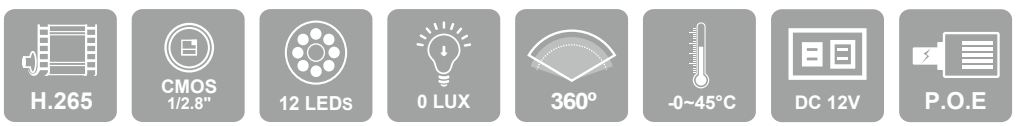
VIN-DS783E-E6

360° panoramic Fisheye Camera

User Manual



2025 MAY. V1.0



Notice before Use

This authorization agreement of client's software/hardware is legally effective to you (individual or single machine) and our company. This agreement covers components of software/hardware, media, print, online publication and electronic files. All the application through installation, duplication or the other way must be based on this agreement. If you disagree with the terms of this agreement, please don't install or use this product.
This product is protected by copyright law, international copyright treaties and other international property laws and treaties. Please note this product authorizes to you, not sold. Through the software/hardware license code on the license certificate indicates you have got the permit of use.

· Copyright ·

The company owns all the headers, including but not subject to the copyright, software/hardware products and any duplicates.
The company reserves all the rights not being granted clearly.

· Unsecured Notes ·

The company clearly denies warranty of any product repair; unsecured of any kind of expressed or implied warranty, including any software products and relevant documents brought from unlimited, implied warranty-repair or marketability, specific purpose suitability or non-infringement.

Terms and Conditions

The overall risk arises from the use or performance of software and hardware products. The product will inform, for instance, when it is used with certain device or other hardware and possibly enable you to carry out surveillance and data processing. This may be subject to or in violation of applicable law, which includes but is not limited to data privacy and criminal law. Please check your use to comply with applicable laws for the responsibility belonging to users themselves.

· Limitation of Liability ·

The provision of this paragraph is in effect to the maximum extent permitted by applicable laws. In any situation, VACRON's dealers take responsibility of any special, accidental, or any indirect loss (including but not limited to business profits loss, business interruption, commercial information loss, or any other money loss for compensation) due to software products usable or not, or right support provided or failed, even our company has been informed about possibility of such disadvantages. According to any provision of this agreement, if there is no willful misconduct or gross negligence, all obligations shall be limited to the product amount which is actually paid.

· Other Conventions ·

(A) Reverse engineering, de-compilation, or disassembly are prohibited to the extent permitted by applicable laws and to the extent not waived by the contract, as well as any hardware or software components of the product.
(B) You may permanently assign the right to use this product as long as the recipient agrees to the terms of this Agreement.

· Epilogue ·

Without prejudice to any other rights, the company may terminate this license agreement. If you fail to comply with its terms and conditions, in which case you must destroy all copies of the software product.

WARNING

- Do not install the system in a humid, direct exposure to sunlight, hot or enclosed environment.
  Otherwise, it will cause system performance degradation, power leakage or even disaster.
- Do not touch the power cord, power plug or outlet with wet hands.
  Otherwise, it may cause electric shock injury.
- Do not forcefully bend the power cord or place heavy objects on top of it.
  Otherwise, it may cause injury to personnel or equipment.
- Do not use damaged power cords or power cords without plugs.
  Otherwise, it may cause electric shock or accidental injury.
- Use a separate power source and do not share an outlet with other appliances.
  Otherwise, it may cause electric shock or accidental injury.
- Do not disassemble, modify or repair the appliance yourself.
  Otherwise, it may cause electric shock or accidental injury. If you have maintenance needs, please contact the manufacturer.
- Do not open the case of the machine or insert any object.
  Otherwise, it may cause electric shock or accidental injury.
- Do not use cables other than the internal configuration of the machine for connection.
  If you have maintenance needs, please contact the manufacturer.

CAUTION

- Do not place the machine on an inclined or uneven surface.
  Otherwise, it will reduce the performance of the whole machine or cause functional errors.
- Do not vibrate or shake the system host during recording.
  Otherwise, it will cause damage to the host or hard disk.



CAUTION

Please make sure the input voltage is correct before turning on the machine!

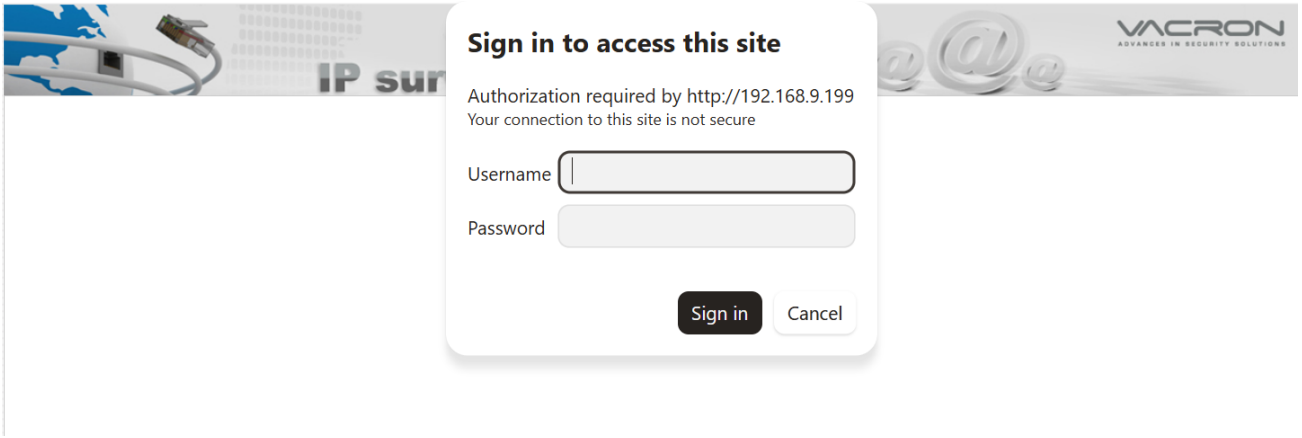


Catalogue

Safety Precautions 1
A. Logging In via Internet Explorer (IE) 4
B. Playback & Download 5
C. Status Information 6
D. Settings Instructions 8
E. Maintenance Information .....

A. Logging In via Internet Explorer (IE)

Account Authentication on Login Page



To access the camera's settings and interface, users must enter the camera's IP address in the Internet Explorer (IE) address bar. A username and password will be required for authentication.(Default username and password: admin)

UI Overview

Upon login, the system displays the live video.



B. Playback & Download



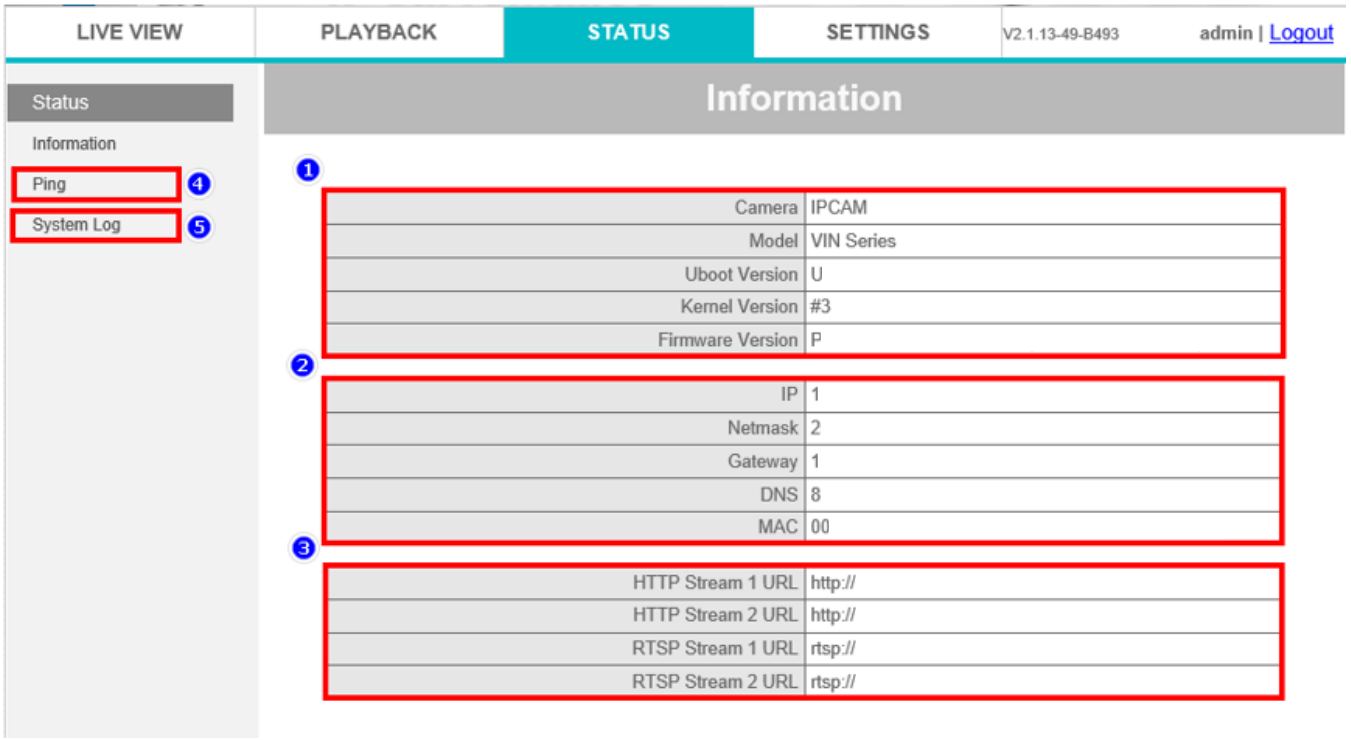
Filelist of Memory Card

#	Start Time	End Time	Duration	Type
1	2025-03-16 11:40:40	2025-03-16 11:43:23	00:02:43 Download	0
2	2025-03-16 11:43:23	2025-03-16 11:48:47	00:05:24 Download	0
3	2025-03-16 11:48:47	2025-03-16 11:54:13	00:05:26 Download	0
4	2025-03-16 11:54:14	2025-03-16 11:59:38	00:05:24 Download	0
5	2025-03-16 11:59:38	2025-03-16 12:05:10	00:05:32 Download	0
6	2025-03-16 12:05:11	2025-03-16 12:11:03	00:05:52 Download	0
7	2025-03-16 12:11:04	2025-03-16 12:17:21	00:06:17 Download	0
8	2025-03-16 12:17:22	2025-03-16 12:23:38	00:06:16 Download	0
9	2025-03-16 12:23:39	2025-03-16 12:29:53	00:06:14 Download	0
10	2025-03-16 12:29:54	2025-03-16 12:36:07	00:06:13 Download	0
11	2025-03-16 12:36:07	2025-03-16 12:42:20	00:06:13 Download	0
12	2025-03-16 12:42:21	2025-03-16 12:48:28	00:06:07 Download	0
13	2025-03-16 12:48:28	2025-03-16 12:54:39	00:06:11 Download	0
14	2025-03-16 12:54:40	2025-03-16 13:00:48	00:06:08 Download	0
15	2025-03-16 13:00:49	2025-03-16 13:06:50	00:06:01 Download	0
16	2025-03-16 13:06:50	2025-03-16 13:12:58	00:06:08 Download	0
17	2025-03-16 13:12:59	2025-03-16 13:19:06	00:06:07 Download	0
18	2025-03-16 13:19:06	2025-03-16 13:25:07	00:06:01 Download	0
19	2025-03-16 13:25:08	2025-03-16 13:31:09	00:06:01 Download	0
20	2025-03-16 13:31:10	2025-03-16 13:37:11	00:06:01 Download	0

Note: This feature is only available on models equipped with a microSD card.
If the model does not include an SD card slot, this option will not appear.

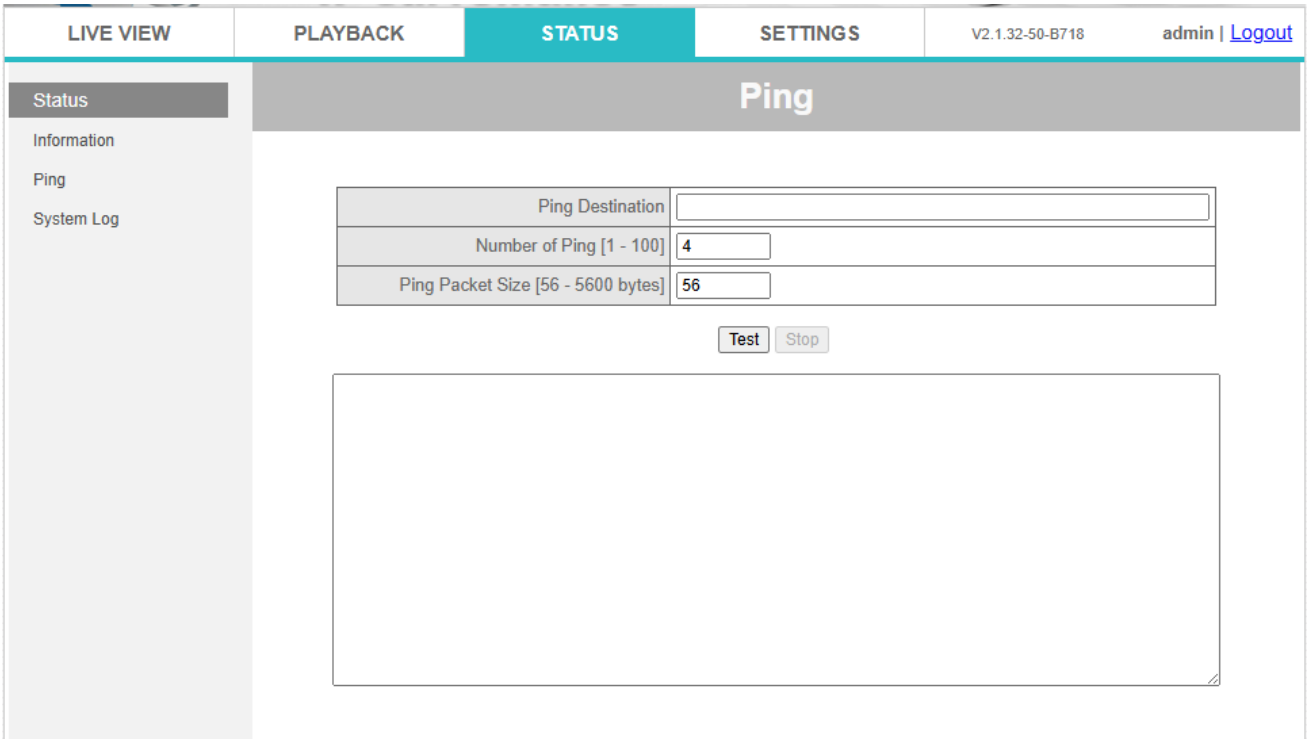
For models with a built-in microSD card, the recording page will be available in the UI.
Users can select the desired time directly on the timeline for playback, and the footage can be viewed on the page or downloaded by clicking the Download button.

C. Status Information

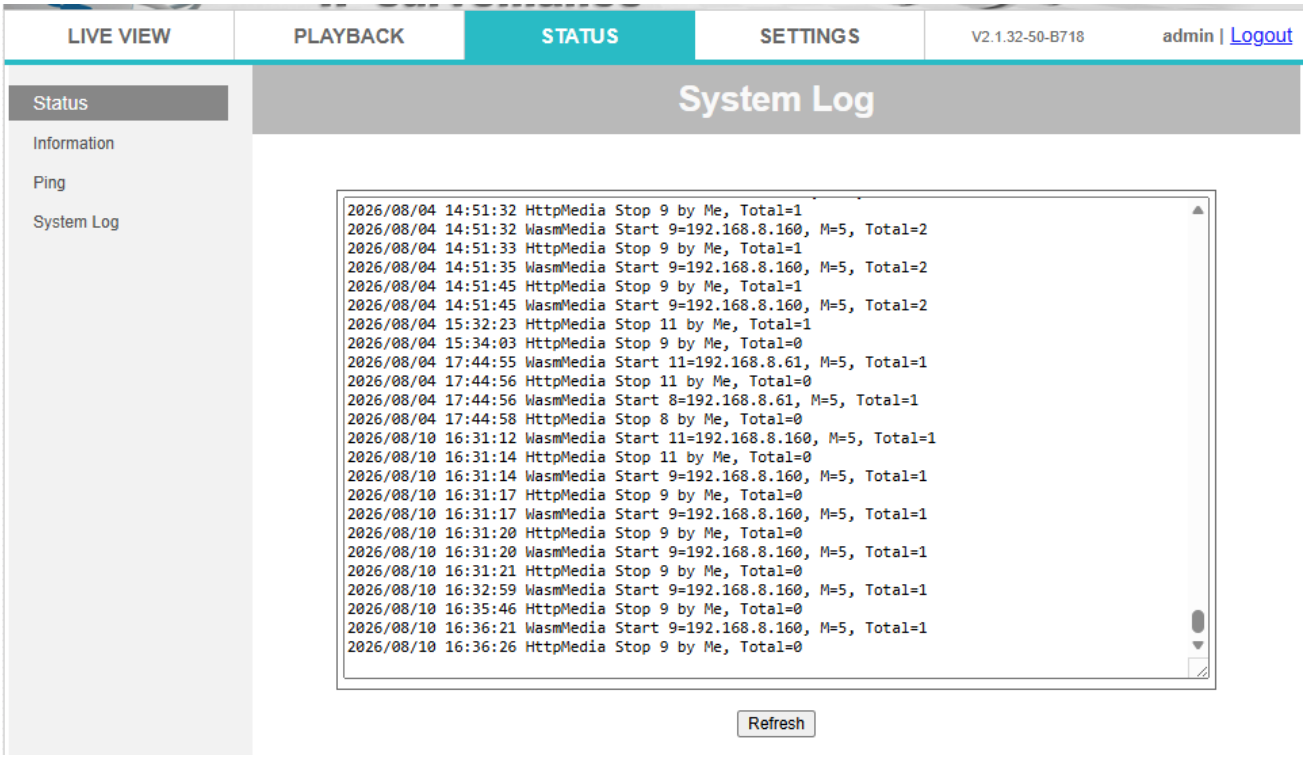


The Information page is divided into three sections: 【Firmware Versions】, 【Local IP Address】 and 【Network Protocols】

1. Firmware Versions displays key technical information concerning CPU and DDR operating frequencies, including:
   U-Boot Version (bootloader firmware)
   Kernel Version (core system firmware)
   Firmware Version (overall system firmware)
2. Local IP Address
   Shows the current IP address, gateway, and the device's MAC address.
3. Network Protocols
   Lists the enabled streaming protocols for both video and audio. These streams are compatible with media players that support network streaming.
4. Ping Tool (Left Panel)
   Allows the camera to send a ping to the connected host device to test whether the network connection is stable and functioning properly (see Picture 1).
5. System Log (Left Panel)
   Allows users to view system logs, which provide diagnostic information for the manufacturer's R&D team to determine whether the IP camera is operating normally (see Picture 2).



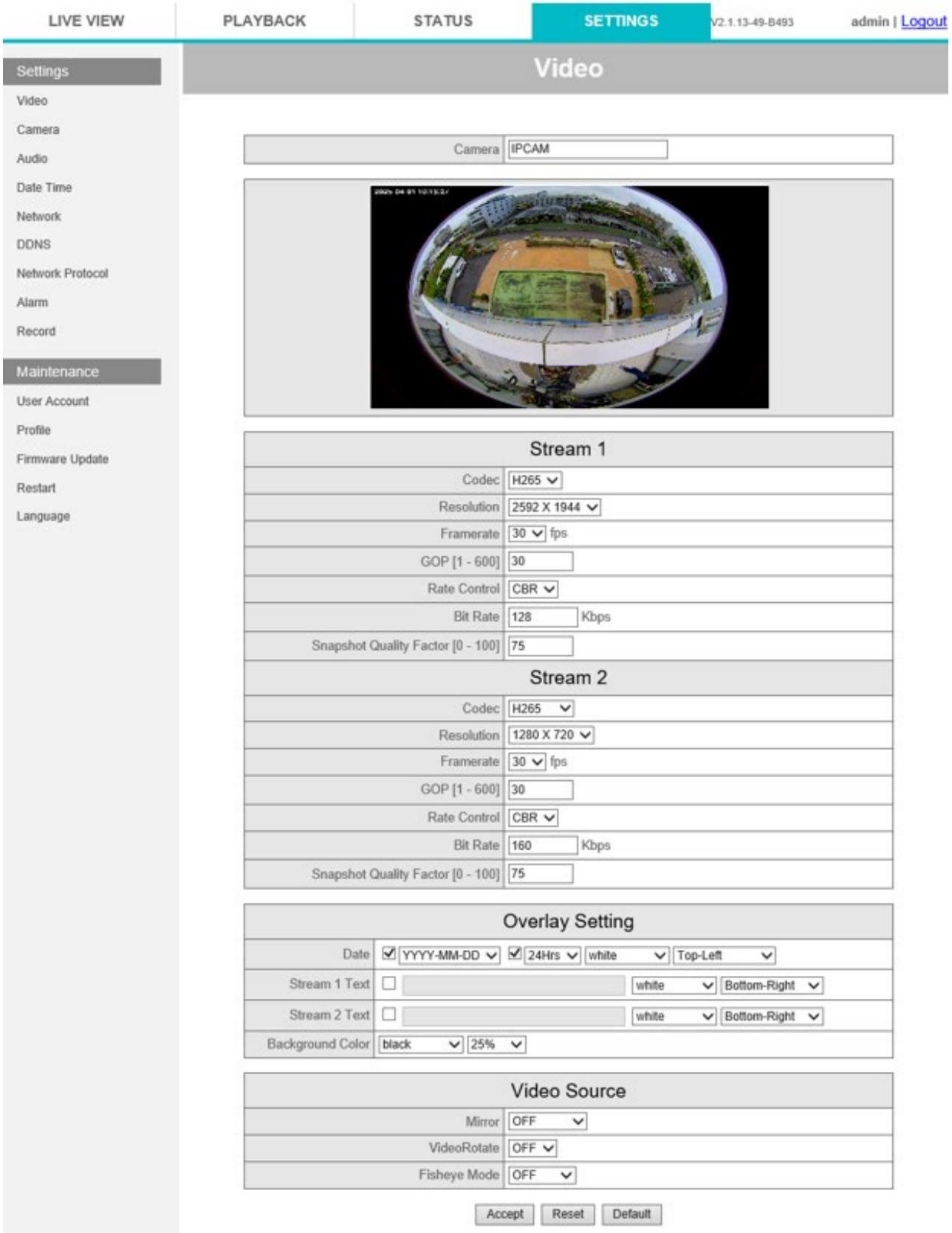
(Picture 1)



(Picture 2)

D. Settings Instructions

Image Settings



On the Image Settings page, you can configure and adjust image-related parameters for the selected camera.
As shown in the diagram, the interface is divided into two main sections:
The upper section displays the camera's live view, along with settings related to stream resolution and bitrate values.
The lower section contains additional configuration options for the camera's output. Each section and its functions are explained in the order listed below.

(1) Camera:
Allows you to change the name of the camera as it appears in the search tool or NVR system, making it easier for users to identify the camera's location.

(2) Stream:
This option lets users select and adjust the stream profile. Typically, there are two stream types: Main Stream (Stream 1) and Sub Stream (Stream 2).

(3) Codec:
Allows users to select the appropriate video compression format based on the chosen stream type.
The default codec options are optimized for performance based on the camera's hardware capabilities.
Options include: H.264 and H.265

(4) Resolution:
After selecting the stream type, users can configure the output resolution to match their specific usage and system compatibility needs.
Default resolution for Main Stream: 2592 × 1944
Default resolutions for Sub Stream: CIF(352x240),NHD(640x360),VGA(640x480),AHD(1280x720)

(5) Framerate:
This value sets the total number of P-frames and I-frames output by the camera per second.
Measured in FPS (frames per second),
It is adjustable from 1 to 30 FPS. The default is 25 FPS. A higher number provides smoother video, while a lower number may result in choppier playback.

(6) GOP:
This setting controls the ratio of I-frames displayed per second. The calculation is:
FPS ÷ GOP = number of I-frames per second.
This can help reduce frame stuttering caused by some NVR models that do not generate one I-frame per second.(Default value: 40)

(7) Rate Control:
Select either:VBR (Variable Bit Rate) dynamically adjusts bitrate, or CBR (Constant Bit Rate) maintains a fixed bitrate, to optimize storage usage.(Default setting: VBR.)

(8) Bit Rate: Defines the upper limit for image quality across all frames per second.Measured in Kbps.

(9) Max Bit Rate: Sets the maximum allowable bitrate for the IP camera.Maximum value: 10,000 Kbps.

(10) Overlay Setting:

This section allows configuration of date, time, and custom text overlays, which are shown as OSD (On-Screen Display) on the live view and are recorded into video footage.

Date Format Options: 「YYYY/MM/DD」, 「MM/DD/YYYY」, and 「DD/MM/YYYY」;

Time Format Options: 「24-hour」 and 「12-hour」; Text Overlay supports up to 32 characters (equivalent to 16 mandarin characters), and the overlay position options are: 「Top Left」, 「Bottom Left」, 「Top Right」, 「Bottom Right」, 「Center Top」, and 「Center Bottom」.

16 display colors are provided for easier identification.

(11) Mirror:

This function is used to correct the image orientation when the camera is installed in an inverted or unusual position.

Available mirror modes include:Horizontal, Vertical, and Horizontal + Vertical.

(12) Video Rotate:

This setting allows the video image to be rotated by 90° or 270°.

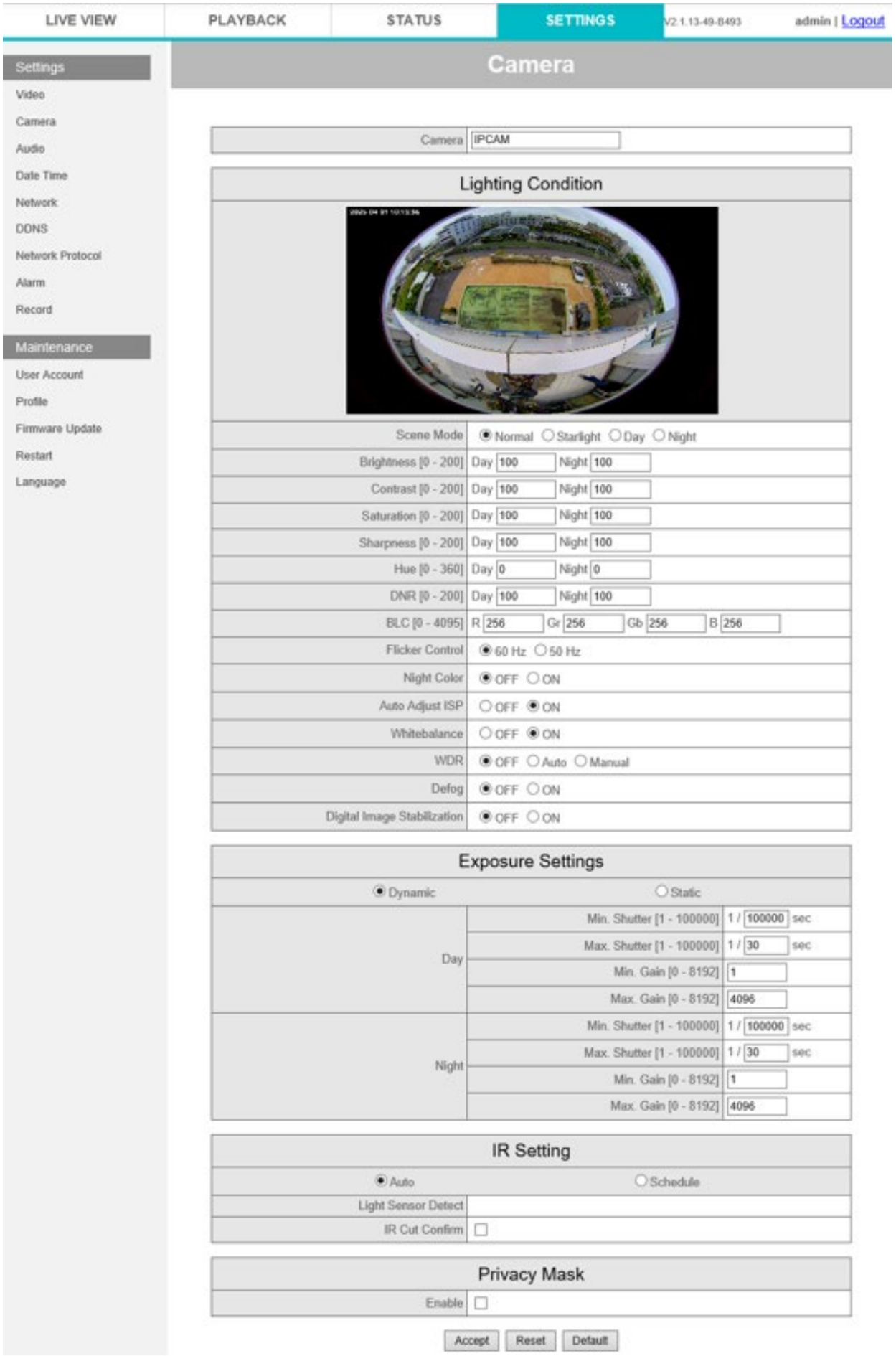
(13) Fisheye Mode:

Provides two dewarping modes for fisheye lens images.

MODE 1: Stretches and flattens the circular fisheye image into a rectangular view, especially suitable for ceiling-mounted cameras looking downward or wall-mounted units facing outward.

MODE 2:Expands the circular fisheye image into a fan-shaped panoramic view, creating a 3D-like effect. This mode is intended only for ceiling-mounted downward-facing cameras.

Camera Settings



Within the Camera Settings page, users can adjust various image parameters related to brightness and contrast.
As shown in the diagram above, the settings are divided into three main sections:
The top section contains camera settings related to image brightness and exposure; the middle section is dedicated to shutter control settings, allowing precise adjustments of exposure time.
The bottom section includes additional camera functions for further customization.
Each section and its functions are explained in the order listed below.

(1) Scenario Mode：

This function allows users to set the camera's image mode depending on the lighting conditions or monitoring needs.

Normal: The camera uses the light sensor on the IR board to automatically detect ambient lighting. Based on the detected conditions, the camera switches between day (color) and night (black and white) modes, while synchronously controlling the IR-cut filter.

Day: Forces the camera to operate in day (color) mode. In this mode, signals from the IR board that trigger day/night switching are ignored. However, the IR LEDs may still activate based on the ambient lighting conditions.

Night: Forces the camera into night (black and white) mode. This mode engages the IR-cut filter for enhanced infrared imaging.
While day/night switching signals from the IR board are ignored, the IR LEDs will still activate according to the actual lighting environment. This allows for effective illumination in low-light conditions using invisible infrared light.

(2) Image Adjustment Parameters

Users can manually fine-tune the image quality of the IP camera using the following parameters: Brightness, Contrast, Saturation, and Sharpness.
Each of the above values ranges from 0 to 200, tone setting ranges from 0 to 360.
By default, all values are set to 100.
These parameters can be adjusted to optimize the camera's image performance as needed.

(3) Flicker Control

When using fluorescent lighting, the power frequency may be either 50Hz or 60Hz, depending on the region.
Issues such as flickering, ripple effects, or unstable light sources on the video feed may occurred.
Although such issues are uncommon with digital imaging, they may still occur under mixed or overlapping light sources.
If flickering or similar effects are observed, adjusting the anti-flicker setting can help to suppress these artifacts.

(4) Night Color: Enable or disable Night Color Mode to maintain color imaging in low-light or nighttime conditions.

(5) Auto Adjust ISP: Enable or disable the Auto Image Signal Processing (ISP).

(6) White Balance: Enable or disable Auto White Balance (AWB) to automatically adjust the image's color temperature according to ambient lighting.

(7) WDR Setting:
OFF: WDR is disabled.
Auto: The camera automatically adjusts WDR strength.
Manual: Manually adjust WDR parameters

(8) Defog: Enable or disable the Defog function to enhance image clarity in foggy or hazy environments.

(9) Digital Image Stabilization: Enable or disable Digital Image Stabilization, which reduces the impact of camera vibrations or movement on the captured video.

(10) Electronic Shutter
This setting controls the shutter speed, affecting the amount of light entering the lens.
Two modes are available: Dynamic Shutter and Fixed Shutter
In Dynamic Mode, the software automatically adjusts the shutter speed based on the detected lighting conditions to prevent overexposure or underexposure.
Users are able to configure separate settings for day and night conditions by adjusting the maximum and minimum shutter speed values.
In Fixed Mode, the shutter speed is locked to meet specific on-site requirements, ensuring consistent light intake.
In this mode, a higher denominator value results in less motion blur but also reduces light intake. Conversely, a lower denominator value allows more light to enter the lens but increases the possibility of motion blur in the image.

(11) IR Settings (Custom Day/Night Switching):

Users are able to choose from the following day/night switching modes

Light Sensor Detect:

Uses an external light sensor to detect ambient brightness and determine whether to switch to day or night mode.

Some models are equipped with a built-in digital light sensor, allowing users to manually input the lux threshold for switching.

Schedule Mode:

Automatically switches between day and night modes based on a set schedule.

IR Cut Confirm:

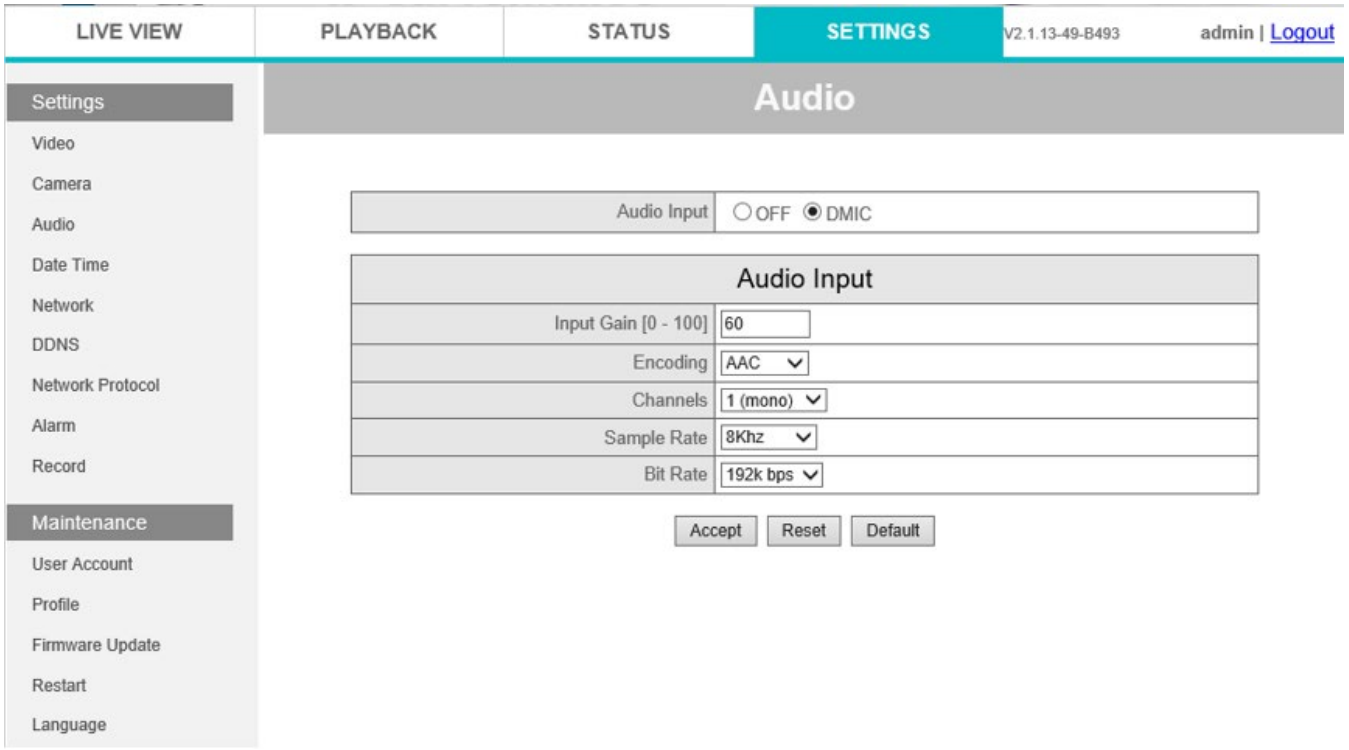
After the IP camera starts up, it checks every 5 minutes whether the IR cut filter has been triggered. This check is repeated three times in a row.

(12) Privacy Mask:

Privacy Mask allows you to create solid color blocks over specific areas of the video display using OSD.

This feature helps protect personal privacy by masking sensitive regions from view.

Audio Settings



(Optional)

(1) Audio Enable

Users can choose to enable or disable audio input and output.

(2) Input Gain (Volume Level):

The volume level can be adjusted within a range of 0 to 100.

If the volume is set too high, it may cause distortion or noise. It is recommended to lower the volume level to achieve clearer and more stable audio.

(3) Codec

Four audio codec formats are available: G.711U, PCM, G.711A, and AAC.

These options cover most commonly used audio encoding formats and can be selected based on the requirements of the connected recording device.

(4) Channel

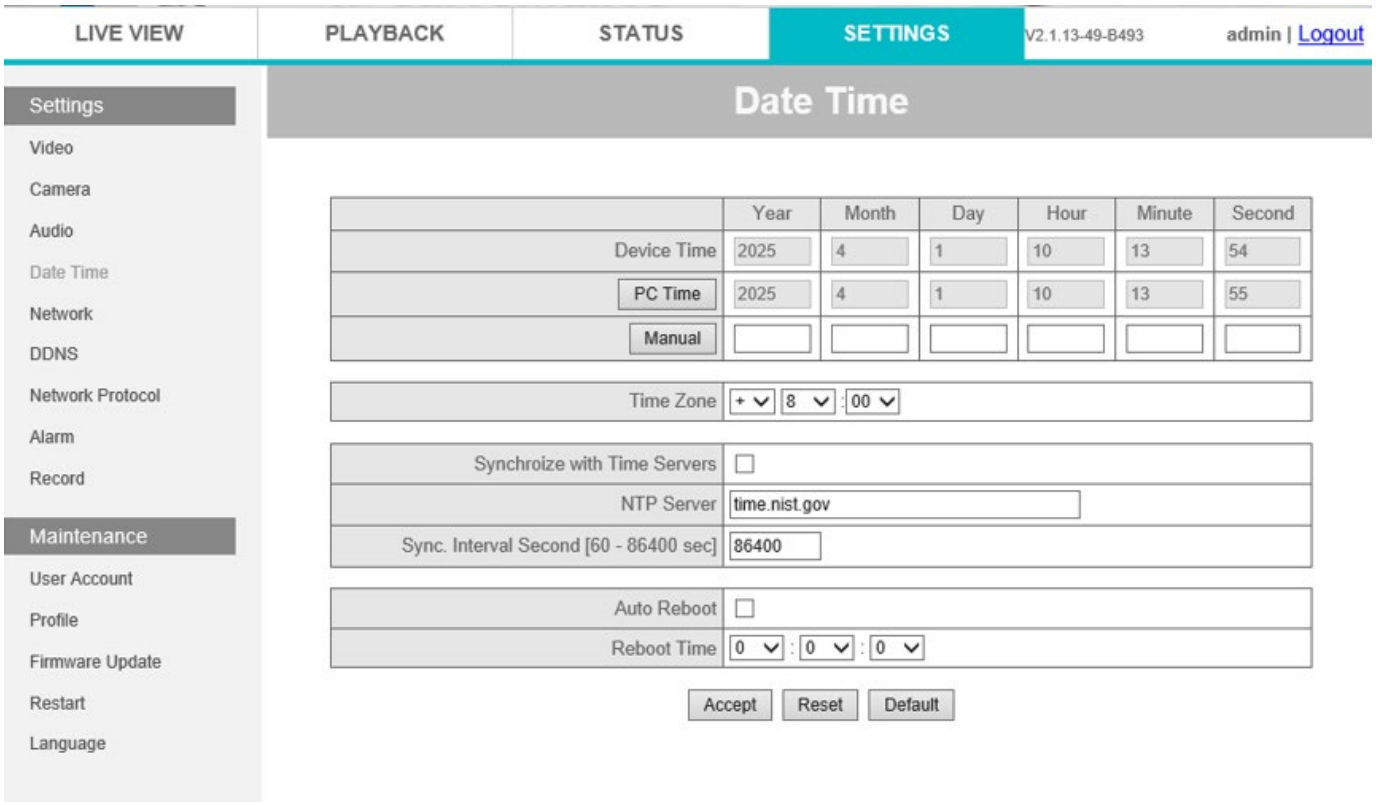
Channel settings allow you to configure audio as either Channel 1 (Mono) or Channel 2 (Stereo).

(5) Sample Rate

This parameter defines how many times per second the analog audio signal is sampled — referred to as the 「sampling rate」.

A higher sampling rate results in finer segmentation of the sound wave, making the digital audio output more accurate.

Date & Time Settings



(1) Time Configuration

Users can manually set the time, synchronize with the PC time, or use SNTP for automatic time synchronization.

To use the SNTP function, the device must be connected to a network or have a local time server enabled.

The time zone adjustment feature allows synchronization with the local time of the camera's location.

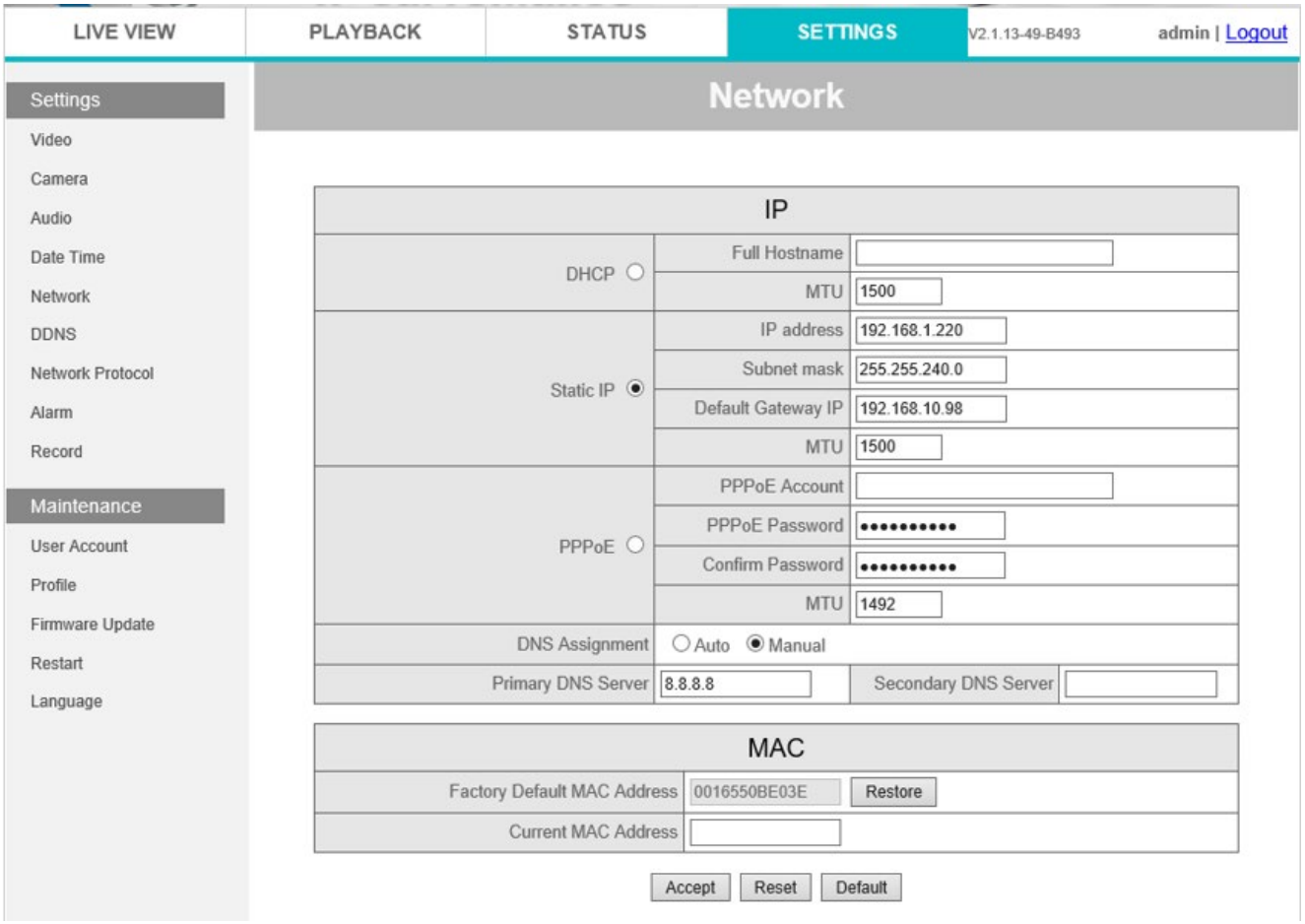
(2) Auto Reboot

During continuous operation, network packet accumulation may occur.

When Auto Reboot is enabled, the device will automatically restart at the scheduled time, with a configurable offset in seconds before or after the specified time.

This helps to clear accumulated packets and improve the overall stability of the camera.

Network Settings



This function allows users to modify the built-in IP address via the Internet Explorer interface. It helps match the IP settings with the designated subnet of the installation site for better LAN integration.
Additionally, it supports multi-subnet environments, enabling flexible and scalable network deployment.

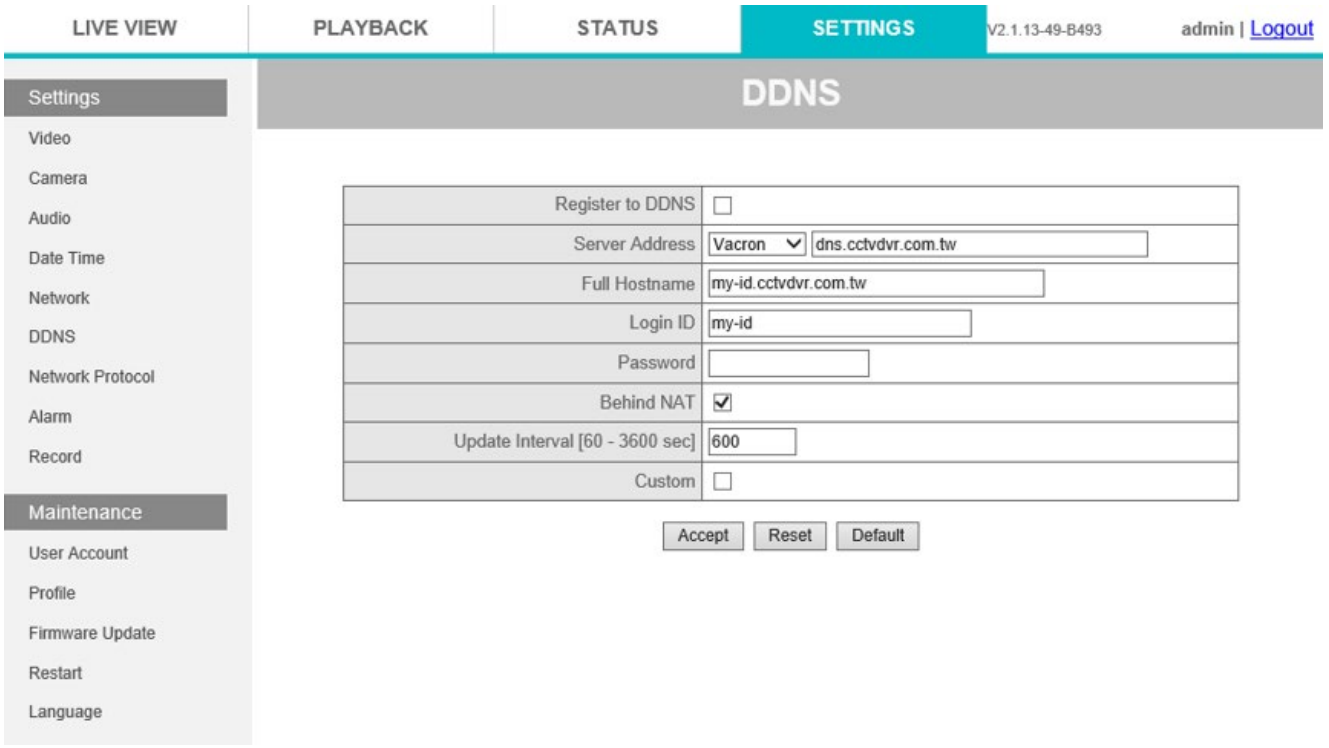
(1) DHCP: The router automatically assigns an IP address to the camera via DHCP.

(2) Static IP: Users can manually configure a IP address for the camera.

(3) PPPoE: This function allows the camera to connect directly to the internet using a fixed IP account provided by an ADSL service.
when remote access is required, it allows quick and direct external network connection.

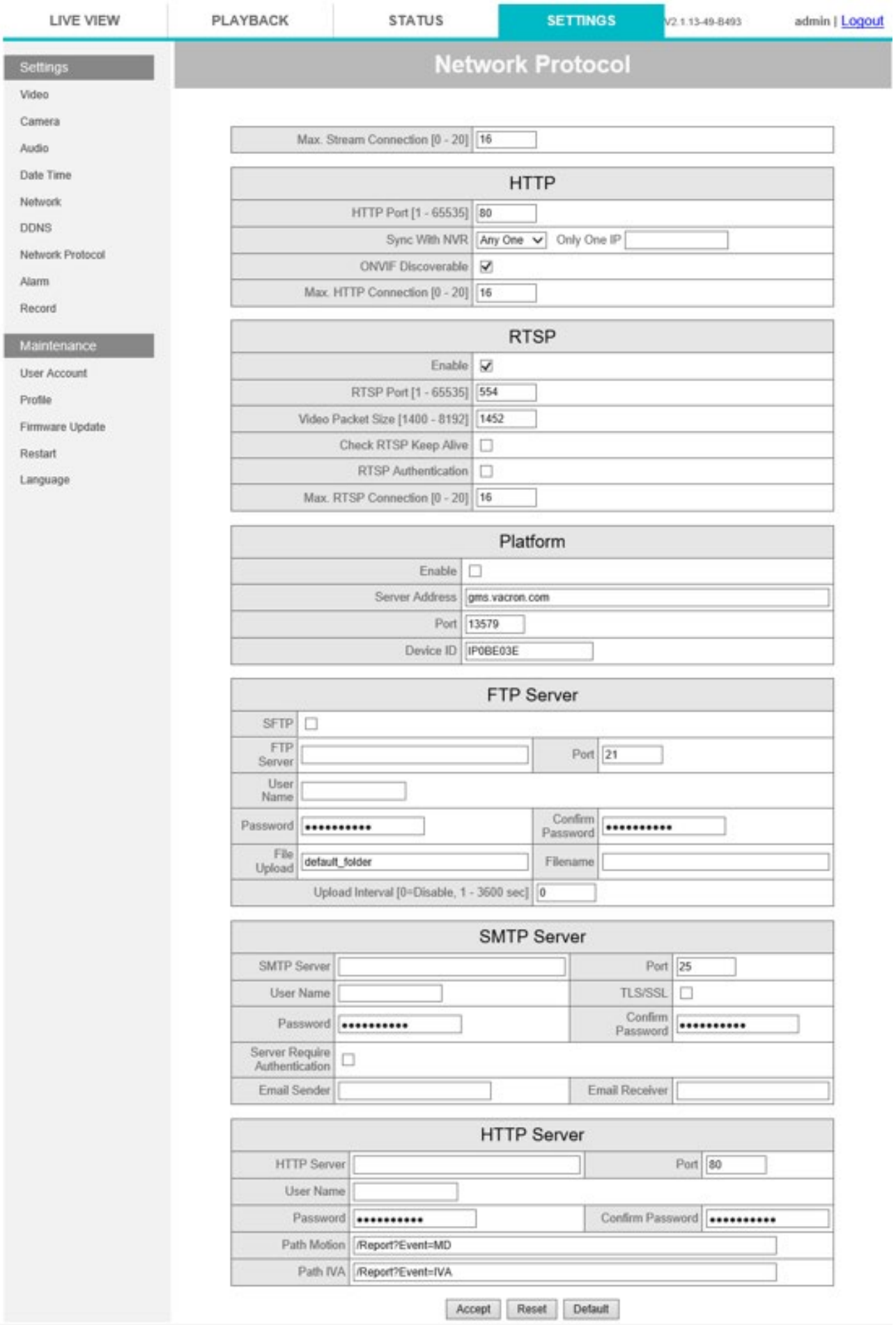
(4) MAC: This field is reserved for the manufacturer to identify the product's model and production time.
When used with our proprietary IPCamSearcher software, the camera can be easily detected on the network even under default IP settings.

DDNS Configuration



Dynamic DNS (DDNS) is a redirection service that allows users to map a domain name to the camera's IP address.
(Public DDNS services can also be applied through your sales representative.)
Once registered, a unique hostname/domain will be assigned.
Users in foreign networks can access the camera by entering this domain name, which will redirect them to the associated IP address automatically.
Currently, the software supports integration with three free DDNS providers:DynDNS, NO-IP, and Vacron.

Network Protocol Settings



(1) Maximum Stream Connections

This setting defines the maximum number of video stream connections.
Limiting the number of connections helps protecting the system from overload and ensures stable performance.
The adjustable range is 0–20 and can be configured based on requirements.

(2) HTTP: This section is used to configure HTTP-related network protocol.

HTTP Port:
Users can modify the corresponding port number of the camera.
When multiple cameras share the same IP address—assigning different ports allows for proper network domain planning or external access via port forwarding on a IP switch.

Allow NVR Settings:
This option determines whether to allow connected back-end systems or IP-based controllers to send command packets to change camera settings.
By default, any connected device is able to perform remote control and configuration.

ONVIF Discoverable:
This option allows users to enable or disable to receive command packets via the ONVIF protocol.
By default, this setting is enabled.

(3) Platform

This function is for communication between the camera and a central management server.
When connected to the internet, the camera can transmit video streams.
Note: This feature is only supported by models with independent network connectivity.

(4) RTSP: This section is for configuring RTSP (Real-Time Streaming Protocol) parameters.

RTSP Server Port:
According to our ONVIF protocol implementation, the default port is 554.
This setting allows users to change the port if needed, such as for compatibility with third-party platforms or custom protocols.

Checking RTSP Connection:
When this option is enabled, the camera software will periodically check the RTSP (Real-Time Streaming Protocol) connection status. The connection results will be displayed in the system log for user reference.

(5) FTP Settings

FTP (File Transfer Protocol) operates on a client-server architecture, consisting of a camera (client) and an FTP server.

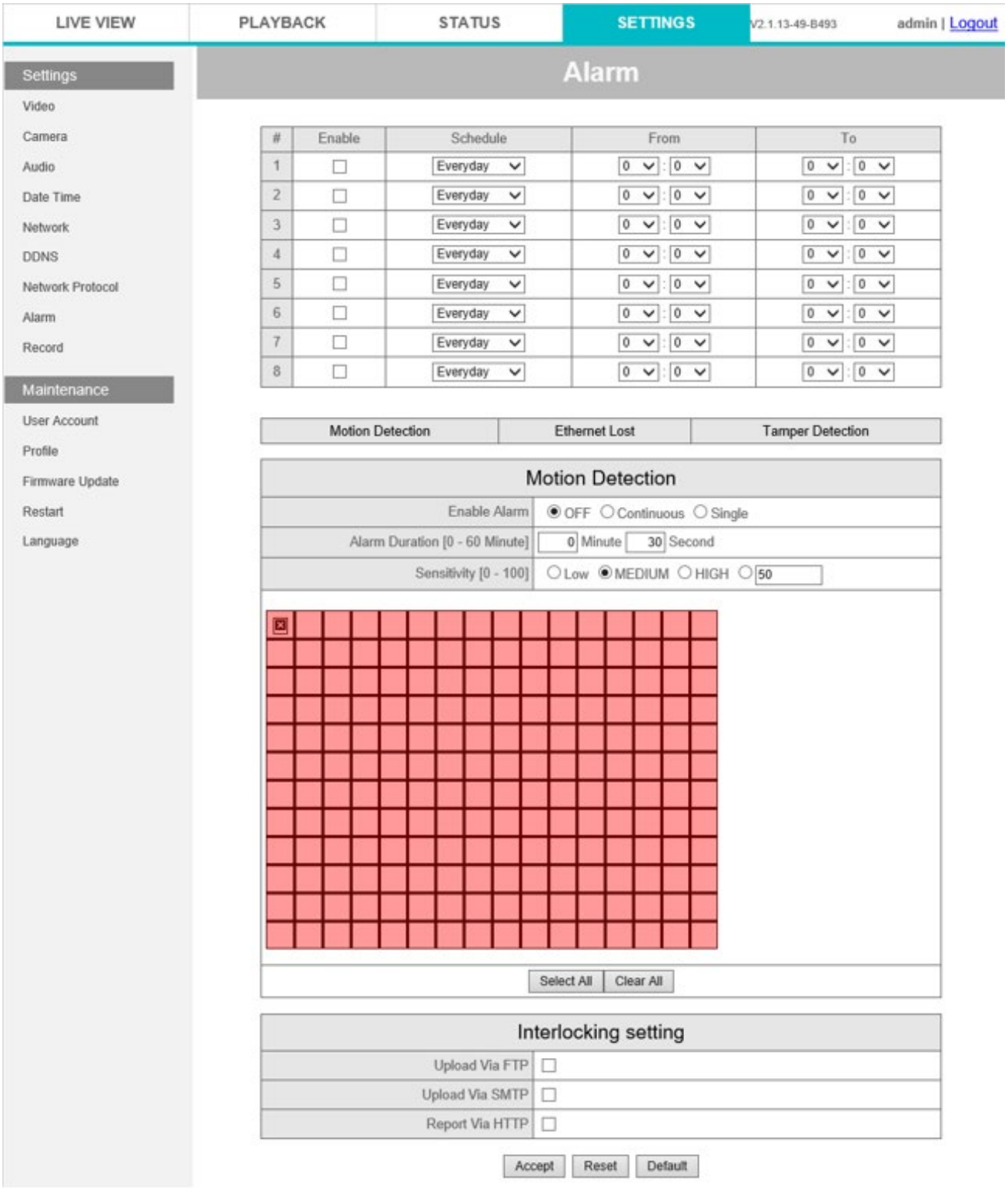
To use FTP, ensure that the FTP server is active on the host. Then, enter the server address in the corresponding camera FTP field. Once configured, the camera can upload captured snapshots to the FTP server for backups.

Users can specify the upload interval (in seconds) to enable scheduled image capture. These images can also be processed later for time-lapse video creation.

(6) Email Settings

After the camera setup is complete, images captured during an alarm event can be sent to the assigned email address to notify users of real-time incidents.

Alarm Settings



(1) Schedule Configuration:

Users can define detection time periods based on camera location, business hours, or specific needs.
The system will automatically disable the alarm detection outside of the defined time slots.
Schedules can be set by day of the week and time of day.
(If no schedule is configured, the alarm detection remains active at all times.)

(2) Motion Detection:

When "ON" is selected, a snapshot from the camera will appear on the configuration page, overlaid with a 12x16 grid.

Users can select detection zones within the image; selected zones will be marked in red.
Once the detection areas are confirmed, any motion or scene change within the marked zones will trigger an alarm signal, which will be sent to the camera or an integrated backend system.
Combined with motion-triggered recording, this allows users to easily locate alarm events and optimize storage usage.

On the configuration page, users can adjust the motion detection sensitivity level (High, Medium, Low) or input a custom value for more precise tuning.
The scale ranges from 0 to 100, and users may manually enter a value as needed.

(3) Alarm Duration

Once the alarm trigger and detection zones are configured, users can customize the duration of the alarm signal based on the specific needs.
The alarm can be set to a minimum of 2 seconds and a maximum of 10 minutes of continuous alert.
When combined with on-screen warning, this helps ensure effective security alerts.

(4) Obstruction Detection

Enable this option to activate the obstruction alarm.
If the camera view is intentionally blocked—such as by spray paint, physical covering, or tampering—the system will automatically trigger an alarm.
Users can set the detection sensitivity to High, Medium, or low to reduce false alarms.

(5) Network Disconnection

This function works in conjunction with the connected monitoring host or backend system.
When a network disconnection is detected, the backend system can notify users in real time by enabling the options 「Send to FTP」 or 「Send Email Notification」

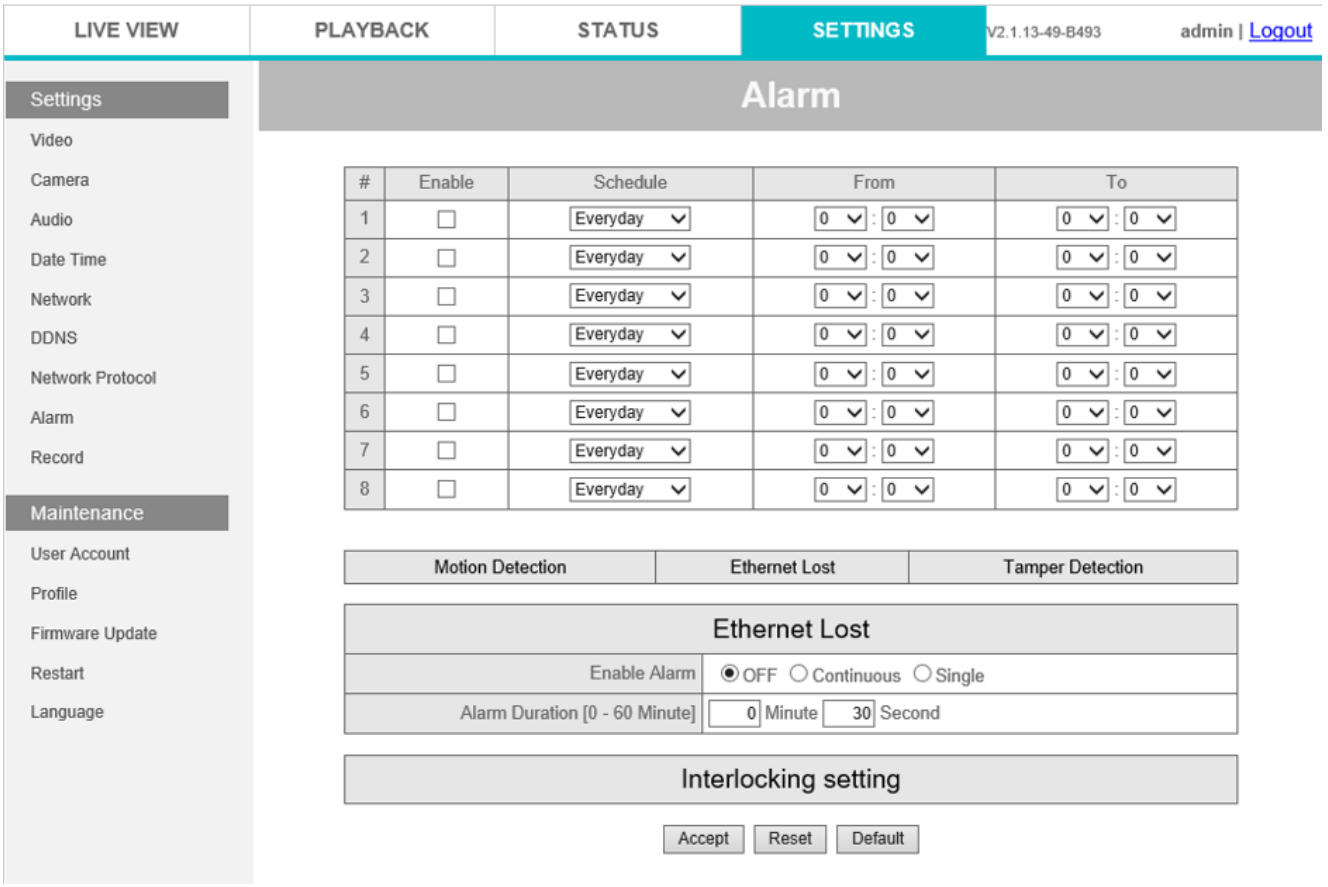
(6) Send to FTP

This function requires the FTP Server address to be properly configured in the Network Settings section.

(7) Send Email Notification

This function depends on the configuration of the Mail Server in the Network Settings.

Recording Settings



(Only to models with the optional SD card)

(1) Recording Schedule:

Users can define specific recording times for each day of the week or for selected days using the scheduling menu. Once the start and end times are set, the camera will begin cyclic recording onto the internal SD card.

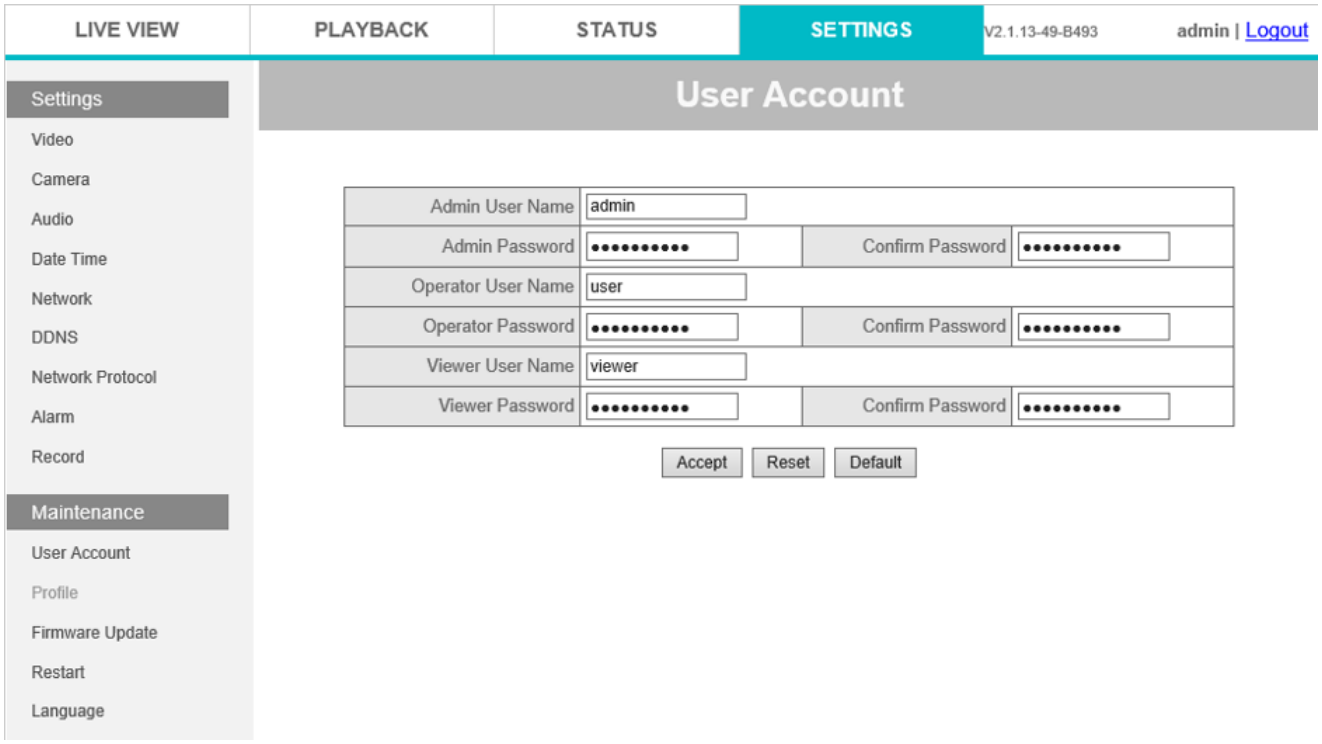
Recorded files are stored using a hidden partition format to ensure recording integrity, even power failure.

Playback and backup must be performed using the dedicated player software to prevent leakage of surveillance footage.

(If no schedule is selected, the system defaults to regular recording.)

E. Maintenance Information

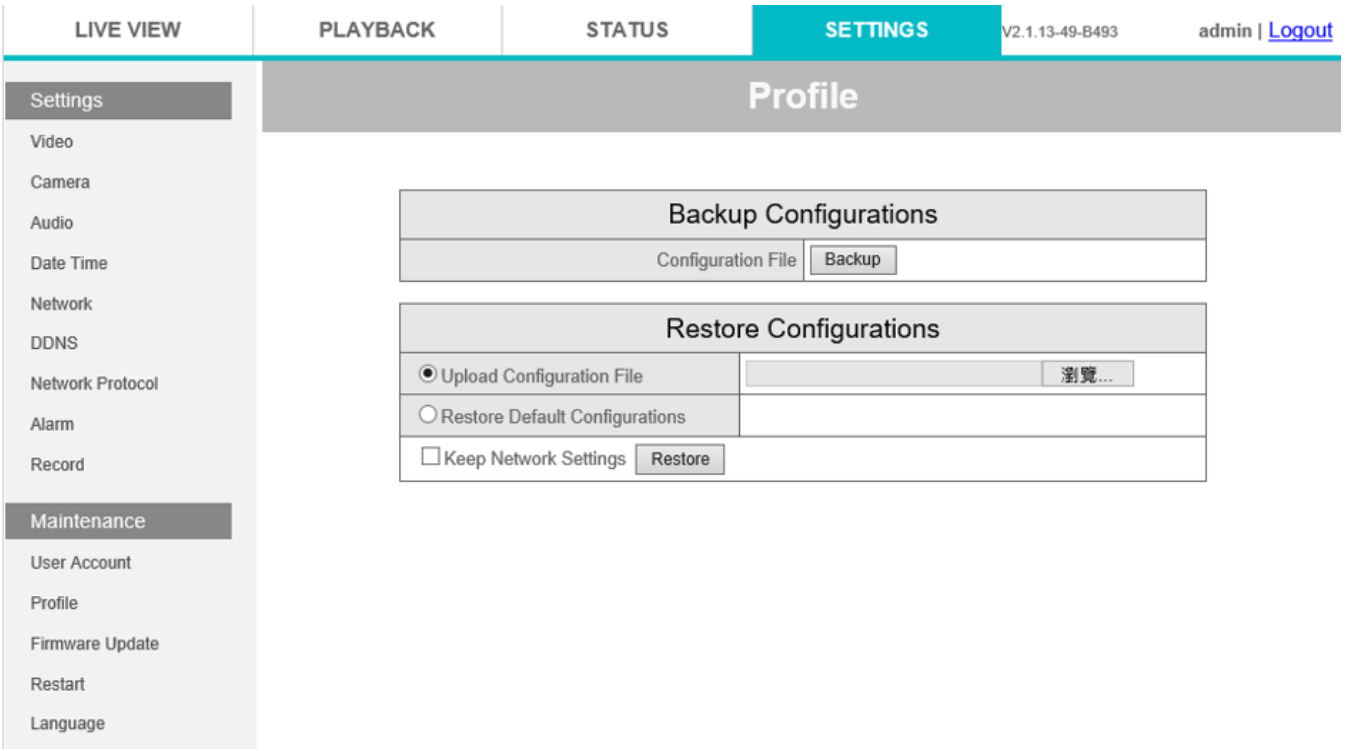
User Account Information



(1) Account Types:

There are three user access levels:「Administrator」 with full access to all functions via the web interface (IE);「User」 to all functions except account management;「Video Viewing」 is limited to live video viewing only.

Configuration Files



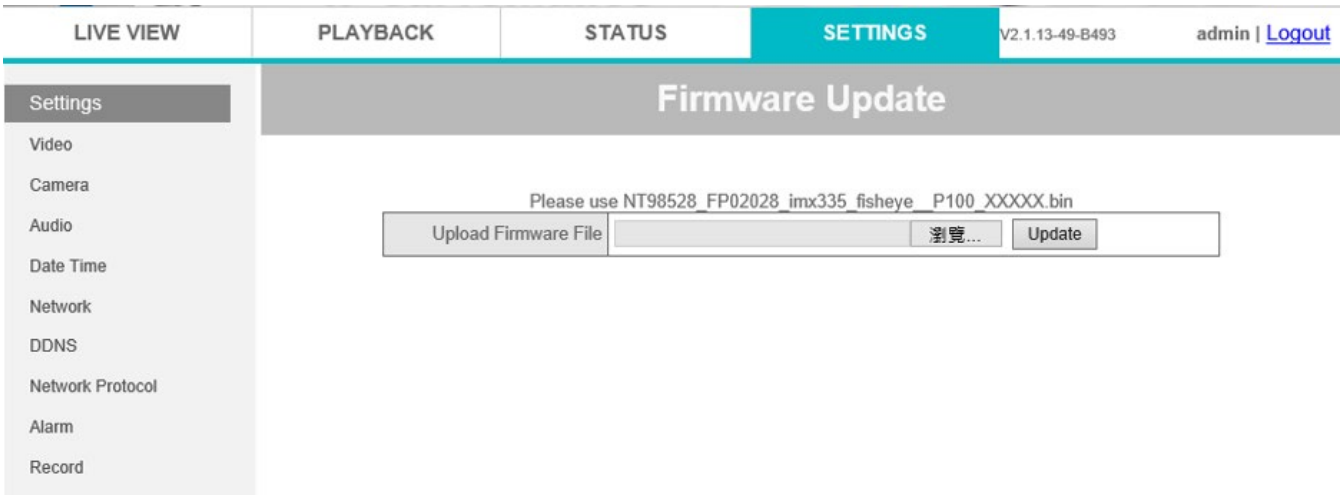
(1) Backup Settings:

This feature allows users to export configuration settings as a Profile.bin file.
It allows quick application of the same parameters to multiple cameras, streamlining large-scale deployments.
Additionally, users can export the Profile.bin file and provide it to the R&D team for troubleshooting and issue simulation purposes.

(2) Restore System Settings:

After upgrading the camera firmware to the latest version, this function allows users to restore the system to the recommended default parameters of the new firmware version. This helps ensure all updated settings are applied and executed. When performing a restore, users may choose to retain the current network configuration to avoid resetting the IP address to default values.

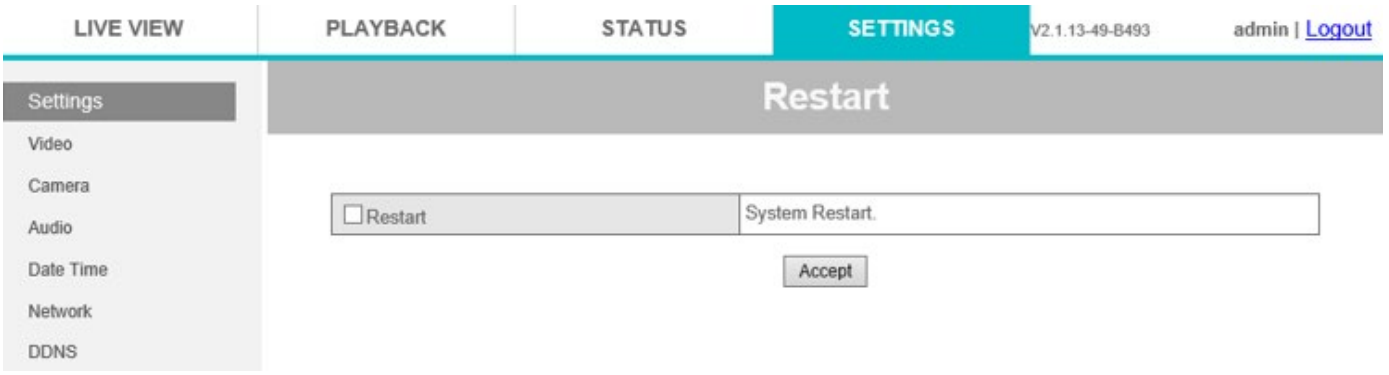
Firmware Upgrade



(1) Upload Firmware:

The official website provides ongoing firmware support for various camera models. When users need to update, they can download the latest firmware version from the website and upload it via this page.

Reboot



(1) Reboot Device:

This page allows users to reboot the camera. After selecting and clicking「Accept」, the system will initiate a restart process that takes approximately 50.

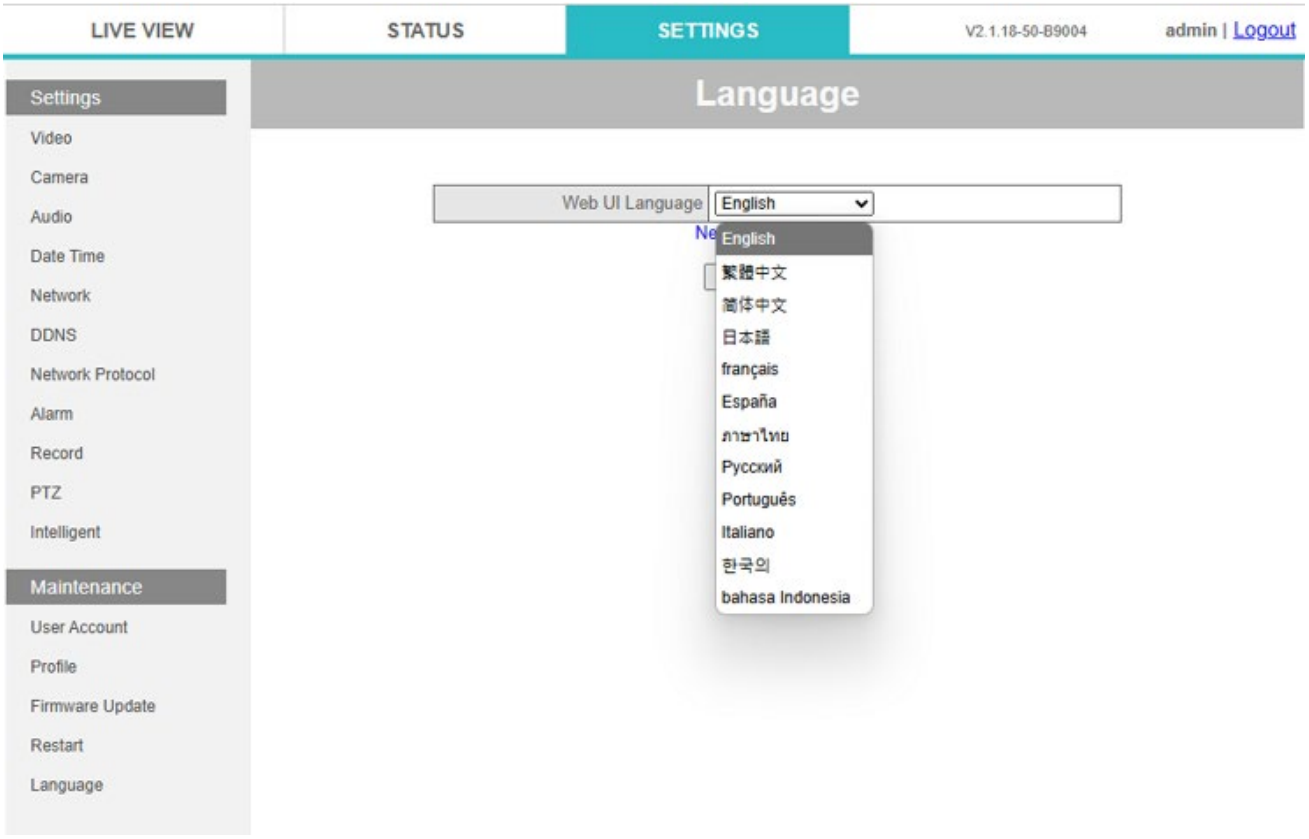
VACRON

ADVANCES IN SECURITY SOLUTIONS

https://www.vacron.com

Made in Taiwan

Language Settings



(1) Language Selection:

This page enables users to select their preferred interface language for easier navigation and operation.

The system supports 12 built-in languages, including: English, Traditional Chinese, Simplified Chinese, Japanese, French, Spanish, Hindi, Russian, Portuguese, Italian, Korean, Indonesian.

For export or regional use, additional languages may be added upon user request.