🗹) to modify its connection, stream, recording, and event settings.

Connection settings

The **Connection** page includes the following tabs:

Field	Description
Preview	Displays a snapshot of the video feed if the camera connection to QVR Surveillance has been established.
Name	Displays the name of cameras that have been added to QVR Surveillance using the following format: <pre> <pre>cmodel></pre> The default name of a manually added camera is Camera.</pre>
Brand, Model	Displays the camera brand and model.
IP Address	Displays the camera IP address.
Port	Displays the camera port number. The default value is 80.
RTSP Port	Displays the real time streaming protocol (RTSP) port number. The default value is 554.
HTTPS Port	Displays the Hypertext Transfer Protocol Secure (HTTPS) port number.
Account	A text field where users can enter the camera account name.
Password	A text field where users can enter the camera password.
	Users can hide or display the password by clicking Password ().
Action	Displays the Test button. For details, see Testing the camera connection.

Editing the camera connection settings

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- 2. Locate the camera in the list and then click **Edit** (). The **Edit** screen appears.

3. On the **Connection** tab, modify the following settings.

Field	Task
Name	Enter a name for the camera.
Brand, Model	Select the camera brand and model.
IP Address	Enter the IP address.
Port	Modify the port number. The default value is 80.
RTSP Port	Modify the real time streaming protocol (RTSP) port number. The default value is 554.
Account	Enter the camera account name.
Password	Enter the camera password.

- **4.** Click **Test** to test the connection.
- **5.** Click **Apply** to save all changes.

Camera stream settings

Depending on the model of selected cameras, the **Camera Stream** page could include the following tabs:

Stream Settings

Field	Description
Fisheye mount type	Displays the specified mount type. The mount type determines the location of the fisheye camera. • Wall mount • Ceiling mount • Table mount
Stream mode	Displays the specified stream mode. The options are hidden when a camera only supports single stream mode.
Name	The default format of a stream is <stream>_<number>. The number changes depending on the number of supported streams.</number></stream>
Video compression	Displays the default video compression settings of the stream.

Field	Description
Resolution	Displays the default resolution of the stream. In cases where a camera has multiple streams and two or all streams use the same resolution, QVR Surveillance checks the video compression settings of each stream. When a camera has multiple streams, QVR Surveillance automatically assigns different resolutions to different streams.
Frame rate	Displays the frame rate or frequency in the number of frames per second (FPS).
Bitrate control	Displays the default bitrate control. Users can choose to use one of the following options: • VBR: variable bit rate • CBR: constant bit rate
Bit rate	Displays the bit rate when CBR is selected.
Quality	Displays the quality when VBR is selected.

Recording Settings

Field	Description
Enable video recording	Selecting this option allows users to enable and configure the following features: • Regular recording: QV R Pro records videos based on the specified schedule.
	Note The schedule indicates the hours and days when QVR Surveillance records videos. Workdays are days from every Monday to Friday. Weekends include every Saturday and Sunday.
	 Audio recording: QVR Surveillance captures the audio when recording videos. Edge recording recovery: QVR Surveillance records and saves the selected stream directly to a camera SD card. The recorded stream can be used for recording recovery in the future.
	Note This feature only supports using Stream 1 and H.264 codec. For details, see Enabling recording.

Field	Description
Event recording	QVR Surveillance only records video streams when an event is detected.

Editing the stream settings

Important

QVR Surveillance hides the features that the selected camera does not support. Some of the options may not be available to your camera.

- 1. Open Camera Settings from the desktop or from the main menu.
- **2.** Locate the camera in the list and then click **Edit** (⋈). The **Edit** screen appears.
- 3. Select the Camera Stream tab.
- 4. Optional: Select the stream mode.
 - Single stream
 - Multiple streams
- **5.** Click **Edit** (☑) beside **Stream Settings**. The **Stream Settings** screen appears.
- **6.** Optional: Configure the fisheye settings.
 - a. Select Enable fisheye lens.
 - **b.** Select the fisheye mount type.
 - Wall mount
 - · Ceiling mount
 - Table mount
 - **c.** Select the display mode.

Note

Ensure that the camera fisheye lens has been installed before enabling this feature. After installing the lens, you must also verify that the camera displays a circular video image. Otherwise, the dewarped image would be incorrect.

- **7.** Optional: Configure the bitrate reduction settings.
 - **a.** Click **Edit** (☑) beside **Bitrate Reduction**. The **Codec Optimization** screen appears.

b. Select the following options:

Option	Description
Enable bitrate reduction	Bitrate reduction is a compression method that lowers the bitrate, and reduces the number of keyframes and frames per second (FPS). This feature works best with still videos. When this feature is enabled, you can customize the dynamic keyframe interval. You can also enable dynamic FPS to decrease the number of frames per second for still videos.
Enable dynamic keyframe interval	Dynamic keyframe interval increases the interval between keyframes to reduce the video size. This feature works best with still videos.

Note

The appearance of the Bitrate Reduction feature depends on the supported camera brand and model.

c. Click Apply.

8. Modify the following settings if needed.

Field	Task
Video compression	Select the video compression.
Resolution	Select the resolution.
Frame rate	Select the frame rate.
Bitrate control	Select one of the following bitrate controls.VBR: variable bit rateCBR: constant bit rate
Bit rate	Select the bitrate. This option is only available when CBR is selected.
Quality	Select the quality. This option is only available when VBR is selected.

9. Optional: Click Preview

Note

- To see the stream preview, ensure that you allow pop-ups in your browser settings.
- Depending on the camera model, you may need to restart the camera to see the preview. Restarting the camera may affect recording sessions that are using the selected stream.

QVR Surveillance displays a preview of the camera stream.

10. Click **Apply** to save all changes.

Enabling recording

- 1. Click **Camera Settings** from the desktop or from the main menu.
- **2.** Locate the camera from the list and then click **Edit** ($\ensuremath{\boxtimes}$). The **Edit** window opens.
- 3. Select the Camera Stream tab.
- 4. Select Enable recording.
- **5.** Modify the following settings:

Option	Possible User Actions
Regular Recording	Select one or multiple streams.Specify the schedule.
	Tip The schedule indicates the hours and days when QVR Surveillance performs normal recording. Workdays are days from every Monday to Friday. Weekends include every Saturday and Sunday. You can use the default schedule or click Add (+) to create a custom schedule and specify active and inactive time slots.
Event Recording	 Select one stream or multiple streams Click Edit (⋈) to configure the following settings: Pre-recording: the duration (seconds) of video recording before the actual alarm event. Post-recording: the duration (seconds) of video recording after the actual alarm event.

- 6. Optional: Select Enable audio recording on this camera (your camera must support audio) and Edge Recording Recovery.
- 7. Click Apply.

Event settings

Note

Only specific camera models support this feature.

The **Event** page includes the following settings:

Feature	Possible User Tasks
Alarm Settings	Enable or disable the alarm input for each camera.
Temperature	Configure the temperature threshold to send pre-alarms or alarms.

Assigning a network interface to a camera

QVR Surveillance allows users to assign a network interface to each camera. This ensures that the bandwidth is load-balanced.

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Locate the camera in the list and then click **Network Interface** ().
- **3.** Select an interface from the list.
- 4. Click **Apply** to save all changes.

Testing the camera connection

Test the camera connection to verify that the settings are correct.

QVR Surveillance displays the following connection status icons:

Icon	Description
Ø	QVR Surveillance successfully connected to the camera.
•	QVR Surveillance was unable to connect to the camera.
	Tip You can mouse over the warning icon to display additional information.

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Locate the camera in the list and then click **Edit**. The **Edit** screen appears.
- **3.** On the **Connection** tab, locate the camera in the list.
- **4.** Under the **Action** column, click **Test**. QVR Surveillance tests the connection and displays the connection status.

Deleting a camera

Delete cameras to remove them from the list.

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Locate the camera in the list and then click **Delete** (). A confirmation message appears.
- 3. Click OK.

The selected camera is deleted from the list.

Sharing a channel

QVR Surveillance allows users to share a live channel view without requiring the viewers to install a plugin.

- **1.** Open **Camera Settings** from the desktop or from the main menu.
- **2.** Locate the camera in the list and then click **Share** (%). The **Share Channel** screen appears.
- 3. Select Share this channel.

The available streams for the selected channel are displayed.

- **4.** Select the stream.
- **5.** Optional: Enable the validation code.
 - a. Select Enable.
 - **b.** Type a validation code.
- 6. Click Apply.

QVR Surveillance creates the shareable link.

Event rules

The **Event Rules** screen enables users to define rules that identify the types of events and actions that will be monitored in your organization.

A rule follows a schedule, and a set of events and actions. When the specified events occur within the specified schedule, QVR Surveillance performs the corresponding actions. Each rule must have at least one event and one action.

Adding a rule

You can add a rule to monitor events and assign actions. Each rule follows a specified schedule, and a set of events and actions. When the events occur within the selected schedule, QVR Surveillance performs the corresponding actions.

Users can also decide whether all events are required to occur within a specified period before applying the actions.

Tip

You can add up to 128 rules.

- **1.** Open **Event Rules** from the desktop or from the main menu.
- **2.** Click one of the following buttons.

Button	Description
+	Click to add your first rule.
Add	Click to add more rules.

The **Add Rule** screen appears.

3. Enter the following information under **Name**:

Field	Task
Name	Enter a name for the rule.
Description	Enter a description that provides more detailed information about the rule.

- 4. Select Enable rule.
- **5.** Select a schedule under **Schedule**.

Note

The schedule indicates the hours and days when an event is considered valid. Users can use the default settings or create custom schedules by clicking **Add (+)**.

6. Click Next.

The **Add Events and Actions** screen appears.

7. Click Add under If.

The **Add Event** screen appears.

8. Complete the following information:

Field	Task	
Name	Enter a name for the event.	
Туре	Select an event type.	
Source	Select the camera, server, or other event sources to be monitored for specified events.	
	Note The options vary depending on the selected event type.	

Click **OK**.

Tip

You can add multiple events to one rule.

- 9. Click Add under Then. The **Add Action** screen appears.
- **10.** Complete the following information:

Field	Task
Name	Enter a name for the action.
Туре	Select an action type.
	Tip Users can also copy an existing action from the actions list.
Target	Select the target to receive the specified actions.
	Note Options may vary depending on the selected action type. Users can choose to send the camera action to individual cameras or to all cameras on the selected server. Users can also send an email or SMS message to the specified recipients.

11. Click OK.

Tip

Users can add multiple actions to one rule.

- 12. Optional: Select All events occurring within 10 seconds.
- **13.** Complete the following information:

Field	Task
Event Trigger Interval	Specify the time period between two separate events for QVR Surveillance to identify.
Point Event Action Period	Specify the time period for which the rule to applied and continued.

- 14. Click Next.
- 15. Click Finish.

Enabling or disabling a rule

Enable or disable rules. Disabling a rule does not delete it from the rule list. Users can choose to enable a rule again at a later time.

Tip

Users can also enable or disable a rule from the **Edit Rule** screen.

- 1. Open **Event Management** from the desktop or from the main menu.
- 2. Locate the rule from the list.
- 3. Under **Status**, perform one of the following steps.

Option	Task
Enable	Move the slider to the right.
Disable	Move the slider to the left.

Editing a rule

Modify the rule information, events, and actions.

- **1.** Open **Event Management** from the desktop or from the main menu.
- **2.** Locate a rule from the list and then click **Edit** ([☑]). The **Edit Rule** screen appears.

- **3.** Optional: Perform any of the following tasks.
 - · Modify the rule name.
 - · Modify the description.
 - · Modify the rule status.
 - · Modify the schedule.

Tip

Users can also add, edit, or delete a schedule from this screen.

- **4.** Modify the list of events and actions. For details, see Editing events and actions.
- 5. Click **Apply** to save all changes.

Editing events and actions

- Go to Event Rules > Edit > Events and Actions.
 The Events and Actions tab appears.
- 2. Optional: Perform any of the following tasks under If.
 - · Click Add and then follow the steps for adding an event.
 - Click **Edit** (☑) and then modify the event details.
 - Click **Remove** () or select the event and then click **Remove**.
- 3. Optional: Perform any of the following tasks under **Then**.
 - Click **Add** and then follow the steps for adding an action.
 - Click **Edit** () and then modify the action details.
 - Click **Remove** () or select an action and then click **Remove**.
- **4.** Click **Apply** to save all changes.

Deleting a rule

Delete a rule to remove it from the rule list.

- 1. Click **Event Rules** from the desktop or from the main menu.
- **2.** Locate a rule from the list and then click **Remove** (). A confirmation message appears.
- 3. Click OK.

The rule is deleted from the list.

Surveillance logs

QVR Surveillance displays the following surveillance logs:

Tab	Possible User Actions
Surveillance Event	Displays a list of surveillance-related events such as motion detection, recording space full, and event URL.
Surveillance Connection	Displays a list of connection attempts to the QVR Surveillance Client.
Surveillance Settings	Displays a list of the changes made to the surveillance settings.
Surveillance System	Displays a list of the surveillance-related events that trigger system changes.

Surveillance privileges

Creating a local user

- **1.** Go to **QNE Desktop** > **Control Panel** > **Users**. The **Users** screen appears.
- **2.** Click **Create**, and then select **Create a User**. The **Create a User** window opens.
- **3.** Specify the following information:

Field	Description
User Description (optional)	Enter a description that provides more detailed information about the user.
Username	Specify a username that contains 1 to 32 characters from any of the following groups:
	• Letters: A to Z, a to z
	• Numbers: 0 to 9
	 Multi-byte characters: Chinese, Japanese, Korean, and Russian
	Special characters: ~! @ # \$ ^ & () { }
Full name (optional)	Specify the name to identify the username on behalf of.
Administrator account	Specify if the user has administrator permission.
Password	Specify a password that contains 1 to 64 ASCII characters.
Phone number (optional)	The information is for your reference and is not used by QVR Surveillance.
Email (optional)	QVR Surveillance sends a notification to this email address when the account password is going to expire.

	 SMTP Server: On QNE, go to Control Panel > System > Notification > E-mail If the SMTP Server is not configured, QVR Surveillance does not use the information.
(Optional) Send a notification mail to the newly created user	When selected, QVR Surveillance sends a message that contains the following information to the specified email address.
	URLs for connecting to the device
	Username and password

4. Click Create.

QVR Surveillance creates and adds the user to the user list.

Importing or Exporting Users

- 1. Go to QNE Desktop > Control Panel > Users. The **Users** screen appears.
- 2. Click Create and then select Import/Export Users. The **Import/Export Users** window opens.
- **3.** Perform one of the following tasks.

citoriii one of the following tasks:	
Task	Steps
Importing user and user group settings	a. Select Import user and user group settings
	b. Click and then select a TXT, CSV, or BIN file that contains the user information.
	c. Optional: Select Overwrite duplicate users.
	d. Click Next.A confirmation message appears.
	e. Click Next.
	f. Click Finish.
	QVR Surveillance imports the user and user group settings specified in the uploaded file.
Exporting user and user group	a. Select Export user and user group settings.
settings	b. Click Next .
	QVR Surveillance downloads a file that contains the user and user group settings on this server.

Changing password

Users can change the password for different users.

- Go to QNE Desktop > Control Panel > Users.
 The Users screen appears.
- 2. Click Change Password.

Note

Users cannot modify the user privilege of the admin account.

The **Change Password** screen appears.

3. Specify a password with a maximum of 64 characters.

Note

QVR Surveillance recommends using passwords with at least 6 characters.

Important

Changing the QVR Surveillance password also changes the QTS password.

4. Click Apply to save all changes.

Editing account profile

- Go to QNE Desktop > Control Panel > Users.
 The Users screen appears.
- 2. Click Edit Account Profile.

The **Edit Account Profile** screen appears.

- **3.** Optional: Add or edit the user full name, administrator account, email, phone number, or description.
- **4.** Optional: Select **Disable this account** and configure the time to have the account disabled.
- **5.** Click **OK** to save all changes.

Editing the user group

User can select the user group for users.

- **1.** Go to **QNE Desktop** > **Control Panel** > **Users**. The **Users** screen appears.
- Click Edit User Group.The Edit User Group screen appears.

3. Select or cancel the user group.

Note

Users cannot choose user group administrators and cancel everyone.

4. Click OK.

Deleting a user

- Go to QNE Desktop > Control Panel > Users.
 The Users screen appears.
- 2. Select a user from the list.
- 3. Click Delete.
- 4. Click OK.

The selected user is deleted from the list.

Editing user privileges

- **1.** Go to **Privilege** > **Users**. The **Users** screen appears.
- 2. Click Edit User Privilege ().

Note

You cannot modify the user privileges of the admin account.

The **Edit User Privilege** screen appears.

3. Select **Allow** or **Deny** for each of the following privileges.

Important

Allow: grants users access to features or operations.

Deny: denies users access to features or operations.

When none of the options is selected, the privilege is not enabled.

The access rights of users depend on their user privileges, roles, and user groups. **Deny** permissions always override any other **Allow** permissions when conflicts arise between the settings.

Privilege Description

Camera	Specify whether users are allowed to manage the following management settings. System management Surveillance management E-map management View management Logs and Metadata Vault Specify whether users are allowed to access the following features on each camera. Live view Playback Client Video Export Audio PTZ Control
E-maps	Specify the e-maps that users can access.
Views	Specify the layouts that users can access.

4. Click OK.

Selecting a user role

- 1. Go to Privilege > Users. The **Users** screen appears.
- 2. Click Select User Role. The **Select User Group** screen appears.
- **3.** Select or cancel a user role.
- 4. Click OK.

Viewing user privileges

Users can view user privileges including Reports, System Management, Cameras, E-maps, and Views.

- **1.** Go to **Privilege** > **Users**. The **Users** screen appears.
- 2. Click View User Privileges. The **View User Privilege** screen appears.

Privilege Summary

QVR Surveillance provides privilege summaries for users, user groups, roles, cameras, e-maps, and views.

Generating a privilege summary

- 1. Go to Privilege > Privilege Summary. The **Privilege Summary** screen appears.
- **2.** Specify the search criteria.

Important

The options vary depending on the selected information.

3. Click OK.

QVR Surveillance generates the privilege summary.

4. Optional: Click **Export**.

QVR Surveillance exports the report as an HTML file and then downloads a copy to your computer.

Recording Viewer

Recording Viewed displays all stored recordings. Users can easily and quickly find, view, and download the recordings stored on the device.

Task	User Action
Change view mode	Click :: and select Thumbnail view or List view for recordings.
Refresh recordings	Click ${\mathfrak S}$ to refresh the recording screen.
Download recordings	 In Thumbnail view mode, click, and then
Filter cameras	Click, and then select a camera to display.

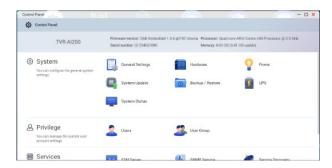
7. QNE Desktop

QNE Embedded is the fundamental operating system for TVR-AI200. The detailed system level information and settings can be viewed and customized here.



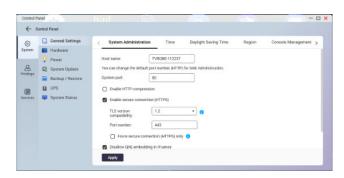
Control panel

You can configure system, privilege, and other settings in the control panel.



System settings

General settings

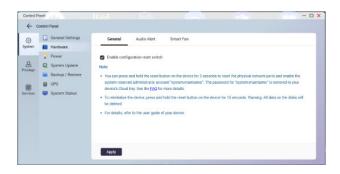


Settings	Description
System Administration	This screen allows you to specify the host name, ports, and configure secure connection settings.

Settings	Description
Time	Time settings affect event logs and scheduled tasks. This screen allows you to specify the time zone and format and configure the system date and time.
Daylight Saving Time (DST)	Daylight saving time (DST) settings apply only to regions that use DST. This screen allows you to either automatically adjust the system clock or manually configure the settings.
Region	This screen allows you to select a region for your device. System and application content and services are localized according to the selected region.

Configuring hardware settings

1. Go to **Control Panel** > **System** > **Hardware**.



2. Configure the following settings.

Settings	User Action
General	Select the Enable configuration reset switch to enable or disable the reset button function on this device.
Audio Alert	 You can enable or disable system notification sounds here. System operations (startup, shutdown, and firmware upgrade) Hardware events (system fan or power) Disk operations (degraded mode or RAID sync event)
Smart Fan	 You can enable the smart fan (recommended) or manually set the fan rotation speed here. Monitor the temperatures of the system and disk(s) and adjust the fan speed accordingly and automatically. Self-defined temperature.

Power settings



Settings	Description
EuP Mode Configu- ration	Here you can enable or disable the EuP mode. When EuP is disabled, the power consumption is slightly higher than 1W when the device is powered off.
Wake-on-LAN (WOL)	Here you can enable or disable the Wake-on-LAN feature.

System update

Checks for updates and performs firmware update online. If the TVR-AI200 is connected to the internet, you can keep updating your device with the latest firmware version maintained by QNAP.



If the TVR-AI200 is unable to connect to the internet, you can still manually upload and update the firmware downloaded from QNAP Download Center.



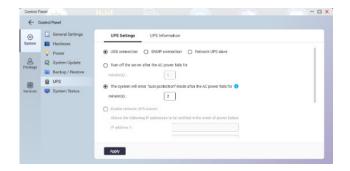
Backup / restore



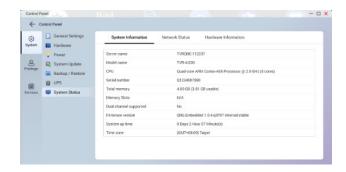
Action	Description
Restore to Factory Default	Click the Reinitialize Device button and input the administrator's password to reinitialize the device back to factory default.
	Tip You can also press and hold the reset button on the device for 15 seconds to reinitialize the device to factory default.
	Warning All data on the disks will be deleted when reinitialize the device.
Reset network configuration and password	Press and hold the reset button on the device for 3 seconds to reset the network configuration and enable the system reserved administrator account "system-maintainer". The password for "system-maintainer" is restored to your device's Cloud Key.
	Tip If you forgot the password of your account, press and hold the reset button for 3 seconds to enable the system reserved administrator account "system-maintainer" to modify your account password.

UPS settings

Here you can configure the UPS settings and view the UPS information.



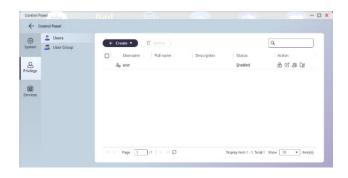
System status



Settings	Description
System Information	Here you can view the information for CPU, Memory size, Serial number, Firmware version, System up time, and Time zone.
Network Status	Here you can view the status for Link status, IP address, MAC address, and Packets received/sent.
Hardware Information	Here you can view the information for CPU usage, CPU temperature, System temperature, and System fan speed.

Privilege settings

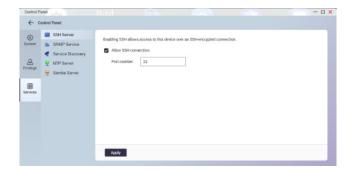
User & user group



Action	Description
Create user accounts	Click Create and select an option from the list below to create a user account. • Create a User • Create Multiple Users • Import/Export Users
Edit account settings	Click an icon in the Action field to edit the specific settings of each user account. Change Password Edit Account Profile Edit User Group Edit Shared Folder Permission
Delete user account	 Check the checkbos of the user you want to delete. Click Delete and confirm to delete the account. Important The system administrator account created during the initialization setup cannot be deleted.
Default user group	 There are two default user groups defined by the QNE operating system and cannot be removed. Administrators: the user account with administrator permission is assigned to this group. Everyone: every user account is assigned to this group by default.

Services settings

Here you can customize the servers and services settings, including SSH server, SNMP service, service discovery, NTP server, and Samba server.



Network manager

You can configure LAN and PoE settings in the network manager.

LAN (Network Interface)



Action	Description
View or modify the network interface settings	 Interface: the default name assigned by system IP address: the IP address assigned to the interface MAC address: the MAC address assigned to the interface Status: the network cable is connected or disconnected
Display more information and settings	 Click on the interface bar to display more information. Information: List more detailed information about Hardware, IPv4, and IPv6 IPv4: Obtain IP address automatically via DHCP or assign static IP address IPv6: Set Auto-Configuration or use static IP address DNS: Obtain DNS server address automatically or specify the primary/ secondary DNS server

DHCP Server

This screen controls the creation and management of DHCP servers. DHCP servers can assign IPv4 addresses to clients on the network, while RADVD servers assign IPv6 addresses.

Important

Do not create a new DHCP server if one already exists on the network. Enabling multiple DHCP servers on the same network can cause IP address conflicts or network access errors.

PoE (Power over Ethernet)

This screen provides a dashboard and control panel for users to monitor the status of the PoE switch and modify its settings.



Area	Description
Top left of dashboard	 PoE power consumption: Total: the total watts that PoE switch can offer. In use: the current power consumption of all connected devices powered by PoE switch. Available: the remaining watts that PoE switch can offer.
Top middle of dashboard	 Current port status: Power supply: the number of ports powered by PoE switch. Link up: the number of ports that data link is connected. Link down: the number of ports that data link is disconnected. Enabled: the number of ports that PoE power delivery is enabled. Disabled: the number of ports that PoE power delivery is disabled.

Area	Description
Top right of dashboard	Connected PD ports: this lists the number of ports for the status of powered ports.
	• class 0
	• class 1
	• class 2
	• class 3
	• class 4

The control panel lists the status and options for all ports of the PoE switch. Users can query and specify the settings of each port.

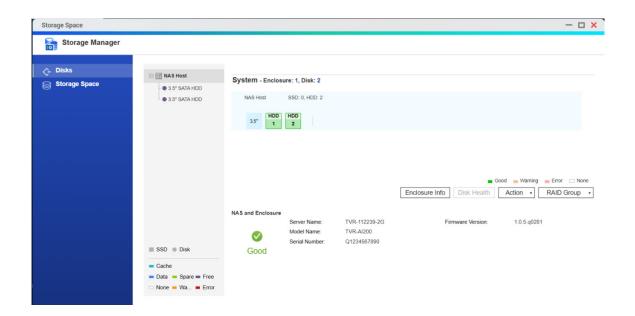


Heading	Description					
PoE	Shows the power delivery status on this port.					
Port	Shows the port number and data link status.					
PoE Mode	 Controls the PoE operating mode for this port: PoE: The port uses PoE IEEE 802.3af (limited to 15.4W) PoE+: The port user PoE IEEE 802.3at (limited to 30W) 					
Priority	Controls the priority for this port. If multiple ports share the same priority, a lower-numbered port has priority over a higher-numbered port. Priority levels are critical, high, and low.					
PoE Power Supply	Shows the current power consumption on this port.					
Enable/ Disable	Toggle the button to enable or disable the power delivery function on this port.					

Storage manager

Disks

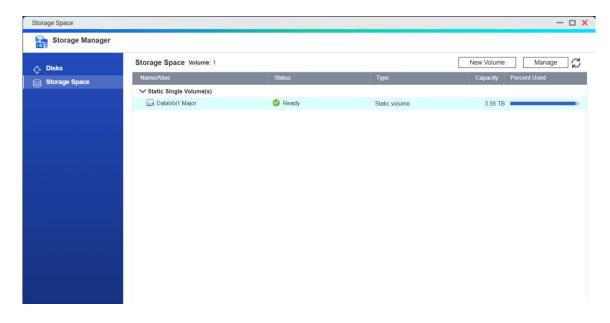
The overview page lists the status of drives installed on the device. You can also quickly check the information about the device, including server and model name, serial number, and firmware version.



Action	Description				
View Enclosure Information	Click Enclosure Info to check more information.				
Locate Device	Click Action , and then select Locate . The HDD LED on the front panel will flash to indicate the location of TVR-AI200.				
View RAID Group Information	Click RAID Group , and then select the group name to view the RAID group information.				
View Drive Information	 Select a drive to list the Disk Information. Disk information: click Disk Info to check more information. Disk health: click Disk Health to check S.M.A.R.T. information. This includes disk health, temperature, and usage status. 				

Storage space

The overview page lists the volume created on the device and summary information accordingly. This includes name and alias, status type, capacity, and percentage used.



Action	Description					
Create new volume	Click New Volume to launch the Volume Creation Wizard. Follow the instructions to create and configure the new volume.					
Manage the volume	 Click Manage to check the detailed settings of the volume. Remove: select to remove the volume. Expand: add a new RAID group or add new disks to expand capacity. Actions: Check file system Rename volume alias 					

Other applications

The QNE operating system provides more applications that assist users to understand the status of the device and look for further QNAP support resources.

System tools

Resource Monitor

With Resource Monitor, you can view the real-time resource usage of the device (including CPU, RAM, network, processes, and storage activity) for system analysis and performance evaluation.

QuLog Center

QuLog Center is a centralized log management application that logs detailed system events, system access, and online user status to your device. The collected information allows you to effectively diagnose and understand QNAP device system issues, such as user access-related records.

Security Center

Security Center is a centralized security management suite for your QNAP device. Security Center integrates security checkups, automatic adjustment of suggested settings, and a unified interface for QNAP's powerful antimalware and antivirus tools.

QNAP support tools

myQNAPcloud

myQNAPcloud strives to ensure that you can access files on the QNAP device anytime, anywhere. With the web-based file management on the myQNAPcloud website, you can easily upload, download, move, copy, and more.

- Stand-alone Mode: useful for managing only one QNAP device. You must log in with local accounts to manage the device. However, you can still remotely access the device using myQNAPcloud service.
- Cloud Management Mode: ideal for organizations with multiple remote devices. In this mode, administrators can access QNAP devices with their QNAP ID accounts and use QNAP cloud services to facilitate device management.

Helpdesk

QNAP Helpdesk is the official application for technical support. With QNAP Helpdesk you can easily get help or other information regarding using your QNAP device, and even automatically attach system logs when sending support requests. With your permission, QNAP Helpdesk also allows QNAP support engineers to remotely access your device to attempt to resolve technical issues.

8. Glossary

myQNAPcloud

Provides various remote access services such as DDNS and myQNAPcloud Link

Qfinder Pro

QNAP utility that lets you locate and access QNAP devices in your local area network

QNE Embedded

QNE Embedded is the in-built operating system designed for QNAP networking devices.

QVR Center

QVR Center is a central management system for QVR Surveillance servers, and full support for QVR Guard, a high-availability failover application designed for the QVR Surveillance server.

QVR Smart Client

QVR Smart Client allows you to monitor cameras that are connected to the QVR Surveillance server and flexibly switch between live and playback modes to take full control over the monitored area.

QVR Surveillance

QVR Surveillance is a comprehensive surveillance system that leverages the powerful storage features of the QNAP NAS architecture.

TVR-AI200

A surveillance appliance quipped with a cost-effective ARM-based processor, supporting real-time video/audio surveillance, high-quality recording, and playback across multiple IP cameras.

9. Notices

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Version 3, 29 June 2007

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END OF TERMS AND CONDITIONS

CE notice



This device complies with CE Compliance Class B.

UKCA notice



This device complies with the UKCA requirements for products sold in Great

FCC notice

FCC Class B Notice

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

- **1.** This device may not cause harmful interference.
- **2.** This device must accept any interference received, including interference that may cause undesired operation.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Important

Any modifications made to this device that are not approved by QNAP Systems, Inc. may void the authority granted to the user by the FCC to operate this equipment.

VCCI notice



VCCI-B

BSMI notice



SJ/T 11364-2006

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显示	0	0	0	0	0	0		
印刷电路板	0	0	0	0	0	0		
金属螺帽	0	0	0	0	0	0		
电缆组装	0	0	0	0	0	0		
风扇组装	0	0	0	0	0	0		
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