

# User Manual

## Biosense Series Network Camera

Date: January 2024

Doc Version: 2.5

English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.



For further details, please visit our Company's website  
[www.zkteco.com](http://www.zkteco.com).

## Copyright © 2024 ZKTECO CO., LTD. All rights reserved.

Without the prior written consent of ZKTeco, no portion of this manual can be copied or forwarded in any way or form. All parts of this manual belong to ZKTeco and its subsidiaries (hereinafter the "Company" or "ZKTeco").

## Trademark

**ZKTeco** is a registered trademark of ZKTeco. Other trademarks involved in this manual are owned by their respective owners.

## Disclaimer

This manual contains information on the operation and primarytenance of the ZKTeco Device. The copyright in all the documents, drawings, etc. in relation to the ZKTeco supplied Device vests in and is the property of ZKTeco. The contents hereof should not be used or shared by the receiver with any third party without express written permission of ZKTeco.

The contents of this manual must be read as a whole before starting the operation and primarytenance of the supplied Device. If any of the content(s) of the manual seems unclear or incomplete, please contact ZKTeco before starting the operation and primarytenance of the said Device.

It is an essential pre-requisite for the satisfactory operation and primarytenance that the operating and primarytenance personnel are fully familiar with the design and that the said personnel have received thorough training in operating and primarytaining the machine/unit/Device. It is further essential for the safe operation of the machine/unit/Device that personnel has read, understood, and followed the safety instructions contained in the manual.

In case of any conflict between terms and conditions of this manual and the contract specifications, drawings, instruction sheets or any other contract-related documents, the contract conditions/documents shall prevail. The contract-specific conditions/documents shall apply in priority.

ZKTeco offers no warranty, guarantee, or representation regarding the completeness of any information contained in this manual or any of the amendments made thereto. ZKTeco does not extend the warranty of any kind, including, without limitation, any warranty of design, merchantability, or fitness for a particular purpose.

ZKTeco does not assume responsibility for any errors or omissions in the information or documents which are referenced by or linked to this manual. The entire risk as to the results and performance obtained from using the information is assumed by the user.

ZKTeco in no event shall be liable to the user or any third party for any incidental, consequential, indirect, special, or exemplary damages, including, without limitation, loss of business, loss of profits, business interruption, loss of business information or any pecuniary loss, arising out of, in connection with, or relating to the use of the information contained in or referenced by this manual, even if ZKTeco has been advised of the possibility of such damages.

This manual and the information contained therein may include technical, other inaccuracies or typographical errors. ZKTeco periodically changes the information herein which will be incorporated into

new additions/amendments to the manual. ZKTeco reserves the right to add, delete, amend, or modify the information contained in the manual from time to time in the form of circulars, letters, notes, etc. for better operation and safety of the machine/unit/Device. The said additions or amendments are meant for improvement /better operations of the machine/unit/Device and such amendments shall not give any right to claim any compensation or damages under any circumstances.

ZKTeco shall in no way be responsible (i) in case the machine/unit/Device malfunctions due to any non-compliance of the instructions contained in this manual (ii) in case of operation of the machine/unit/Device beyond the rate limits (iii) in case of operation of the machine and Device in conditions different from the prescribed conditions of the manual.

The product will be updated from time to time without prior notice. The latest operation procedures and relevant documents are available on <http://www.zkteco.com>.

If there is any issue related to the product, please contact us.

## ZKTeco Headquarters

**Address** ZKTeco Industrial Park, No. 32, Industrial Road,  
Tangxia Town, Dongguan, China.

**Phone** +86 769 - 82109991

**Fax** +86 755 - 89602394

For business-related queries, please write to us at [sales@zkteco.com](mailto:sales@zkteco.com).

To know more about our global branches, visit [www.zkteco.com](http://www.zkteco.com).

## About the Company

ZKTeco is one of the world's largest manufacturers of RFID and Biometric (Fingerprint, Facial, and Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

## About the Manual

This manual introduces **the Biosense Series Network Camera**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.



## TABLE OF CONTENTS

<b>QUICK INSTALLATION GUIDE(ONLY SD CARD MODEL)</b> .....	<b>7</b>
<b>1. LOGIN INTERFACE</b> .....	<b>10</b>
<b>2. LIVE VIDEOS</b> .....	<b>12</b>
2.1. FULL-SCREEN PREVIEW.....	13
2.2. ELECTRONIC ZOOM-IN.....	13
2.3. PTZ CONTROL.....	13
2.3.1. PRESET .....	14
2.3.2. CRUISE .....	14
2.3.3. TRACK.....	15
<b>3. PLAYBACK</b> .....	<b>17</b>
<b>4. FILE MANAGEMENT</b> .....	<b>18</b>
4.1. SEARCH .....	18
4.2. PREVIEW CAPTURE .....	18
4.3. PLAYBACK CAPTURE .....	19
4.4. PLAYBACK BACKUP .....	19
4.5. FILE CAPTURE .....	19
4.6. PREVIEW VIDEOS.....	19
4.7. SD CARD LINK CAPTURE .....	19
4.8. BACKUP VIDEO PLAY.....	19
<b>5. PARAMETER</b> .....	<b>20</b>
5.1. DEVICE INFORMATION .....	20
5.2. QR CODE.....	20
5.3. PTZ SETTINGS .....	21
5.4. TIME SETTINGS.....	21
5.5. DISPLAY SETTINGS .....	22
5.6. AUDIO SETTINGS.....	23
5.7. STREAMS .....	23
5.8. ROI SETTINGS.....	24
5.9. IMAGE PARAMETERS .....	25
5.10. MOTION DETECTION .....	27
5.10.1. SMART MOTION .....	28
5.11. VIDEO TAMPERING .....	29
5.12. PRIVACY MASK .....	30
5.13. TARGET COUNTING .....	31
5.14. OBJECT LEFT / LOST .....	33
5.15. AREA DETECTION (INTRUSION DETECTION).....	34

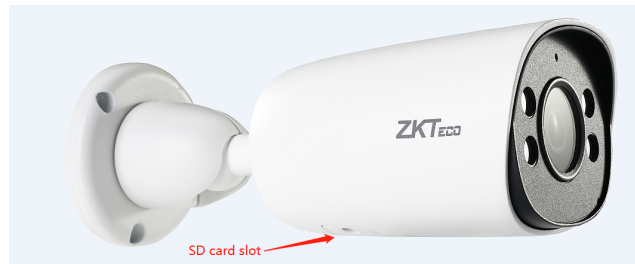
5.16. LINE CROSSING (TRIPWIRE) .....	36
5.17. VIDEO PLAN.....	38
5.18. NETWORK SETTINGS.....	39
5.19. HTTP/HTTPS .....	40
5.20. MANAGEMENT PLATFORM .....	40
5.21. MULTICAST CONFIGURATION .....	41
5.22. DDNS SETTINGS.....	41
5.23. UPNP SETTINGS.....	42
5.24. EMAIL SETTINGS.....	43
5.25. FTP SETTINGS.....	44
5.26. SNMP SETTINGS.....	44
5.27. ALARM INPUT .....	45
5.28. ALARM OUTPUT .....	46
5.29. EXCEPTION .....	47
5.30. USER MANAGEMENT .....	47
5.31. SYSTEM UPDATE .....	48
5.32. AUTO REBOOT .....	49
5.33. STORAGE MANAGEMENT .....	49
5.34. RESTORE .....	50
5.35. LOCAL SETTINGS .....	51
5.36. DEVELOPER.....	52
5.37. VOICE ALERT.....	53
6. LOG SEARCH .....	54
7. ALARM.....	54
8. EXIT.....	55
9. FAQ.....	56

## Quick Installation Guide(only SD card model)

### **Step 1, disassemble.**

In order to ensure that the Micro-SD card will not be easily touched and loosened, the camera has designed the Micro-SD card slot inside the camera. When installing the Micro-SD card, user needs to remove the Micro-SD card slot cover at the bottom of camera (for the Conch model, you need to rotate the camera base to expose the Micro-SD card slot).

Bullet Type:



Turret Type:



PTZ Type:



**Step 2, unscrew the screw, open the cover, can see the internal Micro-SD slot.**

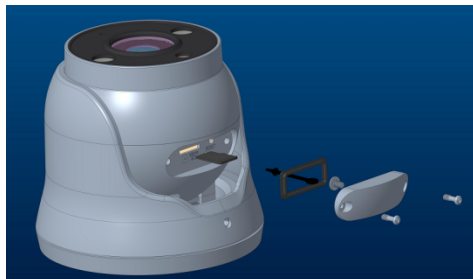


**Step 3, install the Micro-SD card in the correct direction and insert it into the slot.**

Bullet Type:

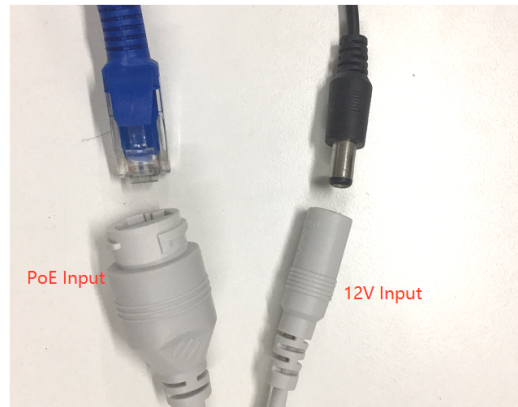


Turret Type:

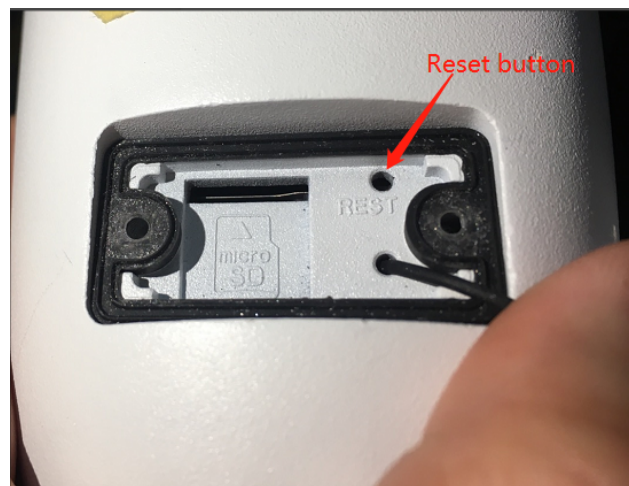


**Step 4, close the cover and tighten the screws.**



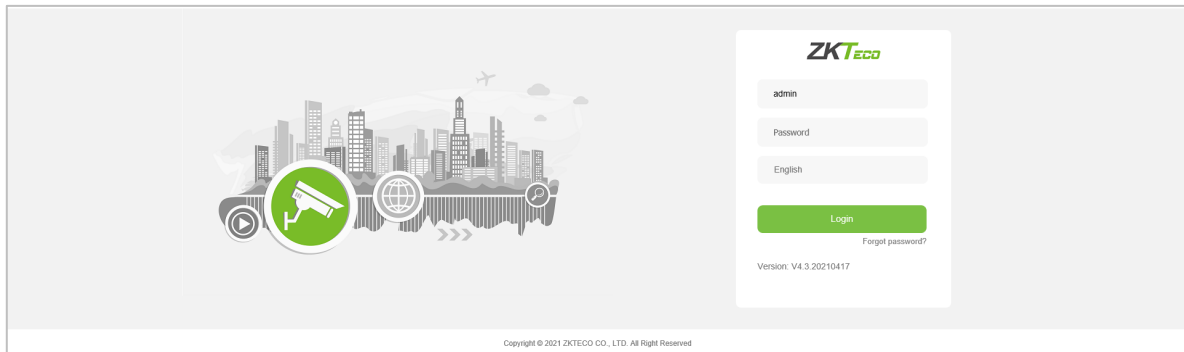
**Step 5, power on the camera by PoE or 12V DC.**

**Note:** The small round hole next to the Micro-SD card slot is the factory reset button (as picture below. In the power-on state, press and hold the small thimble for 3 seconds, and the camera will restore the factory default settings.

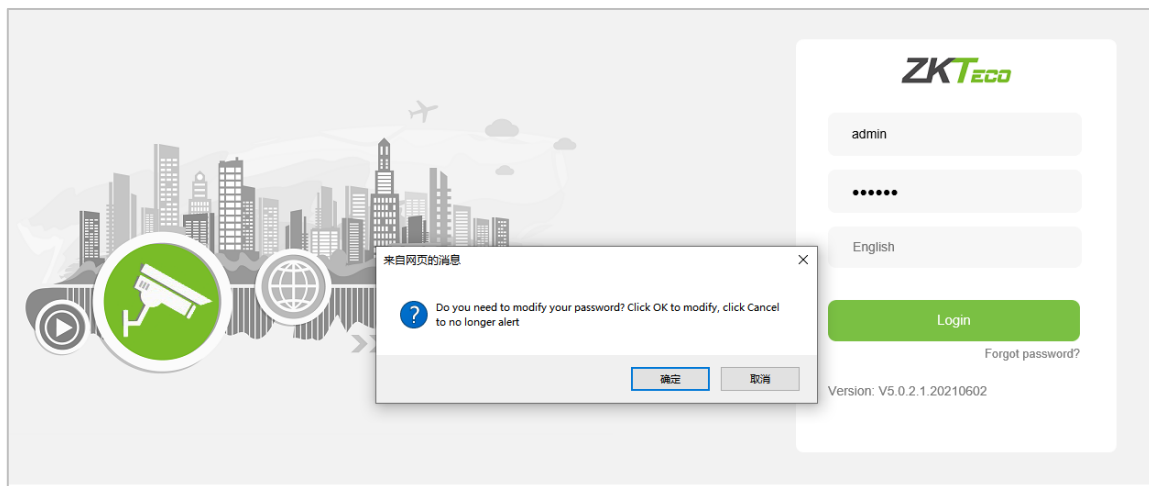


## 1. Login Interface

Input the IP address of the front-end device in the IE browser (the default IP address is 192.168.1.86) to access the login interface as shown in the following picture:



Input username and password then click on “Login”, then the system will prompt a message asking whether or not to change the password, as shown in the following figure:



- **User Name:** admin (default setting).
- **Password:** 123456 (default setting); users may modify the password according to the instructions.
- **Language:** Can choose multiple languages such as English, Spanish, etc
- **Note:** For account security, users will be prompted to reset the password when they first login.

Do you need to modify your password? Click OK to modify, click Cancel to no longer alert

**Warm Tips**

Username:

Password:

Confirm Pwd:

**Note:** if a user forgets the login password, one may click on [Forgot password?](#), then the following window will pop up. The default user name is “admin”. Click on “Next” to restore the password to factory settings according to the prompt.

password reset

Username:

Next

Back

password reset

Username:

admin

Serial No:

02d20123da3ebf9ea514

Unique Identifier:

Ay73J7eqN9S18tvE

Reset Info:

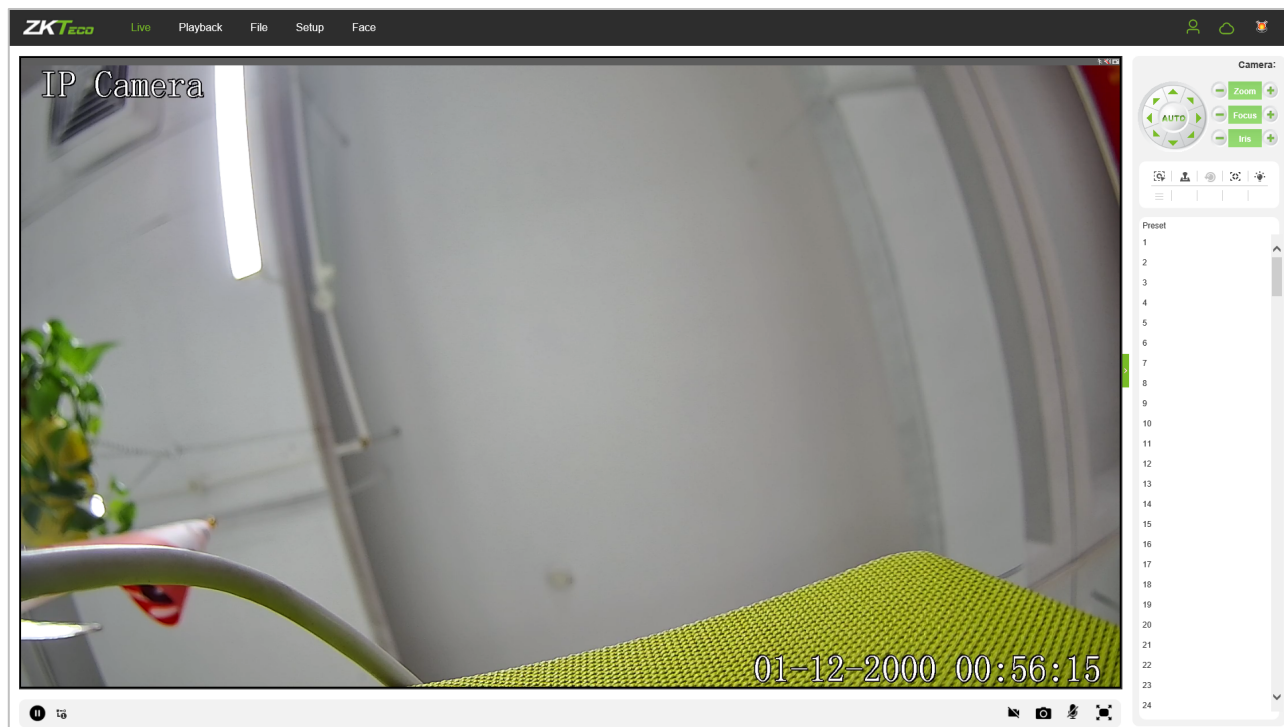
Warm Tips: Please contact the manufacturer to provide relevant information for reset information!

Save

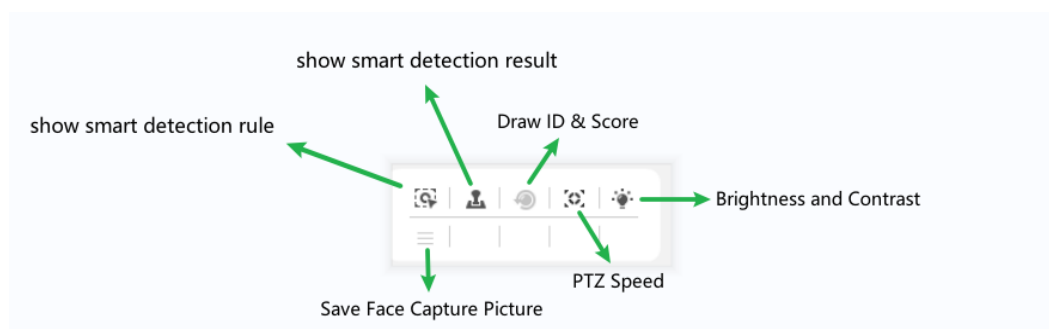
Back



## 2. Live Videos

After logging in, you will enter the live video interface, as shown in the following figure.





**Note:** You have to insert a TF card first to access the full function display interface; otherwise, the system will only show you the simplified version.




- **Show Smart Detection Rule:** Show the rules of smart detection
- **Show Smart Detection Result:** Show the result of smart detection
- **Save Face Capture Picture:** Save face capture instantly
- **Draw ID & Score:** Shows the face's randomly assigned ID and quality score
- **PTZ Speed:** Modify the speed of the rotation of the PTZ's pan-tilt head, with 10 levels to choose from
- **Voice Talking:** Click  to enable or disable voice intercom.
- **Capture:** Click  to take screenshots. Click on the icon, the system will pop up a storage path automatically.



- **Full Screen:** Click  to display full-screen video preview.
- **Record:** Click  to allow or disallow previewing records.

**Note:** X indicates the function is off or disabled.

## 2.1. Full-screen Preview

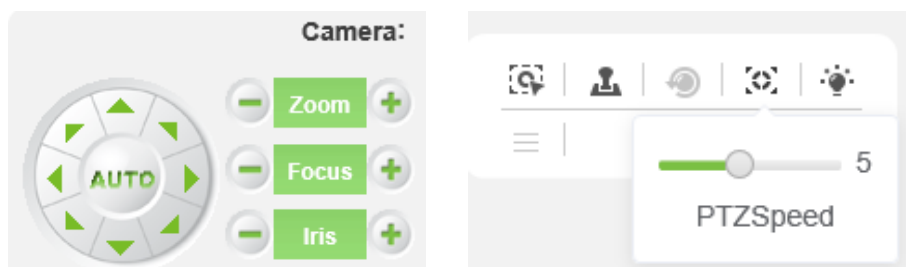
Click on the full-screen icon  in the lower right corner to get a full-screen preview. Or, you may right-click to access (and exit) the full screen display on the preview interface.

## 2.2. Electronic Zoom-in

You may zoom in the preview image by scrolling the mouse wheel, as shown in the following figure:

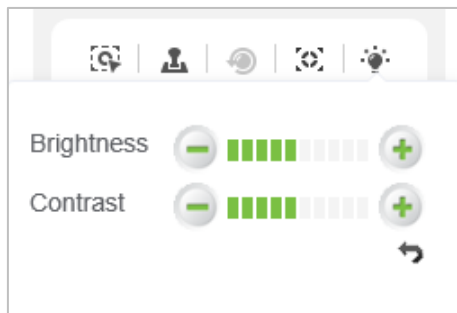



## 2.3. PTZ control



- **PTZ Control:** To use eight directional keys to change the image orientation or click on the “AUTO” button to allow auto-rotation.
- **Zoom In/ Out:** To adjust the extent of zooming in or out.




- **Focus:** To adjust the size of focus.
- **Iris:** To adjust the size of aperture.
- **PTZ Speed:** Modify the speed of the rotation of the PTZ's pan-tilt head, with 10 levels to choose from.



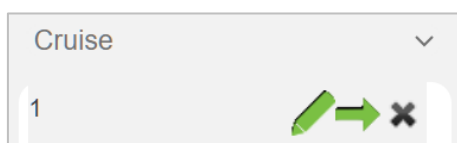
- **Brightness:** To adjust the brightness of the screen.
- **Contrast:** To adjust the contrast of the screen. The  arrow is used to restore factory settings


### 2.3.1. Preset



- **Set a Pre-set Point:** Set a pre-set point by using directional keys on the PTZ control to rotate the camera to the desired location, then select a pre-set value from the pre-set point drop-down list, and then press the  "Set" button.
- **Call a Pre-set Point:** Call a pre-set point by selecting a pre-set number to be called from the pre-set point drop-down list, and then press the  "Call" button.
- **Clear Preset Point:** Click the  "Clear" button to clear the corresponding preset point

### 2.3.2. Cruise





- **Set a Cruise Plan:** Click the  "set" button to set a cruise plan. After clicking, a setting page will appear. Select the preset point (the corresponding preset point needs to be set in the preset point

module in advance), the stay time, and click the add button to add the preset point to the plan. If you need to delete the preset point, click the del button. Click the exit button to save and exit the setting page.

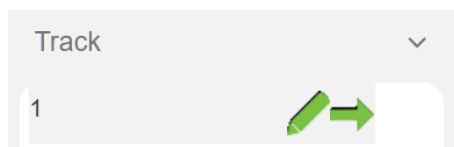
Preset	Dwell Time(sec)	Cruise Speed	Operation
6	10	5	<a href="#">Del</a>

Preset: 1    Dwell Time(sec): 10    Cruise Speed: 5

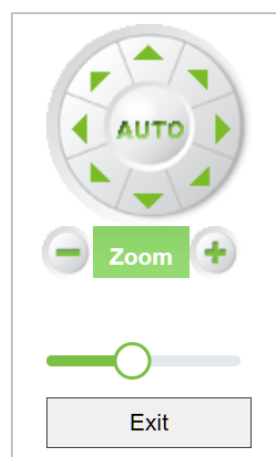
Add    Del    Exit


- **Call a Cruise Plan:** Click the  "Call" button to call the preset point, and the camera will cruise according to the set plan. **Please note that during the process of going to the next preset point, the camera cannot be interrupted by other operation commands. If you need to perform other tasks, please execute other control commands while staying at the preset point.**
- **Clear Cruise Plan:** Click the  "Clear" button to clear the corresponding cruise plan

### 2.3.3. Track



- **Set a Track Plan:** Click the set button to set the track plan. The setting page allows you to freely set the movement trajectory and dwell time of the PTZ. Click the directional keys to rotate the PTZ directions. Click the zoom button to zoom in and out of the lens. Drag the horizontal bar to adjust the speed of the PTZ rotation. Click the exit button to save and exit the setting page.





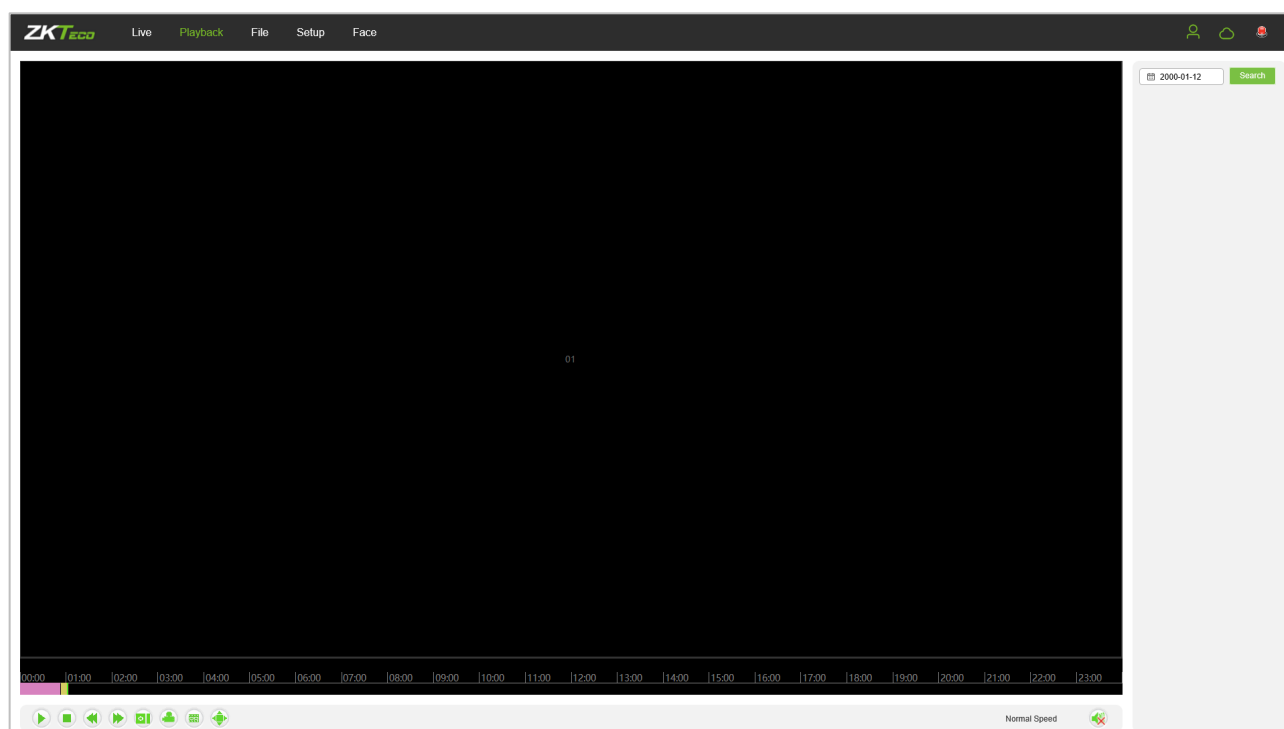
- **Call a Track Plan:** Click the "Call" button to execute the corresponding track plan. Please note that during the cruise process, performing other actions such as pan-tilt rotation will end the ongoing track plan.
- **Clear Cruise Plan:** Click the  "Clear" button to clear the corresponding track plan.










### 3. Playback

(The function is subject to the actual products.)

**Note:** You have to insert a TF card first to access the full function display interface; otherwise, the system will only show you the simplified version.

Click on “Playback” to access the playback interface; click on the icon  , select the date and time of videos to be retrieved, then click on the icon  , the system will then search for the corresponding videos automatically, as shown in the following figure:

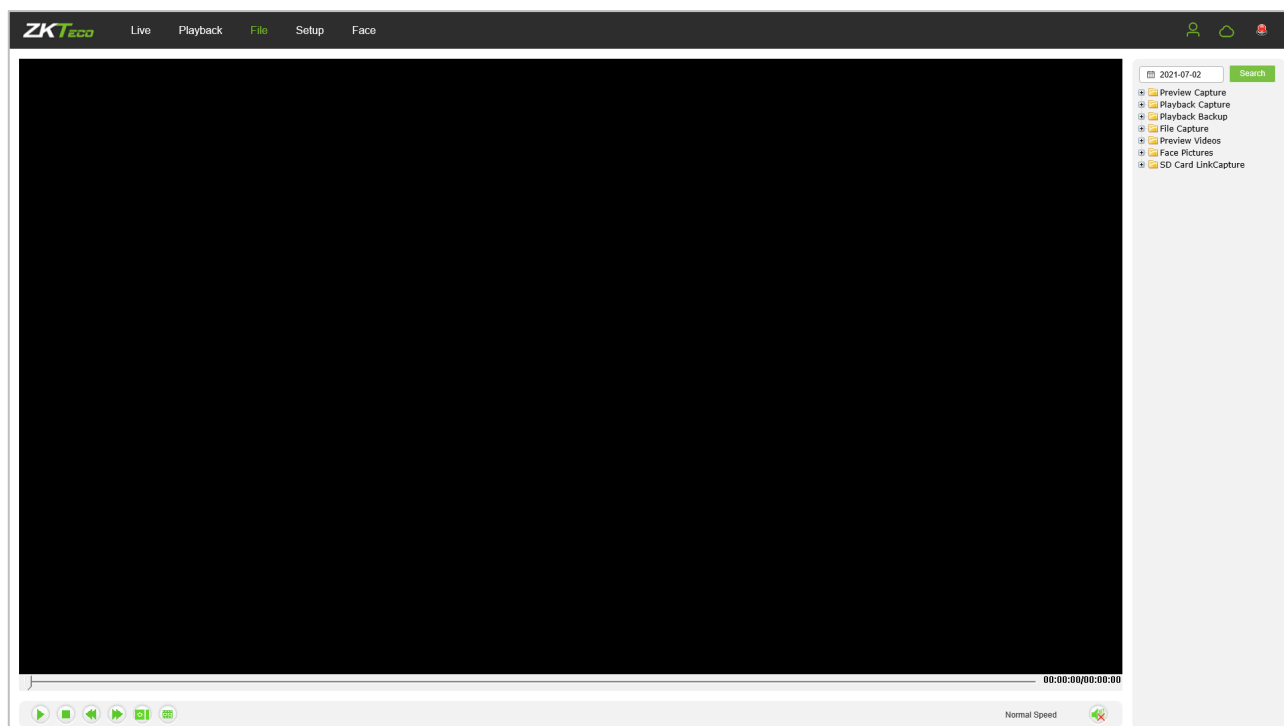


-  **Start:** Start the playback.
-  **Stop:** Stop the playback.
-  **Slow:** Slow down the playback speed (1/2, 1/4, 1/8, 1/16 times).
-  **Fast:** Speed up the playback speed (2, 4, 8, 16 times).
-  **Snapshot:** Take snapshots in a playback channel.
-  **Backup:** Back up videos in a playback channel.
-  **Frame Play:** Play by single frame.
-  **Full Screen:** Play videos back in full screen.
-  **Voice:** Adjust the volume of playback audio.

Double-click on the slider to play the video, or you may click the “Start” button to start playing the videos back.

## 4. File Management

**Note:** You have to insert a TF card first to access the full function display interface; otherwise, the system will only show you the simplified version.

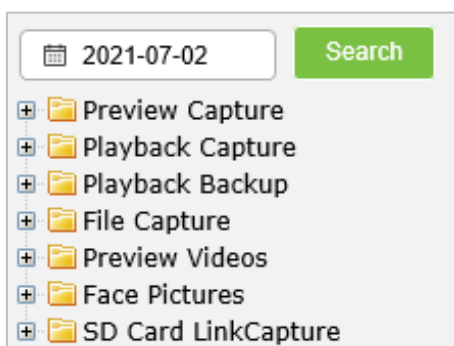


- **Face Picture:** Capture image after face verification successfully

### 4.1. Search

Input a concrete time, and click on the **Search** button, the lower part of the screen will display the searched images and videos. You may double-click on the searched results to access files you need.

**Note:** You may modify the storage paths of the selected videos or images. A short description will be given below. For more details, please go to Setup → Local Settings.



### 4.2. Preview Capture

To review captured images from video preview; you may search for and double click to obtain images you need.

### 4.3. Playback Capture

To review captured images from video playback; you may search for and double click to obtain images you need.

### 4.4. Playback Backup

To retrieve video files; you may search for and view videos files.

### 4.5. File Capture

To review captured images from the file management interface; you may search for and double click to obtain the images you need.








### 4.6. Preview Videos

To preview videos recorded; you may search for and double click to access the videos you need.

### 4.7. SD Card Link Capture

To review snapshots from a SD card; you may search for and double click to access the videos you need.

### 4.8. Backup Video Play

- **Start:** Click on the  button to play a selected backup video.
- **Stop:** Click on the  button to stop playing the video.
- **Slow:** Click on the  button to slowly play the video back.
- **Fast:** Click on the  button to fast-forward the video.
- **Frame:** Click on the  button to play the video by frame.
- **Capture:** Click on the  button to take a snapshot of the display during playback.
- **Voice:** Click on the  button to turn sound on or off during playback.

## 5. Parameter

**Note:** You have to insert a TF card first to access the full function display interface; otherwise, the system will only show you the simplified version.

### 5.1. Device Information

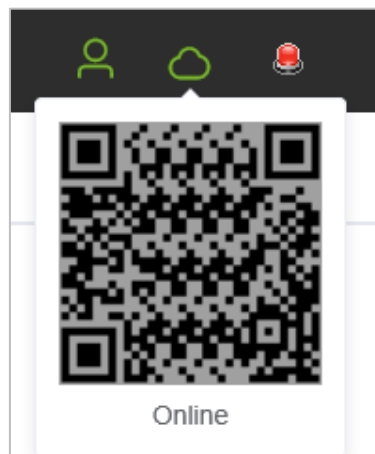
Below is the Device Information interface of the IP camera:

- **Device Name:** Edit the camera name.
- **Device Type:** Display the device type.
- **Serial No:** Display the product serial number.
- **Firmware Version:** Display information about the firmware version.
- **Hardware Version:** Display the version number of the hardware.
- **Format:** Select between PAL and NTSC image scanning system.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

### 5.2. QR Code

IPC with P2P function can be remotely connected to the mobile APP by scanning the QR Code on this page.





### 5.3. PTZ Settings

Below is the PTZ Settings interface of the IP camera:

The screenshot shows the ZKTeco web interface with the 'Setup' tab selected. Under the 'Device' section, the 'PTZ' sub-tab is active. The settings include:

- Protocol:** A dropdown menu currently set to 'pelcoD'.
- Address:** A text input field containing the value '1'.
- Baud Rate:** A dropdown menu currently set to '9600'.
- Save:** A green button at the bottom to save the settings.

The left sidebar shows navigation options: Device, Audio&Video, Network, Alarm, IVA, Storage, and Maintain.

- **Protocol:** multiple protocols available.
- **Address:** 0-255 address codes available.
- **Baud Rate:** diverse baud available
- **Operation Method:** Login the PTZ camera web interface, "Setup" ==> "Device" ==> PTZ, set a protocol and baud rate. After completing all parameters settings, click on "Save", then the settings will take effect immediately.

### 5.4. Time Settings

Below is the Time Settings interface of the IP camera:

The screenshot shows the ZKTeco web interface with the 'Setup' tab selected. Under the 'Device' section, the 'Time' sub-tab is active. The settings include:

- Device Time:** A clock icon and a text input field showing '2000-01-12 01:09:28'. There are 'Timing' and 'PC' buttons next to it.
- TimeZone:** A dropdown menu currently set to 'GMT+08:00 Beijing'.
- NTP:** A toggle switch that is currently turned off.
- Server Address:** A text input field containing 'asia.pool.ntp.org'.
- Interval:** A text input field containing '2' with a unit of 'hour'.
- DST:** A toggle switch that is currently turned off.
- From:** A series of dropdown menus for date and time: 'January', '1 Week', 'Sun', '0 Hour', and '0 Minute'.
- To:** A series of dropdown menus for date and time: 'January', '1 Week', 'Sun', '0 Hour', and '0 Minute'.
- DST Bias:** A text input field containing '0' with a unit of 'Minute'.
- Save:** A green button at the bottom to save the settings.

The left sidebar shows navigation options: Device, Audio&Video, Network, Alarm, IVA, Storage, and Maintain.

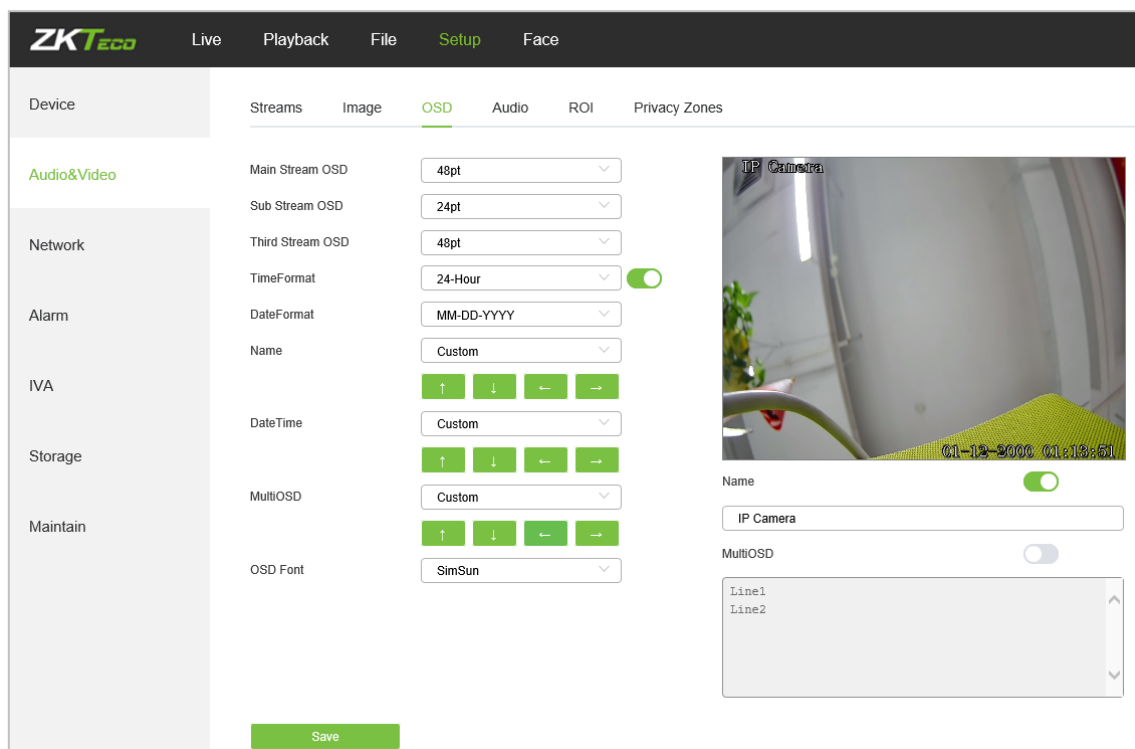
- **Device Time:** Set and display the current time of the camera.
- **Time Zone:** Different time zones are available.
- **Enable NTP:** Click to enable or disable NTP.
- **Server Address:** Input the IP address of the NTP server.
- **Interval:** Input the interval of time.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

- **Enable DST:** Daylight saving time
- **DSTBias:** the length of the additional offset after starting daylight saving time (0-720 points)

## 5.5. Display Settings

Below is the Display Settings interface of the IP camera:



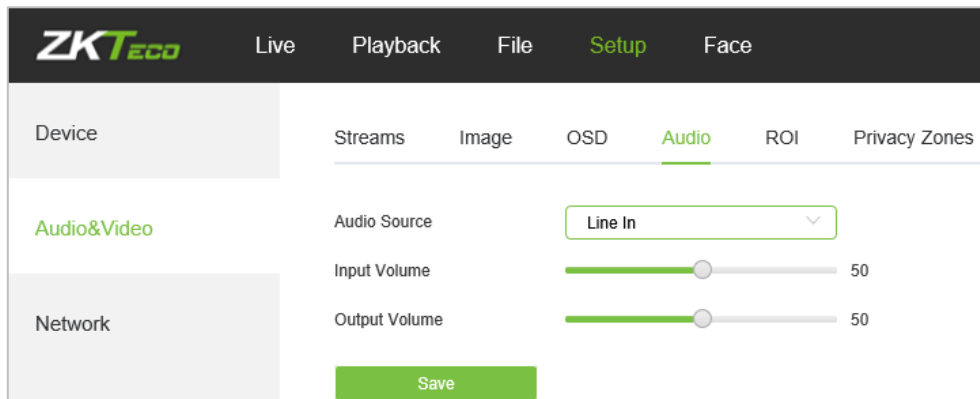
- **Name:** Modify the appointed channel name.
- **Main Stream OSD:** Modify the appointed font of the OSD in main stream preview channel.
- **Sub Stream OSD:** Modify the appointed font of the OSD in sub stream preview channel.
- **Three Stream OSD:** Modify the appointed font of the OSD in three stream preview channel.
- **Multi OSD:** Add a multi-user-defined OSD, which you may choose whether to display.
- **Time Format:** Select different time format for the appointed channel.
- **Date Format:** Select different date format for the appointed channel.
- **Name:** Set the location of the title for the appointed channel.
- **Date Time:** Set the location of the date for the appointed channel.

- **Multi OSD:** Set the position of multi OSD.
- **OSD Color:** Set the color of the OSD font.
- **OSD Font:** Select OSD font.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.6. Audio Settings

Below is the Audio Settings interface of the IP camera:

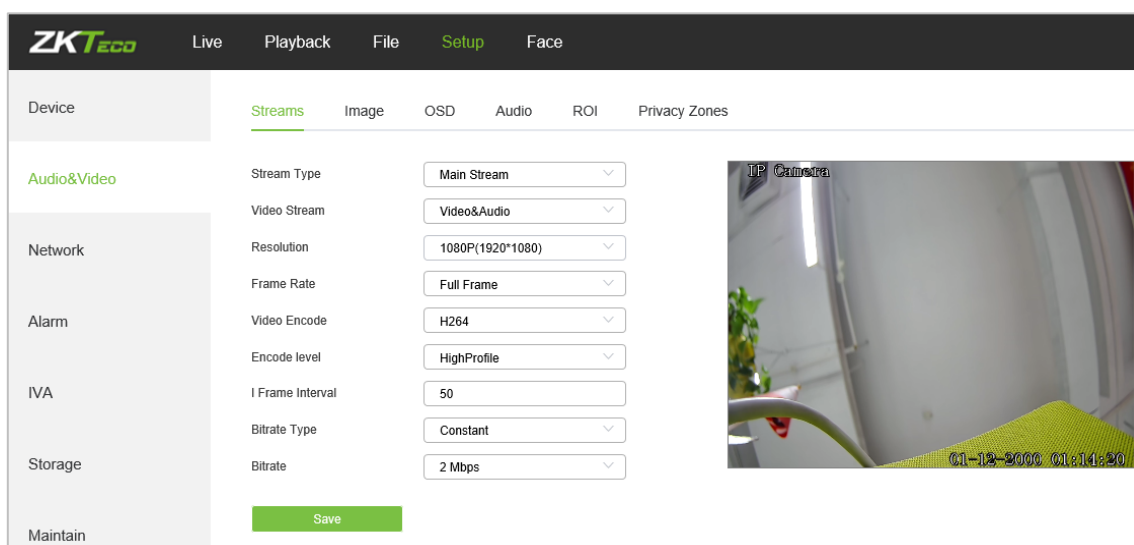


- **Audio Source:** Select the audio input mode between Line In and Mic In.
- **Input Volume:** Set the input volume which ranges from 0 to 100; the default settings is 50.
- **Output Volume:** Set the output volume which ranges from 0 to 100; the default settings is 50.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.7. Streams

Below is the Streams setting interface of the IP camera:



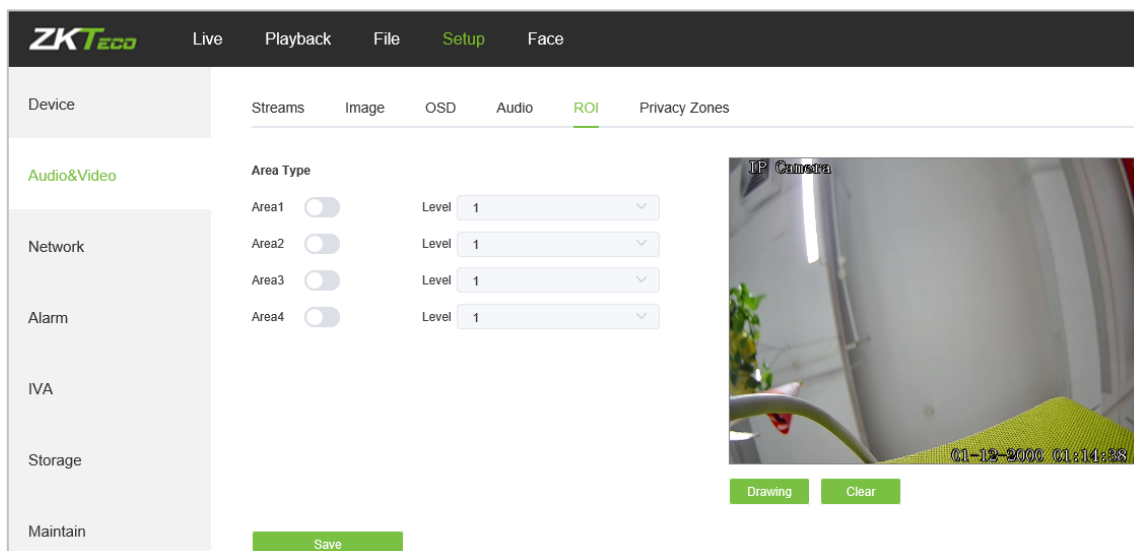
- **Stream Type:** Main stream/ Sub-stream/Third Stream
- **Video Stream:** Video&Audio/ Video

- **Resolution:** Several resolutions available (Note: Based on the defaulted resolution of different products).
- **Frame Rate:** Select different frame rates from the drop-down list; the default settings is “Full Frame”.
- **Video Encode :** H.264/ H.265.
- **Encode level:** Main profile/ Baseline/ High Profile.
- **I Frame Interval:** Set the interval size of I frame.
- **Bitrate Type:** Constant/ variable.
- **Bitrate:** Set different bitrates for different channels (**Note:** Based on the defaulted resolution of different products)

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.8. ROI Settings

Below is the ROI Settings interface of the IP camera:

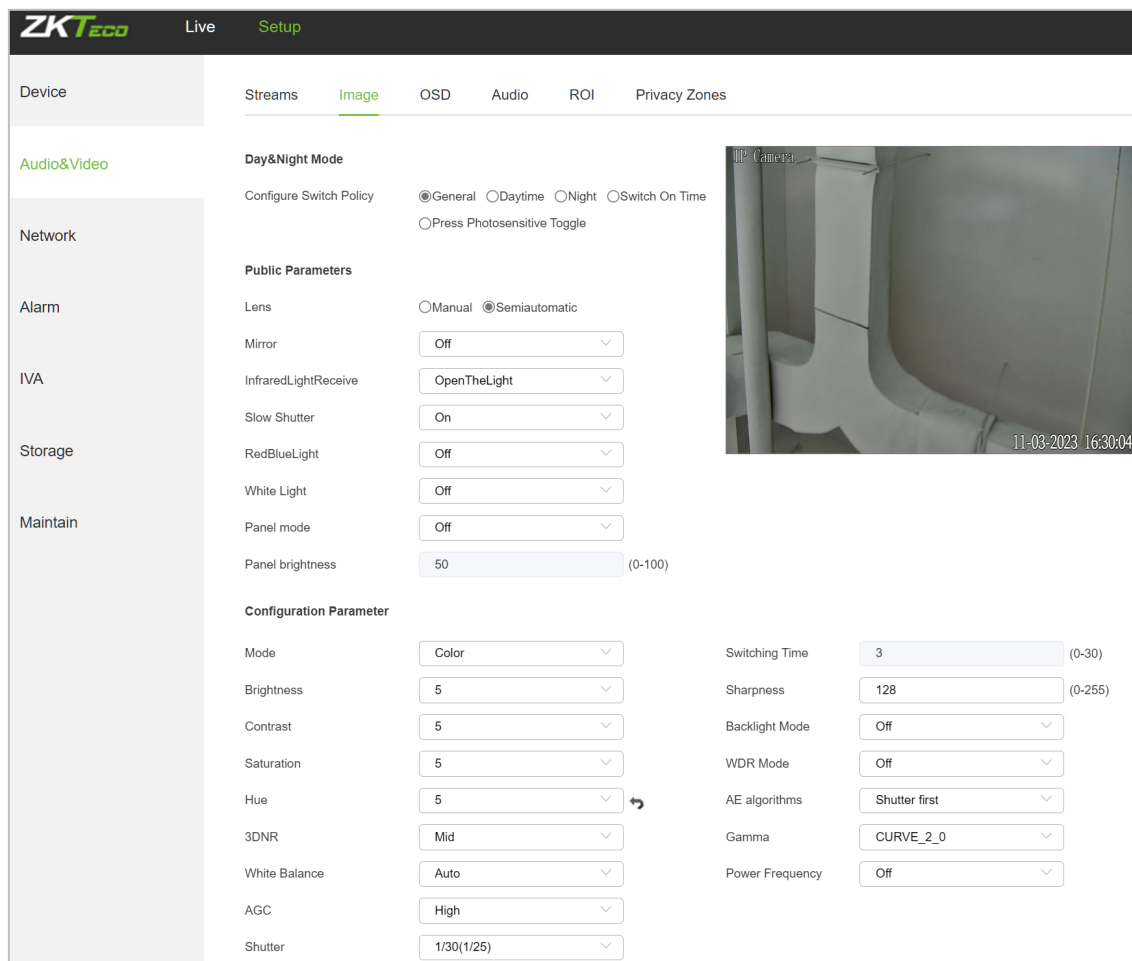


- **ROI Settings:** On the preview window, hold the left mouse button and drag to set the ROI area. There are a total of four ROI areas available. Click on **Enable:** ☒ to set the corresponding ROI region coding level; the higher level the coding, the stronger the ROI region encoding.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.9. Image Parameters

Below is the Image Parameters interface of the IP camera:



- **Day/Night Mode:** Outside Trigger/ Auto/ Color/ Black White. The default setting of non-infrared IP cameras is "Auto", and the default setting of infrared IP cameras is "Outside Trigger". Users may set the Day/Night mode as needed according to the type of the IP camera and the actual application environment.

**Public Parameters** (Some parameters only support models that are displayed):

- **Lens:** Adjust the focus mode of the lens. In the semi-automatic mode, the lens will automatically focus. In the manual mode, the lens will not automatically focus. After adjusting the lens magnification, you need to manually focus.
- **Mirror:** Off Horizontal Mirror/ Vertical Mirror/ 180° Rotation/90° Rotation/270° Rotation ; the default setting is "Off".
- **InfraredLightReceive:** When enabled, it will automatically adjust the infrared light brightness to adapt to the ambient brightness.
- **Slow Shutter:** Off/On; the default setting is "Off".
- **RedBlueLight:** When enabled, the red and blue lights will light up when the trigger conditions are met.

- **White Light:** When turned on, the white light will light up when the trigger conditions are met.
- **Panel mode:** Used to control the infrared lamp on/off/brightness adjustment. After selecting auto, you can select the corresponding infrared lamp brightness in Panel Brightness.

#### Configuration Parameter:

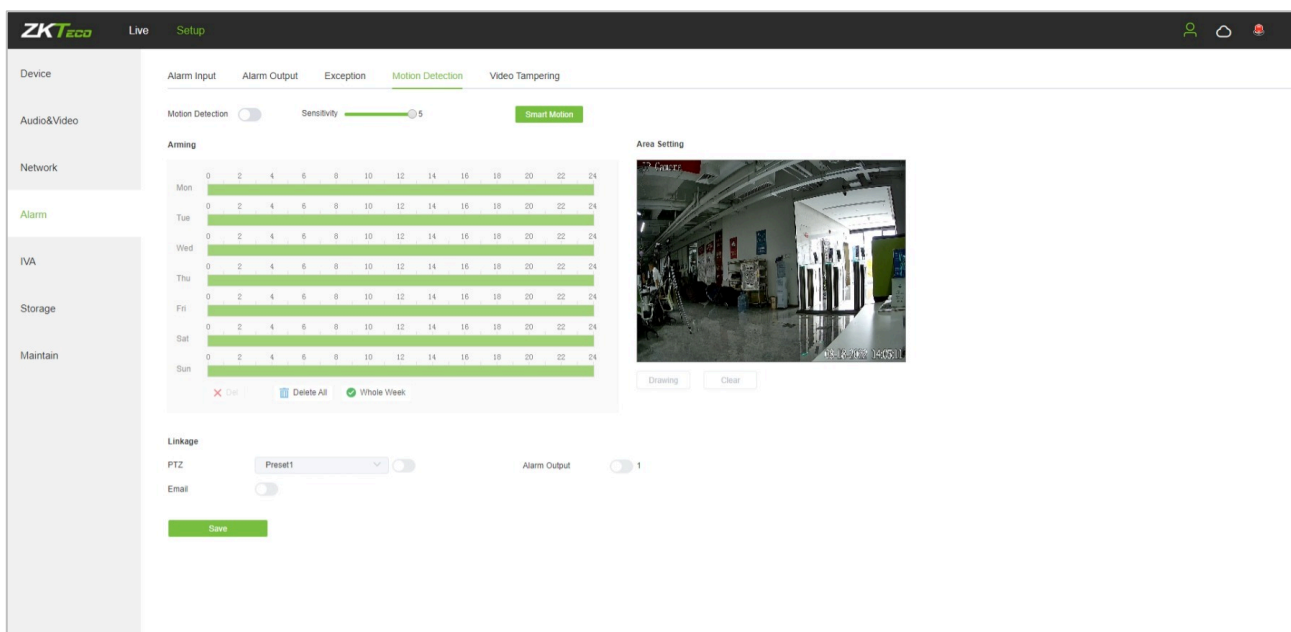
- **Switching Time:** Day & Night switch delay time which ranges from 0-30s; the default setting is 3s.
- **Day/Night:** ranges from 0 to 255. Users may set the value as needed; the default setting is 20.
- **Night/Day:** ranges from 0 to 255. Users may set the value as needed; the default setting is 35.
- **Color Mode:** Normal/ Bright/ Nature; the default setting is "Normal"
- **WDR Mode:** Off/ BLC/ WDR; the default setting is "Off".
- **3DNR:** Off/ Low/ Mid/ Mid-High/ High; the default setting is "Low".
- **Sharpness:** ranges from 0 to 255; the default setting is 128.
- **Defogging:** Off/ Low/ Mid/ High; the default setting is "Off".
- **White Balance:** Users may set the value of white balance. "Auto white balance" is suitable for normal light environment. Users may adjust the white balance mode from the drop-down list.
- **Exposure Control:** Auto/ manual; the default setting is "Auto".
- **AE algorithms:** Shutter first/ gain first; the default setting is "Shutter first".
- **AGC:** AGC can be set when the camera is automatically exposed. You may select from Low/ Mid-Low/ Mid/ Mid-High/ High; the default settings is "Mid-High". The larger the "Auto Gain" value, the better the sensitivity under low illumination, and the more obvious the noise will be.
- **Shutter:** You may set manual exposure; the value ranges from 1/25(30) to 1/10000.
- **Aperture:** Depending on the type of IPC lens, the aperture can be divided into manual aperture and auto aperture (**Note:** based on the defaulted aperture of different products); and the lens can be divided into manual focus and vari-focus.
- **Gamma:** A total of four modules: CURVE\_1\_6, CURVE\_1\_8, CURVE\_2\_0, CsURVE\_2\_2; the default setting is CURVE\_2\_0.
- **Power Frequency:** There are three options: off, 50hz, 60hz; the default setting is "off".
- **Light board control mode:** There are three LED board control modes: off, manual, auto; the default setting is "auto".
- **Off mode:** The IR LED will not be turned on.
- **Manual mode:** The brightness of the LED board can be adjusted by manually changing the related parameters, and the value ranges from 1 to 100. The larger the parameter value, the brighter the IR LED.
- **Auto mode:** The brightness of the LED board can be adjusted automatically.
- **Brightness:** The brightness of the LED board can be set when the LED board control is under "Manual" mode. The value ranges from 1 to 100.

- **Target Brightness:** Adjust the target brightness
- **AE algorithms:** Priority selection of adjusting the brightness
- **AGC:** Improve the image signal to amplification the brightness, which will amplification the image noise
- **Model:** Brightness adjustment mode of InfraredLight
- **Brightness:** Manually set the brightness of the InfraredLight

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.10. Motion Detection

Below is the Motion Detection setting interface of the IP camera:



- **Enable:** Select whether to enable the Motion Detection function.
- **Sensitivity:** The higher the sensitivity, the more obvious the motion detective effect will be.
- **Week:** The Detection time can be set from Monday to Sunday.
- **Arming Schedule:** Set up an arming period; you may set up to 8 time periods for a day.
- **Area Setting:** On the “Area Setting” preview interface, left-click and drag the mouse to set the area to be monitored.
- **Clear:** Click on “Clear” to clear the current controlled areas.
- **Email:** Click on “Email”. Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Click on “Snap”. Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on “Record”. Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card.

- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When motion detection triggers an alarm, the alarm will link with the preset point.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

### 5.10.1. Smart Motion

- **Enable:** Select whether to enable the Motion Detection function.
- **Week:** The Detection time can be set from Monday to Sunday.
- **Arming Schedule:** Set up an arming period; you may set up to 8 time periods for a day.
- **Area Setting:** On the “Area Setting” preview interface, left-click and drag the mouse to set the area to be monitored.
- **Clear:** Click on “Clear” to clear the current controlled areas.
- **Detect Area:** Add controlled zones (max. 4).
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.

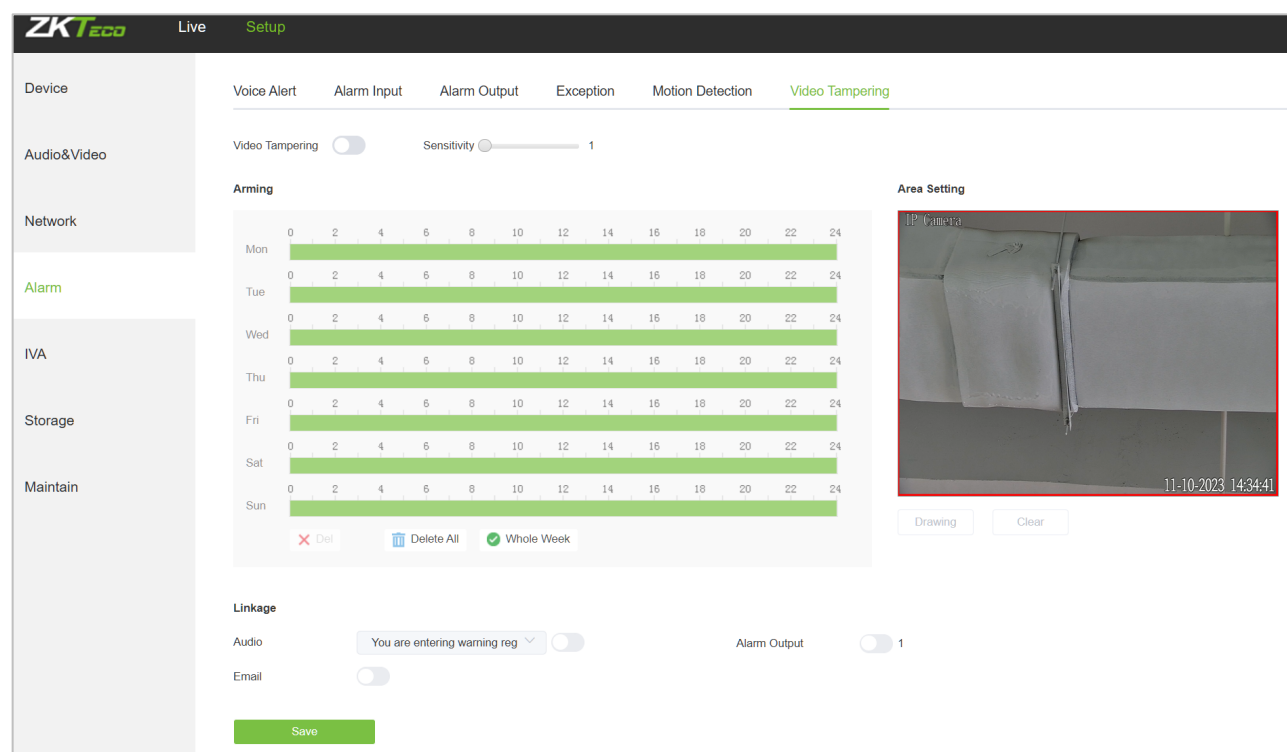


- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Sensitivity:** The higher the sensitivity, the more obvious the motion detective effect will be.
- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When motion detection triggers an alarm, the alarm will link with the preset point.
- **Snap:** Click on "Snap". Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card.
- **Audio:** Turn on the corresponding human/vehicle option to play the selected voice when the alarm is triggered. For voice settings, please refer to Section 5.37.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.11. Video Tampering

Below is the Video Tampering setting interface of the IP camera:



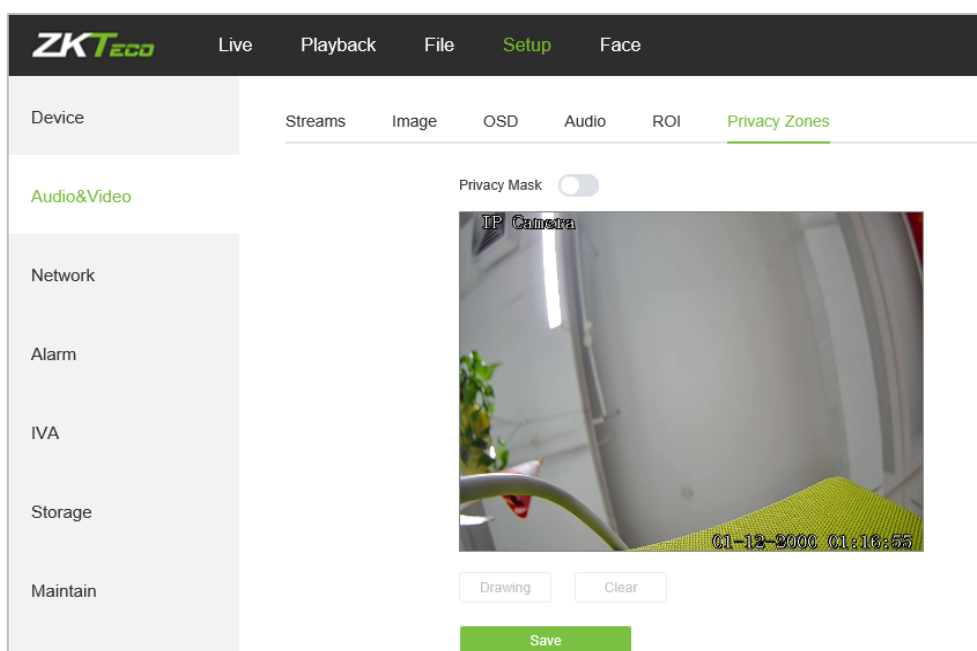
- **Enable:** Select whether to enable the video tampering function.
- **Sensitivity:** The higher the sensitivity, the easier to trigger the video tampering alarm.

- **Week:** The protection time can be set from Monday to Sunday.
- **Arming Schedule:** Set up a protection period; you may set up to 8 time periods for a day.
- **Area Setting:** On the "Area Setting" preview interface, left-click and drag the mouse to set the area to be monitored.
- **Clear:** Click on "Clear" to clear the current controlled areas.
- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Click on "Snap". Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When video tampering triggers an alarm, the alarm will link with the preset points.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.
- **Audio:** Turn on the corresponding human/vehicle option to play the selected voice when the alarm is triggered. For voice settings, please refer to Section 5.37.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.12. Privacy Mask

Below is the Privacy Mask setting interface of the IP camera:



- **Enable:** Enable or disable the Privacy Mask feature.
- **Area Settings:** Left-click and drag the mouse on the Area Settings preview interface drawing to set the mask area.
- **Clear:** Click on “Clear” to delete the current controlled area.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.13. Target Counting

Below is the Target Count setting interface of the IP camera:

The screenshot displays the ZKTECO web interface for configuring target counting. The sidebar on the left contains navigation links: Device, Audio&Video, Network, Alarm, IVA, Storage, and Maintain. The main panel has four tabs: Target Count (selected), Object Left/Lost, Area Detection, and Line Crossing. Under the Target Count tab, there is a 'Target Count' toggle switch. The 'Arming' section features a weekly schedule grid with time slots from 0 to 24 hours for each day of the week (Mon-Sun). Below the grid are buttons for 'Del', 'Delete All', and 'Whole Week'. The 'Setup' section includes various configuration options: Flow Count (toggle), Interval (0s), Threshold (0), Total Count (toggle), Time (0:00), Alarm Threshold (0), Target Percent (0-100), Linkage (Audio and Email), and Object Type (Human and Vehicle). The 'Area Setting' preview window shows a camera view with a test line and buttons for 'Drawing', 'Clear', and 'Swap AB'.

- **Enable:** Enable or disable the target counting function.
- **Arming Schedule:** Arm schedule can be set from Monday to Sunday.
- **Area Setting:** Click on “Drawing”, then left-click and drag the mouse button to set the test line on the Area Settings preview interface. Click on “Stopping” to complete the setting, then the system will count the number of targets passing through the line.
- **Clear:** Click on “Clear” to delete all the test lines.
- **Swap AB:** Click on “Swap AB” to exchange position between A and B.
- **Test Line:** Add test lines (max. 4 test lines).

- **Statistics:** Set the test lines for targets passing through. There are two statistical methods:  $A \rightarrow B$  and  $B \rightarrow A$ .  $A \rightarrow B$  will increase the count by default, and  $B \rightarrow A$  can be set to increase the count, decrease the count or ignore.
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Flow Count:** Enable or disable the Flow Counter feature.
- **Interval:** Set the counting time interval. When the counting time exceeds the time interval set, the flow counter will reset and enter next counting period automatically.
- **Threshold:** Set the upper count limit. When the value exceeds the set value, the system will automatically trigger the alarm.
- **Total Count:** Enable or disable the Total Counter function.
- **Time Period:** Set the effective time period for the day's total counter.
- **Alarm Threshold:** Set the upper limit of the total flow on a day. When the value exceeds the set value, the system will automatically trigger the alarm.
- **Target Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Click on "Snap". Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card (for cameras which support TF cards only).
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When target counting triggers an alarm, it will link the pre-sets.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.
- **Audio:** Turn on the corresponding human/vehicle option to play the selected voice when the alarm is triggered. For voice settings, please refer to Section 5.37.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.14. Object Left / Lost

Below is the Object Left/Lost setting interface of the IP camera:

The screenshot displays the ZKTECO web interface for configuring the 'Object Left/Lost' feature. The interface is divided into a sidebar and a main content area. The sidebar contains navigation links: Device, Audio&Video, Network, Alarm, IVA (highlighted), Storage, and Maintain. The main content area has tabs for Target Count, Object Left/Lost (selected), Area Detection, and Line Crossing. Under the 'Object Left/Lost' tab, there is a toggle switch to enable or disable the function. Below this is an 'Arming' section with a grid showing the arming schedule for each day of the week (Mon-Sun) from 0 to 24 hours. To the right of the grid is an 'Area Setting' preview window showing a camera view of a room with a 'Drawing' button to set the detection zone. Below the arming grid are buttons for 'Del', 'Delete All', and 'Whole Week'. The 'Setup' section includes fields for 'Detect Area' (set to 1), 'Detect type' (set to Object Lost), 'Object Percent' (set to 0), 'Time' (set to 6), 'Linkage' (set to 'You are entering warning reg'), 'Audio' (set to 'You are entering warning reg'), and 'Email' (disabled). A 'Save' button is located at the bottom of the setup section.

- **Enable:** Enable or disable the object detection function.
- **Arming Schedule:** Arming schedule can be set from Monday to Sunday.
- **Area Setting:** Click on "Drawing", then left-click and drag the mouse button to set the detect zone on the Area Settings preview interface. Click on "Stopping" to complete the setting, then the system will detect, and monitor objects appeared in the selected area.
- **Clear:** Click on "Clear" to delete all zones.
- **Detect Area:** Add controlled zones (max. 4).
- **Detect Type:** Set the object detection type. There are three detection types, all of them are able to trigger the alarm. "Item lost" represents that the camera will trigger the alarm once it detects that an item originally in the monitored area is missing; "Item left" represents that the camera will trigger the alarm once it detects a new item in the detection area; "Item lost or left" represents that the camera will trigger the alarm once it detects that an item is missing and/or a new item in the controlled area.
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Detect Time:** Set the upper limit of item lost and item left. When it exceeds the set value, the system

will trigger the alarm automatically

- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Click on "Snap". Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card. (Only effect on camera which supports TF Card)
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When object detection triggers an alarm, it will link with the preset points.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.
- **Audio:** Turn on the corresponding human/vehicle option to play the selected voice when the alarm is triggered. For voice settings, please refer to Section 5.37.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.15. Area Detection (Intrusion Detection)

Below is the Area Detection setting interface of the IP camera:

The screenshot displays the ZKTECO web interface for configuring Area Detection. The left sidebar contains navigation links: Device, Audio&Video, Network, Alarm, IVA, Storage, and Maintain. The main area is titled 'Setup' and includes tabs for Target Count, Object Left/Lost, Area Detection (selected), and Line Crossing. The 'Area Detection' section features a calendar grid for setting detection times (0-24 hours) for each day of the week. Below the calendar are buttons for 'Del', 'Delete All', and 'Whole Week'. To the right, an 'Area Setting' preview shows a camera view with a red detection area. The bottom section contains various configuration parameters: 'Detect Area' (set to 1), 'Object Percent' (0), 'Object Type' (Human checked), 'Detect type' (Target Enter or Leave), 'Time' (0s), 'Trace' (unchecked), 'Linkage' (Audio and Email options), and 'Alarm Output' (set to 1). A 'Save' button is located at the bottom of the configuration area.

- **Enable:** Enable or disable the area detection function.
- **Arming Schedule:** Arming schedule can be set from Monday to Sunday.
- **Area Setting:** Click on "Drawing", then left-click and drag the mouse button to set the detect zone on the area settings preview interface. Click on "Stopping" to complete the setting, then the system will detect, and monitor objects appeared in the selected area.
- **Clear:** Click on "Clear" to delete all zones.
- **Detect Area:** Add controlled zones (max. 4).
- **Trace:** When the tracking function is enabled, when the human/vehicle alarm is triggered, the camera will track the target that triggered the alarm first. After 5 seconds of losing the target, the camera will return to the guard position to continue monitoring the target area. Please note that enabling this function will interrupt the camera's current cruise or track task.
- **Detect Type:** Set the target detect type. There are four detection types, all of them will trigger the alarm. "Target enter" represents that the camera will trigger the alarm once it detects that a target enters the monitored zone; "Target leave" represents that the camera will trigger the alarm once it detects that a target leave the zone; "Target enter or leave" represents that the camera will trigger the alarm once it detects that a target enters and/or leave the zone. The last type is that the camera will trigger the alarm once it finds that the time that a target staying in the controlled area exceeds the upper limit of the set and allowed duration.
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Detect Time:** When the staying time of the set target in the monitored area exceeds the set duration, the system will trigger the alarm.
- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Click on "Snap". Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card (for cameras which support TF cards only).
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Snap Interval:** Set the time intervals for taking snapshots.

- **Snap Number:** Set the number of snapshots taken each time.
- **Audio:** Turn on the corresponding human/vehicle option to play the selected voice when the alarm is triggered. For voice settings, please refer to Section 5.37.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.16. Line Crossing (Tripwire)

Below is the Line Crossing setting interface of the IP camera:

The screenshot shows the ZKTECO web interface for configuring the Line Crossing (Tripwire) feature. The interface includes a sidebar with navigation options and a main configuration panel. The 'Line Crossing' section is active, showing a toggle switch, an arming schedule for all days of the week, and an area setting preview. The setup section allows for configuring detection area, object percentage, tracking, detection type, object type, audio warnings, and alarm output.

- **Enable:** Enable or disable the virtual guard function.
- **Arming Schedule:** Arm schedule can be set from Monday to Sunday.
- **Area Setting:** Click on “Drawing”, then left-click and drag the mouse to set guard lines on the area settings preview interface. Click on “Stopping” to complete the setting. When a target passes through the guard line, the system will trigger the alarm.
- **Trace:** When the tracking function is enabled, when the human/vehicle alarm is triggered, the camera will track the target that triggered the alarm first. After 5 seconds of losing the target, the camera will return to the guard position to continue monitoring the target area. Please note that enabling this function will interrupt the camera's current cruise or track task.
- **Clear:** Click on “Clear” to delete all zones.
- **Swap AB:** Click on “Swap AB” to swap the positions of A/B ports.



- **Detect Area:** To add new guard lines (max. 4 guard lines).
- **Detect Type:** Set the guard lines to trigger the alarm. "A→B" refers to targets passing through the guard lines from area A to area B will trigger the alarm. "A←→B" refers to targets passing through the guard lines either from area A to area B or from area B to area A will trigger the alarm.
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.
- **Audio:** Turn on the corresponding human/vehicle option to play the selected voice when the alarm is triggered. For voice settings, please refer to Section 5.37.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.17. Video Plan

Only displayed on TF Card supported camera.

Below is the Video Plan setting interface of the IP camera:

- **Video Mode:** Select a video mode. There are four modes available: Time recording + Alarm recording, Time recording, Alarm recording, No video.
- **Week:** Set the recording time from Monday to Sunday.
- **Pre Record:** Set pre-recording time.
- **Post Record:** Set the recording delay time.
- **Video Edge IP Address:** Enter the IP address of NVR or the server.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.18. Network Settings

Below is the Network Settings interface of the IP camera:

The screenshot displays the ZKTECO Network Settings interface. The sidebar on the left lists various configuration categories, with 'Network' currently selected. The main configuration area is divided into several sections: 'Network' settings (IP Address, Subnet Mask, Gateway, DNS 1, DNS 2, MAC), 'Media Services' (RTSP Port, RTSP Validation, Main Stream RTSP, Sub Stream RTSP, Third Stream RTSP), and 'PPPOE' settings (PPPOE toggle, Username, Password, Confirm Pwd, PPPoE IP). The 'Static IP' option is selected under the network protocol settings. A green 'Save' button is located at the bottom of the configuration area.

- **IPv4:** IP protocol version No. is 4.
- **Static IP:** The device IP address is permanent.
- **DHCP:** Enable DHCP, then the IP camera will obtain the IP address from the router automatically.
- **IP Address:** Input the corresponding numbers to change the IP address.
- **Subnet Mask:** Input the corresponding IP subnet mask.
- **Gateway:** Input the corresponding gateway address.
- **DNS 1:** IP address of the DNS server.
- **DNS 2:** Another IP address of the DNS server.
- **RTSP Port:** Access the device which needs to map RTSP with a domain name; the default port is 554.
- **RTSP Validation:** Choose a RTSP verification mode from Http-Base64, Http-Digest. After choosing and activating the corresponding RTSP verification mode, during playing RTSP real-time stream, RTSP validation operations need the user name and password for verification.
- **RTMP Port:** Domain name, which is used to access the device which needs to map RTMP; the default port is 1935.
- **Username:** PPPOE user name
- **Passwords:** PPPOE password

- **Confirm Pwd:** Confirm password: Enter the password repeatedly
- **PPPOE IP:** IP setting of PPPOE

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.19. HTTP/HTTPS

In the HTTP/HTTPS setting interface, users can make PC log in normally via HTTP/HTTPS.

The screenshot shows the ZKTECO Setup interface. The top navigation bar includes 'Live', 'Playback', 'File', 'Setup' (highlighted), and 'Face'. The left sidebar has 'Device', 'Audio&Video', 'Network' (highlighted), and 'Alarm'. The main content area has tabs for 'Network', 'HTTP/HTTPS' (highlighted), 'Platform', 'Multicast', and 'DDNS'. Under the 'HTTP/HTTPS' tab, there are two sections: 'HTTP' with a toggle switch turned on and a 'Port' field set to 80, and 'HTTPS' with a toggle switch turned on and a 'Port' field set to 443. A green 'Save' button is at the bottom.

- **Enable:** Enable or disable HTTP/HTTPS function.
- **HTTP port:** Port range is 1~65524. The default value is 80.
- **HTTPSs Port:** HTTPSs communication port, range is 1~65534, default is 443.

## 5.20. Management Platform

Below is the Management Platform interface of the IP camera:

The screenshot shows the ZKTECO Setup interface. The top navigation bar includes 'Live', 'Playback', 'File', 'Setup' (highlighted), and 'Face'. The left sidebar has 'Device', 'Audio&Video', 'Network' (highlighted), and 'Alarm'. The main content area has tabs for 'Network', 'HTTP/HTTPS', 'Platform' (highlighted), 'Multicast', 'DDNS', 'UPnP', 'IP Filter', and 'EMAIL'. Under the 'Platform' tab, there is a table with the following data:

No.	Protocol	Status	Operation
1	ATVISP	On	Modify

Users may activate or deactivate a protocol and modify the protocol information here.

## 5.21. Multicast Configuration

Below is the Multicast Config interface of the IP camera:

Category	Section	Setting	Value
Device	Network	Multicast	<input type="checkbox"/>
	Stream	Stream	Main Stream
	Video	IP Address	238.255.0.2
Audio&Video	Port	Port	28080
	TTL	TTL	255 (0-255)
	Audio	IP Address	238.255.0.5
Network	Port	Port	28080
	TTL	TTL	255 (0-255)
	Save	Save	Save

Multicast configuration is disabled by default. By clicking on "Enable Multicast", users may set the IP address, port and TTL of main stream video/audio, sub stream video/audio.

## 5.22. DDNS Settings

DDNS is implemented through a dynamic domain resolution server. It requires a fixed IP address on of the device running on the server. The DDNS setting interface of the IP camera is as shown below:

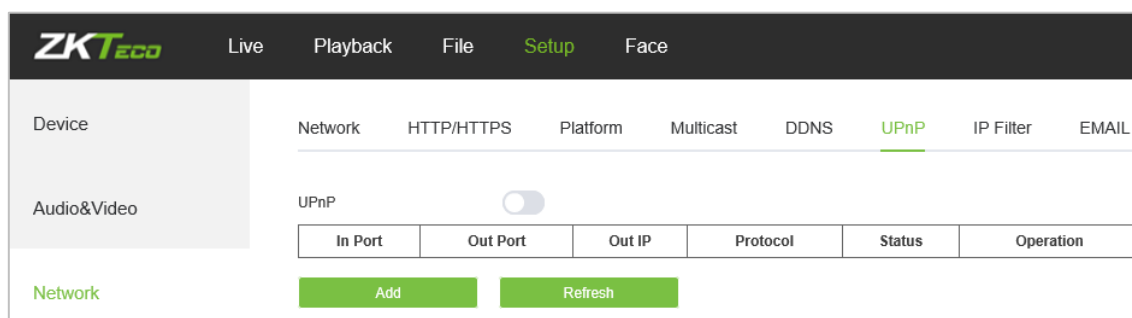
Category	Section	Setting	Value
Device	DDNS	DDNS	<input type="checkbox"/>
	DDNS Type	DDNS Type	DnsDynamic
	Status	Status	Off
Audio&Video	Server Address	Server Address	www.dnssdynamic.org
	Port	Port	80
	Username	Username	
Network	Password	Password	
	Confirm Pwd	Confirm Pwd	
	Domain	Domain	
Alarm	Save	Save	Save

- **Enable DDNS:** Enable or disable DDNS function.
- **DDNS Type:** Select a DDNS server type from Dyndns, PeanutHull, NO-IP, 3322, and DnsDynamic.
- **Status:** Turn on or off the DDNS.
- **Server Address:** Input a server name, for example, dynupdate.no-ip.com.
- **Port:** Input a port. The default port is 80.
- **User Name:** Input a user name.
- **Password:** Input a password.
- **Confirm Pwd:** Input the password again to confirm.
- **Domain:** Input the second domain.

After completing the parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.23. UPnP Settings

Below is the UPnP Settings interface of the IP camera:



- **Enable UPnP:** Activate or deactivate the UPnP function. When it is enabled, the device can port mapping through the router.
- **Add:** User may add TCP/UDP protocol, set internal and external port.

## 5.24. Email Settings

Below is the Email Settings interface of the IP camera:

- **Sender Address:** Input the email address of the sender.
- **Password:** Input the password of the outbox.
- **Confirm Pwd:** Input the password again to confirm.
- **SMTP Server:** Input the SMTP server address of the outbox.
- **SMTP Port:** Input the SMTP server port of the outbox.
- **SSL/Identity verification:** Tick ☐ **SSL** and ☐ **Identity Verification** to send the email correctly and safely.
- **Receiver's Address:** Input the address of the inbox, fill in the address of the receiving email; you may fill in 3 other receivers' addresses.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.25. FTP Settings

Below is the FTP Settings interface of the IP camera:

The screenshot displays the ZKTECO web interface for FTP configuration. The top navigation bar includes 'Live', 'Playback', 'File', 'Setup', and 'Face'. The left sidebar lists 'Device', 'Audio&Video', 'Network', 'Alarm', and 'IVA'. The 'Network' section is expanded, showing sub-tabs for 'Network', 'HTTP/HTTPS', 'Platform', 'Multicast', 'DDNS', 'UPnP', 'IP Filter', 'EMAIL', and 'FTP'. The 'FTP' sub-tab is selected, revealing input fields for 'Server Address', 'Port' (set to 21), 'Username', 'Password', and 'Path'. A green 'Save' button is located below these fields. A red warning message at the bottom reads: 'Caution: Please enable FTP in the face detection page'.

- **Server Address:** Input the FTP Server address.
- **Port:** Input the FTP server port.
- **Username:** Input the FTP server username.
- **Password:** Input the FPT server password.
- **Path:** Input the file upload path.

## 5.26. SNMP Settings

Below is the SNMP Settings interface of the IP camera:

The screenshot displays the ZKTECO web interface for SNMP configuration. The top navigation bar includes 'Live', 'Playback', 'File', 'Setup', and 'Face'. The left sidebar lists 'Device', 'Audio&Video', 'Network', 'Alarm', and 'IVA'. The 'Network' section is expanded, showing sub-tabs for 'Network', 'HTTP/HTTPS', 'Platform', 'Multicast', 'DDNS', 'UPnP', 'IP Filter', 'EMAIL', 'FTP', and 'SNMP'. The 'SNMP' sub-tab is selected, revealing a toggle switch for 'SNMP', and input fields for 'Manager IP', 'Send Count' (set to 3), and 'Send Interval' (set to 60). A green 'Save' button is located below these fields.

- **Enable:** Enable or disable SNMP service.
- **Manager IP:** Messages will be sent to this manager IP address.
- **Send Count:** The maximum number of messages to be delivered when an alarm is triggered. The value ranges from 1 to 5.
- **Send Interval:** Interval between messages sending. The range is 60-250s.



## 5.27. Alarm Input

Below is the Alarm Input setting interface of the IP camera:

- **Alarm Input:** Select the alarm input port, then check the box ☐ Handle to implement the following parameters settings.
- **Alarm In Name:** Input a name of an alarm.
- **Trigger Level:** Select the alarm status: Normally Open/ Normally Close.
- **Arming Schedule:** Arming schedule can be set from Monday to Sunday. You may set up to 8 schedules for a day.
- **Email:** Click on "Email". Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Click on "Snap". Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Click on "Record". Once an alarm is triggered, a signal will be transmitted to the camera to

record a video and restore it in the TF card.

- **Alarm Output:** Click on “Alarm Output”. There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **Snap Number:** Set the number of snapshots taken each time.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When a signal triggers the alarm, it will link with the preset points.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.28. Alarm Output

Below is the Alarm Output setting interface of the IP camera:

Category	Setting	Value
Alarm Output	Alarm Output	1
	Output Relay Status	Normally Open
	Output Delay	5S

- **Output Relay Status:** Normally Open/ Normally Close.
- **Output Delay:** Select alarm output delay time, which represents the corresponding output alarm delay time after the alarm stops triggering.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.29. Exception

Below is the Exception interface of the IP camera:

The screenshot shows the ZKTECO web interface for the Exception settings. The top navigation bar includes 'Live', 'Playback', 'File', 'Setup' (highlighted), and 'Face'. The left sidebar has 'Device', 'Audio&Video', and 'Network' sections. Under the 'Device' section, the 'Exception' tab is selected. The settings are as follows:

- Exception Type:** Network Disconnected (dropdown menu)
- Record:** ☒
- Alarm Output:** ☒ 1
- Save:** A green button to save the settings.

- **Exception Type:** Network Disconnected/ IP Address Conflict.
- **Record:** Click on “Record”; when there is an abnormal event which triggers an alarm, the camera will start recording.
- **Alarm Output:** Click on “Alarm Output”; the system will link with other alarm devices when there is an abnormal event which triggers an alarm.

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.30. User Management

Below is the User Management setting interface of the IP camera. “admin” represents the administrator (default); “default” represents standard users.

The screenshot shows the ZKTECO web interface for the User Management settings. The top navigation bar includes 'Live', 'Playback', 'File', 'Setup' (highlighted), and 'Face'. The left sidebar has 'Device', 'Audio&Video', and 'Network' sections. Under the 'Device' section, the 'User' tab is selected. The settings are as follows:

Username	User Type	Operation
admin	Admin	Modify
guest	Guest	Modify Del Permission

At the bottom, there is an 'Add User' button.

- **Modify:** Admin may modify the login password; the default guest user may modify user type. New users may modify their user names, passwords and user types. New users may select a “Guest” or “Operator” account, and set different permission.
- **Del:** Delete a new user.
- **Rights Permission:** Permission assignment for default guest users and new users.
- **Add User:** Add a new user.

Log in with admin account, add a new user and assign permission, as shown in the following figure:

Device	Information	PTZ	Time	User
Audio&Video Network Alarm IVA Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Save Back

After completing all parameters settings, click on “Save”, then the settings will take effect immediately.

## 5.31. System Update

Below is the System Update setting interface of the IP camera:

System Update Auto Reboot Restore Local Developer Log

File

Browse Update

Caution: Please Do not update a firmware earlier than current device version!

Maintain

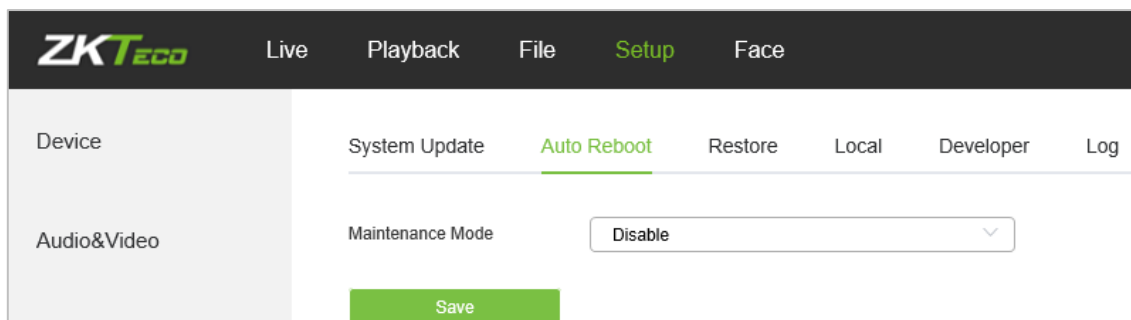
- **File:** Click on “Browse” to find and select an upgrade kit, then click “Update”.



Do not disconnect the power supply during upgrade.

## 5.32. Auto Reboot

Below is the Auto Reboot setting interface of the IP camera. You may choose a maintenance mode from Disable/ Every Day/ Every Week/ Once/ Every Month, then the IPC will reboot as set.

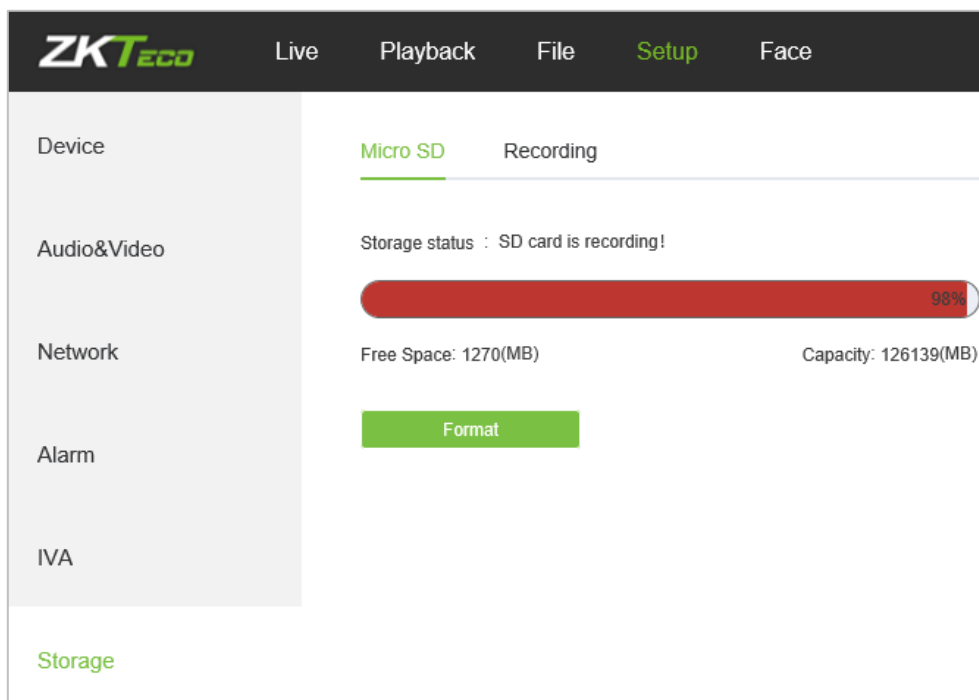


## 5.33. Storage Management

(Only displayed on TF Card supported camera)

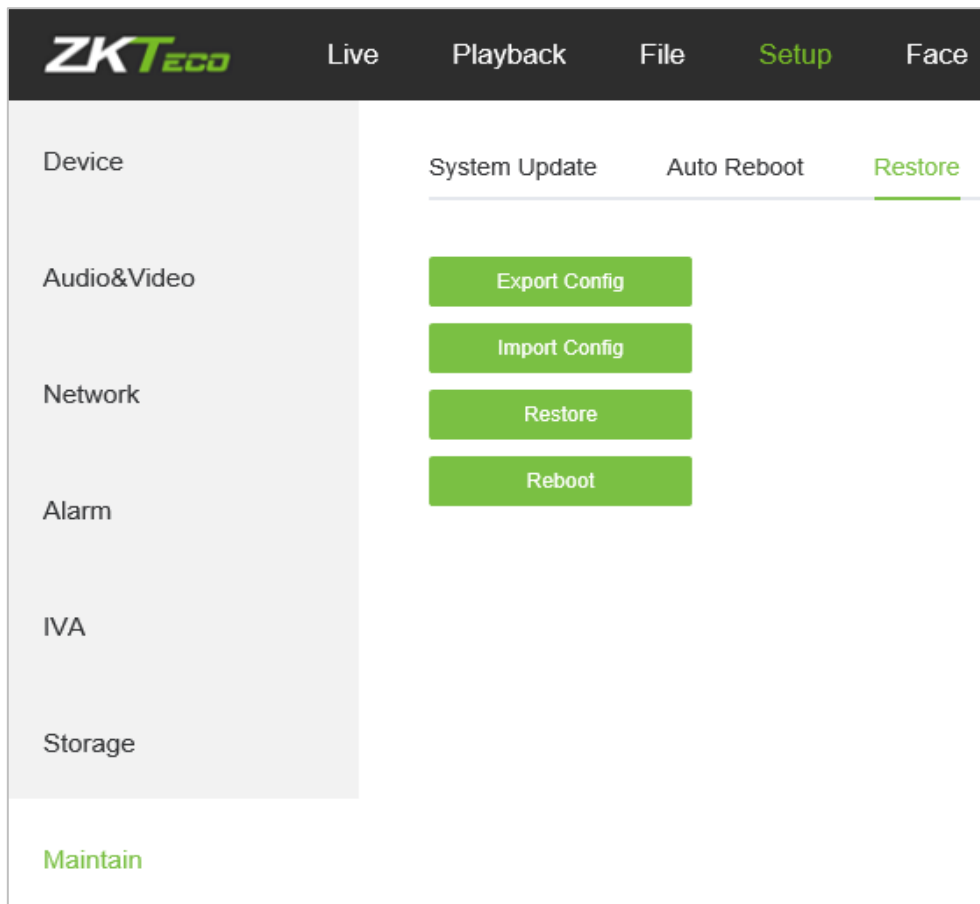
Below is the Storage Management setting interface of the IP camera. You may view the capacity (MB), free spare (MB), status of the current TF card, and format the TF card.

**Note:** Please disconnect the power supply before you insert or remove the TF card.



## 5.34. Restore

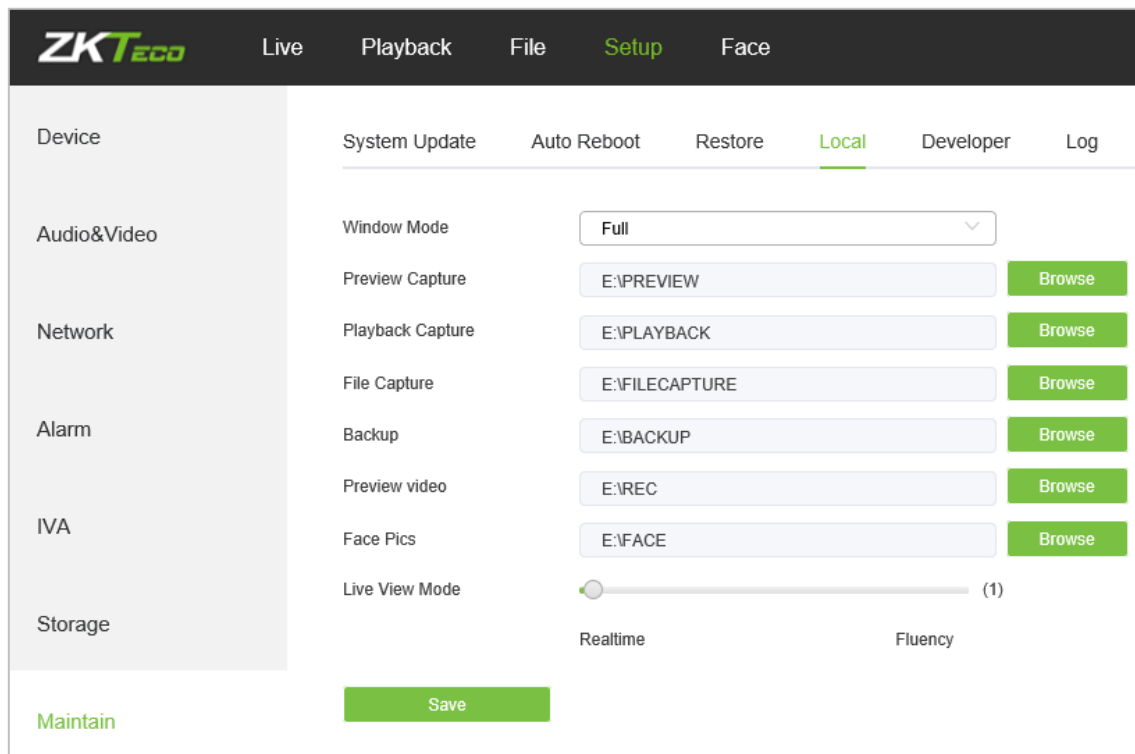
Below is the Restore interface of the IP camera:



- **Export Config:** Export all configurations to PC or a USB.
- **Import Config:** Import selected configuration to the system.
- **Restore:** Restore the device to factory settings.
- **Reboot:** Reboot the device.

## 5.35. Local Settings

Below is the Local Settings interface of the IP camera:

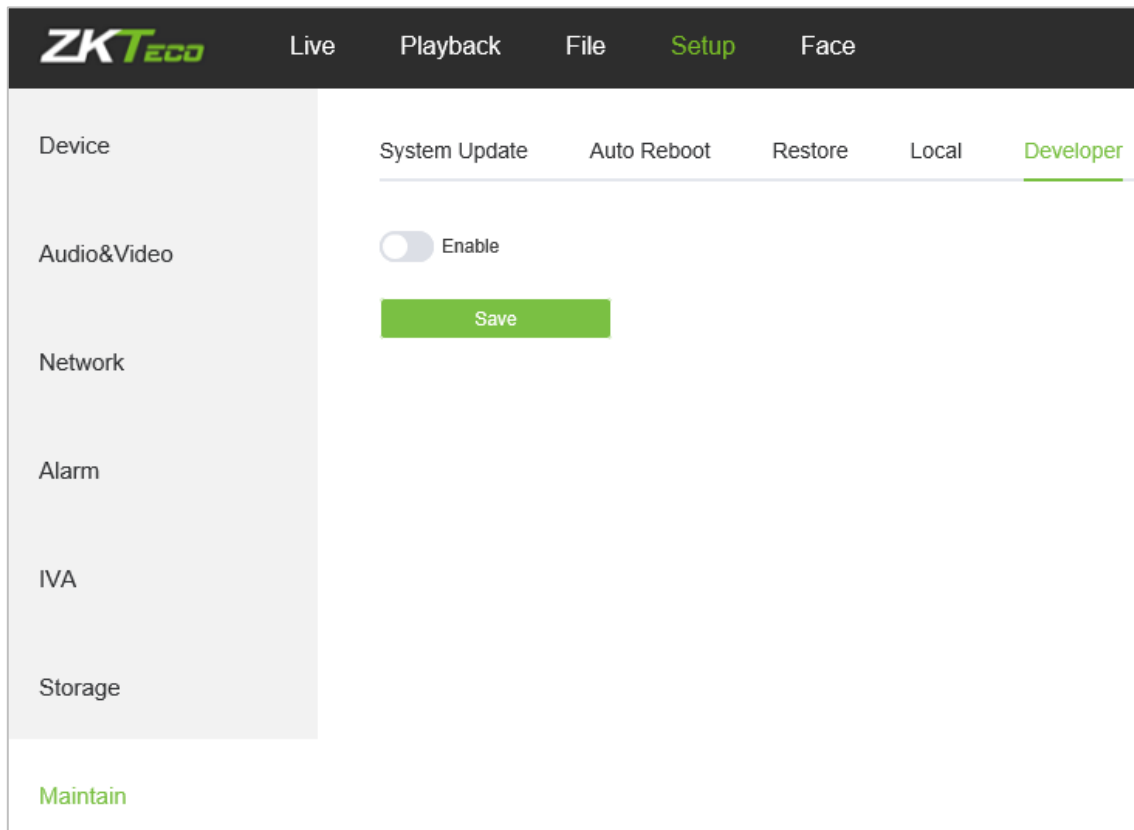


- **Window Mode:** Set the preview window mode (Full/ 4:3/ 16:9/ Original Image).
- **Preview Capture:** Select and modify the storage path of captured files.
- **Playback Capture:** Select and modify the storage path of playback files.
- **File Capture:** Select and modify the storage path of captured files.
- **Backup:** Select and modify the storage path of backup files.
- **Preview Video:** Select and modify the storage path of the video record file.
- **Face Pics Path:** Select and modify the storage path of the video record file.
- **Live View Mode:** Realtime/ Fluency. The value is adjustable.

After completing all parameters settings, click on "Save", then the settings will take effect immediately.

## 5.36. Developer

Below is the Developer interface of the IP camera:5.37





## 5.37. Voice Alert

On this page, you can set the type and volume of sound emitted by the device:

Device

Audio&Video

Network

Alarm

IVA

Storage

Maintain

Voice Alert

Alarm Input

Alarm Output

Exception

Motion Detection

Video Tampering

Output Volume  50
Language English

No.	Voice Content	Play Counts	Try
1	You are entering warning region, Please leave immediately.	<span>Loop Playback</span>	<span>▶</span>
2	You are entering hazardous area, Please stay away.	<span>Loop Playback</span>	<span>▶</span>
3	Please keep away from the dangerous height.	<span>Loop Playback</span>	<span>▶</span>
4	You are entering surveillance area.	<span>Loop Playback</span>	<span>▶</span>
5	Welcome.	<span>Loop Playback</span>	<span>▶</span>
6	Please do not touch the valuables.	<span>Loop Playback</span>	<span>▶</span>
7	Private Area, no admittance.	<span>Loop Playback</span>	<span>▶</span>
8	No bathing in the dangerous deep water.	<span>Loop Playback</span>	<span>▶</span>

Arming

✕ Del
🗑 Delete All
✅ Whole Week

- **Output:** You can adjust the volume of the device playback. The larger the value, the louder the volume
- **Language:** You can choose the language of the broadcast, including Chinese and English. Click the "Try" button to listen to a trial.
- **Play Counts:** The number of times the voice has been played. If Loop Playback is selected, the voice will continue to play during the alarm period until the alarm stops.
- **Arming:** You can set the weekly alarm time period, and the device will play the alarm sound during the specified time period.

## 6. Log Search

Click Search on the Log interface, check device log according to the video type and date time, as shown in the below figure:

No.	Log Time	Main Type	Log Theme	Ch	User Address
1	2000-01-12 01:37:25	Operation	Remote Login		192.168.130.163
2	2000-01-12 01:37:23	Operation	Remote Login		192.168.130.163
3	2000-01-12 01:35:42	Operation	Remote Logout		192.168.130.163
4	2000-01-12 01:34:18	Setup	Set Network Parameters	1	192.168.130.163
5	2000-01-12 01:02:45	Operation	Remote Playback By Time	1	192.168.130.163
6	2000-01-12 01:02:41	Operation	Remote Playback By Time	1	192.168.130.163
7	2000-01-12 01:01:25	Operation	Remote Login		192.168.130.163
8	2000-01-12 01:01:12	Exception	IP Conflict	1	
9	2000-01-12 01:01:07	Setup	Set Network Parameters	1	192.168.130.163
10	2000-01-12 00:55:53	Operation	Remote Login		192.168.130.163
11	2000-01-12 00:55:37	Operation	Remote Logout		192.168.130.163
12	2000-01-12 00:53:51	Operation	Remote Login		192.168.130.163
13	2000-01-12 00:53:31	Exception	IP Conflict	1	
14	2000-01-12 00:52:11	Operation	Power Off	1	
15	2000-01-12 00:52:11	Setup	Restore Default	1	192.168.130.163
16	2000-01-12 00:51:57	Operation	Remote Login		192.168.130.163
17	2000-01-12 00:51:26	Operation	Remote Logout		192.168.130.163
18	2000-01-12 00:35:50	Exception	IP Conflict	1	
19	2000-01-12 00:35:46	Exception	Network Recovery	1	
20	2000-01-12 00:02:21	Exception	Network Disconnected	1	

Total 23 Records Current 1 Page Page Down End Page Skip To 1 Page

- **Main Type:** Select the type of logs to search for. You may choose among All/ Alarm/ Exception / Operation/Parameter or click "All" to search all types of logs.
- **Start Time/ End Time:** Select the time period of logs to check.
- **Page No.:** Select the number of logs to display on each page.

After completing all settings, click on "Search", then the log information will display on the left.

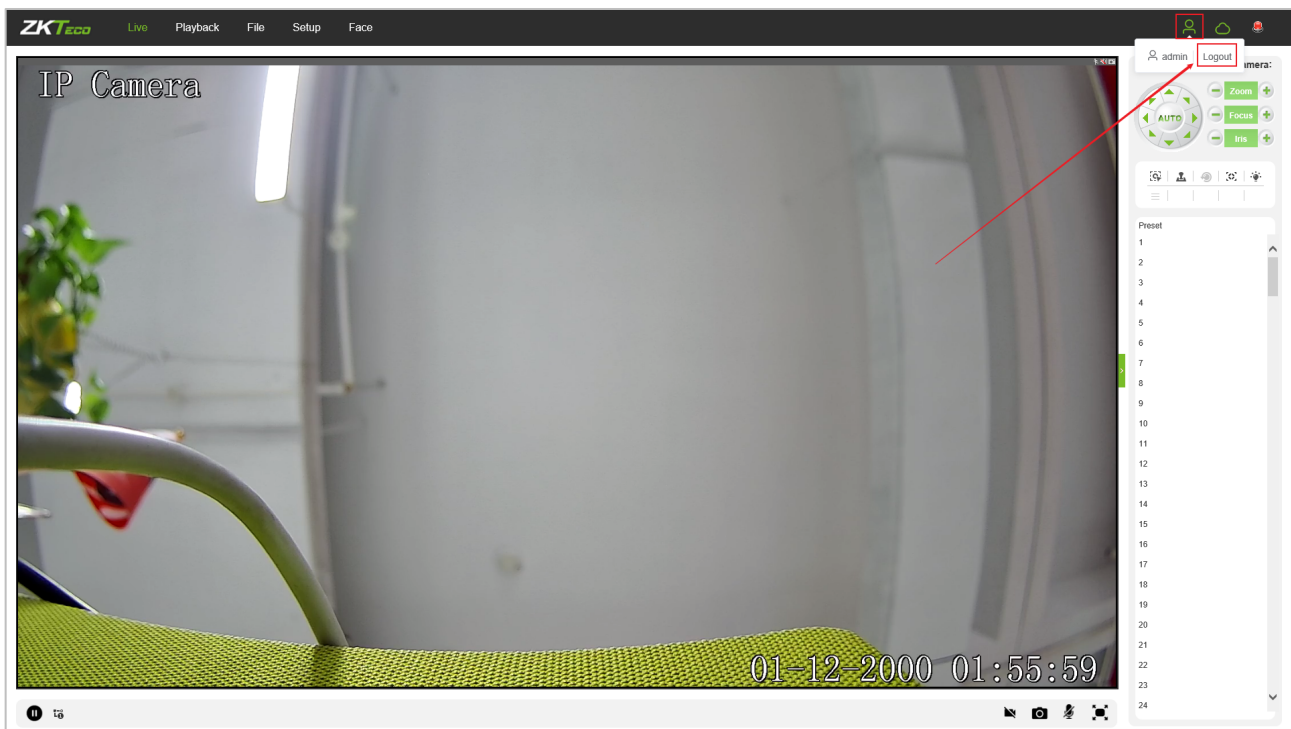
## 7. Alarm

Below is the Alarm interface of the IP camera. Information about alarms will be shown as follows.

Alarm Information				
Channel	Event Type	Start Time	End Time	Status

## 8. Exit

Click on “Logout” to log out, as shown in the following figure:



## 9. FAQ

**Question 1:** No video output on the IE browser.

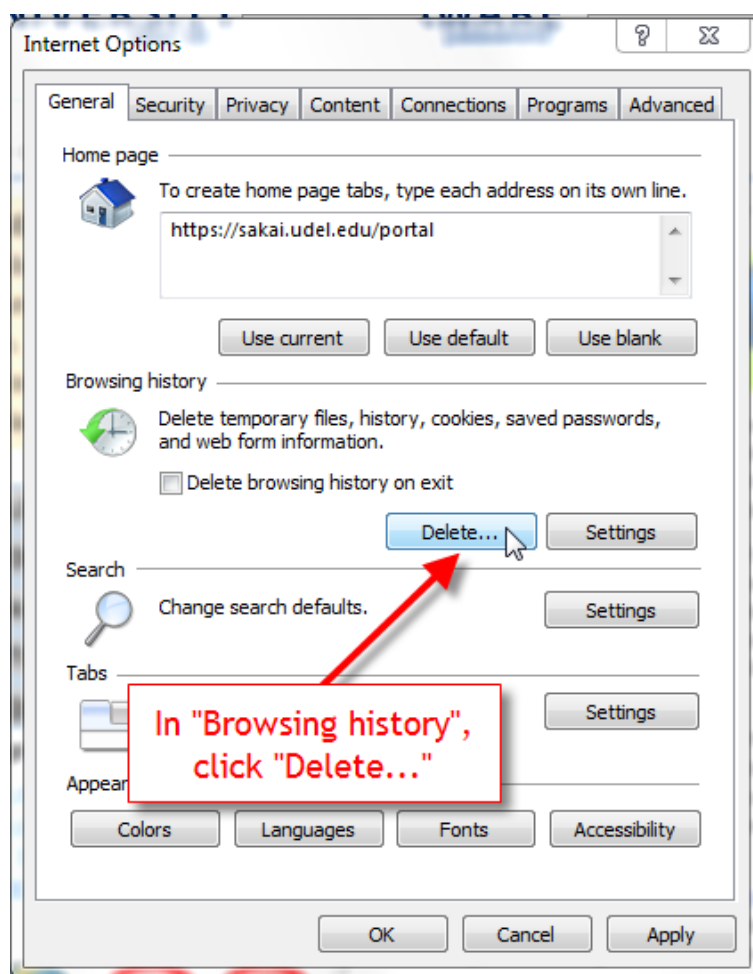
**Possible reason:** The web plugin was not installed.

**Solution:** Download and install the web plugin according to the webpage prompt when it is the first visit. We only support IE browser currently.

**Question 2:** Failed to log in after upgrading the program.

**Solution:** Delete IE Caches, and re-install the web plugin.

**Specific steps:** Open IE browser, choose "Tool" -> "Internet Options", then, "General"->"Browsing history", and click on "Delete". After that, select "Temporary Internet files" and confirm by choosing "Delete". Then back to the login page.



**Question 3:** The playback of video is not smooth.

**Possible reason 1:** The IP Camera frame rate is too low.

**Solution:** Set a higher frame rate on the respective interface by choosing "Setup->Streams->Frame Rate".

**Possible reason 2:** There are too many users connected to the device.

**Solution:** Disable some of the clients or set a lower frame rate for the IP camera.

**Possible reason 3:** The transmission data is large while the bandwidth is small, which leads to loss of data packets.

**Solution:** Set a lower frame rate or resolution.

**Question 4:** Can't access the IP camera on IE Browser?

**Possible reason 1:** The network is down.

**Solution:** Test the network on PC to confirm if the network works normally. Please make sure the network cable is available and all RJ45 jacks are connected properly. Also, ensure that there is no computer virus which may cause network issue as well.

If the PCs can ping each other, the network cable environment is normal. In this case, please check the possible reasons below which may lead to the issue:

**Possible reason 2:** The IP address is in use by another device.

**Solution:** Disconnect with the IP camera network port, and directly connect the device with the PC, then set up a new IP address for the camera.

**Possible reason 3:** The IP address is set up in another subnet.

**Solution:** Check the server's IP address, subnet and gateway parameter, then set up the IP camera in the same network.

**Possible reason 4:** The MAC address conflicted.

**Solution:** Modify the MAC address for IP camera.

**Possible reason 5:** The Web Port has been changed.

**Solution:** Connect with network administrator to get the correct port.

**Question 5:** No audio output.

**Possible reason 1:** The audio interface was not connected.

**Solution:** Please check the device audio interface and make sure the cables are connected property.

**Possible reason 2:** The audio function was not enabled on the IP Camera.

**Solution:** Please check if the audio configuration is enabled or not and select a desired mode.

**Question 6:** Search NVS can't find the device.

**Possible reason:** The Search NVS software uses the multicast protocol to search for device network information across network segments, and the firewall does not allow multicast data packets to pass, so the software may not find the device.

**Solution:** Turn off the firewall.

**Question 7:** Image is not clear enough.

**Solution:** Try adjusting the parameters for images to reasonable values. For details, please refer to Chapter [5.9 Image Parameters](#).

ZKTeco Industrial Park, No. 32, Industrial Road,  
Tangxia Town, Dongguan, China.

Phone : +86 769 - 82109991

Fax : +86 755 - 89602394

[www.zkteco.com](http://www.zkteco.com)



Copyright © 2024 ZKTECO CO., LTD. All Rights Reserved.