

# BIOCAMS Series Product Installation Guide

Version: 1.2 Date: July 2014

## Precautions



- DO NOT connect cables when the power is on.
- Working Conditions

Operating temperature: -10 °C ~50 °C. Operating humidity: 10% ~80%.

- Communication Distance

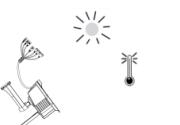
When communication distance exceeds 80 meters, please use relay device.

(Remarks: under the **POE** [Optional] mode, if transmission distance is greater than 60 meters, please use a repeater.)

- Keep the lens clean. If the lens is too dirty, use a tidy and soft cloth to clean the lens.
- Do not point the camera against an object emitting strong light for a long time.

Otherwise, the image sensor of the camera may malfunction, which leads to absence or distortion of images.

**Tips:** The product is applicable only to indoor installation. Do not install the device outdoors or semi-outdoor; otherwise, the warranty is not granted.



- Power Requirement

The power must be **DC 12V**, rated current  $\geq 1.5$  A.

- All uncovered cable should be less than 5mm, to avoid exceptional device damage.

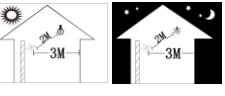
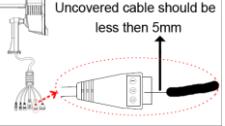
Recommended horizontal distance from the user to face recognition camera is about 3 meters. (Applied to height range 1.5~1.9m)

- Suggest Condition

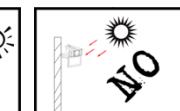
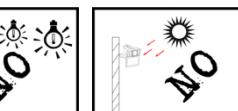
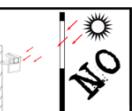
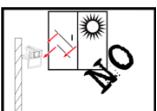
Install the device indoors; stay away from and back to the window and the door; and 6.5 feet (2m) away from light fixtures. Preferable light intensity should range between 0~300 Lux.

(Note: The installation and the use environment; please refer to the **Application Guide**.)

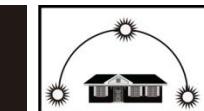
- The area in which face recognition can be implemented is defined as follows: the left-to-right distance is about 0.35 m, and the front-to-rear distance is about 1 m. (For details, see **Appendix > Face Recognition Area**)



- Installing positions that affect the use effect of the device



- Reference luminance of the light source in the installation environment



10 Lux

1200+ Lux

50~300 Lux

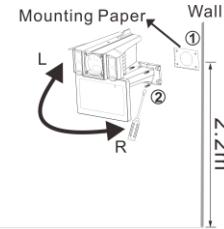
## Chapter 1: The Installation of Device

### 1. Install Device

- Wall Mounting

- Attach the installation template to the wall where you want to mount the camera and drill holes. (It is recommended to install the device at a height of **2.2 m**; according to needs, you can adjust it to **2~2.4 meters**)

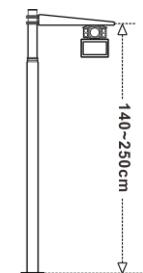
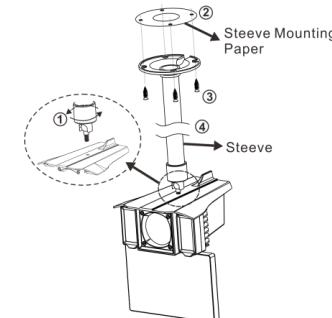
- Fix the camera on the wall using four screws. (The device can be rotated left to right so that screws can be conveniently fastened.)



- Top Mounting

- Connect the steeve to the device
- Attach the steeve mounting paper onto the wall or ceiling where the device will be installed. Drill holes according to marks on the steeve mounting paper
- Use screws to fix the steeve
- Adjust the length of the steeve to ensure that the **Face Recognition Camera** is **2.2** meters off the ground. (Note: according to needs, you can adjust it to **2~2.4** meters.)

**Note:** The steeve is not included in the standard configuration. The device supports three types of steeves that are respectively 40~80 cm, 80~160 cm, and 140~250 cm (Floor Standing).

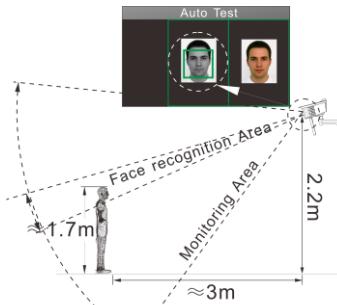


Installation Mode		Note
NO.	Description	
1	Use the standard wall-mount bracket that comes with the device.	
2	Use a 40 to 80 cm ceiling-mount bracket instead of the standard bracket that comes with the device.	The 40 to 80 cm bracket is applicable to the storey height of 2.6 to 3.4 m.
3	Use an 80 to 160 cm ceiling-mount bracket instead of the standard bracket that comes with the device.	The 80 to 160 cm bracket is applicable to the storey height of 3.4 to 4.2 m.
4	Use a 140 to 250 cm floor-mount bracket.	Fix the bracket on the floor, and fix the device on the bracket.

## 2. Adjust the camera to the best angle

After successful installation of the device, adjust the camera to the best angle to implement face recognition and video surveillance. Detailed adjustment methods are as follows:

- (1) On the **Main Menu** interface, press the **[▶]** key on the **Remote Control** to move the cursor on the **Auto Test** submenu, and then press **[OK]** key to enter the **Auto Test** interface.
- (2) The angle adjuster stands with an about 3 meters' horizontal distance from the **Face Recognition Camera**. (Note: That the adjuster must be about 1.7 meters high.)
- (3) Rotate the device up, down, left, and right to ensure that the facial image display inside the green box on the **Auto Test** interface (as shown in the figure on the right); that is to adjust the camera to the best angle.



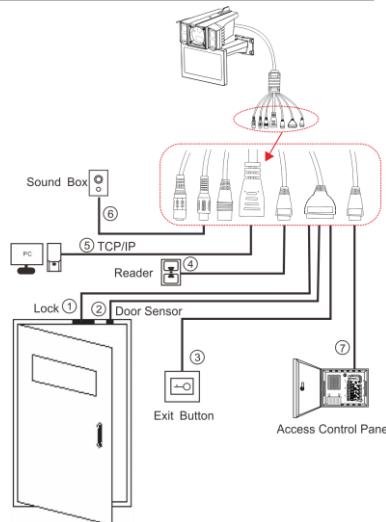
### Note:

- (1) In order not to affect the effects of the device and to prevent repeated disassembly of the device, ensure that you connect the device after the camera angle of the device is adjusted to the optimum position. (For details about how to connect cables, see **Chapter 2 and 3** in this guide.)
- (2) Users can adjust the human face parameters of the device according to the actual installation scenario and requirements. These parameters include the 1:1 matching threshold, 1: N matching threshold, exposure, and quality. For details about how to set these parameters, see the **BIOCAM Series Product User Manual** in the CR-ROM that is delivered with the device.

## Chapter 2: Function Connection Diagram

### Access Control Function Intro:

- ① When a registered person is verified; the device will output a signal to open the door.
- ② Connect **Door Sensor**.
- ③ Can connect an external **Exit Button**. Convenient to open the door from the inside.
- ④ Can connect an external **Card Reader**.
- ⑤ Use the Surveillance Client Software to manage multiple devices via **TCP/IP** to network with PC.
- ⑥ Can connect a **Sound Box** for voice play.
- ⑦ Can connect an **Access Control Panel**.



## Chapter 3: Connection Terminal

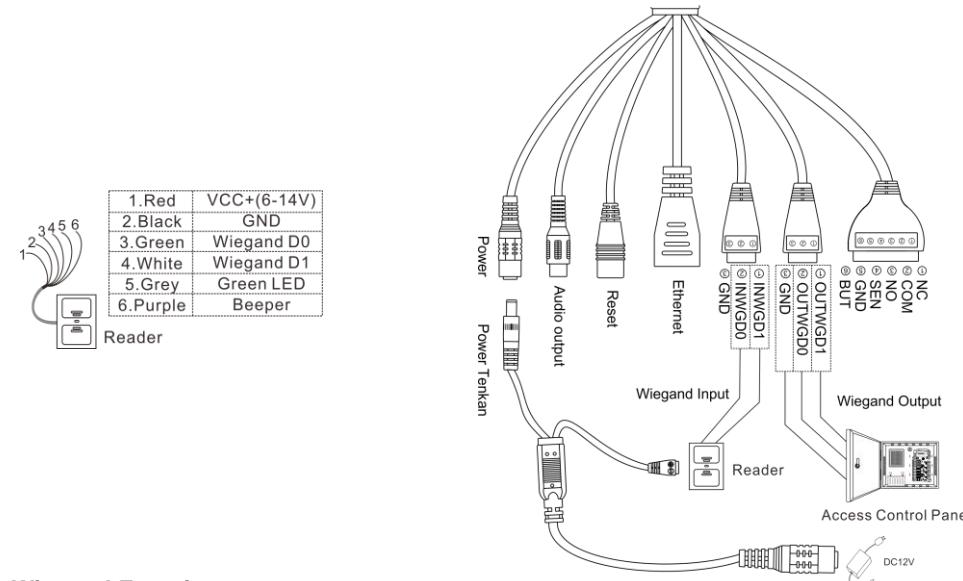
### 1. The intro for device terminals

**Power Interface:** Connected to the standard power adapter. Do not use other power supplies; otherwise, the device may be damaged.

**Network Interface:** It is an Ethernet interface, through which the device can be connected to various network devices, such as switches, routers, or hubs.

**Audio Output:** Connects with external play devices (such as Sound Box) to realize broadcast function.

**Reset Button:** Long press this button for more than 5 seconds when power on for 2 minutes, the camera will recover to default configuration.



### 2. Wiegand Function

**Wiegand Input:** The device has Wiegand input function, can connect the external reader; after the reader reads the signal, the device enters the 1:1 face authentication mode. The reader and face jointly control the lock (control out & in).

**Note:** The device and Reader must be installed on the same side [Outside or Inside].

**Wiegand Output:** This device provides standard Wiegand 26 output, which can be used as reader. The distance from the controller to device cannot be more than 15 meter (If the signal must be transferred much further or there is a strong interference around, please adopt a Wiegand signal amplifier).

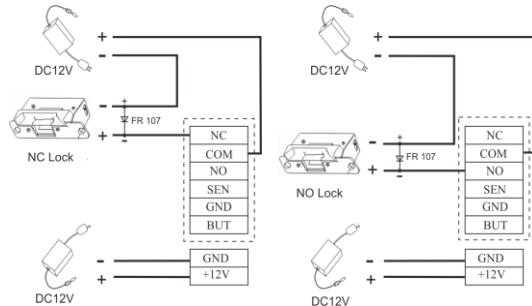
### Note:

- (1) The distance between device and access controller or card reader shouldn't be over 90 meters (If a longer distance is needed or there is interference in using environment, please use Wiegand signal delay.)
- (2) To ensure the stability of the Wiegand signal, the device must share the GND with controller or Wiegand reader.

### 3. Connect with Lock

The device can connect with **NC** or **NO** lock by connecting to the corresponding terminal. For the lock is open when power on and close when shut down, please use **NO** terminal. For the lock is close when power on and open when shut down, please use **NC** terminal.

(Note: Device and lock don't share power supply.)



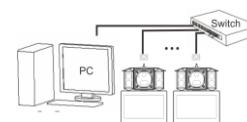
## Chapter 4: Device Communication

The device has two types of communication methods to communicate with PC software. Exchange data and remotely manage.

### ① Connection between device and PC via twisted pair cable.



### ② LAN Connection



1. Connect the device to network and power on it.
2. Change the IP address for PC to make sure the PC and the device's IP address are in the same network segment.
3. Run the browser. Enter the device's IP address (for example, <http://192.168.1.88>) in the address bar, and press Enter key to enter the Login interface.
4. Enter the **User Name** and **Password** and click **[Login]** button to enter the **Preview** interface, then plays the real-time videos collected by the camera.

(Note: The default **User Name** and **Password** are **admin** and **123456**.)



### Notes:

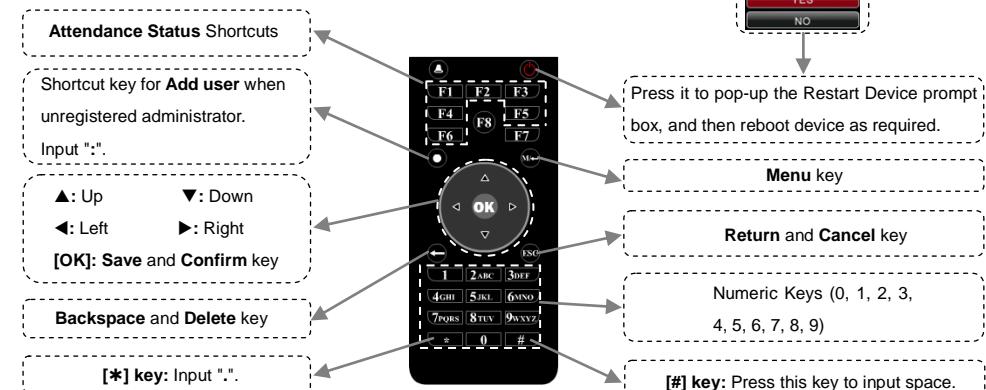
(1) If you use a browser to access the device for the first time, you need to download and install the ActiveX (ActiveXPlugin.ocx). Enter the device's IP address in the Address Bar and press Enter key, the ActiveX download window will popup. Then follow instructions displayed on the ActiveX download window to download and install the ActiveX. For details about how to use a browser for video surveillance, see the Web Server User Manual, which is available on the disk delivered with the device.

(2) Configure the IP address before installing the device. For more information, please see the **BIOCAM Series Product User Manual** on the disk delivered with the device.



## Chapter 5: Appendix

### 1. Instruction of Remote Control keys



☺Tips: If the device is in dormant state, you can press any key on the Remote Control to wake up the device.

## 2. Add User

Press the [OK] key on the **Remote Control** to enter the **Main Menu**. Press the [OK] key again to enter the **Add User** interface, shown as **Figure 1**:

**Face:** Enroll a user's face.

**User ID:** Enter a user ID. 1- to 5-digit user IDs are supported by default.

**ID card:** Enroll a user card.

**Role:** Set the rights of a user. A user is set to **User** by default and can also be set to **Administrator**. **Users** are only granted the rights of facial verification, while **Administrators** are granted the access to the main menu for various operations apart from having all the privileges granted to **Users**.



### • Enrolling Face

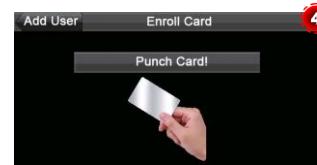
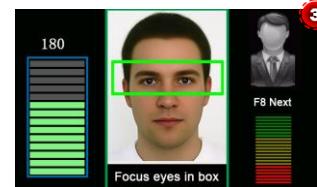
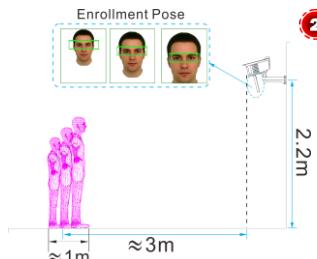
(1) On the **Add User** interface, press [OK] key to enter the **Face enrollment** interface.

(2) According to the prompt appears on the device's screen (Focus eyes in box, shown as **Figure 2**). During face registration, you need to move from back to front to adjust the position of eyes. Display the face in the centre of screen as possible.

(3) Upon a successful face collection, the interface prompts "F8 Next" (shown as **Figure 3**). Take off your glasses (skip this if you do not wear glasses), and then press the [F8] key on the **Remote Control** to continue the registration.

(4) Upon a second successful face collection, the interface prompts "F8 Next" (shown as **Figure 4**). Wear your glasses (skip this if you do not wear glasses), and then press the [F8] key on the **Remote Control** to continue the registration.

(5) If your facial image is enrolled successfully, the system will display a prompt message and automatically return to the **Add User** interface.



### • Enrolling Card

(1) On the **Add User** interface, press [▼] key on the **Remote Control** to move the cursor on the **Card** button, and then press [OK] key to access the **Enroll Card** interface.

(2) The **[Punch Card!]** interface pops out as shown in **Figure 4**. Swipe your ID card properly in the swiping area.

(3) If the card passes the verification, the device displays a prompt message "Read Successfully! Card No. \*\*\*\*\*", as shown in **Figure 5**, and returns to the **Add User** interface.

## 3. Verification Modes

### • 1: N Facial Verification

(1) Compare the facial in a proper way. (Same as enrolling Face)

Place the face in the area in which the camera can capture images, the device automatically distinguishes face verification

(2) Comparison of interface display the current image collected by the camera. If the verification is successful, an interface as shown in **Figure 7** will display.

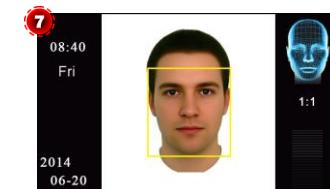


### • 1: 1 Facial Verification

(1) Punch a registered ID card on the card reader in the correct way.

(2) After card authentication is passed, the system enters the 1:1 face image authentication mode. At this time, the face image on the interface is highlighted and a prompt "1:1" is displayed, as shown in **Figure 7**.

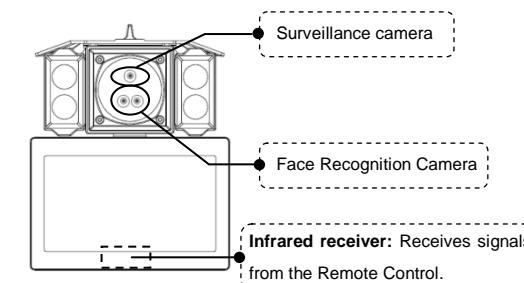
(3) Compare the facial in a proper way. Comparison of interface display the current image collected by the camera, as shown in **Figure 6**.



**Tips:** For details about how to use the device, see the **BIOCAM Series Products User Manual**, which is available on the disk delivered with the device.

## 4. Product Appearance and Face Recognition Area

### • Product Appearance



### • Face Recognition Area

