

B3121P21C Release Notes

Zhejiang Uniview Technologies Co., Ltd.

B3121P21C Release Notes

Keywords: Version information, usage notes, precautions.

Abstract: This document provides information about the **B3121P21C** board software, including version information, usage notes, precautions, and features.

Acronym

Acronym	Full Name
NVR	Network Video Recorder

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1 Version Information

1.1 Version Number

B3121P21C

1.2 Applied Product Models

Table 1 Applied Product Models

Product Models	Description
NVR304-16E	4 slots, 16-ch, H.264 and H.265, 4K ultra HD.
NVR304-32E	4 slots, 32-ch, H.264 and H.265, 4K ultra HD.
NVR302-08E-P8	2 slots, 8-ch, 8 PoE interfaces, H.264, H.265, 4K ultra HD.
NVR302-16E-P8	2 slots, 16-ch, 8 PoE interfaces, H.264, H.265, 4K ultra HD.
NVR302-16E-P16	2 slots, 16-ch, 16 PoE interfaces, H.264, H.265, 4K ultra HD.
NVR304-16EP	4 slots, 16-ch, 16 PoE interfaces, H.264, H.265, 4K ultra HD.
NVR304-32EP	4 slots, 32-ch, 16 PoE interfaces, H.264, H.265, 4K ultra HD.

1.3 Release History

Table 2 Released Versions

Version No.	Basic Version No.
B3121P21C	B3121P21

2 Usage Notes

None.

3 Software Features

Table 3 Software Features

Service	Feature
Audio and video decoding	H.264 and H.265, 4K resolution display, up to 16Mbps bit rate.
Data storage	Local storage of recordings in hard disk(s).
Web-based management	Web-based user interface for device configuration and management.

4 Version Change Description

4.1 Feature Change Description

Table 4 B3121P10 Feature Changes

Item	Feature	Description
New features	Intelligent Mark	Displays areas/lines drawn for face detection, intrusion detection, and cross line detection, as well as changed smart data, on the live view, behavior search and alarm configuration windows.
	Defocus Detection	Determines whether the camera is defocused, and if so triggers alarm.
	Scene Change	Determines whether the scene is changed, and if so triggers alarm.
	Auto Tracking	Supports auto tracking of moving objects with IP cameras supporting this function.
	People Counting of Multiple Cameras	Displays people counting data of multiple cameras together.
	People Counting OSD	Displays people counting data by OSD in real time.
	Sort Camera	Supports changing sequence of selected cameras in camera list.
	Watermark	Supports custom encryption of video data with compatible IP cameras and EZPlayer, to avoid video info deletion and modification.
Improved features	Optimized H.265 compatibility	Supports third-party H.265 IP camera connecting to Uniview NVR through ONVIF.
	Log Export Format	The default format of exported logs is changed from TXT to CSV.
	Auto-Delete File(s)	Adds auto-delete file(s) configuration on Web client.
	Admin Management	Supports admin to force guest offline.
	Diagnostic Information	Adds basic information of IP camera to exported diagnostic information.
	Network Setting	Supports auto-completion of subnet mask when setting network address.
	Quick Match for Camera List	Supports input selection and fuzzy matching for camera list.
	Dongle	Fits for more models of 3G/4G dongle.
Professional Surveillance Keyboard	1. Supports selecting camera and date for playback. 2. Supports patrol and route.	
Deleted features	None	None

Table 5 B3120P11 Feature Changes

Item	Feature	Description
New features	Certain fisheye camera models	Supports dewarping of certain fisheye camera models on NVR Web client for live view and normal playback images.
Improved features	Optimized maintenance	The size of Ping packet and captured packet is configurable.
	Optimized camera configuration	Supports coping IP camera configurations of OSD, motion detection, video loss and tampering detection.
	Optimized PTZ preset	Allows the user to delete preset and only added preset will be displayed in the list.

Item	Feature	Description
	Optimized password recovery	Supports scanning QR code on mobile client to recover password.
Deleted features	None	None

Table 6 B3119P22 Feature Changes

Item	Feature	Description
New features	U-Code	U-Code is a patented technology of Uniview that accomplishes higher compression efficiency than H.264/H.265.
	NAS	Supports NAS storage device.
	Auto guard	Enables the PTZ camera to operate automatically as configured if no operation is performed during a certain time period. This function can avoid situations where the camera is left to monitor an incorrect scene by user's negligence.
	Multicast	Makes live view possible even when the number of connecting Web clients exceeds the limit the NVR can accommodate.
	PoE/network port status	Displays port status for network ports, and port status and power information for PoE ports.
	USB Device window	Automatically displays the window when a USB storage device is plugged in during device startup or in preview status. The window can also be opened by clicking the USB icon on the screen toolbar.
Improved features	Uniview logo	Displays Uniview logo in idle preview windows. This feature is only available to Uniview version.
	Auto switch to	Automatically switches to H.265 and U-Code when connected by Uniview IPC and sends default bitrate settings to IPC.
	Copy video compression and U-Code settings	Allows user to copy video compression and U-Code settings and quickly apply them to other IPCs.
	Draw schedules	Allows users to make recording and snapshot schedules by drawing.
	Instant playback	Instant playback time is now configurable.
	Mouse operation	Allows user to adjust the moving speed of mouse pointer.
	IPC upgrade	Upgrade a batch of IPCs by cloud or USB storage device.
	Preview	Live view window's yellow borders disappear automatically in 20 seconds if no operation is performed.
	Snapshot	The window borders flash white when taking a snapshot during live view or playback.
	Resolution	Restore default resolution by pressing and holding the scroll wheel for at least 3 seconds.
	DHCP	DHCP is enabled by default for international versions.
Playback by tag	Allows playback by tag on Web client.	
Deleted features	None	None

Table 7 B3118P15 Feature Changes

Item	Feature	Description
Newly	N+1 hot spare	Data and service backup between devices; supports data transfer back

added features		to the working device from hot spare when the working device is restored to normal status.
	VCA	Work with smart IPC to achieve VCA functions (smart detection and smart search), enhanced playback by event.
	Fisheye	Supports connection to certain models of Uniview fisheye cameras.
	RTSP-based connection to IPC	Adds IPC by RTSP for live view and playback (IPC configuration not supported).
	RTSP URL format on screen	Displays RTSP URL format and a description, and users can view live video from a channel of the NVR by visiting the corresponding URL using an RTSP-enabled device.
	Ucode	Uniview's private encoding rules which greatly improve the compression rate compared with average encoding modes.
	IPv6	Supports IPv6 and offers three options to set an IPv6 address: Manual, DHCP, Router Advertisement.
	3G/4G	Enables connection to the Internet through cellular network (WCDMA, CDMA2000, TD-SCDMA, 4G LTE) using a dongle.
Improved features	Quick view of serial number	View the device's serial number by double-clicking the lower left corner of the login dialog box as admin.
	Improved encoding configuration	Automatically refreshes encoding configurations; automatically changes bit rate as the user changes resolution and frame rate.
	One-click cancellation of binding to EZCloud	Allows the user to cancel binding to EZCloud account by clicking the Delete button without visiting the EZCloud website.
	Enhanced ease of use	Displays device operation time, camera offline cause, a system message when the USB storage device is unplugged, and added the Camera Name column under Advanced.
	Enhanced corridor mode	Added 4/9/10/12/16 corridor modes on the system interface.
	Added OSD configurations	Added font color and size options for OSD configuration.
	Optimized playback	Supports reverse playback; max. 256x playback speed on the system interface, and 16x playback speed on the web interface; with apparently improved fluency at low playback speed.
Optimized alarm-triggered preview	Changes alarm-triggered preview from "sequence display three times" to "display from alarm is reported till alarm is cleared."	
Deleted features	None	None

Table 8 B3117P25 Feature Changes

Item	Feature	Description
Newly added features	Independent video output	Independent play and playback of different live videos; dual-preview images.
	Cache post recording	Videos are saved to the SD card if connection to the IP camera is lost. When the camera gets back online, videos saved on the SD card will be transmitted and stored on the NVR. No configuration is required.
	Disk group management	Allows the user to designate disks to different groups and specify different disk groups to store video from different cameras, making storage space calculation for each camera unnecessary.
	Redundant storage	Extra copy for important recordings.
	Improved colors for the	Uses Uniview standardized style to improve the user interface and

Item	Feature	Description
	user interface	enhance the identification of icons and symbols.
	Web-based control of system interface	Allows the user to change image resolution and preview sequence on the system interface through the Web interface.
	Alarm-triggered pop-up window	A window pops up on the system interface to alert the user when an alarm occurs.
	ARP protection	Obtains the MAC of its gateway at first startup and communicates with the gateway with this MAC ever since. The MAC can be edited as needed.
Improved features	Optimized system interface for ease of use	Improves window toolbar, shortcut menu, PTZ control, startup wizard, and the menu bar at the bottom of the screen for easier use.
	Enhanced playback on the Web interface	Allows smart playback and event-based playback on the Web interface.
	PTZ control	The system interface supports PTZ control using shortcut keys.
	Enhanced ability to connect to IP cameras	Added the following for Uniview IP cameras: 1. White balance mode 2. Scenes 3. Alarm indicating failed camera access attempts
	Enhanced downlink ONVIF	Allows the user to disable time synchronization with IP cameras. This feature prevents the problem that some third-party IP cameras cannot get online because they do not support time zone synchronization or time synchronization.
	Enhanced uplink ONVIF	1. Combines uplink ONVIF port with HTTP port to improve networking adaptability. 2. Reports more alarm types (disk offline, disk abnormal). 3. Allows the obtainment and modification of the device name.
	Log export	Allows the user to export logs as CVS files for easy search and management.
	One plug-in for NVR and IPC	Allows the user to install the plug-in only once for accessing the NVR and IP cameras using a Web browser.
	Plug&play	Changes the default IP address to 192.168.1.30 while also supports 192.168.0.30 to adapt to default network environments of most routers and network switches and simplify configuration.
	Network security	Improves protection against network attacks for better user privacy.
	User management	Increases the number of concurrent remote users from 16 to 128.
	Web-based upgrade	Filters file types for local upgrade through the Web interface.
Maintenance tool	Allows the changing of user password through EZTools.	
Deleted features	None	None

Table 9 B3116P20 Feature Changes

Item	Feature	Description
Newly added features	Manual alarm output control	Enables the user to trigger or clear output alarms manually.
	Preview control	Displays a logo in preview windows for the user with no live view permission in these windows.

Item	Feature	Description
	Packet capture on Web	Enables the user to capture packets on the NVR's NIC from the Web.
	Drag in preview window	Enables the user to switch a camera by dragging the preview window.
	Watermark on recording to prevent tampering	Enables the user to use a tool and determine whether the exported video recorded from a watermark-enabled camera has been tampered with.
	Playback by log	Enables the user to play recordings based on log search results in the log query window.
	Preview in camera window on NVR	Enables preview in the camera window.
	Bad sector detection	Enables disk status self-test and back sector detection.
	UNP connection by dial-up	Enables connection to a UNP server by dial-up.
	Audio detection alarm	Can identify and raise audio detection alarms when connected to IP cameras that support audio detection.
	Buzzer configuration	<ol style="list-style-type: none"> 1. Allows users to stop buzzer manually. 2. Enables the buzzer to stop sounding when the alarm is cleared.
Improved features	Optimized startup wizard	Displays different procedures intelligently, simplifies steps and improves usability.
	Optimized stream selection in multi-window preview in system interface	Optimizes rules for choosing streams in multi-window preview: uses sub stream by default and uses main stream if sub stream is unavailable; enables stream preference configuration (main or sub stream) in multi-window preview.
	Enhanced capability of connecting IP cameras via ONVIF	Enables compatibility with XiongMai IP cameras, enables automatic adding of IP cameras and changing of IP addresses.
	Enhanced private protocol	Enables the user to upgrade IP cameras by cloud and restore factory default settings for IP cameras on the NVR.
	Audio output control	<ol style="list-style-type: none"> 1. The audio on/off button, switch camera button, and the volume slider are moved to the preview window toolbar, allowing the user to mute or play sound for each channel separately. 2. Enables the configuration of audio data transfer to control whether the IP camera sends audio data or not.
	Image snapshot and upload via FTP	Supports scheduled snapshot, alarm-triggered snapshot, and snapshot sending via e-mail and upload via FTP. Models that support this function: NVR308-32R, NVR308-64R.
	Snapshot as email attachment	Enables snapshot sending by email. Models that support this function: NVR308-32R, NVR308-64R.
	Optimized playback operation	<ol style="list-style-type: none"> 1. Starts playback automatically for the corresponding camera when the user selects a preview window and then selects Playback from the shortcut menu. 2. Enables the user to deselect all the selected cameras by clicking the Close All button added in the playback window.
	Optimized zoom area	Specifies aspect ratio for zoom areas drawn by the user.
Adaptive to changed camera IP address	The NVR can automatically identify and reconnect DHCP-enabled IP cameras after their IP addresses are changed.	

Item	Feature	Description
	Enhanced ONVIF capability uplink	When connected to a higher-level management platform via ONVIF, the NVR supports recording type search, disk status search, smart playback, and enables snapshot from the platform without establishing live view.
	Maintenance collection info	1. Exported diagnosis information is improved. 2. Enables the user to switch on the debug function with Ctools to gather more information.
	Enhanced functions client	Enables the user to test network bandwidth and diagnose network delay on EZStation and mobile client.
	Automatic resumption for camera patrol PTZ	Enables the PTZ camera to resume interrupted patrol after a restart due to power failure.
	Domain name identification for NTP and other servers	Identifies domain names input for the NTP server and the server in network delay and packet loss test.
	Enhanced functions keyboard	Enables Uniview surveillance keyboards to control presets of PTZ cameras.
	Optimized cloud status	Displays causes for devices failed to connect to EZCloud.
Deleted features	None	None

4.2 Operation Change Description

None

5 Related Documents and Delivery Method

Table 10 Related Document List

Manual Name	Manual Version	Delivery
Network Video Recorders Quick Guide	V1.00	Deliver with device.

6 Version Upgrade Guidance

6.1 Precautions

- This software system includes a software program mirror (Program.bin). Before you start upgrade, please back up configuration data through the system or Web interface in case the upgrade fails.
- Maintain proper network connection and power supply during the upgrade.

6.2 Upgrade Procedure

The version can be upgraded through the system interface and the Web interface, both support cloud upgrade.

6.3 Upgrade Through the System Interface

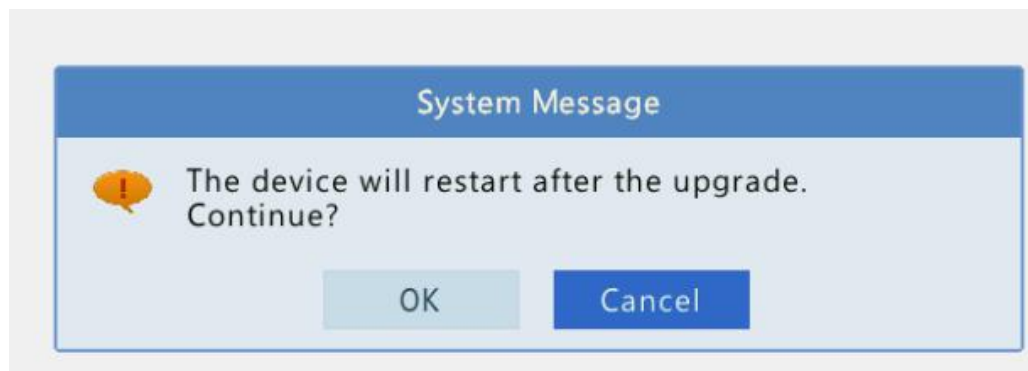
The system interface provides two options for upgrading the system software: local upgrade using a USB drive and cloud upgrade.

1. Local upgrade

Before you start, copy the correct upgrade file to the root directory of the USB drive.

- (1) Plug the USB drive into the USB interface on the NVR.
- (2) Log in to the system interface as “admin”.
- (3) Click **Maintain > Upgrade**.
- (4) Click **Upgrade**, select the upgrade file from the drop-down list, and then click **Upgrade**. A prompt message appears.
- (5) Click **OK**.

Figure 1 Prompt Message



- (6) The NVR will restart automatically when the upgrade is completed.

2. Cloud upgrade

Before you start, check that the NVR is correctly connected to the public network.

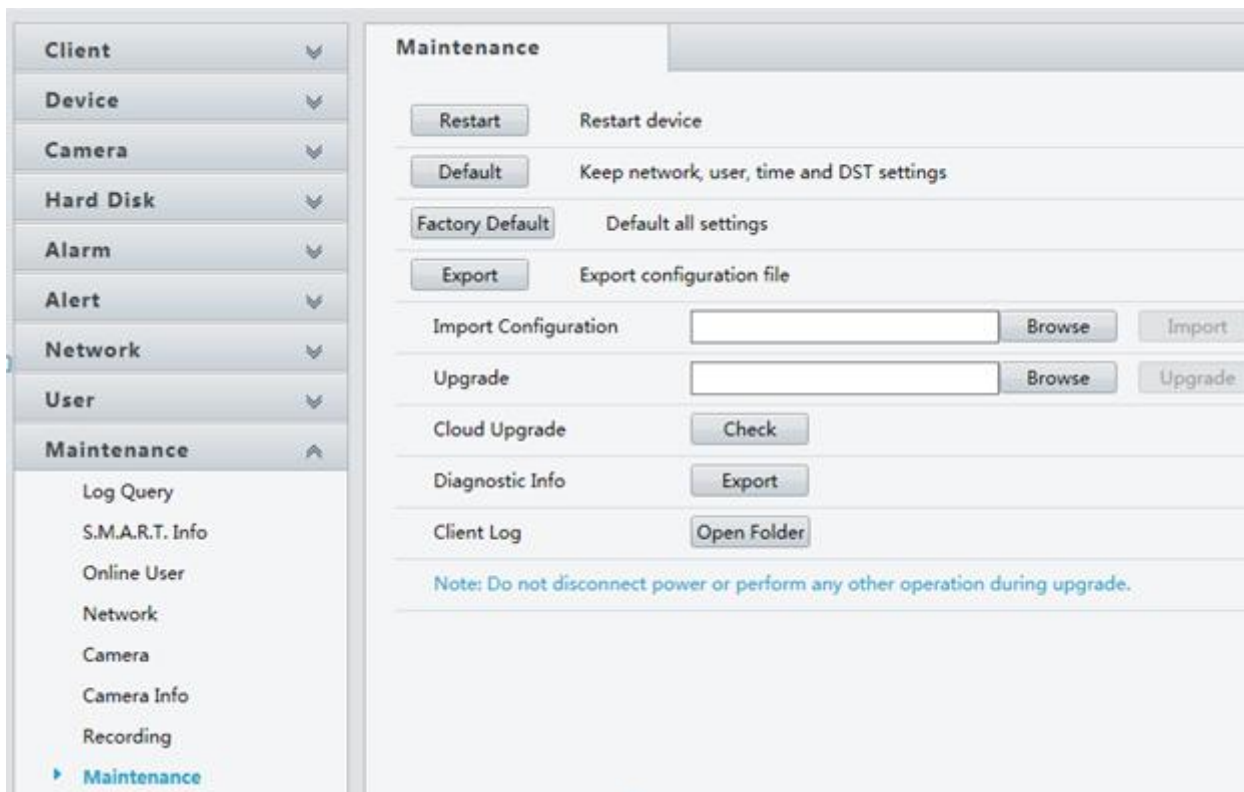
- (1) Click **Maintain > Upgrade**, and then click **Check** to check for the latest version.
- (2) Click **Upgrade** after a newer version is detected.

6.4 Upgrade Through the Web Interface

Perform the following steps to upgrade through the Web interface:

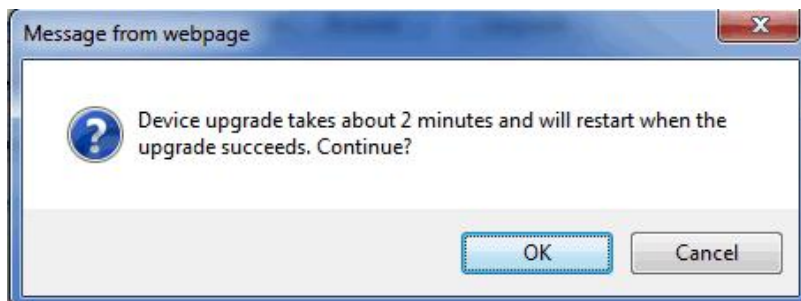
- (1) Log in to the Web interface as “admin”.
- (2) Click **Settings > Maintenance > Maintenance**.

Figure 2 System Maintenance



- (3) Click **Browse** right to the **Upgrade** field, select the **Program.bin** file to upgrade, and then click **Upgrade**.
- (4) If the NVR is connected to the public network, you may also click **Check** to perform a cloud upgrade. If a newer version is detected, a prompt message will appear. Click **OK** to start upgrade.

Figure 3 Prompt Message



- (5) The NVR will restart automatically when the upgrade is completed.

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