Please read and understand this manual before attempting installation of the product.
If the user manual doesn’t help you to solve the problem, please call our technology center for technical support.

1. **Installation Environment**

- Keep away from the places for high-temperature, heat source and direct sunlight;
- Keep away from water and if wet, power off immediately.
- Avoid using in the damp environment; the reference range for operation humidity is below 85%RH.
- Avoid using in too hot or too cold environment, the reference range for operation temperature is -10℃~+40℃
- Please install it horizontally or wall mount, avoid strenuous vibration and do not place other items on top of the unit.

2. **Transport and Handling**

- Please handle the item carefully.
- Do not move the item between too hot and too cold areas.
- Please disconnect the item from the mains before moving.

**Notice:**

1. Do not fall down the camera or beat it strongly.
2. Do not touch the optical components for the image sensor, such as the lens, if necessary, please place a clean and moistened cloth with alcohol and wipe the dirt gently; When not in use, please place the dust cover onto the item to protect the image sensor.
3. Do not aim the camera directly into the sun or at other intense light sources that could affect the image quality, this will also shorten the service life for the image sensor.
4. Keep away from laser when it is working, otherwise the image sensor can be damaged.
5. If the equipment is not working properly, please contact the store or the service centre, do not disassemble or modify the equipment in any way.
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1 Product Introduction

1.1. Product Overview

Thank you for choosing RA series high definition SmartP2P IP Camera, the IP Camera combines a high definition digital video camera with network connectivity and a powerful web server to bring high definition video to your desktop from anywhere on your local network or over the Internet. It includes indoor HD PTZ camera, indoor HD cube camera, outdoor HD waterproof camera etc. It is very suitable for home, shops, offices and so on.

Product features:
- Support High profile H.264 encoding, 3 kinds of resolution video stream simultaneously, suitable for Local, Internet and Cross-platform view;
- Support Wi-Fi protocol 802.11b/g/n;
- Support WPS/QSS one key Wi-Fi configuration;
- Support one touch Wi-Fi configuration on mobile phone before connect to the network;
- Support max. 128G SD/TF card storage for the alarm video and pictures, timing snapshot and recording, support MP4 format;
- Built-in web server, use one port to send all the data, users can facilitates network setting;
- Support IE/Firefox/Chrome/Safari browser to view video and configure deice;
- Support P2P private network through transmission via manufacturer cloud platform;
- Provide iOS/Android mobile phone Apps;
- Provide Windows/Mac OS PC client software.

1.2. Product Exposition

Please check carefully if all listed items are included in the package, it includes camera, power adapter, network cable, installation bracket. If anything missing, please contact vendor in time.

The camera functions maybe different due to different product model, the main functions as below:

- **Main chip and sensor**: Due to main control chip and sensor is different, so the camera support different resolution:720P, 1080P and above;
- **Power input port**: Check power supply if 5V or 12V. Plug right power supply, or it will damage the camera or cannot run. We suggest to use the default power adapter.
- **RJ45 Port**: Network port;
- **Wi-Fi function**: The device features Wi-Fi function, built-in Wi-Fi module and antenna. The Wi-Fi antenna includes built-in Wi-Fi antenna, integration antenna, separated antenna and so on. The separated antenna would be packed with the camera in the gift box, users should install it to camera before it works.
- **IR-CUT**: A filter switching device, from day and night to switch to a different filter, then forbid or allow the infrared light in, which make the picture more true;
- **Lens**: Due to focus length of lens is different, so vision angle of lens is different. Please twist the
lens for best effect if the video is fuzzy;

- **PTZ**: Control PTZ remotely, view video from several vision angle. Some device have PTZ function and some device have not PTZ due to the product cover is different, and PTZ moving angle maybe different;
- **SD socket**: Some product use SD socket and some use MicroSD socket due to the products cover are different, Max support 128GB memory card;
- **MIC inside**: Can collect the sound from camera workplace;
- **Speaker inside**: can play sound from device start, talking and alarm;
- **Audio in port**: If the camera without MIC in it, you can connect extra MIC to collect sound;
- **Audio out port**: If the camera without speaker in it, you can connect extra sound systems;
- **Alarm in port**: Connect with switchable sensor, check sensor signal if high or low to judge if detect any event;
- **Alarm out Port**: Connect with external alarm device, control device alarm action when detect any event;
- **Reset button**: After the camera started, press and hold the reset button for at least 10 seconds, it restores default settings and reboot; press and hold the reset button for 3 seconds to set up the Wi-Fi by using WPS/QSS; press the reset button briefly, the Wi-Fi indicator will flashes for a few seconds while the camera was connecting with Wi-Fi connection, you can assess Wi-Fi signal intensity by the flash frequency, the faster flash, the stronger signal;
- **Wi-Fi indicator**: Blue LED for Wi-Fi indicator that be used to display Wi-Fi work state, such as off, slow flash, fast flash, steady work etc;
- **Work status indicator**:Red LED is operation indicator that displays the state of equipment,there are off, slow flash and flashlights flash, when someone access video,otherwise slow flash;
- **POE function**: The function that supply power to camera through network cable. But you need the camera with POE module. the device connect to POE switcher by a network cable and POE switcher supply power for device through the network cable;
- **PIR function**: The device with PIR sensor, used for detect the human movement, it trigger alarm if detect any abnormal.
2 Device Connection

2.1. Connection Diagram

![Connection Diagram](image)

Figure 1

Power on the camera by attaching the power adapter, and then connect the camera and router by network cable, so you can visit the camera via computer in LAN and view camera video as <<3. View video by browser>>.

You can also connect camera and router by Wi-Fi, you need to configure Wi-Fi of the camera as <<2.2 Wi-Fi Setting>>.

2.2. Wi-Fi Setting

You can setting up the Wi-Fi as the following three way.

2.2.1. Configuration via network cable connection

Connect the camera and router by network cable as Figure 1, please login the camera as <<3. View video by browser>>, access to system configuration interface to finish the setting as <<5.1.2.3 Wi-Fi setting>>. Pull up the network cable, then you can connect the router by Wi-Fi.

2.2.2. WPS/QSS One key configure Wi-Fi

Power on the camera and wait for 1 minute, the camera started, hold on reset button 3 seconds, and then click "WPS/QSS" button of the router, the camera and router will be configured Wi-Fi as WPS/QSS protocol, after configuration successfully, the blue Wi-Fi indicator of the camera will quickly flash several times, and then it will be connected to router automatically and the blue indicator will be always on.

Notice: Due to some router do not support WPS/QSS function, so you can not use the configuration way.
2.2.3. Mobile Phone Setting

Install the iSmartViewPro App in android phone or iPhone at first. Open the App, access to More interface, select “One key configure Wi-Fi” and fill in Wi-Fi SSID and password, and then click configure to finish the setting as Figure3.

Tips:

- Before configuring, please turn on the camera. Press and hold the camera reset button (RST) after the camera is turned on. You can configure the camera (the blue Wi-Fi indicator flashes slowly). Otherwise, it cannot be configured. You must turn the camera back on.
- Move mobile phone speaker to camera MIC, click Configure; (please confirm if the camera have MIC, otherwise the configuration will be unsuccessfully)
- After configuring successfully, the blue Wi-Fi indicator will flash several times quickly, and then connect to router automatically and the blue indicator is always on. You can click Configure several times when the configuration is unsuccessfully.
3 View Video by Browser

3.1 Access to camera webpage and install Plug-in

Double click to Open the “SearchPro” in the attached CD and click Search as Figure4.

![SearchPro interface](image)

Figure4

Select the founded device and double click it to open to view in the browser, enter user name and password at popup dialog to login camera webpage as Figure5.

Tips: default username/password:admin/12345, please modify the password for safety.

![Login dialog](image)

Figure5

- Need to download plug-in when first use, click “download plug-in” as figure 6, click Run to install it.
3.2. View Live Video

Access to Live Video interface, it plays video automatically as Figure 7.
4 Query and Playback SD Record by Browser

4.1. Playback Video

Click Playback Video to access to SD record playback interface, click record date which you want to query, click **Search** to list recording file, select one to playback it, also can click download button to download the file as Figure 8.

![Figure 8](image)

5 Device Configuration and Local Setting

5.1. Device Configuration

5.1.1. System

5.1.1.1. Device Status

You can view current user, network connection way, Mac address, SD status and internet IP address of the camera as Figure 9.
5.1.1.2. Time Setting

You can set up PTZ speed, cruise circles (1-10 turns) and disable motion detection when PTZ moving as Figure11.
5.1.1.4. Other Setting

You can turn off the status LED and WPS LED of the camera in other setting as Figure 12.

<table>
<thead>
<tr>
<th>Indicator setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status LED</td>
</tr>
<tr>
<td>WPS LED</td>
</tr>
</tbody>
</table>

Figure 12

5.1.1.5. System Maintenance

The system maintenance includes system setting and timing reboot setting. You can set up reboot, backup setting, restore backup setting, upgrade camera and timing reboot etc as Figure 13.

<table>
<thead>
<tr>
<th>System setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reboot</td>
</tr>
<tr>
<td>Restore to default</td>
</tr>
<tr>
<td>Backup setting</td>
</tr>
<tr>
<td>Restore backup setting</td>
</tr>
<tr>
<td>Upgrade</td>
</tr>
</tbody>
</table>

Figure 13

5.1.1.6. Device Information

You can modify device name and check system firmware version, system firmware time and Web UI firmware here as Figure 14.

<table>
<thead>
<tr>
<th>Device Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Name</td>
</tr>
<tr>
<td>System Firmware</td>
</tr>
<tr>
<td>System Firmware time</td>
</tr>
<tr>
<td>WebUI Firmware</td>
</tr>
</tbody>
</table>

Figure 14
5.1.2. Network

5.1.2.1. IP Address Setting

You can modify IP address of the camera etc, the default is DHCP, achieve automatically as Figure15.

<table>
<thead>
<tr>
<th>IP setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHCP</td>
</tr>
<tr>
<td>IP address</td>
</tr>
<tr>
<td>Subnet mask</td>
</tr>
<tr>
<td>Gateway</td>
</tr>
<tr>
<td>Primary DNS</td>
</tr>
<tr>
<td>Secondary DNS</td>
</tr>
</tbody>
</table>

Figure15

5.1.2.2. Port Setting

You can change webpage http port here as Figure16.

<table>
<thead>
<tr>
<th>Port setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP port</td>
</tr>
</tbody>
</table>

Figure16

5.1.2.3. Wi-Fi Setting

Click Search, and switch on enable Wi-Fi, select the wireless router you want to connect, enter password of the router, click Save to finish the Wi-Fi configuration. Click Test to test if it can be connected to the router after finishing the configuration as Figure17.
5.1.2.4. Port Forwarding

Access to port forwarding, you can enable UPNP port forwarding and check the status of it as Figure18.

<table>
<thead>
<tr>
<th>Port type</th>
<th>Port</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>http</td>
<td>80</td>
<td>Success</td>
</tr>
<tr>
<td>rtsp</td>
<td>554</td>
<td>Success</td>
</tr>
</tbody>
</table>

5.1.2.5. DDNS Setting

You can enable manufacturer’s DDNS and set up third party DDNS (the third party DDNS support 3322.org/Dyndns.org/No-ip.com now, the manufacturer provide a free DDNS for every camera.)
5.1.2.6. RTSP Setting

You can set up RTSP port, also can close RTSP authentication as Figure20.

5.1.2.7. FTP Setting

Access to FTP setting, please fill in relative FTP parameters as the following case to achieve the FTP transfer as Figure21.
5.1.2.8. SMTP (E-mail) Setting

Please fill in relative parameters as the following case to achieve the E-mail transfer, as Figure22.

<table>
<thead>
<tr>
<th>Email setting</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SMTP server address</td>
<td>smtp.gmail.com</td>
</tr>
<tr>
<td>Server Port</td>
<td>25</td>
</tr>
<tr>
<td>Security connection</td>
<td>SSL/TLS</td>
</tr>
<tr>
<td>Authentication</td>
<td>ON</td>
</tr>
<tr>
<td>Username</td>
<td><a href="mailto:estest1990@gmail.com">estest1990@gmail.com</a></td>
</tr>
<tr>
<td>Password</td>
<td>*********</td>
</tr>
<tr>
<td>Sender address</td>
<td><a href="mailto:283893343@qq.com">283893343@qq.com</a></td>
</tr>
<tr>
<td>Receiver address #1</td>
<td><a href="mailto:liiong19901017@163.com">liiong19901017@163.com</a></td>
</tr>
<tr>
<td>Receiver address #2</td>
<td><a href="mailto:97199004@qq.com">97199004@qq.com</a></td>
</tr>
<tr>
<td>Mail subject</td>
<td>alarm</td>
</tr>
<tr>
<td>Mail content</td>
<td>alarm</td>
</tr>
</tbody>
</table>

5.1.3. Audio and Video

5.1.3.1. Video Encoding Setting

Access to Video Encoding setting, you can set up AC frequency and video stream as Figure23.

AC frequency: 50HZ and 60HZ optional;
Video stream: Bit rate (256~4096kbps), frame rate (1~30fps), video encoding control etc;
Tips: you can set up the video with audio or not.
5.1.3.2. Volume Setting

Access to Volume setting, you can adjust the volume of MIC and speaker as Figure24.

<table>
<thead>
<tr>
<th>Volume setting</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MIC volume</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Speaker volume</td>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>

5.1.3.3. Image Setting

Access to Image Setting, you can flip and mirror the image, also can adjust the brightness, contrast, saturation and hue of image for getting best color effect as Figure25.

![Image Setting](image)

<table>
<thead>
<tr>
<th>Setting</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brightness</td>
<td></td>
<td>128</td>
</tr>
<tr>
<td>Contrast</td>
<td></td>
<td>128</td>
</tr>
<tr>
<td>Saturation</td>
<td></td>
<td>128</td>
</tr>
<tr>
<td>Hue</td>
<td></td>
<td>128</td>
</tr>
</tbody>
</table>

5.1.3.4. OSD Setting

Access to OSD setting, you can overlay the time and name in Live video as Figure26.

<table>
<thead>
<tr>
<th>OSD setting</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overlay Time</td>
<td>ON</td>
</tr>
<tr>
<td>Overlay Name</td>
<td>ON</td>
</tr>
<tr>
<td>Name setting</td>
<td>IPCamera</td>
</tr>
</tbody>
</table>
5.1.3.5. Night vision Settings

Access to Night vision Settings, you can set up IR LED and IRCUT as Figure27.

![Figure27](image1.png)

IR LED setting
- Turn Off IR LED

IR Cut Setting
- Shift mode: Auto, Manual, Timing
- Brightness: 20

5.1.4. Safety

Access to User management, you can add or edit the user as Figure28.

![Figure28](image2.png)

Tips: After setting up, click save and refresh button, the entering info will display in the webpage. Also you can set up the IP filtering to allow or deny some IP address to visit the device as below.

**User**

![IP filtering](image3.png)

**Whitelist**
- Start IP address
- End IP address
- Allow list

**Blacklist**
- Start IP address
- End IP address
- Deny List
5.1.5. Alarm

5.1.5.1. IO Detect

Access to IO detector, can enable detect function and set up input signal type as Figure 29.

5.1.5.2. Motion Detection

To access motion detection, you can set the detection alarm sensitivity (1-100). The larger the value, the more sensitive it is, as shown in Figure 30.

5.1.5.3. Audio Detection

Access to audio detection, you can enable audio detection and set up sensitivity of it as Figure 31.

5.1.5.4. Linkage alarm setting

You can set up IO detect, motion detection and audio detect, it can linkage to trigger the action: snapshot to Email or FTP server or SD card, recording to FTP server or SD card, and trigger IO output as
Tips: The usage for combination of alarm trigger in alarm trigger type:

For example, you enable the audio detection and motion detection, so the camera is enabled combination of alarm trigger, it will perform the action in alarm action setting when the audio detect and motion detection detect any change.

### Alarm action setting

- ![Checked box for Snapshot to Email](image)
- ![Checked box for Snapshot to FTP server](image)
- ![Checked box for Recording to FTP server](image)
- ![Checked box for Snapshot to SD](image)
- ![Checked box for Recording to SD](image)
- ![Checked box for Trigger IO output](image)
- ![Input field for Alarm duration](image)
- ![Input field for Trigger preset](image)
- ![Input field for Alarm duration](image)

### Alarm trigger type

- ![Option for Trigger independently](image)
- ![Option for Trigger jointly](image)

#### 5.1.5.5. Protected duration setting

After setting up alarm detect type and alarm trigger linkage, you need to set up protected duration. You must set up it, then the camera perform trigger linkage; the time format is 7 days, 24 hours per day, 15 minutes per a block as Figure33.

<table>
<thead>
<tr>
<th>All the time</th>
<th>Clear the time</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Table for protected duration" /></td>
<td></td>
</tr>
</tbody>
</table>
5.1.6. Storage

5.1.6.1. SD Management

Access to SD management, you can check and download recording and snapshot file in SD card, and check SD card remaining capacity, format SD as Figure34.

<table>
<thead>
<tr>
<th>SD Management</th>
<th>Check SD</th>
<th>Format SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD status</td>
<td>SD valid</td>
<td></td>
</tr>
<tr>
<td>Total capacity</td>
<td>384 MB</td>
<td></td>
</tr>
<tr>
<td>Remaining capacity</td>
<td>672 MB</td>
<td></td>
</tr>
</tbody>
</table>

Figure34

5.1.6.2. SD card snapshot setting (Timing Snapshot)

Access to setting of timing snapshot to SD card, you can enable SD snapshot, you can set up snapshot time interval and snapshot duration; time format is 7 days, 24 hours per day, 15 minutes per a block as Figure35.

<table>
<thead>
<tr>
<th>Timing snapshot</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time interval</td>
<td>30</td>
<td>5-3600 seconds</td>
</tr>
<tr>
<td>Snapshot duration</td>
<td>All the time</td>
<td>Clear the time</td>
</tr>
</tbody>
</table>

Figure35

5.1.6.3. SD Card Recording Setting

Access to SD Card Recording Setting, you can enable SD recording and set up recording duration for every file; time format is 7 days, 24 hours, 15 minutes per a block as Figure36.

Tips: it will overlay SD recording file automatically by default; it will overlay previous recording file when the SD space is full.
5.1.7. Log

Access to Log menu, you can check the user operation log as Figure 37.
5.2. Local Setting

Access to local setting, you can set up recording path, snapshot path and recording duration as Figure 38.

Tips:
- You must use administrator to run the browse, then recording path and snapshot path can be save successfully at above IE9; the default recording path is D:\HYRec.