

WISENET SMARTCAM

User Manual

SNH-C6417BN



WiseNet Smartcam

User Manual

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SPECIFY SERVICE INSTRUCTIONS AND WARRANTY TERMS

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement

This device complies with RSS-247 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

Instructions & Warranty

The manufacturer is not responsible for any loss or radio/TV interference caused by unauthorized modification of the product.

Such modification will void the warranty of the product as well as the user's right of use.

WARNING

- The product must be assembled and installed by an adult.
- Before using, read all instructions on this manual thoroughly and follow operational instructions, warnings on this manual and printed on the product.
- To avoid entangled power cord, do not place it around the baby bed or other infant furniture. Keep this product and its power cord out of children's reach.
- Especially, the power cord should be installed carefully while keeping it out of children's reach.
- Never use the product near bath tub, sink, washing machine and in wet basement to avoid moisture.
- The product is designed for indoor use.
- The product is not designed for medical monitoring, and requires a grown-up's protective supervision on its use.
- To avoid overheating of the product, do not expose the product to direct sunlight; do not
 install or use near a heat source such as heater, radiator, cooking devices (ex: electric
 stove or oven) and other warming devices (ex: audio amplifier, TV, etc.).
- Make sure to keep ventilated while using the product.
 Avoid pillar or furniture that may block ventilation, when installing the product.
- Make sure to use the power adaptor provided. If used with unidentified adaptor, it may damage the product. The power adaptor must be used with regular household electric supply.
- Avoid sharp, pointed objects around the adaptor's cable, not to damage the cable.
- Be warned and never hold the cable's stripped part when connecting / disconnecting the adaptor to/from the wall outlet.
- To avoid entangled cable lines, avoid using cable extension for adaptor's power cord.
- The product's servicing is allowed only to authorized Hanwha Techwin service personnel.

- When using the product for children's care, be careful to keep the product out of children's reach.
- The product partially contains component which might cause respiration difficulty.
 Accessories and small parts of the product should be stored keeping out of children's reach.
- The product is not designed to replace responsibility of human supervision on children.
- The product is not equipped with device of immediate notification to adult with accidental/sudden children's move; it requires periodic checks and human supervision.
- This appliance and its antenna must not be collocated or operation in conjunction with any other antenna or transmitter. A minimum separation distance of 20 cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirements.
- Please note that the content of a micro SD card used for other purposes may be deleted when it is mounted in the camera.

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GETTING STARTED

Features

What's Included

Part names and functions

Power Supply

Features

· Dedicated Wi-Fi Product

- The camera is registered through the Wi-Fi connection.

· Easy to install

- The Wi-Fi Direct button allows easy connection to a wireless router.
- Simply visit the home page (www.samsungsmartcam.com) and download and install the program without a separate installer program.

· Remote monitoring

- Whenever and wherever if you are in the Internet enabled environment, remote monitoring is ready for you.
- PC, laptop or smart phone can be used for monitoring.

Real-time alarm

 When a motion and sound are detected, your smartphone will generate real time alarms.

· Saving in SD card

- When an event occurs, the user can save the video in their SD card.

Two-way Audio

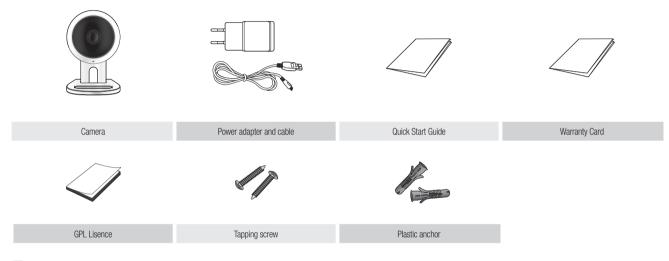
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- With the built-in speakers and microphone, you can make Two-way communications.
- However, it is available only with the smart phone. (Not applicable to the PC or laptop computer.)

What's Included

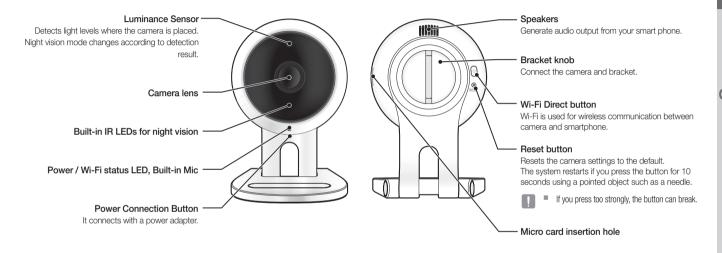
Check for components when opening the product package.





- Keep the packing container. You will need the serial number later to register the camera.
- Adapter may be different upon the destinations.

Part names and functions



Power Supply

Plug-in the camera power adapter to the wall outlet and connect the camera as shown.



- Make sure to use the provided power adaptor. If you use an adaptor other than the power supply adaptor provided in our package, the product may not operate properly.
- It will take about 1 min for the camera to boot-up completely.
- When the camera is turned on, the LED blinks red.



❖ LED status

LED indicator shows operational status with colors.

Refer to table below for detailed meaning of the LED indicator.

Color	Status
Red	Booting up
Red Blinking	Booting completed / Establishing network connection
Blue Blinking	Connecting to the network.
Blue	Local connection established
Green	Connection to server completed / Normal operation
Yellow/Light Green	Waiting to connect with a wireless router
Purple	Updating firmware

Installation & Network Connection

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Network Connection and Settings 1

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Installation

Precautions

- Install the camera in a place where the Wi-Fi signal can be reached and without interference.
- 2. Keep it away from humidity such as around the humidifier.
- Keep it away from direct sunlight, strong light or dust; install it in a place with clear view.
- Do not install it in a place where there are a lot of obstacles.
- Keep the lens clean at all times.Wipe off the dust with a soft cloth.

Installing on the wall with screws

Assembly

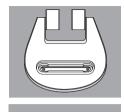
- 1. Remove the rubber packing attached to the camera stand.
- 2. Take out the screws (M3xL20) and anchors (Φ5x25mm).



If installing on a wooden wall, mount the bracket wall using the screws as shown in the figure on the side. First, using a Phillips screwdriver, tighten the screws in the two holes on the wall to which you want to attach the bracket.



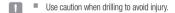
4. If installing on a concrete wall, mount the bracket using screws and anchors. First, mark the wall to which you want to attach the bracket as shown in the figure.



 If the bracket hinge becomes loose, remove the rubber cover and tighten the screw using a screwdriver.



5. On the mark, drill a hole to a depth of about 3cm in the wall using a drill bit and drill with a 5mm diameter for concrete. Remove any debris remaining in the hole after drilling.





Insert an anchor in each of the 2 holes for the screws, then hit the back of the anchor with a hammer or a rubber mallet until it is completely inserted.



- Insert a screw in each of the 2 holes in the wall, and tighten the screws using a Phillips screwdriver.
- Connect the adapter plug to the power terminal of the camera.



Adjusting the camera angle

- 1. Place the camera stand on a flat surface.
- 2. Adjust the camera's shooting angle as appropriate.



If the bracket hinge becomes loose, remove the rubber cover and tighten the screw using a screwdriver, then adjust the direction of the camera.



Network Connection and Settings

Precautions

- The wireless network access may fail, depending on the communications environment
- For details about the network settings and password, contact your network administrator or service provider.
- For a specific Internet service requiring user authentication, you may not access the service. If this is the case, contact the service provider.
- · Do not access the unauthorized network.
- The farther the distance from the Wireless Access Point, the longer time the network connection may take.
- If you fail to access the selected wireless network, try a different Wireless Access Point to make access
- For more information about the router or the wireless connection, refer to the documentation of the router or contact the router manufacturer.
- If the camera is connected to a multiple-Wireless Access Point network environment, some video packets may be lost, depending on the network traffic load.
- According to the network policy (blocking UDP) of the service provider, the video transmission can be limited to 7 minutes.
 For more details, refer to the descriptions on page 17, <Relay Mode>.
- In addition to the above two situations, you may encounter a network delay or interruption due to the network conditions.
- · Some hubs can have compatibility issues.

Connection using the Wi-Fi Direct function

What is Wi-Fi Direct?

Using Wi-Fi Direct, you can easily connect your camera to a router without a cable.

- When the power is connected, the power status LED lights up in red and starts blinking when boot-up is complete.
- 2. When you press the Wi-Fi Direct button on the rear side of the camera, the LED color changes to yellow/light green.



- 3. Register and select a camera, referring to the instructions in the mobile guide.
- 4. While the camera is connected to the server, status LED remains green.
- Set up the wireless network environment in accordance with the <Network> quidance on page. 19.



- The camera can only be registered via mobile.
- You can connect in relay mode if the router doesn't have UPnP. Configuration may differ depending on the router model. Please refer to the router manual.
- Please contact the service provider if you have difficulty connecting to the Internet.



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Registration

This product allows camera registration via a smartphone only. Please refer to the mobile guide for a detailed description of camera registration.

Web browser requirements

Windows	Mac
Windows 7 or higher is supported - Internet Explorer 9 or higher (The 64-bit is not supported.)	Mac OSX 10.10 Lion or higher is supported - Safari

Starting SmartCam

- 1. From your PC, launch your web browser.
- 2. Go to http://www.samsungsmartcam.com.
- 3. Select preferred language.
- 4. Click < Sign up > or < Starting SmartCam >.



Plug in installation

You can only see the camera image after installing a plug-in.

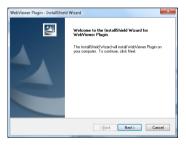


- If you login or click <Starting SmartCam> in a PC where the plug in is not installed, the installation message window will pop up.
- When you install the plug in, the web browser will be terminated and you need to launch it again.
- 1) Click < Download Plug-in>, run the setup file.



For Windows

Click < Next>.



3) Click < Install> to begin the installation.



4) Installation has completed.

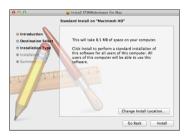


For Mac

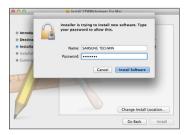
2) Click < Continue >.



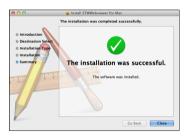
3) Click < Install>.



4) Enter MAC PC password and click < Install Software>.



5) Installation has completed.



5. Enter the requested information, and click < Sign Up>.



- ID: Using alphabetical characters and numbers, make a combination using 8 to 14 letters.
- Password: To strengthen security, create a password with a combination of special characters, numerals and English letters.
- Length and other restrictions of password.
 - A combination of English letters/numerals: 10 digits or more
 - The password must not be identical to your ID.
 - No simple repetitive pattern must be used. e.g., 1212abab,azxsazxs
 - You cannot use 4 or more consecutive letters.
 e.g., 1234, abcd
 - You cannot use 4 or more consecutive qwerty keyboard letters.
 e.g., asdf, 7890
 - You cannot use any letter 4 consecutive times. e.g., !!!!, 1111, aaaa
- Confirm Password: Please enter the password again for confirmation.
- · Name: Enter the user name.
- E-mail: Please make sure you enter correct email address as you will have to use the email address to receive temporary ID/password when you lost your user ID or password.

Live Video

1. Select a camera from the camera list at the upper left hand of the screen.





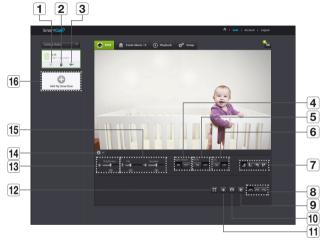
- The gray icon indicates the camera is inactive so you cannot monitor it right now.
- 2. Enter the camera password and click < OK>.



- Check on <Remember> to access your camera without entering the password next time
- If you want to change the Camera password, please refer to < Basic Info> on page 17.
- 3. Live video will be displayed on the screen.



Monitoring options



	Item	Description
1	Default Camera	Set the default camera to monitor in the camera list.
2	Delete Camera	Delete the registered camera.
3	Cancel remembering camera password	Cancel remembering the camera password.
4	Night Vision	If Night Vision is set < 0N >, it will automatically switch to black and white mode in the dark condition and then the IR lamp will automatically operate. If Night Vision is set < 0FF >, it does not switch to night vision mode and it will operate in color mode.

Item	Description
5 WDR	Compensate the backlight by brightening any dark areas and darkening any bright areas.
6 LDC	To determine whether or not to use the image distortion correction.
7 Flip/Mirror	You can flip/mirror the video image.
8 Network Speed	Set the network speed (low/mid/high). If the bandwidth provided by your internet service provider is smaller than the recommended value, then the video might get fuzzy or temporary disconnections or delays in the live video may be caused.
9 Manual recording	A user can directly save videos in their SD card. If there is an ongoing event now or overwrite to SD card is not checked, and there is storage space of 10% remaining, you cannot perform manual recording. If you move the page or turn off the browser without turning off the manual recording button, it will be saved for a max of 30 seconds and manual recording will be finished.
10 Capture Image	Live video is saved as one image.
11 Sound	When enabled, you can hear what's happening around the camera. Some internet service providers do not support audio outputs in relay mode.
12 Full screen	Converts the current image to full screen size. The system supports Internet Explorer only. If you double-click the screen, the full screen mode is terminated.
13 Brightness	You can adjust the brightness of the screen image.

Item	Description
Hide/unhide detailed menu	Click on the [🙋] icon to unhide or hide detailed setting menu.
15 Audio	Adjust the volume of the built-in microphone and speaker of the camera as appropriate. If you set the mic setting to '0', you will not hear the live audio, and it will not be recorded in your SD card. Note that the Two-way audio transfer function is available only with the smart phone application.
16 Add a camera	Click the [💿] icon to register an additional camera.

* Wireless Network Speed

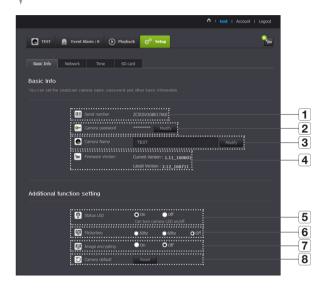
Profile Name	Resolution	Frame rate	Recommended bandwidth
Low Speed Network	VGA	20 fps	0.7Mbps
Mid Speed Network	HD(720P)	15 fps	1Mbps
High Speed Network	Full HD(1080P)	30 fps	2.8Mbps



- What is relay mode?
 - If the network condition is unstable, the camera cannot make a normal connection (P2P), so it will set up a connection in relay mode. In this case, you will see the video for the first seven minutes only.
- Relay mode is added feature where the video from the camera is transmitted to smartcam server then retransmitted to the user's computer.
- If you have trouble connection to the camera, visit "http://www.samsungsmartcam. com", go to support page, and refer to "Troubleshooting" on it.
- It is recommended to use one browser at one time.
- The Night Vision video produces a different visibility according to the distance between camera and subject.
- The number of available concurrent users for a single camera may vary depending on the speed of your Wi-Fi router.

Setup

Basic Info



Item	Description
1 Serial number	You can confirm the serial number.
2 Camera password	Click the < Modify>, you can change the Camera password. Enter the current camera password, and type a new Camera password.
3 Camera Name	Click the < Modify>, you can change the camera name.
4 Firmware Version	You can check the current version and the latest version of your camera S/W.
5 Status LED	You can turn on/off the LED in your camera. The LED will illuminate when the power supply is reconnected.
6 Flickerless	You can reduce the occurrence of screen shaking due to the frequency mismatches with the neighboring lighting. If you use the flickerless function outdoors (in a bright environment), image saturation may occur.
7 Image encrypting	Encrypts the transmitted image. If Encrypt Image is activated, the image transmission performance may be affected.
8 Camera default	Press the <reset> button to initialize all camera settings other than the network settings. To reset the camera to its factory default settings, press the [RESET] button on the camera.</reset>



- If you change the camera password, you will be logged out and return to the camera password input page.
- Keep the camera password in a safe place as it is used for viewing the live screen of the camera or for changing the display settings.

Firmware update

If the currently used S/W is not of the latest version, update it. If you are using the latest version, then the firmware will not be activated.

1) Click < Firmware >.



2) Click the < ▶ > icon to update the firmware.



3) When the firmware update is finished, the camera will reboot.

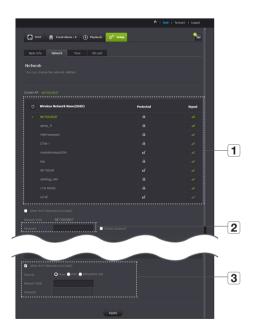


- The duration of the firmware update depends on the size of the firmware file and the network connection speed.
- When executing the firmware update, the camera LED turns purple.



Please do not cut off the camera power or Internet connection during a firmware update. The system may be damaged.

Network

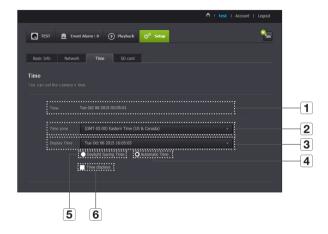


	Item	Description
1	AP (Access Point) list	You will see a list of APs (Access Point) available. Select a desired one from the list of APs (Access Point).
2	AP (Access Point) password	You can access the network by entering the password set for the wireless router. For the password, contact your network administrator.
3	Hidden SSID	Select a different WiFi network, entering its SSID, the type of security that it uses, and the wireless password configured in the router's settings.



- If you select a non-secured AP (Access Point), you just can access the network without providing a specific password.
- If you cannot connect to the wireless network, check that you entered the wireless router password correctly.
- Please refer to the router manual or contact the router manufacturer if you need more information concerning the router or wireless connection.





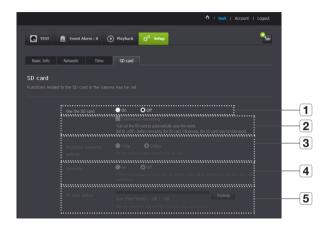
Item	Description
1 Time	Confirm the camera's time.
2 Time Zone	Select your region.
3 Display Time	Select the time format displayed in time setting.
4 Automatic Time	It sets camera's time automatically.
5 Daylight Saving Time	Check this option if you live in a country or region where DST(Daylight Saving Time) is applied.
6 Time to show	Live screen displays the time.



- The time will synchronize with the NTP(Network Time Protocol) server automatically. For this, Internet connection is required.
 - You need to set the timezone correctly to obtain the exact time setting.
 - The time displayed without Internet connection may not be accurate.

SD card

When an event occurs, it is saved in an SD card.



	Item	Description
1	Use the SD card	If you set motion/audio, video will be automatically saved in your SD card.
2	Continuous Recording	Saves the video without being interrupted by events that may occur.
3	Recording resolution settings	Sets the resolution of the image stored on the SD card.

Item	Description
4 Overwrite	If the SD card capacity is insufficient, it will start overwriting the oldest data. When there is storage capacity of 10% remaining, the top notification window will show an alarm.
5 SD Card Status	Check the remaining capacity of your SD card and delete all the data.



- Turn off the camera power or set it to <0ff> before removing the micro SD card. If you fail to do this, the data in the micro SD camera may be damaged.
- Please note that the content of a micro SD card used for other purposes may be deleted when it is mounted in the camera.
- The following micro SD cards are recommended for this camera.
 Manufacturer: Sandisk, Transcend
 Class 6 or higher, MLC type
- Micro SD card of max 128GB is supported and a FAT32 file system is supported.
- It is recommended to use the micro SD card after formatting it. Regularly formatting the memory card will help extend its life.

Event Alarm

You can check the event alarm that occurred.



Item	Description
1 Delete by dates	Delete all the event alarms on the date.
2 Delete All	Delete all the event alarms for thirty days.
3 Display Events	Displays the number of events occurred in the 30 day list.
4 Arrange by types	Arrange the event list by event types.

Playback

You can play the video recorded in your SD card.



Item	Description
1 Type	Set the event type to search for during the search period.
2 Date	Set the search date for the data saved in your SD card.
3 Play/pause	Play and pause video.
4 Search	Perform event searches.
5 Refresh	Renew the events displayed in timeline.
6 Timeline	Use the timeline to play the video in the desired time.

Information



My Account





If you want to change the member information, click on <Account>. Select the item (password, or email address) and enter your information.

Support

You can download the WiseNet SmartCam+ mobile app and user guide.





Specifications Specifications Product Appearance Troubleshooting

Specifications

Specifications

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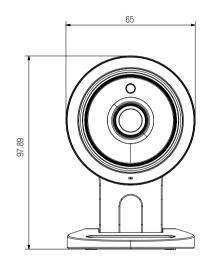
27

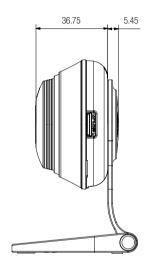
28

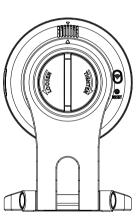
Item	Description
OS	Linux
Resolution	1920x1080, 1280x720, 640x360
Max. Framerate	1080p@30fps
Video Compression Format	H.264
Streaming Capability	Multiple Streaming (Up to 4 Profiles)
Angular Field of View (D/V/H)	130°/ 63°/ 113°
Low Light Performance	0.3Lux(Color), 0Lux(Black/White)
WDR	HDR
Day & Night	True D/N Filter
Night vision	IR-LED, 10M
Digital Zoom	4X
Flip / Mirror	Support
Motion Detection	Support

Item	Description
Audio Detection	Support
Audio I/O	Built-in microphone and speaker
Audio Compression Format	G.711 u-law
Audio Communication	2-Way Audio (Built-in Microphone & Speaker), Half Duplex
Memory Slot	SDXC memory slot (up to 128GB)
Recording & Playback	Event recording, Manual recording, Continuous recording, Remote playback
Ethernet	-
Wireless	Wi-Fi 802.11 b/g/n (Single-band)
WiFi Direct	Support (Push button)
Security	HTTPS(SSL) Login Authentication Digest Login Authentication
Max. User Access	5 users at Unicast Mode
Operating Temperature / Humidity	DC 5V, 0°C ~ 40°C (+32°F ~ +104°F) / Less than 90% RH
Ingress Protection	Indoor
Input Voltage / Current	5V/2A
Power Consumption	5W
Indication	1 LED (Power, Status, Link)

Item	Description
Color/Material	White/Plastic
Dimension	Ø65mm × 36.5mm (without bracket)
Weight	137g







Troubleshooting

If you encounter a problem with your system, see the table below to solve the problem as quickly and easily as possible. Please follow the instruction below:

Problem	Action
I forgot my user ID/ password.	 Move to "Log-in page → Forgot your ID/Password?", and enter the registered e-mail address to which we will send you the user ID and/or a new password. It can be spammed out depending on the policy of the email server. After logged in, it is advisable to change the temporary password provided.
Camera is not connected to the wireless hub.	If the camera's wireless internet indication LED goes off too often, then it means that the camera installation location is not optimal for the wireless internet environment, so in this case, locate the camera close to the wireless hub and try to connect again. Check the password for the wireless hub and try again.
After logged in, I failed to register the camera.	- Check that the serial number entered matches the label on the back of the camera Enter the correct password for the camera registered again and try to register the camera again Check the camera LED to see if it is yellow or light green If you are still unable to register the camera after this, then reset the camera to factory settings and begin again (If you want to reset to factory settings, press and hold the initialize button on the back for 10 sec. Once initialized to factory settings, the camera will be restarted.)

Problem	Action
The video from the camera is temporarily lost.	The video from the camera can be delayed according to a network delay. Please check if the camera is installed in a place of proper wireless Internet communications.
No sound is output from the video.	Click the Voice icon in the video playback page, or check if the voice is turned On in your smart phone app. Some internet service providers do not support audio outputs in relay mode.
I forgot my Camera password.	You must create a new camera password. Press the initialization button on the back of the product for more than 10 seconds to reset to factory settings. After factory initialization, when you access the camera, you can reset the password for the camera.
I want to change my password and/or email address.	After logging in, click on the < Account >. Select the item (password, or email address) and enter your information.
Camera will be connected in a relay mode.	Check the UPnP setting of the router. Using a network upload speed of 700Kbps or higher is recommended. Depending on the policy of your service provider, you can access in relay mode.



Hanwha Techwin cares for the environment at all product manufacturing stages, and is taking measures to provide customers with more environmentally friendly products. The Eco mark represents Hanwha Techwin's devotion to creating environmentally friendly products, and indicates that the product satisfies the EU RoHS Directive.



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

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