■ STANDARD PACKAGE

→ LED Indicator

Camera

Installation Guide

Instructions

Screws & wall plugs

■ CABLE

Cable	Description
Power jack	DC12V power supply.
RJ45 jack*	Connect it to a RJ45 cable.
GND	Used with RESET for hardware reset.
RESET	Used with GND for hardware reset. Remove the insulating coating of the wire, and twist it with the GND wire together to reset the camera to its factory values.

* Optional

■ DEFAULT VALUES

	Wired	Wireless
IP address	192.168.1.10	192.168.2.10
Port number	88	88
User name	admin	admin
Password	admin	admin
SSID	--	IPCAM-*mac_address*
SSID Password	--	NO

It's strongly recommended to create a new account and remove the default user name and password before using the camera to keep your account safe.

To change the default account setting, log into the camera, and go to **Config. → General → Account** from the web browser.

However, when you're using our cloud service, EaZy Networking, to connect your camera to the Internet, the default user name and password will be replaced by the user name and password of your cloud service.

■ LED INDICATION

Meaning	Color
■ Wireless network connected w/ signal strength*	
Strong	Blue light
Normal	Purple light
Weak	Red light
■ Resetting camera …	Flashing in blue & red
■ Setting camera…	Flashing in blue
■ No network connection	Flashing in red
■ Wrong Wi-Fi password	Flashing in purple
■ Connecting to Wi-Fi	Flashing in blue slowly

* When the signal strength is stable, the indicator will be off after one minute. The light will be on again in the color corresponding to its current signal strength when the signal strength is changed.

❶ NETWORK SETUP BY EAZY NETWORKING

Prerequisites:

■ You've downloaded the mobile app, EagleEyes, from APP Store (for iOS device.) / Play Store (for android devices).
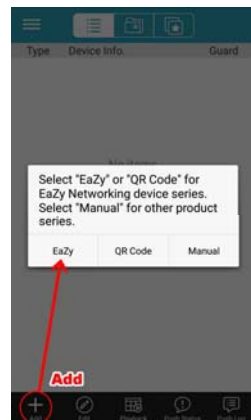
■ Your mobile phone or tablet has connected to the wireless network that your camera is going to be connected to, and you know the password to connect to the network.

— Connect to one Wi-Fi network —

■ Your camera is powered on and its LED status indicator is flashing from red to blue.

Video Demo: Setup by EaZy Networking

a) Open EagleEyes.

Select **+ (Add)**, and choose **EaZy**.

b) Create an account for EaZy Service.

If you've registered before, choose **Sign In** to log into the EaZy service.

For initial use, select **Register** to create an account.

c) Select the wireless device.

Choose **Wireless IP Camera**.

d) Power on your camera.

Power on your camera and wait till the LED status indicator is flashing in blue.

Then, tap **Next** to continue.

e) Connect to a wireless network.

The current wireless network connected by your phone or tablet will be shown in **SSID**. Make sure this wireless network is the one you want your camera to connect to, and enter its password in **Password** (if any).

Then, tap **Next** to continue.

f) Scan the QR code.

Show the QR code to the camera within the distance of 20~30 cm for scanning.

Watch the flashing frequency of the LED status indicator and wait till you see it flashing in blue slowly.

Then, tap **Next** to continue.

g) Wait for the connection to complete.

It takes about 1 ~ 2 minutes to complete the connection. When the connection is done, you'll be directed to the next page automatically.

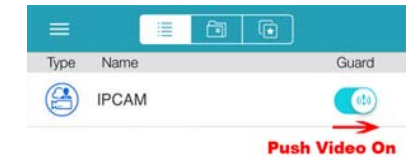If nothing happens after two minutes, tap **Status Indicator** to know what may obstruct the connection.

h) Complete the camera setup.

The setup is complete and you're ready to use the camera.

Choose **Close** to complete the setup, or choose **Add another device** to add another EaZy Networking device.

i) Return to the address book.

Your camera is added to the address book with a cloud icon on it. Enable Push Video if needed.

Select the camera and see if you can see its live view.

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❷ CAMERA INSTALLATION

Prerequisites:

Before installing your camera, make sure:

- You have finished network setup of this camera as described in the previous section, ❶ **NETWORK SETUP BY EAZY NETWORKING**.

- The signal strength of the wireless network where you want to install this camera is not too weak to connect.
  Check **Q2** of **Q&A – NETWORK SETUP** for details.

Step1: Rotate to loosen the joint lock.

Step2: Locate where to install this camera, and fasten the bracket to the ceiling or wall with the supplied screws.

Note: For the camera with the face recognition feature, make sure the height of the camera is not installed over 2 meters. For details, please refer to "FACE RECOGNITION – CAMERA INSTALLATION REQUIREMENTS".

Step3: Connect your camera to power and check the camera viewing angle via EagleEyes if you've finished network setup as described in the section, ❶ **NETWORK SETUP BY EAZY NETWORKING**.

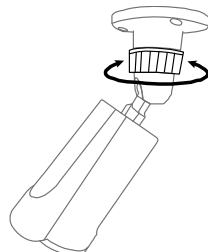Step4: Adjust the viewing angle of the camera ①, and rotate to fasten the joint lock ②.
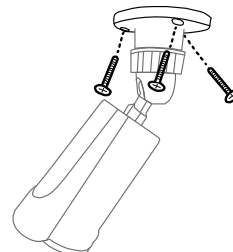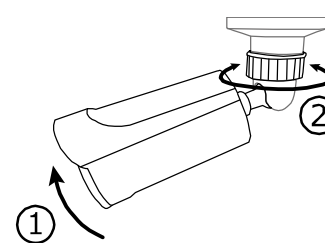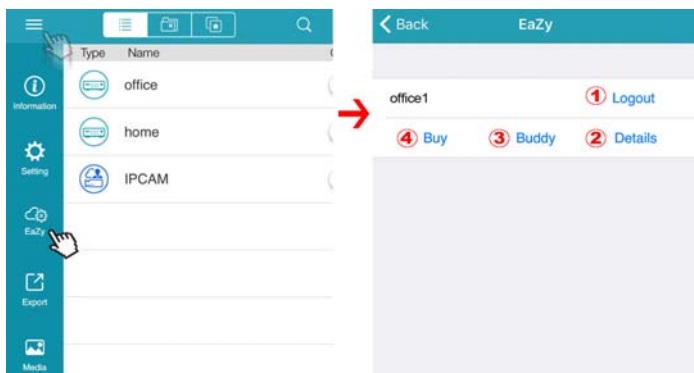

| *Figure 1* | *Figure 2* | *Figure 3* |

■ ACCOUNT FOR CLOUD SERVICE

■ Account checking
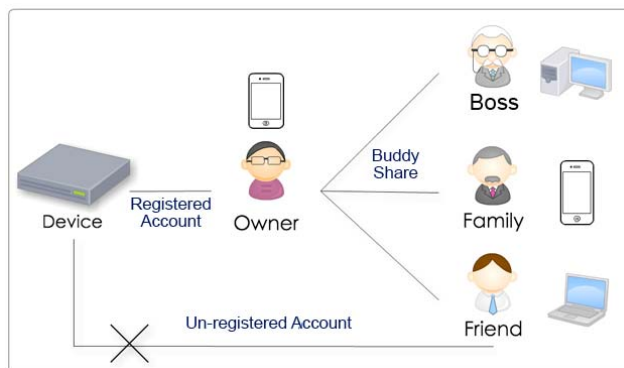

Select **EaZy** to configure or check the cloud service.
① Service log in / log out
② Check your account information
③ Share your camera / data allowance
④ Buy our data plan online

Note: You must log into the service first to see your camera.

■ Device access sharing

The device access right is managed by the owner, and the registered devices cannot be registered again unless the devices are restored the default settings.

The owner can share the access right with other users through the function, Buddy Share.

Video Demo: Buddy Share

■ Q&A – NETWORK SETUP

Q1: When using EaZy Networking to configure my wireless camera to the Internet wirelessly, can I use 4G to do this?

A1: No, please connect your mobile phone or tablet to the wireless network you want your camera to be connected to. This process is needed for the camera to know which wireless network it will use.

Q2: How long is the wireless transmission distance for this camera?

A2: The wireless transmission distance of this camera is around 60 meters if there's no obstruction between the wireless router and the camera.

If there are 4 walls between the router and this camera, and the wireless signal shows weak (1 bar seen from your mobile phone), the transmission distance of this camera might be down to around 30 meters.

Q3: After scanning the QR code, the status indicator is not flashing slowly in blue but flashing in purple instead. Why?

A3: The status indicator flashing in purple indicates that you entered the wrong Wi-Fi password in the previous step. Please return to the previous step and re-enter the password again.

■ Q&A – NETWORK SETUP

Q4: While scanning the QR code, the flashing frequency of the status indicator doesn't slow down or it's flashing in purple instead of blue. Why?

A4: If the flashing status of the indicator doesn't change from fast to slow, choose **Manual** on the QR code scanning page to manually add this camera.

If the indicator is flashing in purple, the Wi-Fi password you just entered is wrong. Please return and enter the Wi-Fi password again.

Video Demo: Manual Setup

Q5: Is it ok to connect this wireless camera to the public wireless network which everyone can connect and use?

A5: It's not recommended since there might be many devices sharing the same network bandwidth resulting video lagging - unless you're sure your network bandwidth is sufficient enough to cover the usage.

Q6: The LED indicator keep flashing. What does it mean?

A6: Please check the section, **LED INDICATION**, for details.

■ Q&A – EAZY NETWORKING

Q1: What's EaZy Networking?

A1: EaZy Networking is a free P2P cloud service to connect our devices to the Internet automatically by plug-and-play, enabling you to check the live view via your mobile device or laptop at any time.

In most cases, the device is connected via P2P. Connection via the relay server is only applied to some complex environments such as the private IP-based network environment used by a large enterprise.
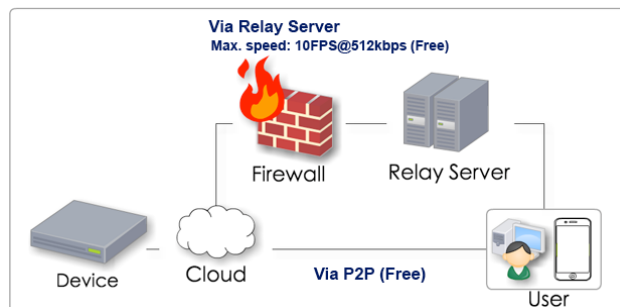
Q2: Can a device be registered by two cloud accounts simultaneously?

A2: No, but the owner that registered the device you want can use **Buddy Share** to share the access right with you.

Q3: I'm not using a wireless router to connect to the internet. Can I connect my camera to Internet by using EaZy Networking?

A3: No. A wireless router is needed, and its DHCP function must be on.

Q4: How to remove a camera from the cloud service?

A4: Please reset the camera to its factory default settings.

Q5: How to use the AVTECH cloud service on the web browser? How to configure Buddy Share?

A5: Please use Internet Explorer and visit ez.eagleeyes.tw to log into your cloud service.

To know how to configure Buddy Share, please scan the QR code in the section, "**ACCOUNT FOR CLOUD SERVICE**".

Scan for detailed manual

■ FACE RECOGNITION – CAMERA INSTALLATION REQUIREMENTS

For face recognition to work more effectively and accurately, there are certain requirements listed below to meet when the camera is installed. The more the camera and the target face are aligned, the better result you'll get. The recognition also gets impossible when the light condition of the environment is not good, i.e. at night, lights-off office, over-exposure environment, etc.

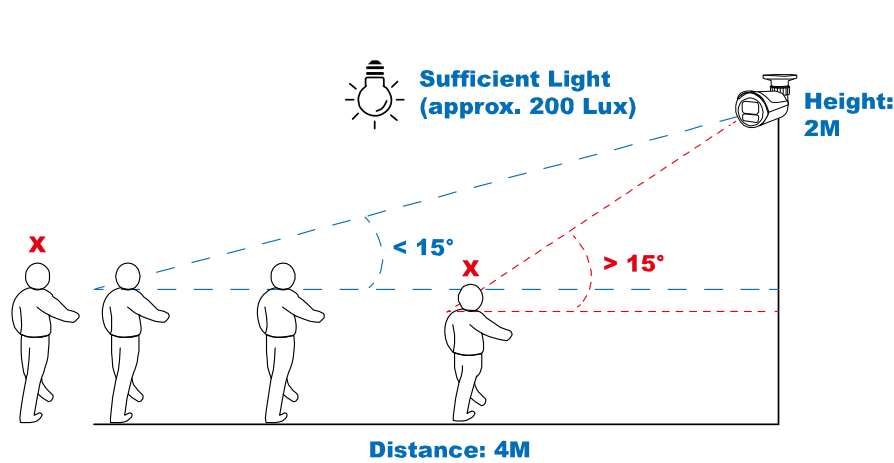| ■ Requirements	
Light Condition	Sufficient (approx. 200 lux)
Mounting Height	Approx. 2 meters
Mounting Angle	Up to 15° to the face of the target
Detection Distance	Approx. 4 meters
Detection Range	Within the range of 15° whether the target moving to the left or right

Figure 1: Height, distance, light and angle for camera installation
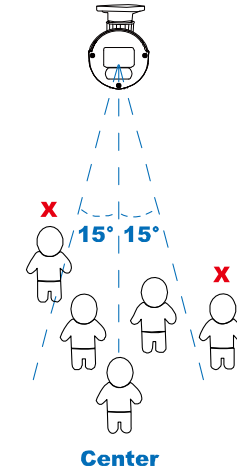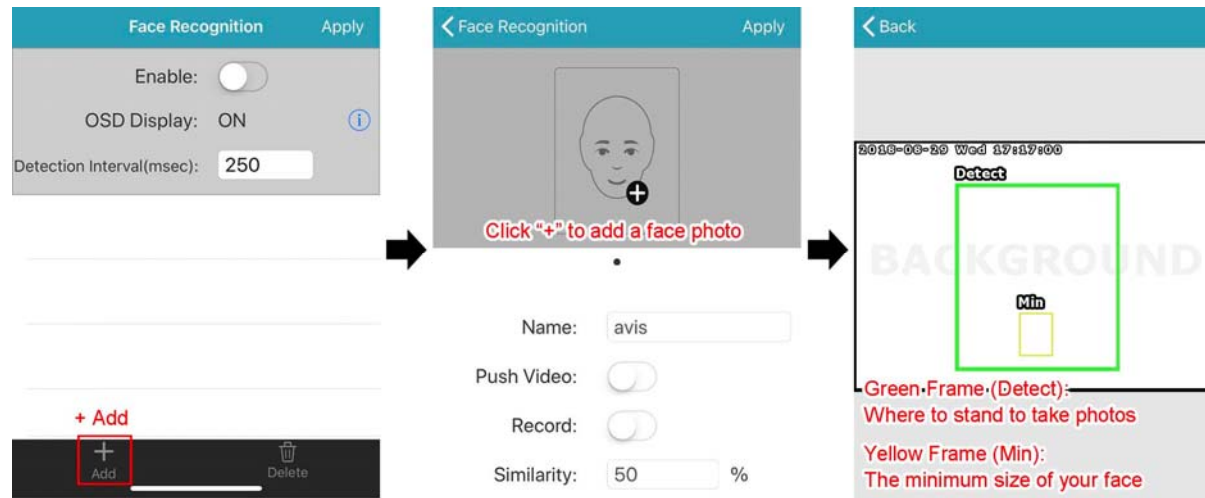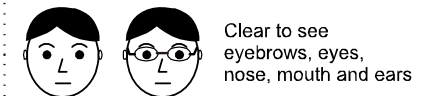
Figure 2: Detection range

■ FACE RECOGNITION – CREATING FACE DATABASE

You can create the face album for up to 30 persons and up to 5 photos for each person. At least 4 angles of photos should be taken: front, down, left and right.
Taking photos is easy via our mobile app, EagleEyes, or you can access the camera via Internet Explorer to take photos. Below shows you how to take photos via EagleEyes.

a) Access the camera and choose **Face Recog.** to create a face album.

b) In the album, choose **Add** to start creating a face profile, and click **+** to enter the photo taking mode with the angle indication. In the photo taking mode, make sure **(1)** your face is in the **Detect** area and **(2)** the size of your face is larger than the **Min** area (Check *Figure 3* & *Figure 4* for details). When you have the right position and angle, the system will take the photo automatically.

OK face to take photos:

Clear to see eyebrows, eyes, nose, mouth and ears

NG face to take photos:

Sun Glasses | Mask | Mustache | Beard

Long Bang | Long Bang | Hat | Smile with teeth

Figure 3: Notes to take photos

O Face size larger than the min. space

Detect

Min

O Face size larger than the min. space

Detect

Min

O Face size larger than the min. space

Detect

Min

X Face size smaller than the min. space
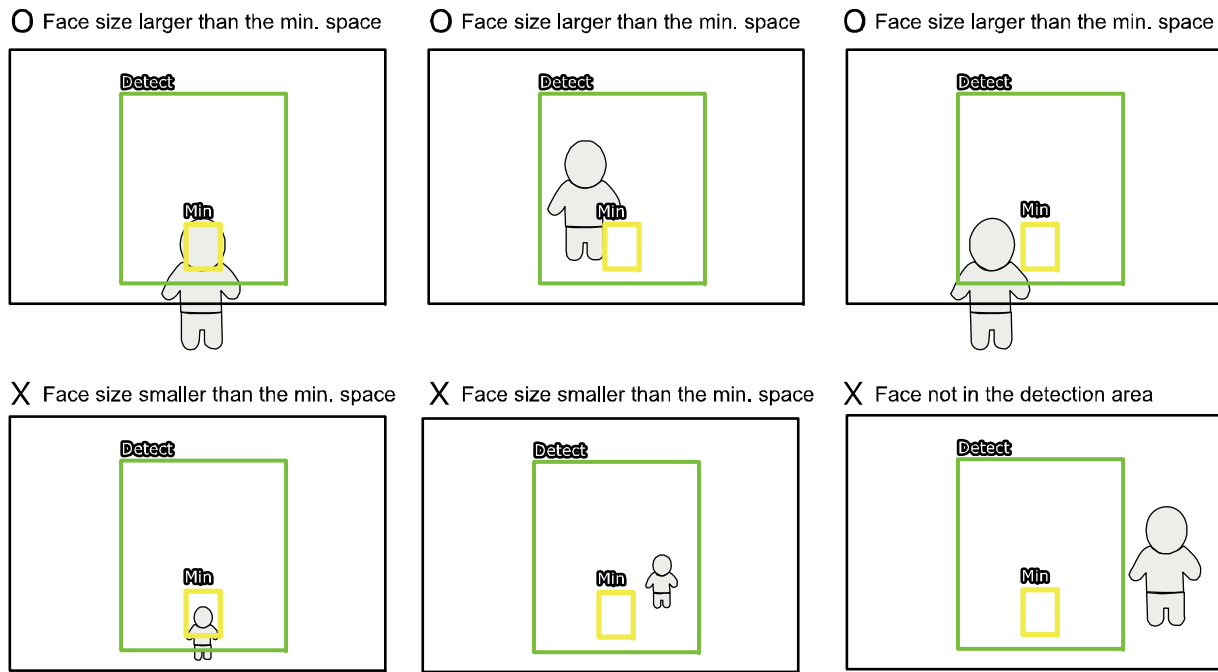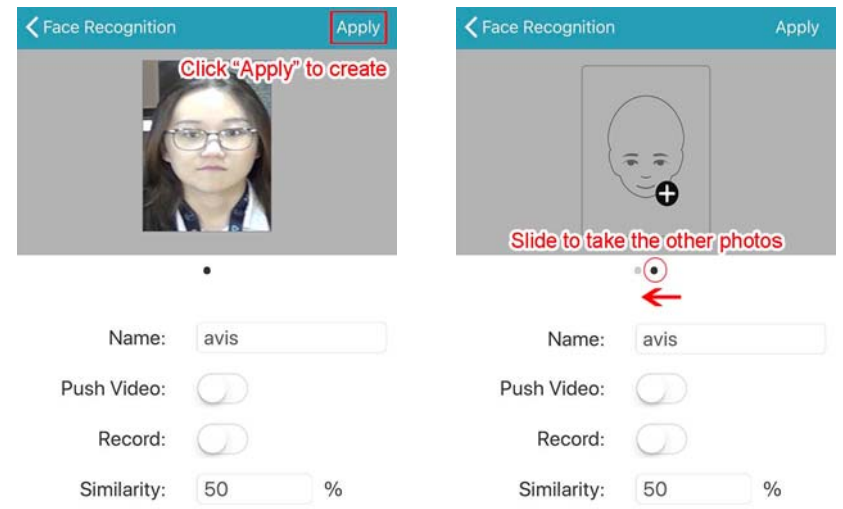
Detect

Min

X Face size smaller than the min. space

Detect

Min

X Face not in the detection area

Detect

Min

Figure 4: How and where to take face photos

Face Recognition — Apply

Click "Apply" to create

Name: avis
Push Video: ⬤
Record: ⬤
Similarity: 50 %

c) Enter a name for this profile, and click **Apply** to create.

Face Recognition — Apply

Slide to take the other photos

Name: avis
Push Video: ⬤
Record: ⬤
Similarity: 50 %

d) When the profile is created, slide to take the other 4 photos.

1		**Front view:** Face the camera.
2		**Look down** 10° ~ 15°
3		**Left view:** Face the camera and look left 10° ~ 15°
4		**Right view:** Face the camera and look right 10° ~ 15°
5		**Optional:** Front view again or a front view with glasses if you may wear

Figure 5: Angles to take photos

Face Recognition — Apply

Name: avis
Push Video: ⬤
Record: ⬤
Similarity: 50 %
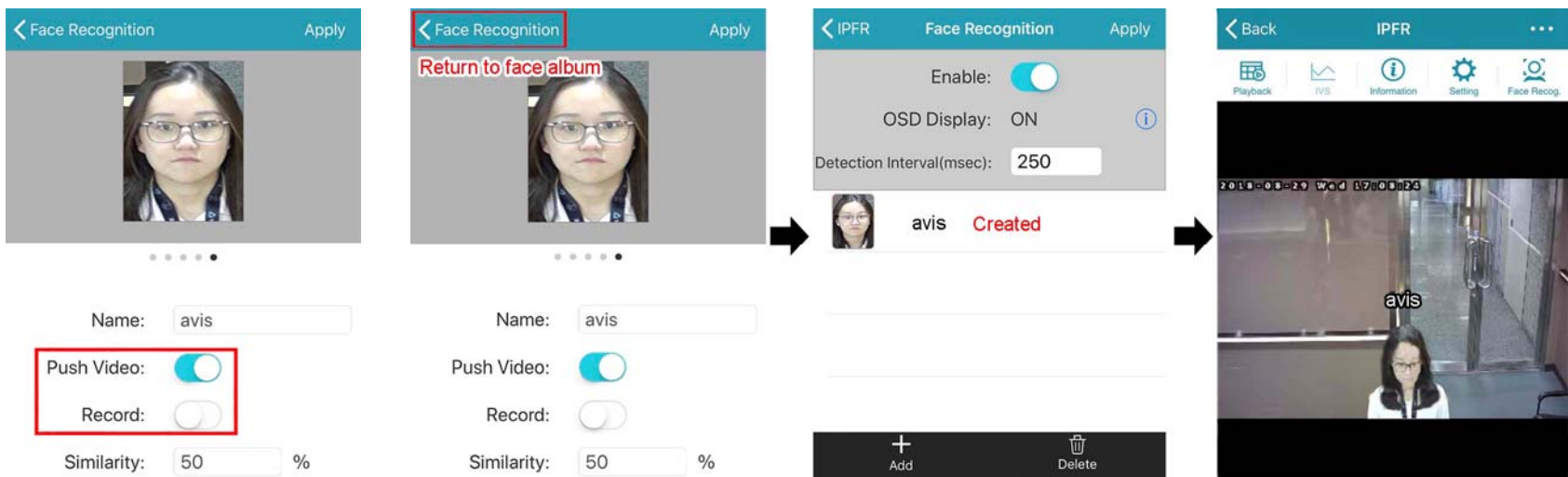
e) Choose if you want to receive **Push Video** or start recording (**Record**) when the person's face is identified.

Face Recognition — Apply

Return to face album

Name: avis
Push Video: ⬤
Record: ⬤
Similarity: 50 %

IPFR   Face Recognition   Apply

Enable: ⬤
OSD Display: ON ⓘ
Detection Interval(msec): 250

avis   Created

+ Add   🗑 Delete

Back   IPFR   ...

Playback   IVS   Information   Setting   Face Recog.

2018-08-29 Wed 17:00:24

avis

f) When five face photos are taken, click **Face Recognition** to return to the face album, and enable the face recognition function. Then, click the camera name on the top left corner to return to the live, and ask the person whose photos you just took to walk in the surveillance area of the camera to see if the camera is able to identify successfully with his / her name displayed above his / her head.

Camera Setup

Q1: My ceiling is over 2 meters. Can I install the camera over 2 meters to use face recognition?

A1: It's not recommended to install this camera at any position over 2 meters for face recognition as the more the camera and the target face are aligned, the better result you'll get.

Please check ***Figure 1: Height, distance, light and angle for camera installation*** for details.

Q2: What kind of environment is suitable for face recognition to take effect?

A2: The recognition result will get better when the camera is installed in the place where people will eventually be gathered within the face detection area of the camera and there is sufficient detection distance of at least 4 meters between people and the camera. A hallway is a good example of the suitable environment.

There should also be enough light for face recognition. Dark and overexposure environment are not ideal for face recognition to work properly since the camera itself will have trouble to analyze whether there's a face in the camera view.
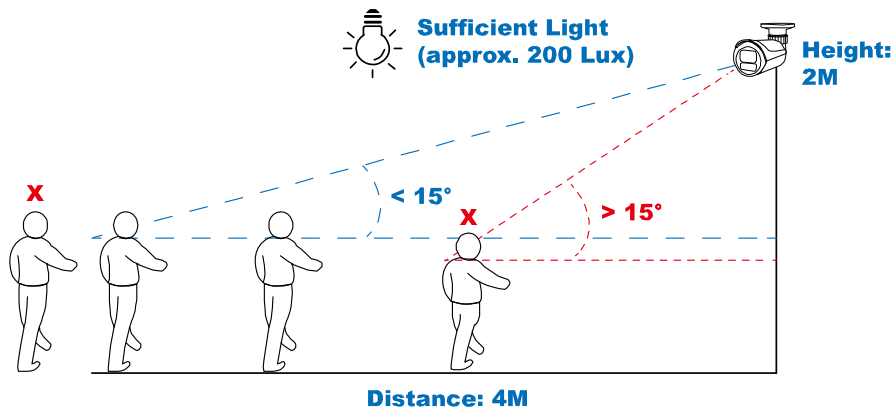

Photo Taking

Q1: Can I use the face photo taken by the webcam of my laptop or by the camera of my phone and upload?

A1: No, please take face photos by using our mobile app, EagleEyes. This can ensure every photo has reached the recognition standard.

Q2: How do I know if my photo is ok?

A2: Make sure you do follow the instructions in the section, **FACE RECOGNITION** – **CREATING FACE DATABASE**, and the app will detect and calculate each portion of the face shown on the screen. When the face on the screen is considered qualified by the app, a photo will be taken automatically and return to the face profile page.

Q3: Do I need to take photos with the angles as shown in EagleEyes?

A3: Yes, please at least take four photos with four angles, front, down, left and right as instructed in ***Figure 5: Angles to take photos*** to improve the accuracy of face recognition.

For the fifth photo, you can choose to take a front face again, or take a photo without glasses if you also wear contact lenses, or vice versa.

The more the face photos, the more accurate the recognition.

Q4: How many photos should be taken for one person?

A4: Up to five photos can be taken for a person, and at least four photos with four angles, front, down, left and right, as instructed in ***Figure 5: Angles to take photos*** to improve the accuracy of face recognition.

For the fifth photo, you can choose to take a front face again, or take a photo without glasses if you also wear contact lenses, or vice versa.

The more the face photos, the more accurate the recognition.

Q5: Hany many persons can I configure for face recognition?

A5: Up to 30 persons.

Q6: Is it ok to wear glasses to take face photos?

A6: Yes, but sun glasses is not included. And if you occasionally wear contact lenses, it's highly recommended to take a face photo without glasses as the fifth photo to improve the accuracy of face recognition.

Q7: Why do I keep failing taking face photos?

A7: Make sure you've followed the instructions in ***Figure 3***, ***Figure 4*** and ***Figure 5*** to take photos, nothing is covering or obscuring your face and head, and the light is sufficient.

Detection

Q1: Can everyone's face be detected by the camera? Is there any restriction of a person's height for face recognition to take effect?

A1: This camera do has a height limitation. For example, if the camera is installed in a 2 meters height position with a tilt angle of 10° to the face of the target, the minimum detectable height of a person is approx. 146cm.
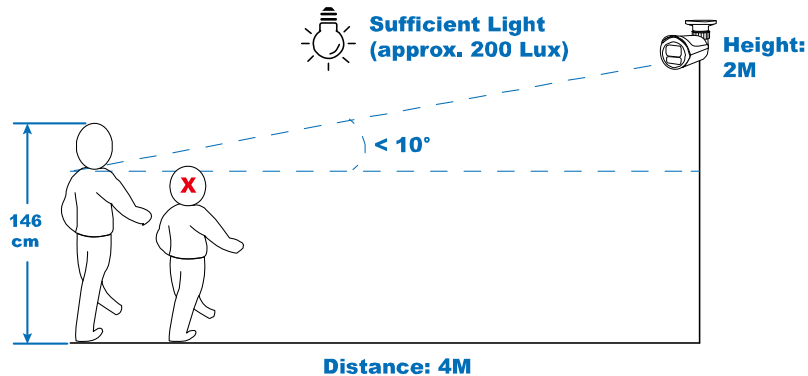
The larger the tilt angle of the camera to the face of the target, the smaller the minimum detectable height of a person. Make sure the tilt angle is not over 15° or the recognition will simply fail.

Q2: A person's face is saved in the album but the camera keeps showing that he's a stranger. Why?

A2: 1. Make sure the person is not looking down and his / her face is facing the camera.
   2. Make sure the person doesn't cover his / her face as follows:

Sun Glasses   Mask   Mustache   Beard   Long Bang   Long Bang   Hat
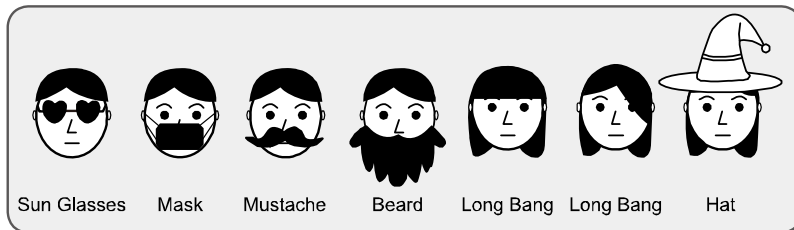
   3. Check the person's face photos and see if all angles required are taken as instructed in **FACE RECOGNITION** – **CREATING FACE DATABASE**. If not, please re-take the photos.

Q3: I'm not in the face album. Why am I being detected as someone else but not stranger?

A3: You and the person being detected might have some resemblances. To avoid this, please make your own face album or raise the similarity ratio of the person being detected. The default similarity ratio is 50% for each person.

Q4: Does the face recognition still work when the office is close and all lighting is off?

A4: No, sufficient light is needed for face recognition to work properly. Dark and over-exposure environments are not ideal for face recognition since the camera itself will have trouble to analyze whether there's a face in the camera view.

Q5: Does the face recognition still work when the office is close and all lighting is off?

A5: No, sufficient light is needed for face recognition to work properly. Dark and over-exposure environments are not ideal for face recognition since the camera itself will have trouble to analyze whether there's a face in the camera view.

Miscellaneous

Q1: What's Push Video? What will happen when I enable it in the face profile page?

A1: Push Video is an instant notification function worked on EagleEyes. When Push Video is enabled, you'll receive the notification on your mobile phone when the person's face is recognized. Open the notification and you'll see the footage of the person being recognized.

Q2: When "Record" is enabled in a person's face profile, what will happen?

A2: Video recording will be on when the person's face is recognized. The footage will be saved in the camera and might be erased quickly if there is more footage coming.

Q3: How many footage files can be saved in the camera? Where can I find them?

A3: Two video footages can be saved in the camera. The new one always overwrites the older one.
   To find the footage, return to the address book of EagleEyes, choose **Play** on the bottom tool bar, and choose the camera to enter the video search page.
   To save more footages, you can connect this camera to a recorder for event recording.