DS-7616NXI-K2/16P

16-CHANNEL POE ACUSENSE NVR

16-ch IP / 16 PoE | 4K HDMI Output | 2 SATA up to 10TB each

TECHNICAL DATASHEET

English | Reference edition v1.0

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Branded reference copy - product model DS-7616NXI-K2/16P



Key Feature

- Up to 16-ch IP camera inputs, plug & play with 16 power-over-Ethernet (PoE) interfaces
- H.265+/H.265/H.264+/H.264 video formats
- Up to 2-ch@12 MP or 3-ch@8 MP or 6-ch@4 MP or 12-ch@1080p decoding capacity
- Up to 160 Mbps incoming bandwidth
- Adopt Hikvision Acusense technology to minimize manual effort and security costs



Smart Function

- All channels support Motion Detection 2.0
- 2-ch video analysis for human and vehicle recognition to reduce false alarm
- 1-ch facial recognition for video stream, or 4-ch facial recognition for face picture
- Smart search for the selected area in the video, and smart playback to improve the playback efficiency

Professional and Reliability

- H.265+ compression effectively reduces the storage space by up to 75%
- Adopt stream over TLS encryption technology which provides more secure stream transmission service

HD Video Output

- Provide independent HDMI and VGA outputs
- HDMI video output at up to 4K resolution

Storage and Playback

- Up to 2 SATA interfaces for HDD connection (up to 10 TB capacity per HDD)
- 16-ch synchronous playback

Network & Ethernet Access

- 16 independent PoE network interfaces
- 1 self-adaptive 10/100/1000 Mbps Ethernet interface
- Hik-Connect for easy network management

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▪ Specification

Intelligent Analytics	
AI by Device	Facial recognition, perimeter protection, motion detection 2.0
AI by Camera	Facial recognition, perimeter protection, throwing objects from building, motion detection2.0, ANPR, VCA
Facial Recognition	
Facial Detection and Analytics	Face picture comparison, human face capture, face picture search
Face Picture Library	Up to 16 face picture libraries, with up to 20,000 face pictures in total (each picture ≤ 4 MB, total capacity ≤ 1 GB)
Facial Detection and Analytics Performance	1-ch, 8 MP
Face Picture Comparison	4-ch
Motion Detection 2.0	
By Device	All channels, 4 MP (when enhanced SVC mode is enabled, up to 8 MP) video analysis for human and vehicle recognition to reduce false alarm
By Camera	All channels
Perimeter Protection	
By Device	2-ch, 4 MP (HD network camera, H.264/H.265) video analysis for human and vehicle recognition to reduce false alarm
By Camera	All channels
Video and Audio	
IP Video Input	16-ch
Incoming Bandwidth	160 Mbps
Outgoing Bandwidth	160 Mbps
HDMI Output	1-ch, 4K (3840 × 2160)/30 Hz, 2K (2560 × 1440)/60 Hz, 1920 × 1080/60 Hz, 1600 × 1200/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz
VGA Output	1-ch, 1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz
Video Output Mode	HDMI/VGA independent output
CVBS Output	N/A
Audio Output	1-ch, RCA (2.0 Vp-p, 1 KΩ, using the audio input)
Two-Way Audio	1-ch, RCA (Linear, 1 KΩ)
Decoding	
Decoding Format	H.265/H.265+/H.264+/H.264
Recording Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Synchronous playback	16-ch

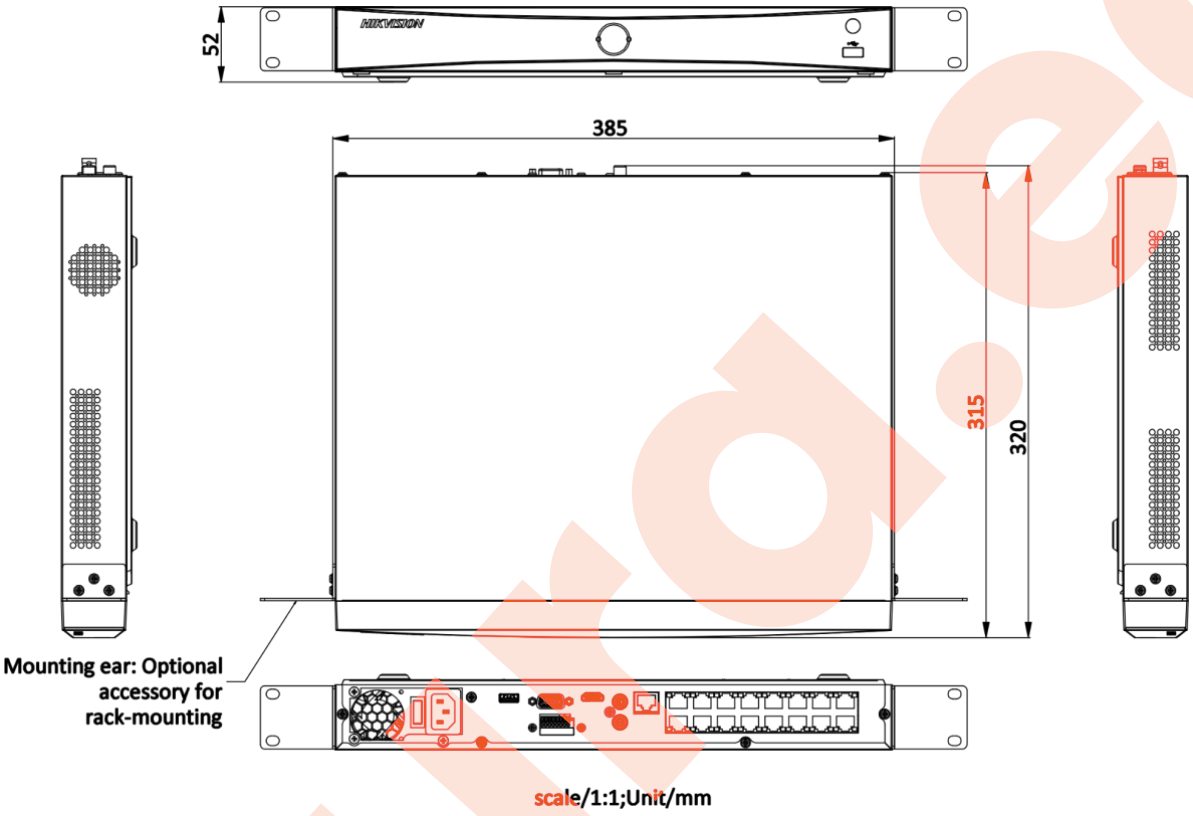
Decoding Capability	AI on: 1-ch@12 MP (30 fps)/2-ch@8 MP (30 fps)/4-ch@4 MP (30 fps)/8-ch@1080p (30 fps) AI off: 2-ch@12 MP (30 fps)/3-ch@8 MP (30 fps)/6-ch@4 MP (30 fps)/12-ch@1080p (30 fps)
Stream Type	Video, Video & Audio
Audio Compression	G.711ulaw/G.711alaw/G.722/G.726/AAC
Network	
Remote Connection	128
API	ONVIF (profile S/G); SDK; ISAPI
Compatible Browser	IE11, Chrome V57, Firefox V52, Safari V12, Edge V89, or above version
Network Protocol	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP™, HTTP, HTTPS
Network Interface	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
PoE	
Interface	16, RJ-45 10/100 Mbps self-adaptive Ethernet interface
Power	≤ 200 W
Standard	IEEE 802.3af/at
Auxiliary Interface	
SATA	2 SATA interfaces
Capacity	Up to 10 TB capacity for each HDD
USB Interface	Front panel: 1 × USB 2.0; Rear panel: 1 × USB 2.0
Alarm In/Out	4/1
General	
GUI Language	English, Russian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Turkish, Japanese, Danish, Swedish Language, Norwegian, Finnish, Korean, Traditional Chinese, Thai, Estonian, Vietnamese, Croatian, Slovenian, Serbian, Latvian, Lithuanian, Uzbek, Kazakh, Arabic, Ukrainian, Kyrgyz , Brazilian Portuguese, Indonesian
Power Supply	100 to 240 VAC, 50 to 60 Hz
Consumption	≤ 15 W (without HDD and PoE off)
Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)
Working Humidity	10% to 90%
Dimension (W × D × H)	385 mm × 315 mm × 52 mm (15.2"× 12.4" × 2.0")
Weight	≤ 3 kg (without HDD, 6.6 lb.)
Certification	

CE	EN 55032: 2015, EN 61000-3-2, EN 61000-3-3, EN 50130-4, EN 55035: 2017
Obtained Certification	CE, FCC, IC, CB, KC, UL, Rohs, Reach, WEEE, RCM, UKCA, LOA, BIS

Note:

Facial recognition, motion detection 2.0 or perimeter protection cannot be enabled at the same time.

Dimension



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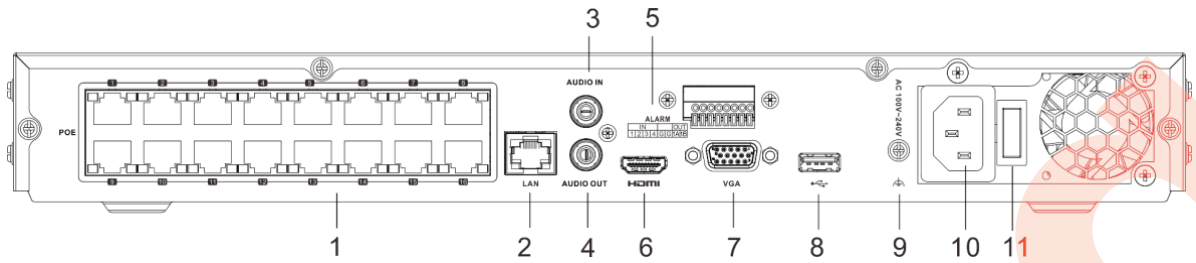
Physical Interface



No.	Description	No.	Description
1	Network interfaces with PoE function	7	VGA interface
2	LAN network interface	8	USB interface
3	AUDIO IN	9	GND
4	AUDIO OUT	10	Power supply
5	ALARM IN and OUT	11	Power switch
6	HDMI interface		

Available Model

DS-7616NXI-K2/16P

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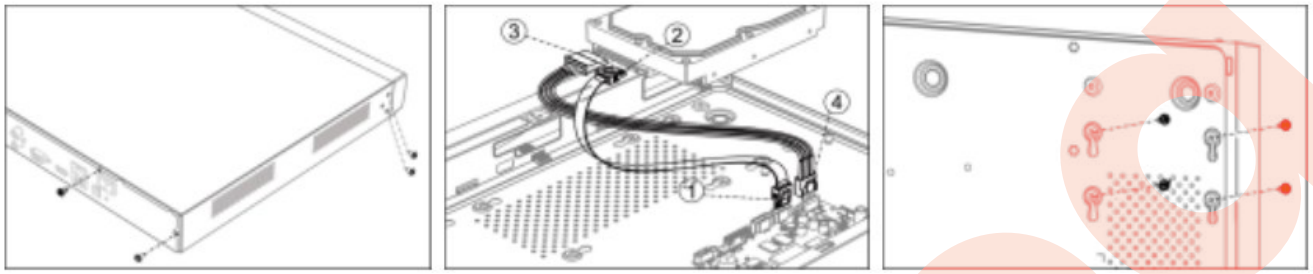
HDD Installation by Chassis Type

Type 1



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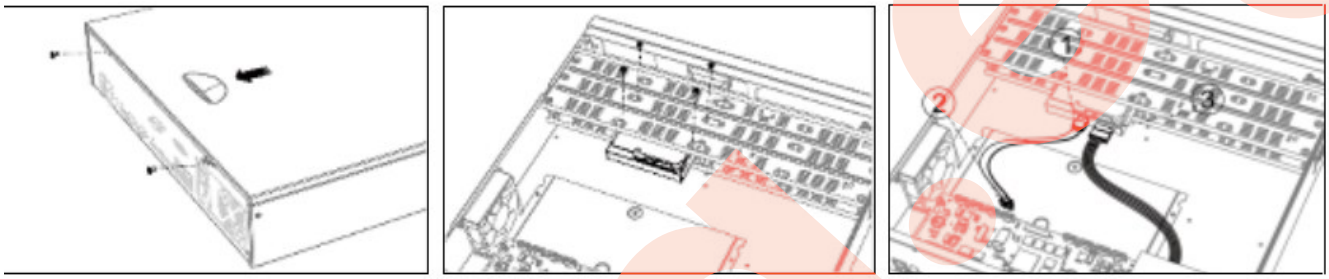

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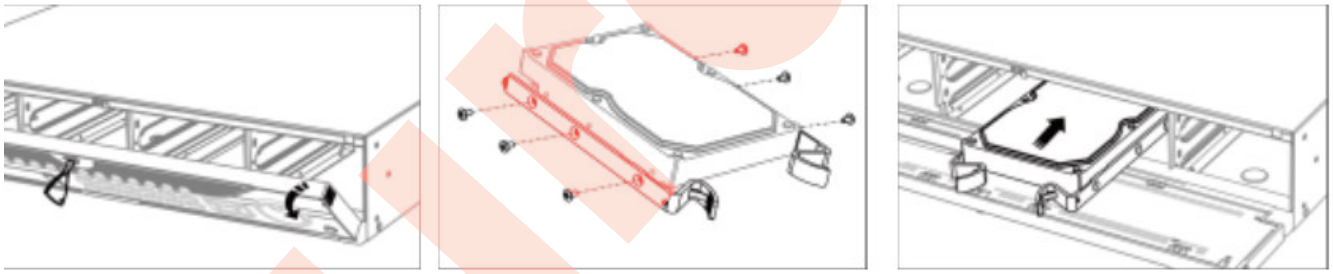

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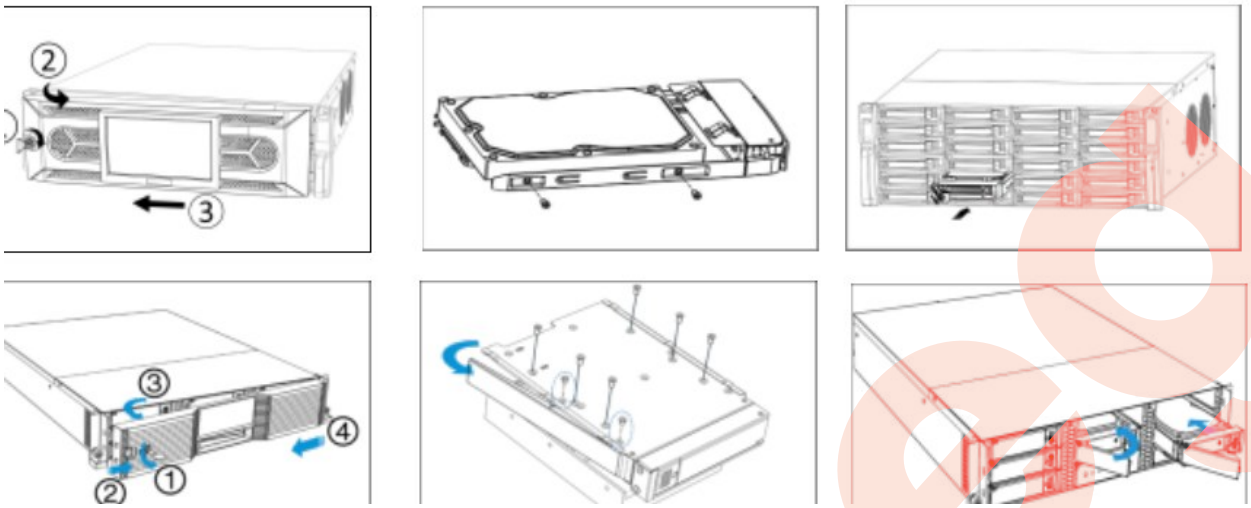
Type 4



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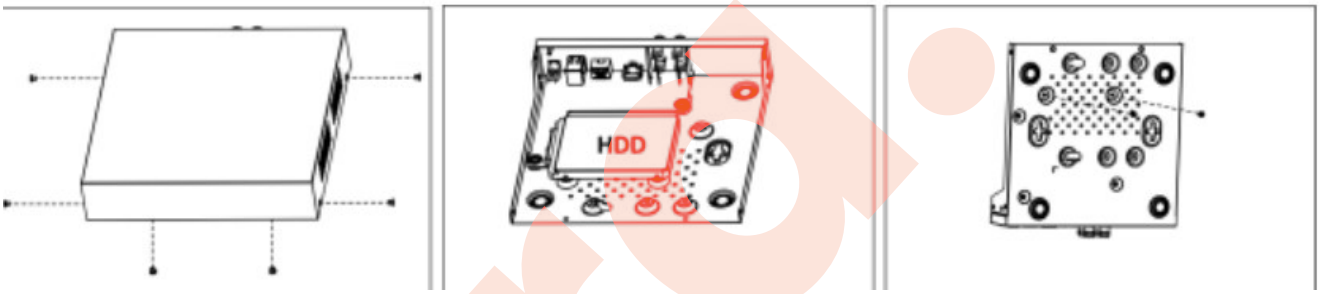

HDD Notes

- Up to 2 SATA HDDs, up to 10 TB each. Use the factory-recommended HDD where possible.
- HDD screw torque: 0.5 to 0.6 N·m for 3.5-inch HDDs; 0.4 to 0.5 N·m for SSDs and 2.5-inch HDDs.
- Chassis cover screws (spring-loaded self-clinching type): 0.45 N·m.
- HDDs are designed to operate at altitudes up to 3,048 m. Do not install an HDD that has been stored idle for a long time.
- Do not open the chassis cover or move the device while it is operating.

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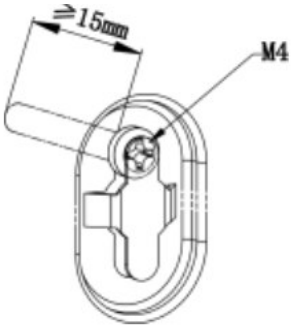
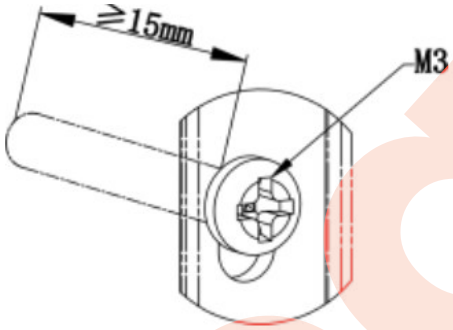
Wall Installation Requirement (Certain Chassis Types)



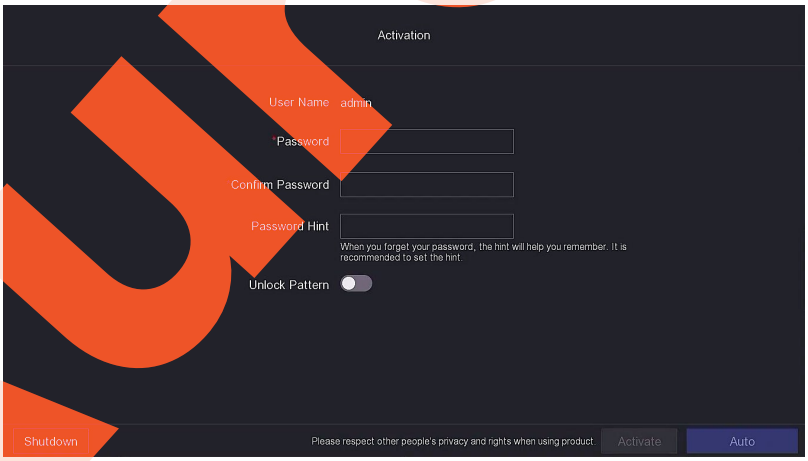
Type 1: M4 screw, at least 15 mm exposed.



Type 2: M3 screw, at least 15 mm exposed.

Startup & Activation

- Plug the power supply into an electrical outlet and press the power switch on the rear panel.
- Select the GUI language and click Apply. The default output is 1280 x 720/60 Hz; with an HDMI monitor it adjusts to 1920 x 1080/60 Hz automatically.
- Enter the same admin password in Password and Confirm Password (default user name: admin). No operation is allowed before activation.
- Optional: set a password hint and an unlock pattern (at least 4 dots), set the password used to activate connected network cameras, then click Activate.
- The device can also be activated via web browser, SADP, or client software.



Activation screen (local GUI)

Password Rules & Reset

- 8 to 16 characters, using at least 2 types: digits, upper-case letters, lower-case letters, special characters.
- Must not contain the user name, "123", "admin", 4+ consecutive increasing/decreasing digits, or 4+ repeated characters.
- Configure at least one password-reset method: reserved email, Hik-Connect, security questions, or export GUID.
- After 5 wrong unlock-pattern attempts, the device switches to normal password login.

Quick Setup

1. Network Settings

Go to Configuration > Network > General (or System > Network > TCP/IP), set the network parameters, and save.

2. Add Network Camera

Go to Camera > IP Camera > Custom Add, set the camera parameters, and click Add. PoE cameras plug & play on the 16 PoE ports.

3. Hik-Connect

Go to Network > Hik-Connect, enable it, accept the terms, set a verification code, then bind the device in the Hik-Connect app.

Default Network Ports

Port	Protocol	Service	Default
80	TCP	HTTP web service	Enabled
443	TCP	HTTPS web service (TLS)	Disabled
8000	TCP	SDK / client service	Enabled
8443	TCP	SDK service (TLS)	Enabled
554	TCP	RTSP streaming	Enabled
7681	TCP	WebSocket	Enabled
22	TCP	SSH	Disabled
161 / 162	TCP	SNMP management / trap	Disabled
3702	UDP	ONVIF discovery	Disabled
37020	UDP	SADP device discovery	Enabled
49152	UDP	UPnP discovery	Disabled
123 / 25	TCP	NTP / SMTP (outgoing, configurable)	Disabled

Note: HTTP, HTTPS, SDK, RTSP, SNMP, NTP and SMTP ports are configurable. Hik-Connect uses outgoing connections only.

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Installation & Safety Notes

- Indoor use only; install in a dry, well-ventilated, dust-free place without liquids or corrosive gas, secured on a rack or shelf.
- Keep the air intake and exhaust vents unobstructed, with a minimum clearance of 10 cm from any obstacle. Do not stack other devices on the chassis.
- Connect to an earthed mains socket; use the device with a UPS and the original power supply only.
- USB ports are for mouse, keyboard, USB flash drive or Wi-Fi dongle only (max. 0.1 A).
- Between 40 °C and 55 °C the power of some adapters may decrease; keep the device and HDDs in a cool environment.
- Power off before wiring, installing or servicing; wait at least 5 minutes before touching bare components.
- The device contains a coin/button cell battery: keep away from children and replace only with the correct type.
- Designed for professional security installations; not suitable for locations where children are likely to be present.

Regulatory Compliance

Standard	Scope
FCC	Part 15 (Class A or Class B, as marked on the device label)
CE	EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU, LVD 2014/35/EU or GPSD 2001/95/EC by input voltage
UKCA	EMC Regulations 2016, Electrical Equipment (Safety) Regulations 2016, RoHS Regulations 2012
WEEE / Battery	Directive 2012/19/EU; Battery Regulation (EU) 2023/1542
Canada	ICES-003 (A)/NMB-003 (A) or ICES-003 (B)/NMB-003 (B)
KC	Class A or Class B, as marked on the device label

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GUI Reference (Local Menu & Web)

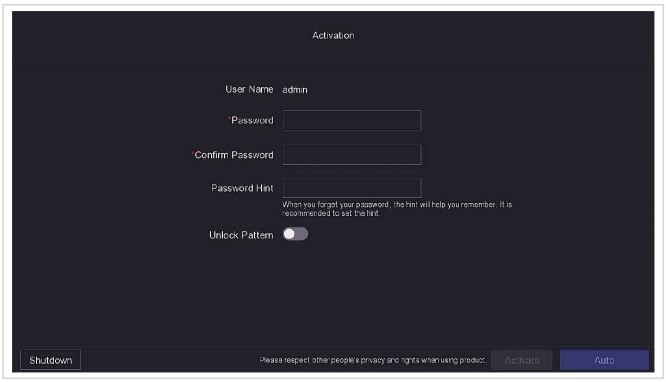

Fig. 1-1 Activation

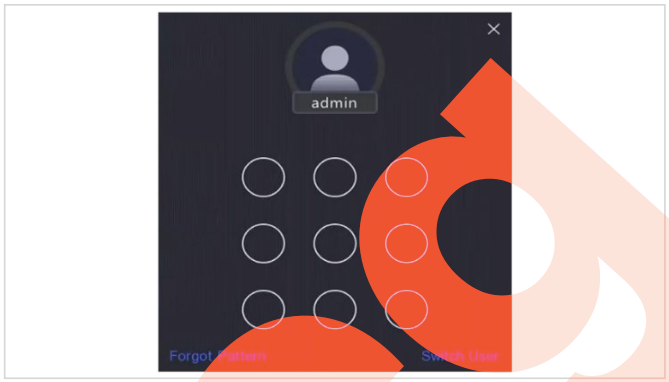

Fig. 1-2 Draw the Unlock Pattern

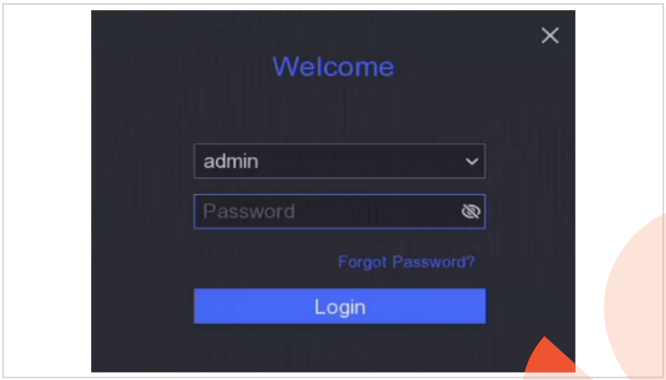

Fig. 1-3 Login Interface

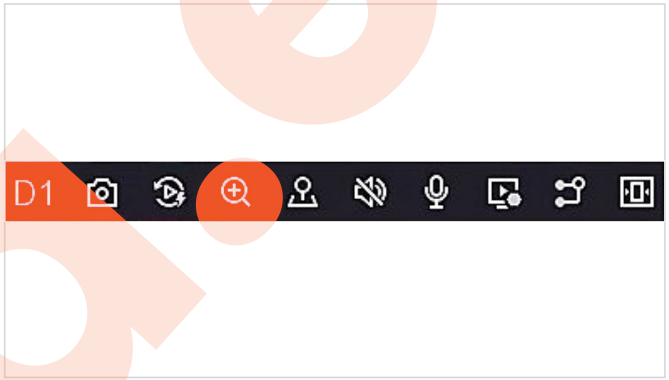

Fig. 2-1 Shortcut Menu

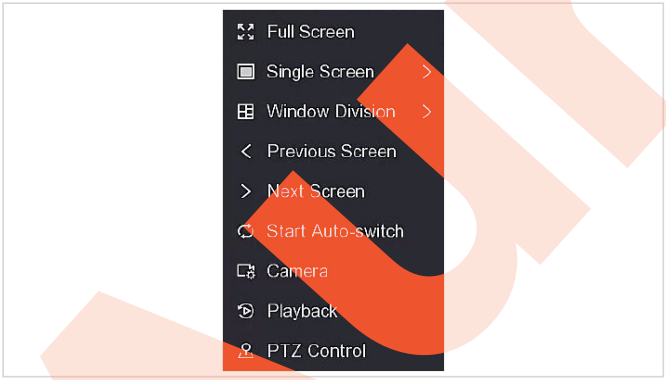

Fig. 2-2 Right Click Shortcut Menu



Fig. 2-3 PTZ Settings

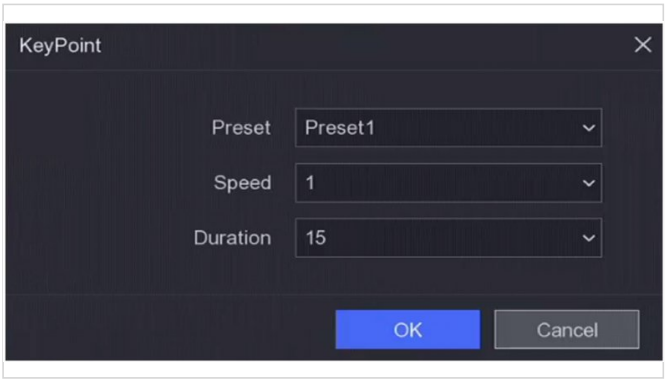

Fig. 2-4 Patrol Settings

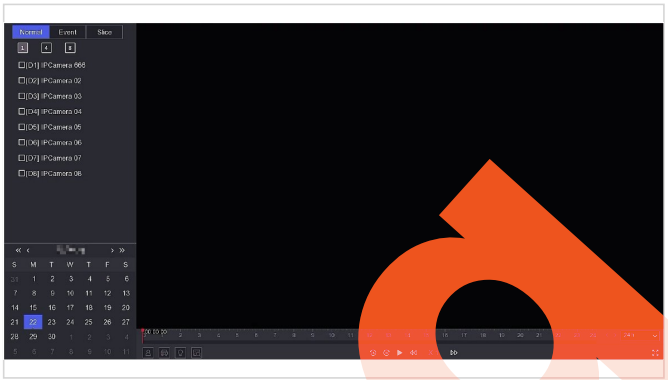

Fig. 3-1 Playback

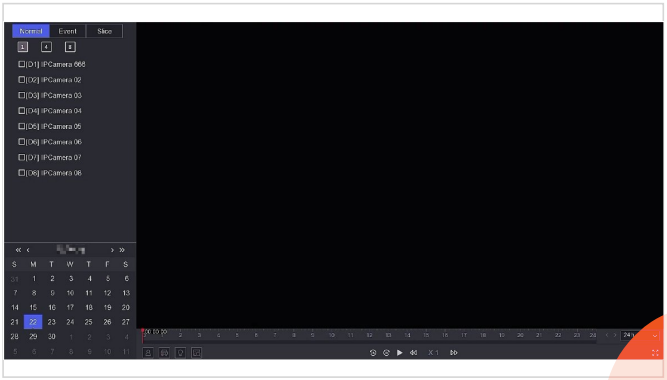

Fig. 3-2 Timeline



Fig. 3-3 Playback

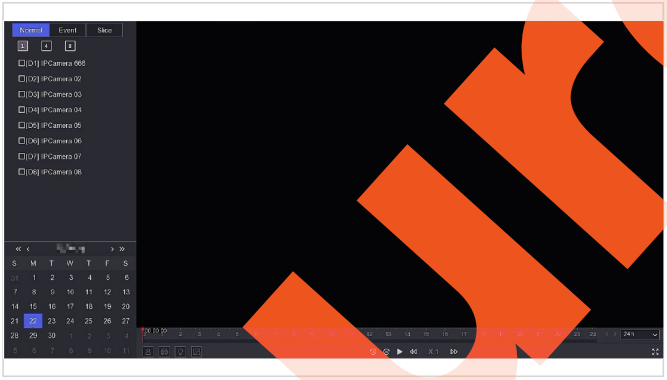

Fig. 3-4 Control Bar

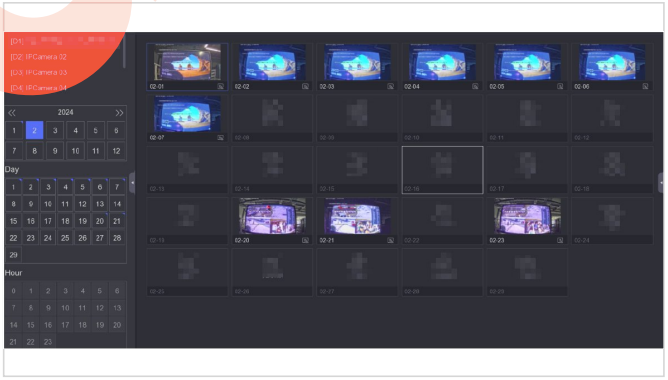

Fig. 3-5 Slice Playback

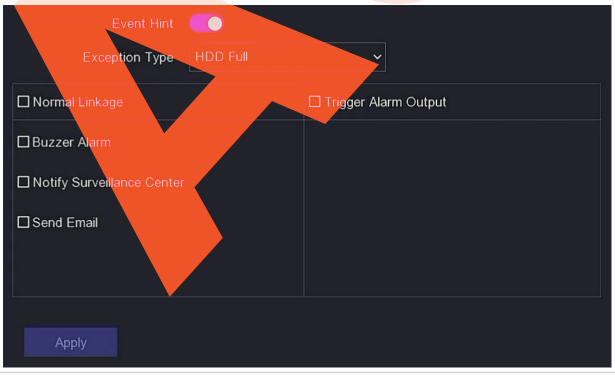

Fig. 5-1 Exception

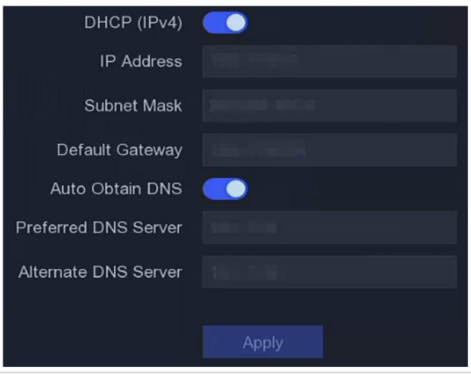

Fig. 5-2 Network

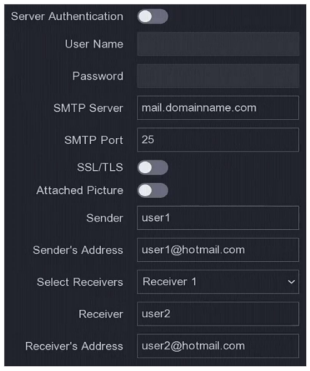

Fig. 5-4 Email

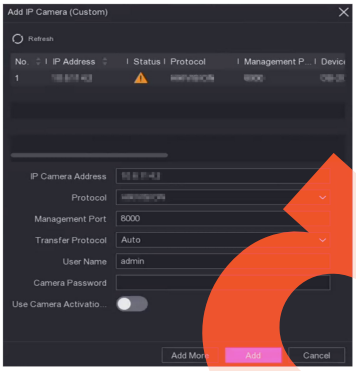

Fig. 5-5 Add Network Camera

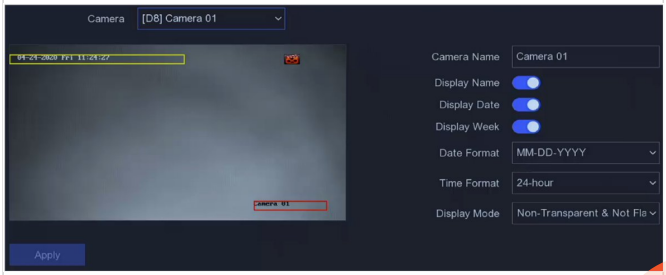

Fig. 5-6 OSD



Fig. 5-7 Motion Detection



Fig. 5-8 Set Arming Schedule

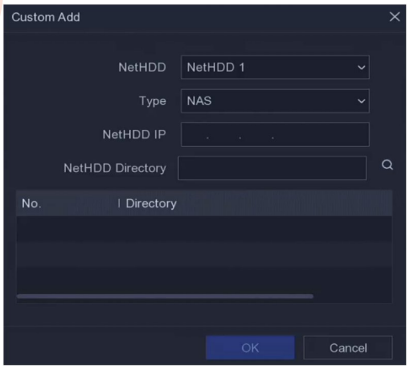

Fig. 5-9 Add NetHDD

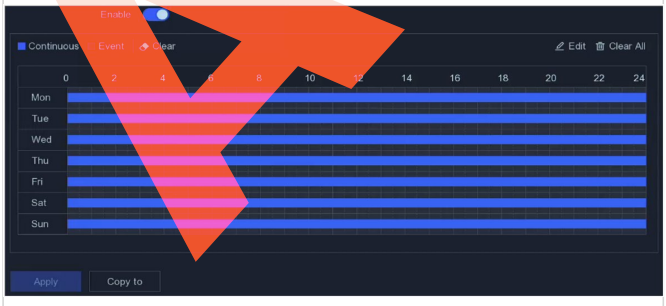

Fig. 5-10 Recording Schedule

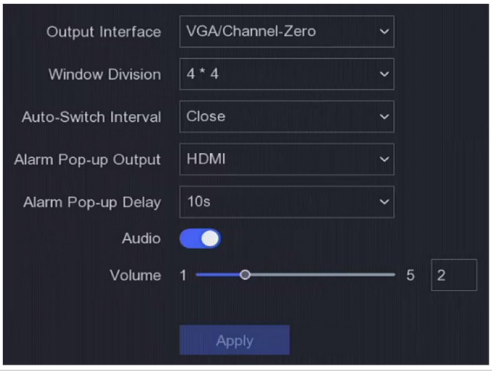

Fig. 6-1 Live View-General

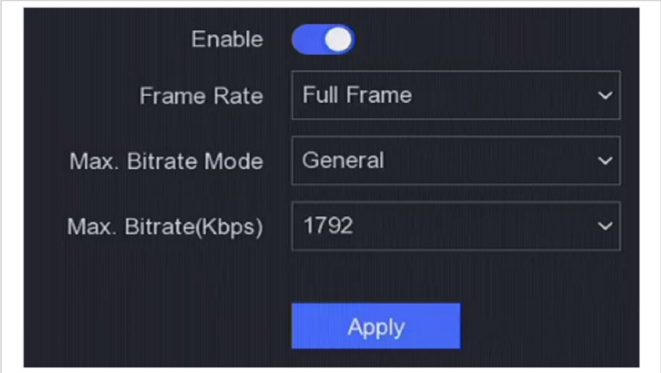

Fig. 6-2 Channel-Zero

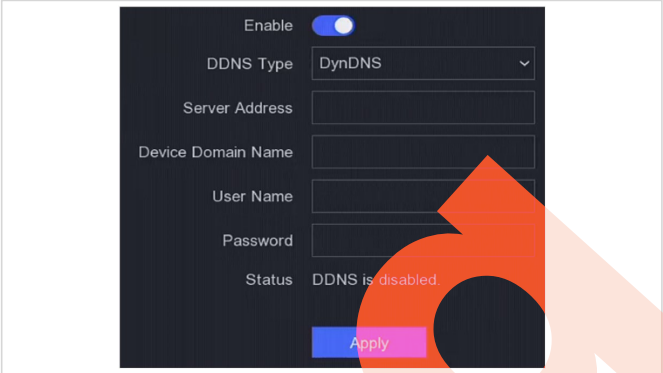

Fig. 6-3 DDNS

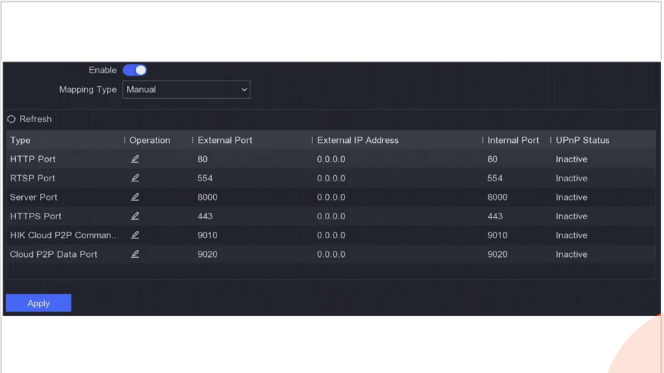

Fig. 6-4 NAT

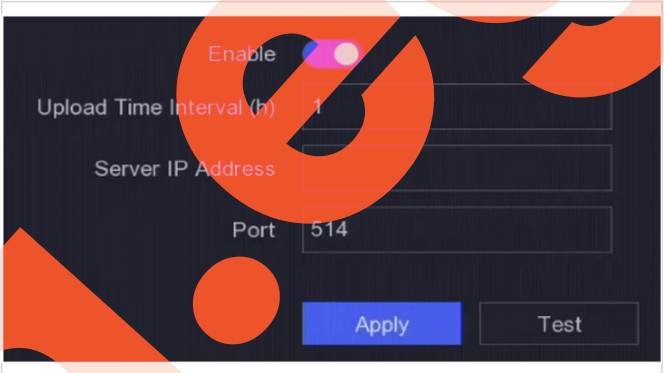

Fig. 6-5 Log Server Settings

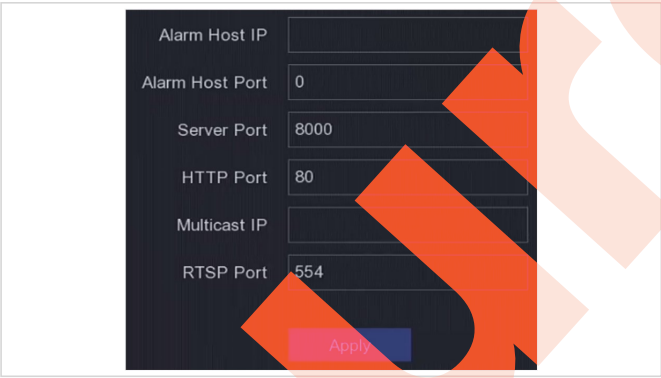

Fig. 6-6 Port Settings

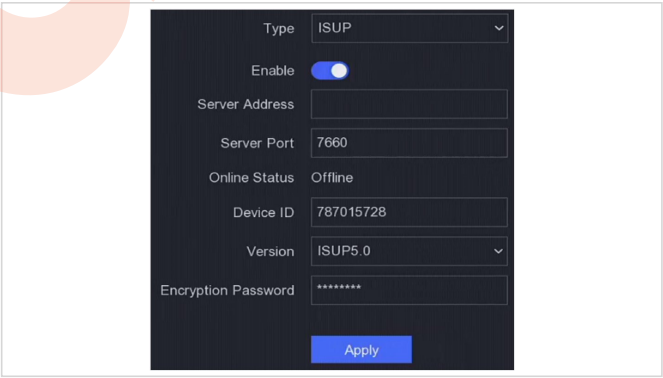

Fig. 6-7 ISUP

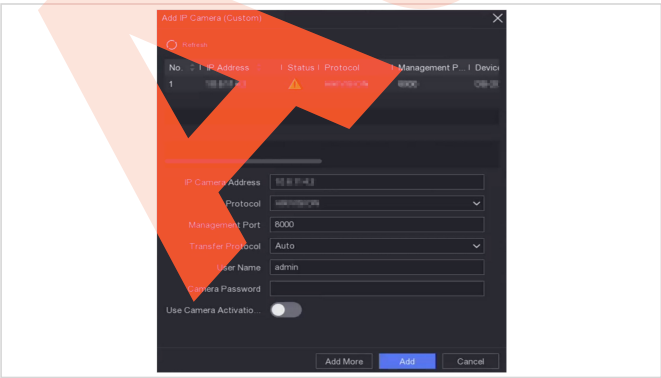

Fig. 6-8 Add IP Camera

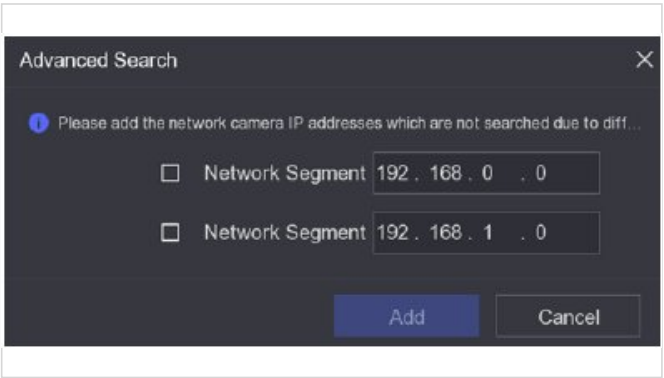

Fig. 6-9 Enter Network Segment

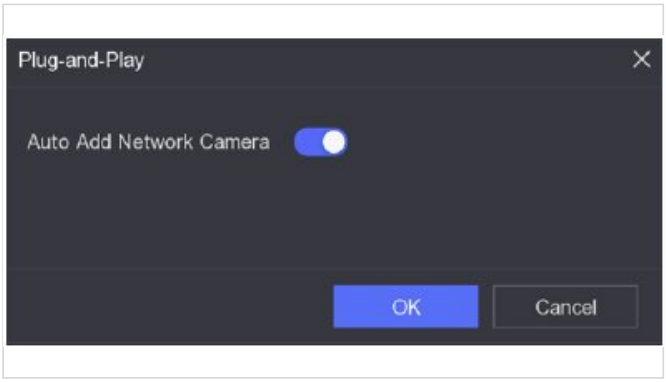

Fig. 6-10 Auto Add Network Camera

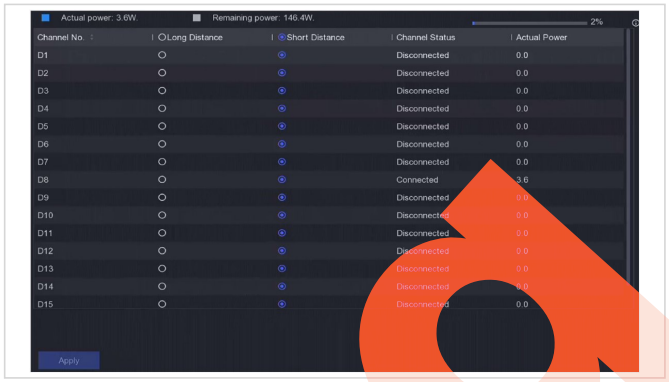

Fig. 6-11 Add PoE Camera

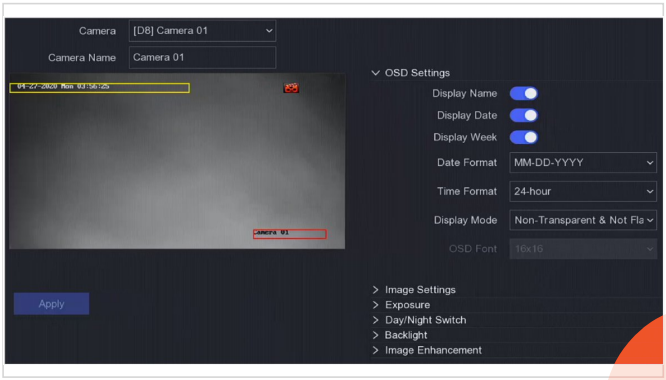

Fig. 6-12 OSD

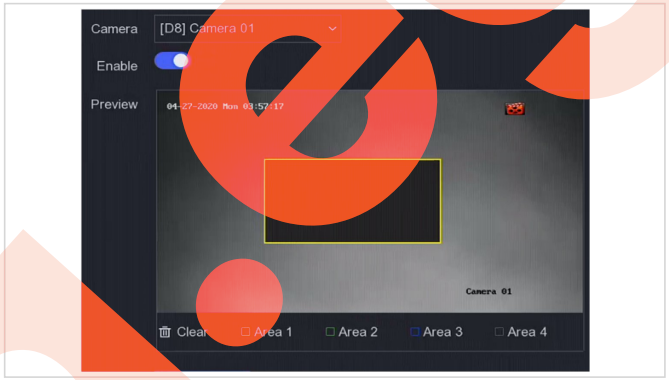

Fig. 6-13 Privacy Mask



Fig. 6-14 Video Tampering

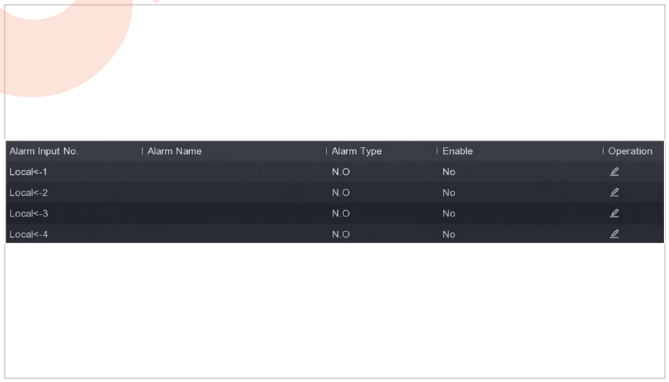

Fig. 6-15 Alarm Input

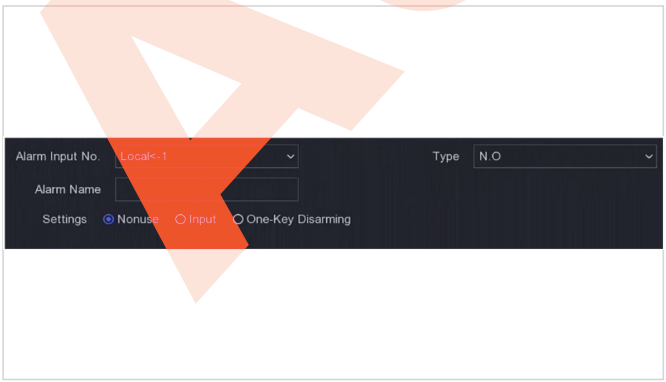

Fig. 6-16 Edit Alarm Input

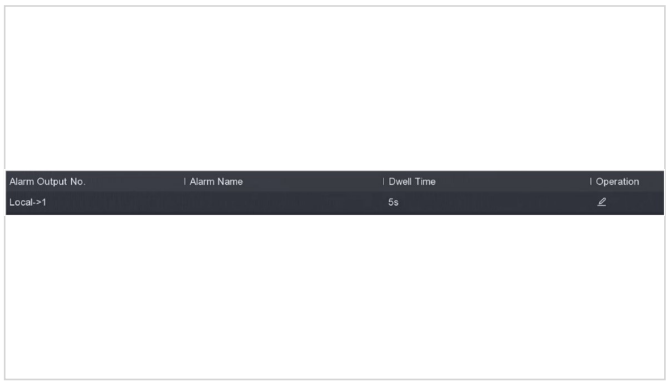

Fig. 6-17 Alarm Output

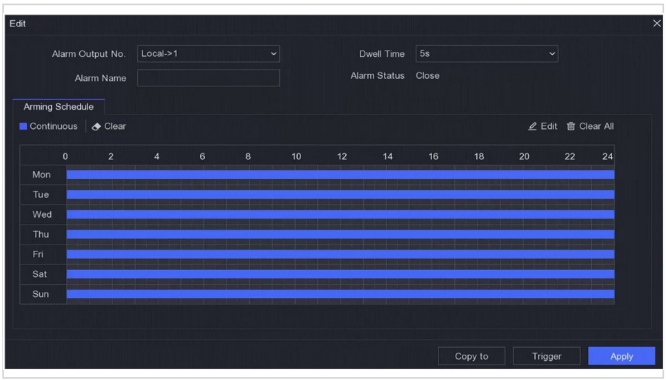

Fig. 6-18 Edit Alarm Output

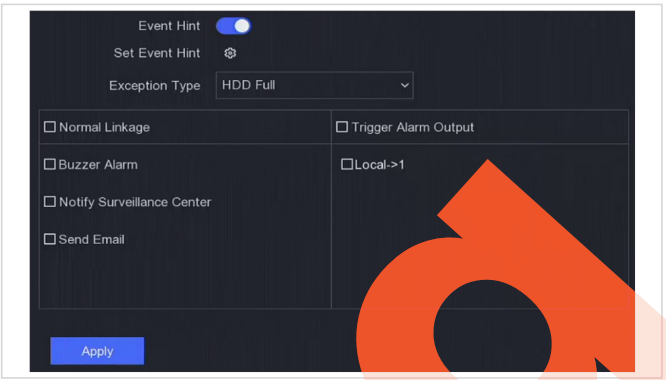

Fig. 6-19 Exceptions



Fig. 6-20 Face Capture

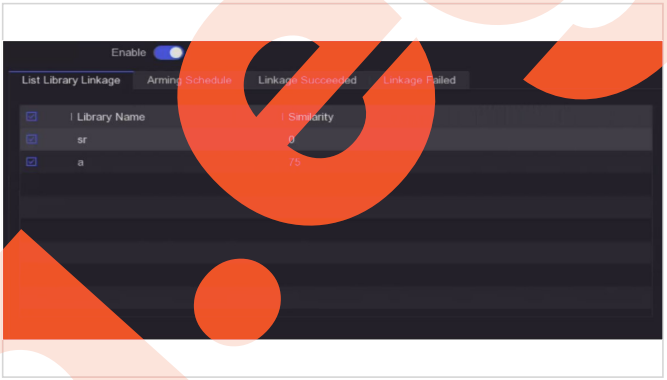

Fig. 6-21 Face Picture Comparison

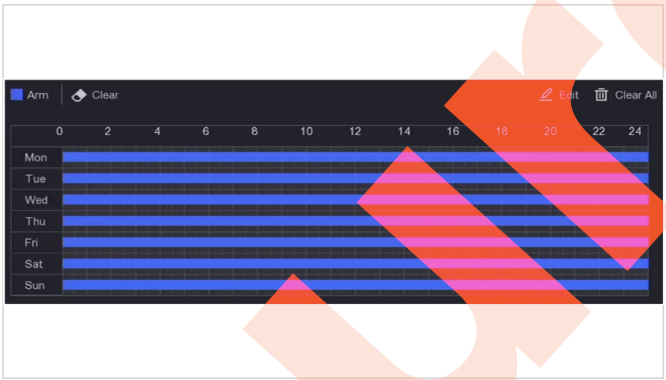

Fig. 6-22 Set Arming Schedule

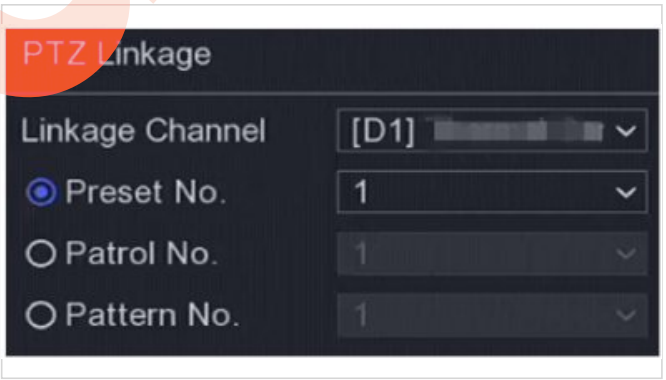

Fig. 6-23 PTZ Linkage

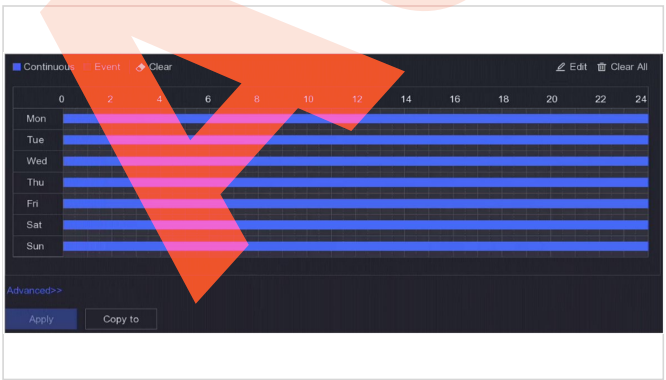

Fig. 6-24 Recording Schedule

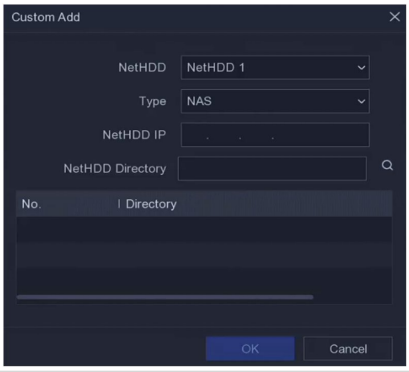

Fig. 6-25 Add NetHDD

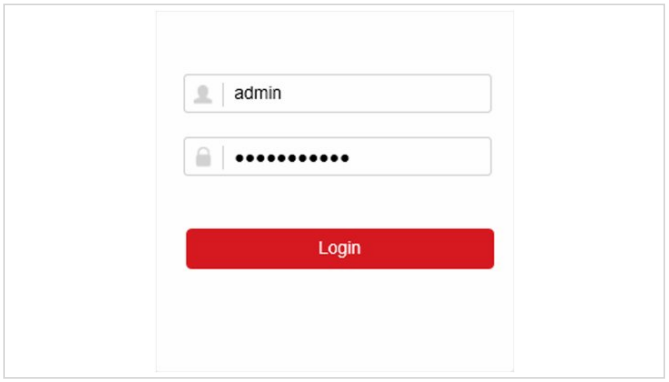

Fig. 9-1 Login



Fig. 9-2 Live View

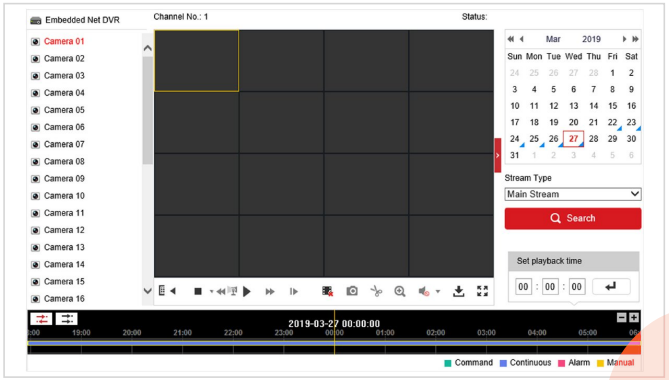

Fig. 9-3 Playback

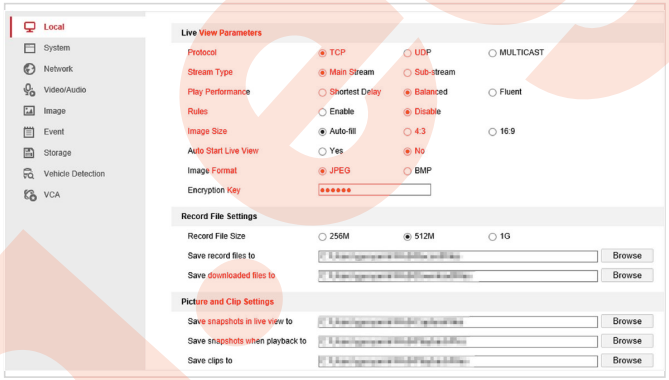

Fig. 9-4 Configuration

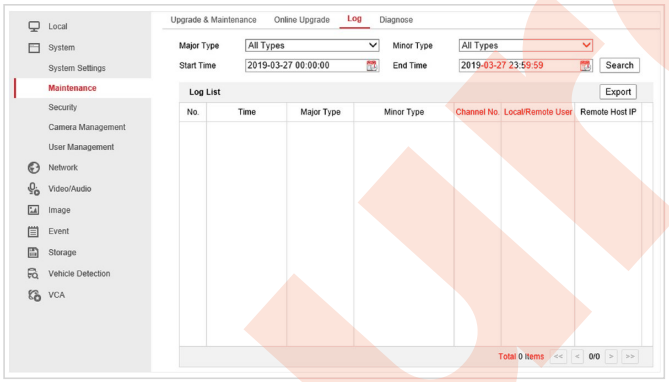

Fig. 9-5 Log