Wireless HD Doorbell Camera

Setup Guide

Document Version: 1.4

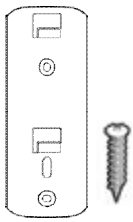
Package Contents

The following items should be included: If any of these items are damaged or missing, please contact your service provider immediately.

1. Doorbell Camera x 1

2. Micro USB to USB Cable x 1

3. Mounting Bracket with Anti-theft Screw x 1



4. Screw/Anchor x 2

5. Gradienter x 1

6. Splice Connectors x 2

7. Allen Key

Chapter 1
Introduction

This Chapter provides details of the Wireless HD Doorbell Camera's features, components and capabilities.

Overview

DBC831 is a WiFi enabled video doorbell camera that lets you answer the door from your iOS or Android mobile device no matter where you are in the world. This device features a video camera, built-in microphone and a speaker that allows you to see, hear and speak to your visitors from a smart phone, tablet or PC. (The customers are required to make their own APP or server which can communicate with doorbell camera. Sercomm can support the customized API for development based on customer's definition.)

It is also an all-in-one camera that has automatic and manual day/night switching, PIR sensor and IR illumination, which can provide illumination around 3 meters long under low light conditions in a simple, economical manner.

This device, which attaches to your current doorbell wires, is easy to install and connects to your home internet through WiFi. When a visitor rings the doorbell, the device will send an alert to one or several people and each person can accept or ignore the call.

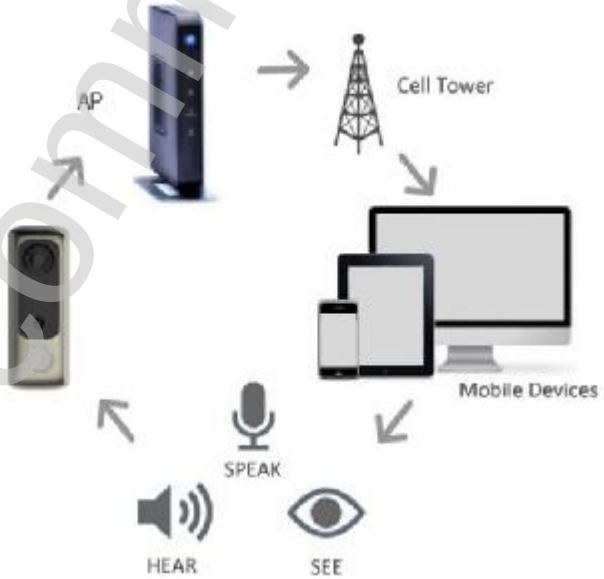


Figure 1: Network Diagram - Wireless HD Doorbell Camera

Product Features

Features

- **Doorbell Camera.** Takes a snapshot/live video when a visitor rings the doorbell, so you can see who is outside. It also allows you to stream video, audio or both simultaneously.

Note：The intercom is up to 2 minutes.

- **Multiple Users Support.** Allows for up to 5 users on an account so an entire family can receive alerts when a visitor rings the doorbell.
- **Dual Video Support.** The Wireless HD Doorbell Camera can support H.264 and MJEPG video for different image compression.
- **Suitable for Home, Business or Public Facilities**. Whether for Home, Business or Public Facility surveillance, the Wireless HD Doorbell Camera has the features you need.
- **Day/Night Switch.** With the day/night switching feature, you are able to view and record better images even in the dark of night.
- **IR LED Support.** Each Wireless HD Doorbell Camera has a high power infrared LED. The LED can provide illumination around 3 meters, which can help to output a better video quality while under low-light conditions in the morning or evening.
- **PIR (Passive Infrared Sensor) Support**. This device is embedded with a PIR Sensor, which senses infrared light radiating from human bodies in its field of 3 meters view. This feature is very helpful in enhancing home security systems.
- **WiFi Connectivity.** Makes it easy to link with your home wireless network.
- **Easy Installation.** This device connects to your existing doorbell wiring. It comes with the supplies you need to install on a variety of surfaces.

Wireless Features

- **Supports 11n Wireless Stations.** The 802.11n standard provides for backward compatibility with the 802.11b standard, so 802.11n, 802.11b and 802.11g Wireless stations can be used simultaneously.
- **Wireless Network Support.** The Wireless HD Doorbell Camera supports wireless transmission.
- **WPS Support.** WPS (WiFi Protected Setup) can simplify the process of connecting any device to the wireless network by using the push button configuration (PBC) on the Wireless HD Doorbell Camera, or entering a PIN code if there's no button.

Chapter 2
Basic Setup

This Chapter provides details on how to install and configure the Wireless HD Doorbell Camera.

System Requirements

- To use the Wireless interface on the wireless model, other Wireless devices must be compliant with the IEEE802.11b, IEEE802.11g, or IEEE802.11n specifications. All Wireless stations must use compatible settings.

Physical Details - Wireless HD Doorbell Camera

Front Panel - Wireless HD Doorbell Camera

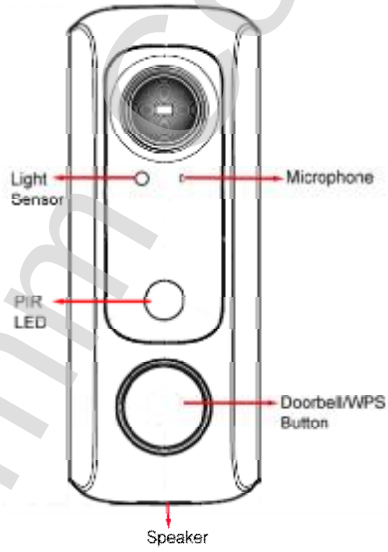


Figure 2: Front Panel

Lens	No physical adjustment is required or possible for the lens, but you should ensure that the lens cover remains clean. The image quality is degraded if the lens cover is dirty or smudged.
Light Sensor	This is hardware sensor to detect LUX and trigger the IR Cut Switch to switch day/night.

Microphone

The built-in microphone is useful for bi-direction voice conversation.

PIR LED

The sensor is used to help the camera to detect motion within 3 meters.

Doorbell/WPS Button

This button has three functions:

1. **WPS**. Push the WPS button on the device and on your other wireless device to perform WPS function that easily creates an encryption-secured wireless connection automatically.
   - **WPS PBC Mode**. When pressed and released (up to15 seconds), the Wireless HD Doorbell Camera will be in the WPS PBC mode (Auto link mode).
   - **WPS Pin Code Mode**. When pressed and held for 5-15 seconds, the Wireless HD Doorbell Camera will be in the WPS Pin Code mode.

   Note: when WiFi is connected, the WPS button is disabled.
2. **Doorbell.** Press the button to ring the bell.
3. **Power LED (Green/Amber/Blue)**
   - **Off (Green/Amber/Blue)**- No power or sleep mode.
   - **Breathing (Green)** – Intercom mode.
   - **On (Amber)** - If the LED is on for 5 seconds, the WPS function is failed.
   - **Off (Amber)** - WPS pairing is complete if the LED is off after continuously blinking.
   - **Slow Blinking (Amber)** – WPS PBC function is active.
   - **Medium-Speed Blinking (Amber)** – WPS Pin function is active.
   - **Fast Blinking (Amber)** – Driver upgrading

   Note：Do not power off the Doorbell while the driver upgrading.
   - **On (Blue)** - Power on and PIR function is triggered.
   - **Off (Blue)** - The doorbell button is pressed by a visitor.

Speaker

This is where the visitor hears your speaking.

Rear Panel - Wireless HD Doorbell Camera

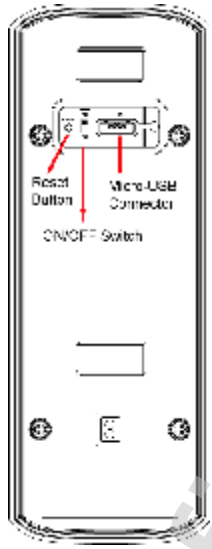


Figure 3: Rear Panel

Micro-USB Connector	Use the micro USB cable included in the package to plug in Micro USB connector for charging the battery.
ON/OFF Switch	Use this switch to turn the device on/off
Reset Button	Use a pin or paper clip to press and held over 10 seconds, the settings of Doorbell Camera will be set to factory default values.

Before You Begin

Checking Doorbell Chime Type (The customers require to develop their own App to switch the doorbell chime type)

If your existing doorbell produces an electronic sound that is programmable and comes in the form of a unique sound, it's a digital chime. If it has a traditional "ding dong" sound, it's a compatible analog chime.

Charging Doorbell Camera

Use the supplied micro USB cable to recharge the battery while you are setting the doorbell camera first. After then, turn the doorbell camera switch (on the back) on. Make sure that the Doorbell Camera's internal battery has received enough power after you've mounted it to your doorbell wiring.

Wireless HD Doorbell Camera Installation

DBC831 requires connections to a doorbell chime and a transformer. Simply remove your existing doorbell button and connect one wire on the Doorbell Camera to the chime and the other wire to the transformer.

Note: Please ensure that the Wireless HD Doorbell Camera is configured and added to the network before mounting it.

Note: If DBC831 is using for engineering develop purpose, it is available to use Mirco USB cable to charge the battery for replacing the transformer. And doorbell does not require to attach with the chimer.

Note: The Micro USB charger is only available on 5V2A adapter plug. Do not plug Micro USB cable on the PC for charging.

Step 1: Start the APP which customized by customers or the web page for pairing process.

Step 2: Use the supplied micro USB cable to recharge the battery while you are setting the doorbell camera first. Add the Wireless HD Doorbell Camera to your network.

1) Wireless HD Doorbell will detect the Wireless device (AP or router) which is **Disable the Wireless Security** automatically.

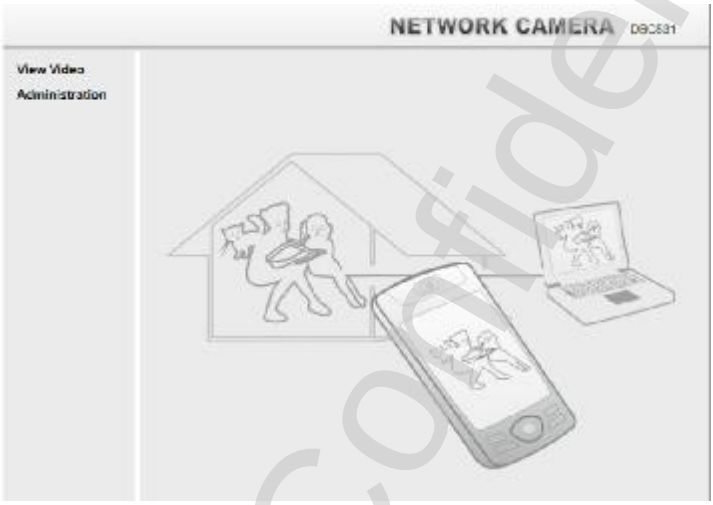
The default Wireless settings are:

Mode: Infrastructure
SSID: ANY
Wireless Security: Disabled
Domain: USA
Channel No.: Auto

2) Press the Doorbell/WPS button of the camera for up to 15 seconds and on your Wireless device (AP or router) as well to establish a wireless connection automatically. The wireless connection is successful when the LED (Amber) is fast blinking.

3) Obtain the IP Address of Doorbell on Wireless device (AP or router) device page. And start the Internet Explorer. After then enter the IP Address of Doorbell on the Address box of Internet Explorer (ex. http://192.168.1.223)

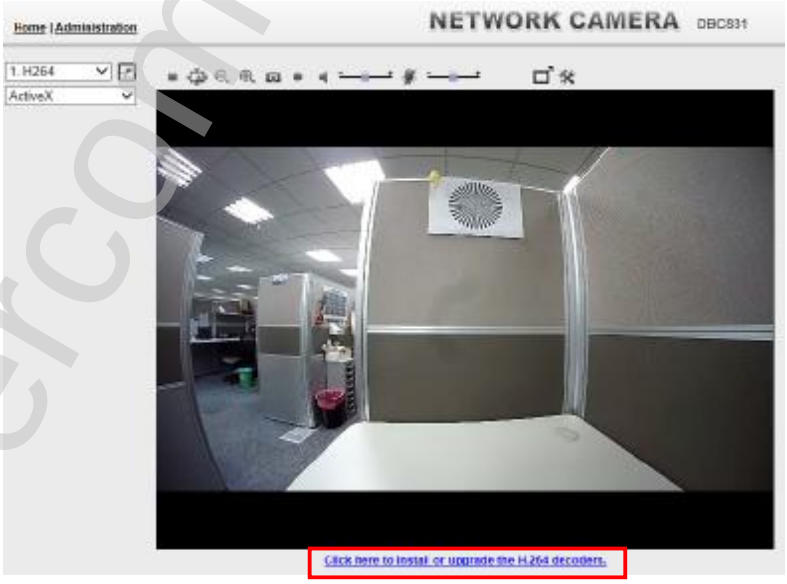
4) When you connect, the following screen will be displayed.



5) Click *View Video*.

6) The first time you connect to the camera, you will be prompted to install decoders.
Choose "I accept the terms of the license agreement" and click "OK".

Note: The options can only be configured while using IE browser. Other browsers can just view the video rather than configuration.



7) Video will start playing automatically. There may be a delay of a few seconds while the video stream is buffered.

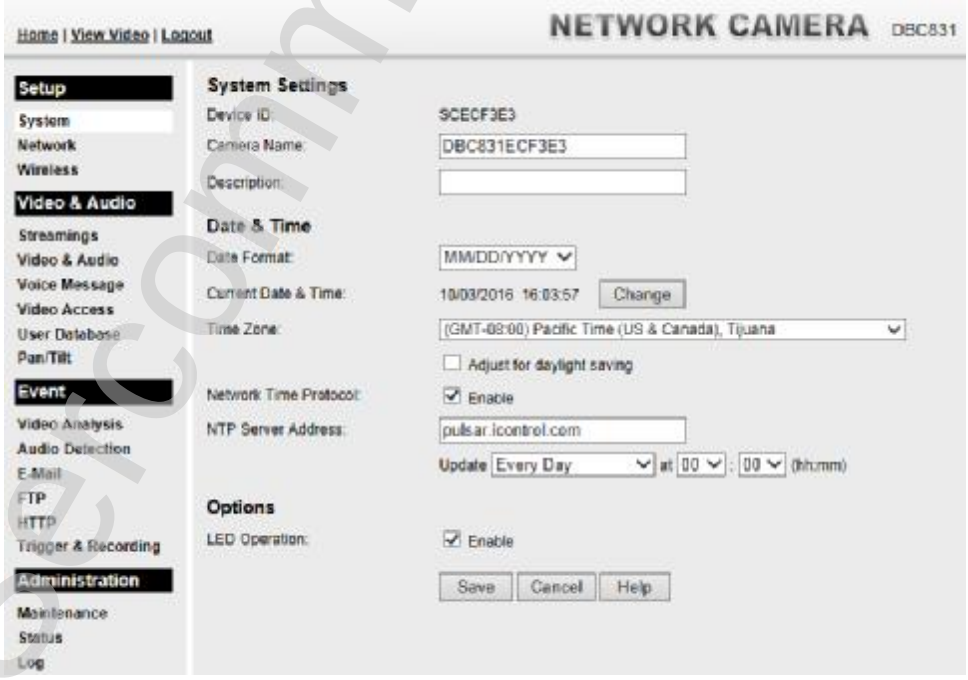
8) If the Administrator has restricted access to known users, you will then be prompted for a username and password.
Enter the name and password assigned to you by the Doorbell administrator.

The default log in Administration:

User Name: administrator

Password: Blank

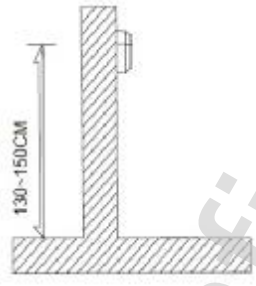
9) Access the Administration for more Doorbell settings on DBC831 GUI.



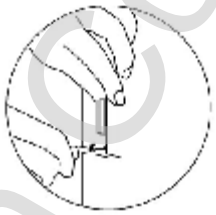
Step 3: Switch to analog or digital chime according to your existing doorbell in the process. (The customers are required to develop this feature on the App)

Step 4: Complete the pairing process and unplug the Micro USB cable from the Doorbell Camera.

Step 5: Identify the location for mounting the Doorbell Camera. The recommended installation height of the Doorbell Camera is about 130~150cm from the ground.

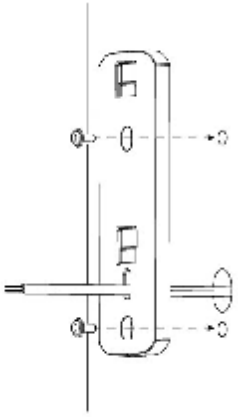


Step 6: Remove the screws from legacy doorbell on the wall and disconnect the wires.

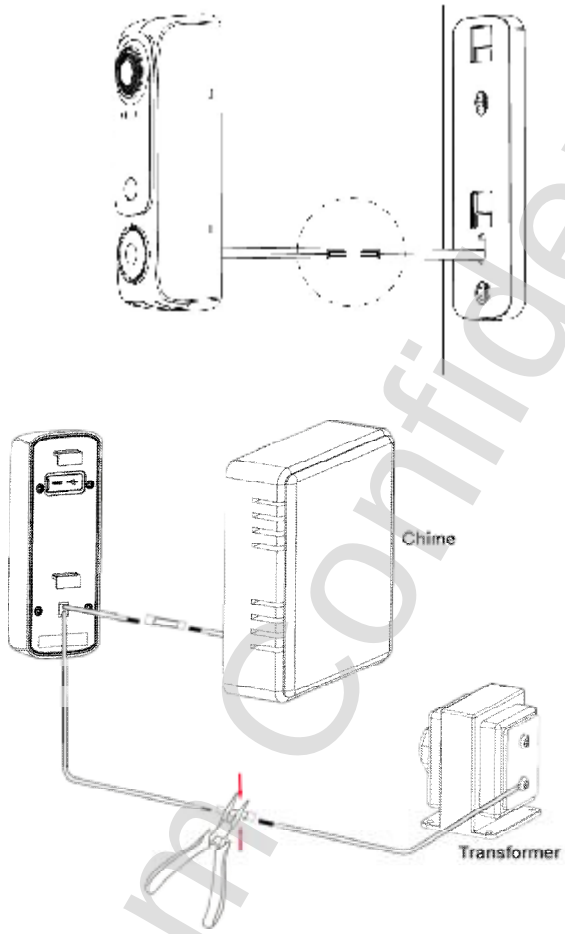


Step 7: Use the two screws to secure the mounting bracket to the wall.

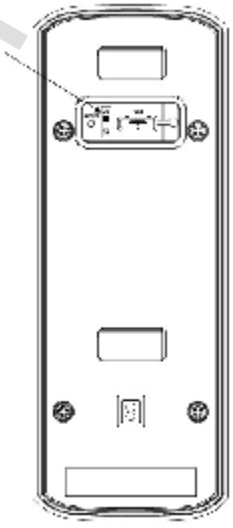
Note: The provided gradienter can be used for measuring angles to prevent inclination.



Step 8: Connect the AC wires on the Doorbell Camera to the chime and transformer by using the provided splice connectors, as shown in the following diagram. Use the pliers to connect the wires by using the two splice connectors to ensure the wires are firmly attaching together.



Step 9: Turn the switch (on the back) on.



Step 10: Attach the Doorbell Camera to the mounting bracket and secure them with the anti-theft screw via the Allen key. Make sure the Doorbell Camera is firmly fixed and working properly.

Note: If the Doorbell Camera is being triggered too often, the battery capacity tends to decrease at low level and then the camera will just support ring-only mode.

Appendix A
Specifications

Wireless HD Doorbell Camera

Model	Wireless HD Doorbell Camera
Dimensions	42mm (W) x 111.8mm (H) x 24.9mm (D)
Operating Temperature	-20° C to 50° C (The battery won't be charged when temperature is <0°C)
Video compression	H.264 Main Profile and MJPEG
Image resolution	720p (1280*720),VGA (640*480), QVGA (320*240)
Storage Temperature	-20° C to 70° C
Network Protocols	TCP/IP, HTTP, HTTPS, DHCP, UPnP, NTP, RTP, RTCP, RTSP, DNS
Wireless interface	IEEE 802.11b/g/n; WEP 64/128 bit, WPA/WPA2 Personal, WPS
Buttons	1 Doorbell/WPS button 1 Reset button
LED	1
IR LED	1
Speaker	1 built-in Speaker
Microphone	1 built-in Microphone
Power	AC 8V~24V External AC power wiring through spring connector 1 * Internal 730mAh Battery

Regulatory Approvals

FCC 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 try 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 that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Approval

CE Standards

This product complies with the 99/5/EEC directives, including the following safety and EMC standards:

- EN55022/24

CE Marking Warning

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.