

Holes in  
the wall

Plastic  
Wall Plug

# GBF

# WiFi IP Doorbell

USER MANUAL



# WELCOME

Congratulations on purchasing the GBF PL960 Series of IP Doorbells. Our factory engineers were the first to enable multiple security camera monitoring through smart handheld devices and now have used that expertise to bring you a full-featured IP Video Doorbell system that allows you to monitor and interact with visitors at your door, from anywhere your mobile device has a WiFi or data connection. Please read these instructions carefully and follow all of the required steps during setup to ensure your enjoyment of a fully functional IP Doorbell system in minutes. You may connect the PL960 Series of IP Doorbells to your LAN (Local Area Network) either through a Wireless (WiFi) connection or a Wired (Ethernet Cable) connection. As with any video and audio streaming device, wired connections are preferred over WiFi, but the convenience of not requiring wires from your IP Doorbell location to your router may be the determining factor in your installation.

**Note:** The GBF IP Doorbell System only works with 2.4GHz WiFi and is incompatible with 5GHz WiFi.

# CONTENTS

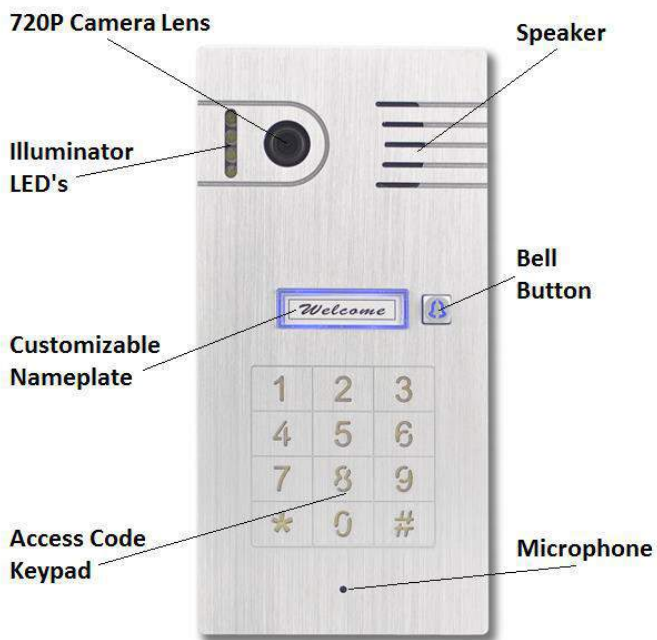
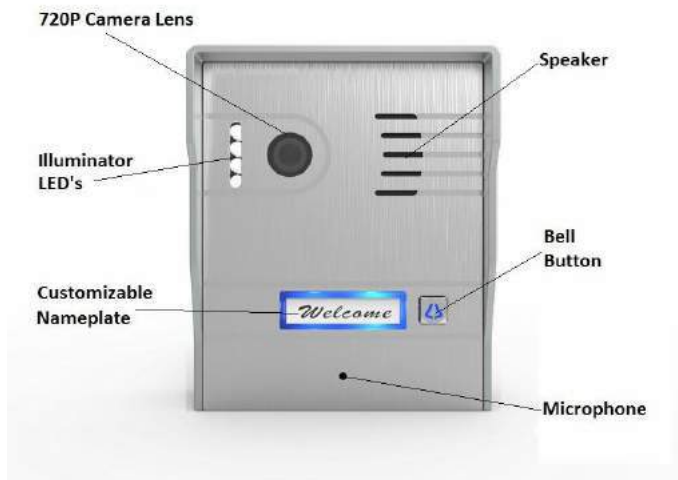
Package Contents .....	4
Device Illustrations .....	5
1.0 Installation .....	6
Installation Wiring Diagrams .....	7
2.0 Configuration Preparations .....	10
3.0 Network Configuration .....	12
3.1.1 Configuration Using the Android App .....	12
3.1.2 Configuration Using the iOS App .....	13
3.2 Adding a configured or wired IP Doorbell .....	14
3.2.1 LAN Search .....	14
3.2.2 QR Code Scan .....	14
3.2.3 Manually .....	15
4.0 Using the ControlCam2 App .....	15
4.1 IP Doorbell Device Settings .....	15
4.1.1 Changing Device Name, Username, and Password .....	15
4.1.2 Unlock Time .....	16
4.1.3 One-Key Unlock .....	16
4.2 Advanced IP Doorbell Device Settings .....	16
4.2.1 Modify Device Password .....	16
4.2.2 Modify Unlock Password .....	17

4.2.3 Motion Detection .....	17
4.2.4 Set Time .....	17
4.2.5 Reboot/Restore .....	18
4.3 Deleting a device from the App .....	18
4.4 ControlCam2 Doorbell Connection Operation .....	18
4.4.1 Answering a Call .....	18
4.4.2 Unlocking the Door .....	19
4.4.3 Monitoring the Outdoor Station .....	19
4.4.4 Image Capture .....	19
4.4.5 Video Record .....	20
4.4.6 Silencing Audible Doorbell Notifications .....	20
4.4.7 Silencing Motion Detection Alerts .....	20
4.4.8 Selecting Custom Ringtones and Motion Alerts .....	20
4.4.9 Accessing recorded videos/images .....	21
4.4.10 App Mode .....	21
4.5 User Account Configuration .....	22
4.5.1 Change User Account Password.....	22
4.5.2 Change Verification Question and Answer .....	22
4.5.3 Logging Out of the App .....	22
5.0 Keypad Programming .....	23
5.1 Modify the Programming Password .....	23
5.2 Enter Programming Mode .....	23

5.3 Set Unlock Duration Time .....	23
5.4 Add User Access Codes .....	24
5.5 Delete User Access Codes .....	24
5.6 Delete User Access Codes Directly .....	24
5.7 Setting the Length of the Access Codes and Programming Password .....	24
5.8 Delete All Settings (Maintains Programming Password)	26
5.9 Factory Default (Keypad Settings only) .....	25
Troubleshooting .....	26
Appendix A: Installation Tips .....	29
WiFi .....	29
Weatherproofing .....	30
Wiring .....	31
Keypad .....	31
Appendix B: Disabling the IP Doorbell SSID Broadcast .....	32

# PACKAGE CONTENTS

- (1) GBF PL960M/QPM/TPM IP Doorbell
- (1) Metal Back Box
- (1) External Wi-Fi Antenna with 3' Cable
- (1) 12VDC Power Supply
- (1) Relay/Push-to-Exit Wiring Harness
- (1) Bell Connector Wire Set
- (1) Varistor (blue case, see wiring diagrams)
- (4) Screws with Anchors
- (2) Hex-Head Screws
- (1) Allen Key
- (1) Installation and Instruction Manual



# 1. Installation

**\*NOTE:** It may be more convenient to perform the initial configuration of the IP Doorbell with it temporarily connected to power nearby your home internet router and a computer. This way testing and operation can be verified before the unit is mounted permanently.

**-Location:** Choose a location for your new IP Doorbell, taking into consideration sightlines, shadows, and excessive back - ground lighting for the camera. You must also consider proximity to AC power and the ability to run wiring for additional optional accessories. Optimal mounting height would be approximately 60" (150cm) up from the surface that the caller is standing on. Consider drilling a 1¼" diameter or larger hole into the wall behind the IP Doorbell to allow for the concealment of the Wi-Fi antenna (if used) within the wall.

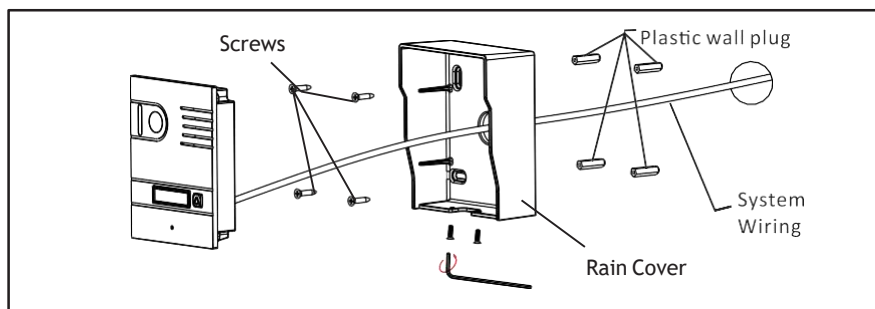
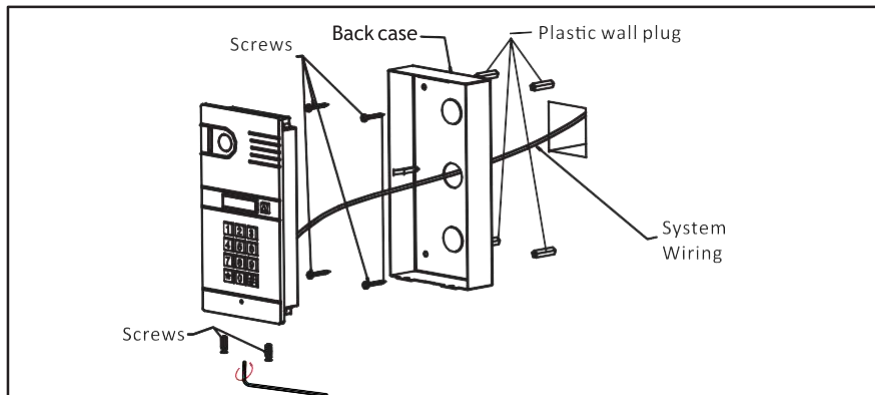
**-Back Box Mounting:** Feed the power supply wiring, wiring harness(s), and the Wi-Fi Antenna cable or the RJ-45 cable through the hole from the back side of the back box. Use the four screws (and anchors, if required) supplied to mount the back box to the wall in the desired location.

-Set the desired unlock duration time using the switch on the back of the IP Doorbell, and then connect the wiring harness and other connections to the back of the IP Doorbell. Gently feed excess wiring through the hole in the back box into the wall cavity, and place the IP Doorbell into the back box (top first).

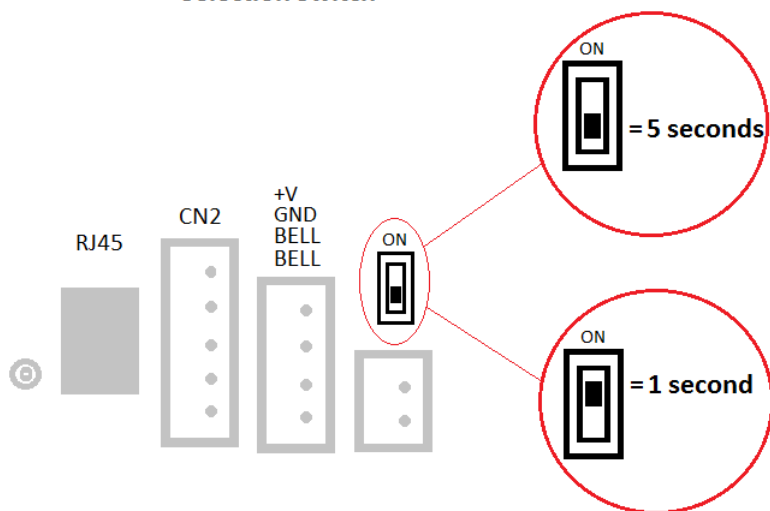
**\*NOTE:** The RJ45 jack is not wired for POE. See appendix A.

-Secure the IP Doorbell into the back box at the bottom leading edge using the two supplied Hex-Head screws and Allen key.

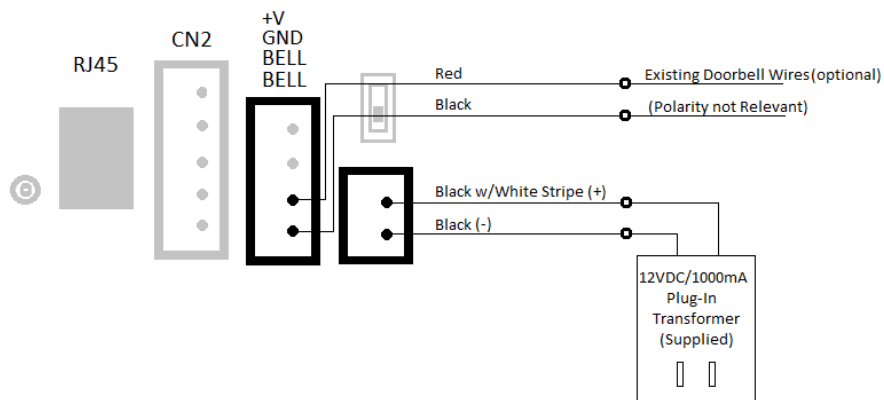




## Unlock Relay Duration Selection Switch

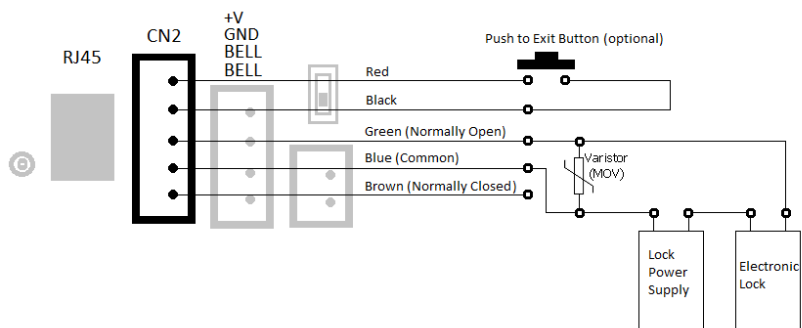


## Wiring Diagram for Power Supply Connections and Connection to Existing Door Chime (Optional)



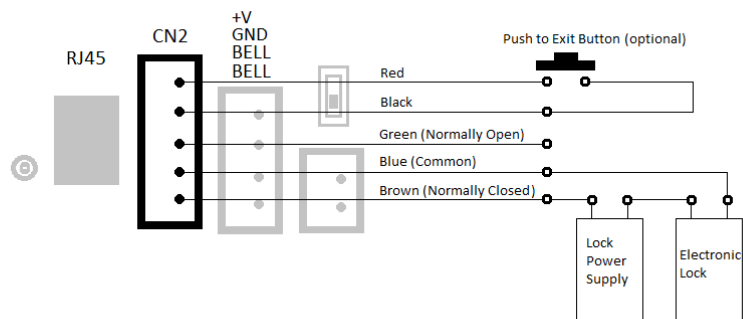
**\*PL960M/PM Lock and Bell Relays are Rated Maximum 3 Amps at 250VAC or 30VDC**

### Wiring Diagram for Normally Open Circuit (e.g. Electronic Door Strike or Deadbolt)



**\*PL960M/PM Lock and Bell Relays are Rated Maximum 3 Amps at 250VAC or 30VDC**

### Wiring Diagram for Normally Closed Circuit (e.g. Electronic Mag Lock)



**\*PL960M/PM Lock and Bell Relays are Rated Maximum 3 Amps at 250VAC or 30VDC**

## 2. Configuration Preparations

**Begin by performing a factory reset of the settings in your IP Doorbell. To default the settings to factory, follow these steps;**

1. Connect the WiFi antenna with outdoor station or connect your Router directly to the IP Doorbell with an ethernet cable attached to the RJ45 connector. **\*NOTE: The RJ45 jack is not wired for POE.**
2. Apply power to the IP doorbell.
3. Within 5 seconds, press and hold the 'Bell' button until your hear a distinctive 1 second long buzzer sound (after approximately 1 minute; it is preceded by a flash of the illuminator LED's). Release the 'Bell' button after the buzzer sound stops.
4. The IP Doorbell will reset once again (takes about one minute) and is ready to start configuration shortly after the illuminator LED's flash.

**\*NOTE: Performing a factory reset erases settings stored during the configuration process. Do not perform a factory reset after you have configured the IP Doorbell unless absolutely necessary.**

### Downloading the App

To configure and receive calls from the Outdoor Station you need to download the ControlCam2 Application. Free downloads are available on the Google Play Store (Android) and the Apple App Store (iOS).



Note:

- The ControlCam2 app is free to use.
- Please keep the ControlCam2 app updated.
- The application is subject to change without notice.

## Preparing the App to be used

**\*NOTE: It is best practice to restart your phone and disable its cellular data during the initial configuration of the IP Doorbell.**

1. Make sure your smartphone is connected to the WiFi network to which you want the GBF IP Doorbell to be connected.
2. Open the app.
3. Create an account by clicking on the 'Sign up' button.

**\*NOTE: Every mobile device you intend to connect to the IP Doorbell requires a separate account.**


4. Enter a username (email address not necessary), password, password confirmation, custom question and answer.
5. Read the terms and privacy agreement, then click on the checkbox to agree.
6. Click on 'Sign up' button. If the provided information is valid and the username does not already exist, a popup message will appear on the screen with 'Registration Success', then click on 'OK'.
7. You will be redirected to the login screen.
8. Click on 'Login'. Now you are logged into your account and can see your home ('Doorbell') screen.

**\*To Proceed with a Wireless (Wi-Fi) installation, go to step 3.1.1 (Android) or 3.1.2 (iOS).**

**\*To Proceed with a Wired (RJ45) installation, confirm your connection of the RJ45 cable between your router and the IP Doorbell, then complete step 3.2.**

## 3. Network Configuration


### 3.1.1. Configuration Using the Android App

1. Inside the app, click on the  button or on the 'Click here to add device' icon.
  2. Choose the "Doorbell2" option, then choose the 'Hotspot Connection' option.
  3. Click 'Next' to start searching automatically for your new device's configuration SSID. If the search finds more than one new device, a popup screen will appear showing the identification of each one. Choose the desired device, referencing the GID label placed on the back cover of the device.
  4. When connected, a popup window will appear showing your WiFi network name and asking you to enter a password. Carefully enter the password for your identified WiFi network and click 'Next'.
  5. A popup message will appear, showing 'Command was sent successfully, the device is configured'. Press 'OK' to advance.
  6. In the device's details screen, insert the default password '1234'. You may change the device's name to any desired name (no spaces, maximum 20 characters), and press 'Save'.
- \*NOTE: Do not change the GID identification.**
7. The device's image will now appear on the 'Home screen'. To access your device, click on the image (initially the 'image' will be substituted with a large ControlCam2 icon screen).

Once the IP Doorbell has successfully connected to your WiFi and is added in your app, you will be able to access the IP Doorbell from anywhere using WiFi or mobile data (3G/4G).

**\*NOTE: Use the 'Add Manually' (Section 3.2) method to add your IP Doorbell to additional mobile devices. DO NOT choose the 'Hotspot Connection' configuration again.**

## 3.1.2 Configuration using the iOS App


1. Inside the app from the “Doorbell” screen, click on the  button or on the ‘Click here to add device’ icon.
  2. Choose the “Doorbell2” option, then choose the ‘Hotspot Connection’ option.
  3. Press on ‘Next’.
  4. A popup window will appear showing your WiFi network name and asking you to enter a password. Carefully enter the password for your identified WiFi network.
  5. Go to your iOS device’s available WiFi list (outside the ControlCam2 app), and look for the IP Doorbell’s hotspot SSID (It will appear as ‘LID + GID number’. The GID number can be obtained from the QR code label located on the back of the IP Doorbell). Click on this SSID to connect directly to your IP Doorbell’s hotspot.
  6. Go back to the ControlCam2 application and click on ‘Next’. A popup window will indicate that the IP Doorbell is trying to connect to your WiFi. Click ‘OK’. At this point your iOS device should automatically reconnect to your WiFi.
  7. In the device’s details screen, insert the default password ‘1234’. You may change the device’s name to any desired name (no spaces or special characters, maximum 20 characters), and press ‘Save’.
- \*NOTE: Do not change the GID identification.**
8. The device’s image will now appear on the ‘Home screen’. To access your device, click on the image (initially the ‘image’ will be substituted with a large ControlCam2 icon screen).

**Once the IP Doorbell has successfully connected to your WiFi and is added in your app, you will be able to access the IP Doorbell from anywhere using WiFi or mobile data (3G/4G).**

**\*NOTE: Use the ‘Add Manually’ (Section 3.2) method to add your IP Doorbell to additional mobile devices. DO NOT choose the ‘Hotspot Connection’ configuration again.**

## 3.2 Adding a configured or wired IP Doorbell

You can add a previously configured or wired IP Doorbell device using three methods: LAN search, QR code scan, and manual entry.

1. Connect your mobile device to the Wi-Fi/LAN network which contains the IP Doorbell.
2. Inside the app from the “Doorbell” screen, click on the  button.
3. Choose the “Doorbell2” option, then choose the ‘Add Manually’.

### 3.2.1 LAN Search

4. If on the same network, the system will do an automatic search.
5. A list of GID numbers and IP addresses of all devices in the network will appear; click on the one you wish to add. The ‘Add Device’ screen will appear with key fields pre-populated.
6. In the device’s details screen, insert the default password ‘1234’. You may change the device’s name to any desired name (no spaces or special characters, maximum 20 characters), and press ‘Save’.

**\*NOTE: Do not change the GID identification.**

7. The device’s image will now appear on the ‘Doorbell’ screen. To access your device, click on the image (initially the ‘image’ will be substituted with a large ControlCam2 icon screen).

### 3.2.2 QR Code Scan

4. Press the ‘QR CodeScan’ button.
5. Accept the popup message to allow the app to access your camera.
6. Using the camera, focus on the QR code placed on the back of the device. The ‘Add Device’ screen will appear with key fields pre-populated.
7. In the device’s details screen, insert the default password ‘1234’. You may change the device’s name to any desired name (no spaces or special characters, maximum 20 characters), and press ‘Save’.

**\*NOTE: Do not change the GID identification.**

8. The device’s image will now appear on the ‘Doorbell’ screen. To access your device, click on the image (initially the ‘image’ will be substituted with a large ControlCam2 icon screen).



### 3.2.3 Manually

4. Press the 'Manual Input' button.
5. Manually insert the device's GID, referencing the GID label placed on the back cover of the device.
6. In the device's details screen, insert the default password '1234'. You may change the device's name to any desired name (no spaces or special characters, maximum 20 characters), and press 'Save'.

**\*NOTE: Do not change the GID identification.**

7. The device's image will now appear on the 'Doorbell' screen. To access your device, click on the image (initially the 'image' will be substituted with a large ControlCam2 icon screen).

**Once the IP Doorbell is successfully connected to your network and is added in your app, you will be able to access the IP Doorbell from anywhere using WiFi or mobile data (3G/4G).**

**\*NOTE: If your IP Doorbell is connected to your network via a hardwired ethernet cable, it is recommended to manually turn off the LIDawXXXXXXXXX SSID broadcast using the method described in Appendix B, "Disabling the IP Doorbell SSID Broadcast".**

## 4. Using the ControlCam2 App

### 4.1. IP Doorbell Device Settings

From the IP Doorbell's settings screen it is possible to adjust features and options in your IP Doorbell.

Access the IP Doorbell's settings from the app 'Doorbell' screen by clicking on the settings gear-cog icon of the desired device.

#### 4.1.1 Changing device's name, username and password

**NOTE: The username and password entered here must match the username and/or password configured in to the IP Doorbell.**

1. In the 'Device's setting screen' enter the new information (username and/or password, and device name if desired).
2. Press 'Save'.
3. The app will go back to the 'Home screen' and the App will be initialized with the new information.

### 4.1.2 Unlock Time

The unlock time duration is hard-keyed in to the IP Doorbell during installation using the 2-position switch on the back of the IP Doorbell. Any unlock duration time entered here will no longer affect the duration of the unlock relay activation.

### 4.1.3 One-Key Unlock

To activate the IP Doorbell's unlock relay from the app without the necessity to enter the 'unlock password', you can optionally activate the 'One-Key Unlock' option.

1. In the 'Device's setting screen' click on the 'One-Key Unlock' to turn the option 'On'.
2. Populate the field below with the password (default '1111').
3. Press 'Save'.
4. The app will go back to the 'Doorbell' screen.

## 4.2. Advanced IP Doorbell Device Settings

In the 'Device setting' screen click on the 'Advanced Settings' button.

### 4.2.1 Modify Device Password

It is possible to change the access password (which the device request to the app each time it is accessed).

1. In the 'Advanced Settings screen' click on 'Modify Device Password'.
2. Enter the 'device password' (current), then insert the 'new password' and the 'password confirmation'.

**\*NOTE: If the IP Doorbell username and/or password is changed, it must be correspondingly changed in all mobile devices accessing the same IP Doorbell.**

3. Press 'Save'.
4. Exit the 'Device Settings' Screen.

### 4.2.2 Modify Unlock Password

A password is required to activate the IP Doorbell's unlock relay from the app. This step is also required to allow the 'One-Key Unlock' function.

1. In the 'Advanced Settings screen' click on 'Modify Unlock Password'.
2. Enter the 'unlock password' (current) (the default is 1111), then insert the 'new password' and the 'password confirmation'.

**NOTE: If the unlock password is changed, it must be also changed to match in all mobile devices accessing the same IP Doorbell.**

3. Press 'Save'.
4. Exit the 'Device Settings' screen.

### 4.2.3 Motion Detection

The ControlCam2 app allows you to set a motion detector alarm for your IP Doorbell. It alerts you to motion in front of your IP Doorbell, even if a person does not press the call button.

1. In the 'Advanced Settings screen' click on 'Motion Detection'.
2. Click on the 'On/Off' button.
3. Press 'Save'.
4. Exit the 'Device Settings' screen.

**NOTE: This Motion detection setting is universal for all mobile devices sharing the subject IP Doorbell, and will turn On or Off in all connected instances of the ControlCam2 App.**

### 4.2.4 Set Time

To improve your experience with your IP Doorbell, keep its time synchronized with your smartphone.

1. In the 'Advanced Settings screen' click on 'Set Time'.
2. A popup message will appear. Then click on 'OK' to confirm.
3. Exit the 'Device Settings' screen.

### 4.2.5 Reboot/Restore

In case of a minor malfunction of your device, you can try to correct the issue using this option. Use Reboot to force a reset on the device, and Restore to force a factory reset.

**\*NOTE: Performing a 'Restore' erases settings stored during the configuration process. Do not perform a factory reset after you have configured the IP Doorbell unless absolutely necessary.**

1. In the 'Advanced Settings screen' click on 'Reboot/Restore'.
2. Select the desired option 'Reboot' or 'Restore'.
3. A popup message will appear. Then click on the 'Ok' to confirm.
4. Exit the 'Device Settings' screen.

## 4.3. Deleting a device from the app

1. Be sure that your mobile device is connected to the internet
2. From the 'Doorbell' screen click on the 'trash bin' icon on the device.
3. A popup notification will appear, asking you to confirm. Click on 'OK' The device will be removed from the ControlCam2 account in use, but it will still be configured and connected to the local network and other ControlCam2 accounts which have added this device.

## 4.4. ControlCam2 Operation

### 4.4.1 Answering a call

When the visitor presses the call button on the outdoor station, your smartphone will receive a ring-in notification. (Make sure to enable notifications from the app to your smartphone).

**\*NOTE: To receive audible ring-in notifications the 'Doorbell Call Vibration' mode (iOS) or 'Doorbell Call Silence' mode (Android) must be turned off. Also please ensure that the call and media volume are turned up and that 'Do Not Disturb' is not engaged.**


#### 4.4.1 Answering a call (cont)

You can 'Accept' or 'Decline' a call from the pop-up call alert of the app. If accepting, you will see 'Live' video and would need to use the following steps to have a conversation with the visitor;

1. Press and hold the 'Press to Talk' icon to talk with the visitor.
2. Release the 'Press to Talk' icon to listen to your visitor.

#### 4.4.2 Unlocking the Door


During a call or monitoring mode, the unlock relay can be activated from the app;

1. Press the 'lock' icon  on the IP Doorbell's live video screen to unlock the door.
2. If the 'One-Key Unlock' is not turned on, a popup message will ask you to enter the unlock password (default is '1111').
3. The door will unlock for the duration set with the selector switch on the back of the IP Doorbell.


#### 4.4.3 Monitoring the Outdoor Station

At any time, from the 'Doorbell' screen click on a device's image to access the live video from the outdoor station. The monitor mode allows you to access all the options also accessible during a call (take a snapshot, record video, listen to the outdoor station audio and talk through the outdoor station).

#### 4.4.4 Image Capture

During a call or monitoring mode, click on the  icon to take a snapshot of the outdoor station's image. The snapshot can be accessed from the 'Main Menu' screen, in 'Media'.

#### **4.4.5 Video record**

During a call or monitoring mode, click on the  icon to start recording a video of the outdoor station's image. Click again to finish the recording. It can be accessed from the 'Main Menu' screen, in 'Media'.

#### **4.4.6 Silencing Audible Doorbell Notifications**

1. From the 'Doorbell' or 'Ring Mode' screen, click on the main menu icon to access the 'Main Menu' screen.
2. Turn on the 'Doorbell Call Vibration' mode (iOS) or 'Doorbell Call Silence' mode (Android). This will mute the audible notifications and only vibrate your mobile device if a visitor presses the bell button(s).

#### **4.4.7 Silencing Motion Detection Alerts**

1. From the 'Doorbell' or 'Ring Mode' screen, click on the main menu icon to access the 'Main Menu' screen.
2. Turn on the 'Motion Detection Vibration' mode (iOS) or 'Motion Detection Silence' mode (Android). This will mute the audible notifications and only vibrate your mobile device if the motion detection in your IP Doorbell is turned on.

#### **4.4.8 Selecting Custom Ringtones and Motion Alerts**

1. From the 'Doorbell' or 'Ring Mode' screen, click on the main menu icon to access the 'Main Menu' screen.
2. Press 'Ringtone Setting'
3. Choose either 'Doorbell Call' or 'Motion Detection'.
4. Select from any of the eight available custom audio alerts.
5. Press 'Save'

#### 4.4.9 Accessing recorded videos/images

1. From the 'Doorbell' or 'Ring Mode' screen, click on the main menu icon to access the 'Main Menu' screen.



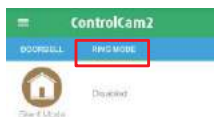
2. Select the 'Media' option.

3. The first tab shows the recent files (images and videos), the second shows only videos and the third only images.

4. To delete a file, press 'Edit', select the image(s), then confirm by pressing 'Delete' or the trash icon.

#### 4.4.10 App Mode

The second tab of the ControlCam2 home screen shows the app modes from which you can choose your desired notification option.



**'Silent' Mode** – does not show any notification on the smartphone screen. However, the app does continue storing the device's alarms.

**'Global Ring-in' Mode** – allows all the devices listed in the user account to notify the smartphone.

**'Selective Ring-in' Mode** – allows you to selectively choose which device will notify you with ring and notifications.

1. From the app 'Doorbell' screen, click on the second tab which shows your current mode.

2. Select the desired mode. If this is not the current one, a popup message will appear asking you to confirm the change.

**Note:** If you change to Selective Mode, you will be able to click on the > icon and select which devices can notify you.

## 4.5. User Account Configuration

Access the user account's settings by clicking on the main menu icon from the 'Doorbell' or 'Ring Mode' screen', then click on your profile image or your username, accessing the 'Account' screen.



### 4.5.1 Change User Account Password

1. From the app 'Account' screen, click on 'Change Password'.
2. Enter your 'password' (current), then insert the 'New Password' and then 'Confirm Password'.
3. Click on the 'Done' button.
4. You will be redirected to the login screen and will need to insert your username and the new password.

### 4.5.2 Change Verification Question and Answer

1. From the app 'Account' screen, click on 'Reset Verification'.
2. Enter your 'password' (current), then insert your new 'custom question' and your new 'custom answer'.
3. Click on 'Save'.

### 4.5.3 Logging Out of the App

1. From the app 'Main Menu' or 'Account' screen, click on 'Logout'.
2. You will be redirected to the login screen and will need to insert the correct username and password to reconnect.



## 5. Keypad Programming (PL960QPM/TPM)

The PL960QPM/TPM keypad can be custom programmed with up to 40 different access codes, and will trigger the same relay that is triggered through the ControlCam2 App. The length of the access codes and programming password can be programmed to be two to six digits in length (globally).

However, the master password and unlock delay times set in the keypad are independent of the IP Doorbell. A factory reset of the IP Doorbell will not affect the programming contained in the keypad and vice versa. The keypad requires a separate factory reset to clear its programming.

### 5.1 Modify the Programming Password:

1. Disconnect power to the IP Doorbell.
2. Restore the power to the IP Doorbell. Two short chirps will be heard.
3. Within 3 seconds press the '\*' button once.
4. Enter the new password (length determined through other programming). A longer beep is heard, indicating the new password has been successfully stored.
5. Press '\*' to exit the programming mode.

### 5.2 Enter Programming Mode:

1. Press the '\*' button, a chirp is heard.
2. Enter the programming password (default is 1234). A longer beep is heard, indicating the IP Doorbell is now in programming mode.
3. The IP Doorbell will automatically exit programming mode if there is no input at the keypad for over 30 seconds or press '\*' to exit programming.

### 5.3 Set Unlock Duration Time:

1. Enter programming mode.
2. Press '00', a longer beep is heard.
3. Enter two digits (01 – 99) representing the new unlock duration time, in seconds. A longer beep is heard confirming the change.
4. Press '\*' to exit the programming mode.

## 5.4 Add User Access Codes:

1. Enter programming mode.
2. Enter two digits (01 – 40) representing the slot in which the user code will reside, a longer beep is heard.
3. Enter the new user code (length determined through other programming); another longer beep will indicate the new code was stored successfully.
4. Press ' \* ' to exit the programming mode.

**\*Note: Slots 31 – 40 are toggle-on/toggle-off code slots. Using a code programmed in one of these slots will hold the unlock relay in it's activated state until the same code is entered again.**

## 5.5 Delete User Access Codes:

1. Enter programming mode.
2. Enter two digits (01 – 40) representing the slot containing the access code you want to delete. A longer beep is heard.
3. Press the '#', another longer beep is heard confirming the deletion.
4. Press ' \* ' to exit the programming mode.

## 5.6 Delete User Access Codes Directly:

1. Enter programming mode.
2. Press '#', two short chirps are heard.
3. Enter the access code you want to be deleted, a longer beep is heard confirming deletion of the access code.
4. Press ' \* ' to exit the programming mode.

## 5.7 Setting the Length of the Access Codes and Programming Password:

1. Enter the programming mode.
2. Press '99', a longer beep is heard.
3. Enter a single digit (2 – 6) representing the desired length of the access codes and programming password, and a longer beep is heard confirming the change.
4. Press ' \* ' to exit the programming mode.

**Note: The programming password will need to be reset using section 5.1.**

## **5.8 Delete All Settings (Maintains Programming Password):**

1. Enter programming mode.
2. Press '#', two short chirps can be heard.
3. Press '#' again, a longer beep can be heard.
4. Press '#' again seven more times. After three seconds another longer beep will be heard confirming deletion of all User codes and resetting the unlock duration time back to 1 second. Programming password and length will remain unchanged.
5. Press '\*' to exit the programming mode.

## **5.9 Factory Reset (Custom Keypad Settings Only):**

1. Disconnect power to the IP Doorbell.
2. Restore the power to the IP Doorbell. Two short chirps will be heard.
3. Within 3 seconds, press the '#' button. A longer beep is heard, indicating the keypad programming has been restored to factory default settings.

## **GBF Electronics Inc**

110A-12811 Clark Place

Richmond, BC

Canada, V6H 2H9

Tel: 604-278-6896

or 604-285-8721

Fax: 604-278-6895

[info@gbfelectronics.com](mailto:info@gbfelectronics.com)

Be sure to check our website support section for video tutorials.



# Troubleshooting:

**During Hotspot Configuration, when the App is searching for a device to be added I get a 'No new device found. Please check the device status, and you need to allow app getting location info permission and stop VPN service' error message:**

Check the antenna connection to your IP Doorbell and make sure that it is located within range of your mobile device and your router. Also check that the IP Doorbell SSID (looks like LIDawXXXXXXXX) is visible in the list of available WiFi on your mobile device, and if you have previously connected to it, 'Forget' that network on your mobile device. If you are still experiencing problems, perform a factory reset of your IP Doorbell, restart your phone, and disable the 'Cellular Data' on your mobile device during the configuration process.

**During Hotspot Configuration, when the App is searching and then connecting to a device to be added I get a 'connection failed' error message:** Leave the App session running, go directly to the WiFi settings on your mobile device, and connect to the IP Doorbell Hotspot manually (SSID looks like LIDawXXXXXXXX). If prompted, answer 'Yes' to stay connected to the IP Doorbell, even though there is no internet. Return to the App and it should automatically advance you to the next configuration step.

**When someone rings the doorbell, Notifications appear on the phone but I do not hear any audible alerts:** To receive audible ring-in notifications the 'Doorbell Call Vibration' mode (iOS) or 'Doorbell Call Silence' mode (Android) must be turned off; ensure that the call and media volume are turned up and that 'Do Not Disturb' is not engaged on your mobile device.

**I do not get any notifications when someone rings my IP Doorbell:** Make sure that notifications from the ControlCam2 App are enabled in your phone; if you are using 'Selective Ring-in' mode, make sure that the IP Doorbell in question is has it's 'Alarm Notify' enabled; check that you are logged in to the ControlCam2 App; check that your mobile device has a good connection to the internet, either via WiFi or cellular data; you may need to check the LAN settings in the Web Browser Interface to ensure that the default gateway and preferred DNS IP addresses match your router address; if you have two routers, ensure the IP Doorbell is connected to the primary router; check if a hardware firewall may be configured on your network.

## Troubleshooting (cont.)

**When I try to connect to the live video of my IP Doorbell, I get a message saying ‘Connecting’ or ‘Connected’, but I do not get any video:** This is usually caused by poor communication through the internet between your IP Doorbell and your mobile device. Check the clock display in the live video feed from your IP Doorbell; if the seconds do not count up consistently (seconds stopping/restarting/slowng/accelerating/skipping), then recheck the IP Doorbell-to-WiFi signal strength (if connected via WiFi), or the strength of the signal between your mobile device and the internet (WiFi and/or cellular data). Then back out of the App and try again; If settings have been changed to the Second Stream Video Coding through the Web Browser interface, the App may not function properly. Second Stream Video coding **MUST** be left at H.264 and WAN defaults for the correct operation of your IP Doorbell to your mobile device, and the Main Stream video coding can be altered as desired to accommodate other applications (e.g. NVR, Video Camera App).

**When I tap the ‘unlock’ icon to open my door, I get a message saying ‘Unlock failed!’:** This message indicates an incorrect unlock password is being used or that the communication through the internet between your IP Doorbell and your mobile phone is poor. If another mobile device has changed the unlock code (default is 1111), all mobile devices need to correspondingly change their unlock passwords to match. For possible communication issues, check the clock display in the live video feed from your IP Doorbell; if the seconds do not count up consistently (seconds stopping/restarting/slowng/accelerating/skipping), then recheck the IP Doorbell-to-WiFi signal strength (if connected via WiFi), or the strength of the signal between your mobile device and the internet (WiFi and/or cellular data).

**When I talk to a visitor, they tell me that my conversation is getting cut off short:** With the inherent delay in VOIP (Voice Over Internet Protocol), there is a slight delay from when you talk to when your voice is transmitted from the speaker of the IP Doorbell. Simply hold the ‘Press to Talk’ icon for about 0.5 seconds longer after you have finished talking to ensure that the complete message is heard by your visitor. You may initially want to ‘practice’ while within earshot of your IP Doorbell

## Troubleshooting (cont.)

**The video I see from my IP Doorbell is soft and slightly washed out;** Please ensure that the protective film adhering to the camera lens is removed after installation.

**If I try to delete an IP Doorbell from my ControlCam2 App I get an error message stating 'delete fail':** Many settings in the ControlCam2 App are stored on our cloud-based servers, and require an internet connection for changes to be made. Please check your WiFi or cellular data settings to ensure internet connectivity.

**If I try to change any settings in my ControlCam2 App I get an error message stating 'fail':** Many settings in the ControlCam2 App are stored on our cloud-based servers, and require an internet connection for changes to be made. Please check your WiFi or cellular data settings to ensure internet connectivity.

**When I try to connect to my IP Doorbell, I get a message saying 'Wrong username or password';** The username and password for your IP Doorbell is shared by all mobile devices registered to that IP Doorbell. If another mobile device has changed the username or password for the IP Doorbell device, then all mobile devices need to correspondingly change their credentials to match. (Default is admin, 1234).

**When I connect to my IP Doorbell for monitoring, I do not have the 'Push to talk' icon:** If you connect to live video without first receiving a ring-in notification to 'accept', you will need to turn on the small microphone icon below the video display to enable the push to talk feature.

**I do not have any lights on my IP Doorbell:** The blue backlighting, which illuminates the keys, bell button, and the name plate, is always on. If there is no light on your IP Doorbell, please check the power feeding it.

**The keypad does not seem to register the correct key touches:** The touch sensitive keypads of our IP Doorbells are very responsive, and may detect two presses or the pressing of an unintended adjacent key if pressed too hard. Be sure to touch the keys only light enough to register with a single confirmation 'beep'.

# Appendix A: Installation Tips

## WiFi

**WiFi Range** - We are frequently asked what the WiFi range is on our products. Variables such as antenna placement, the composition of obstacles between the IP Doorbell WiFi antenna and your WAP (Wireless Access Point), and WiFi 'Pollution' all can negatively affect your WiFi range. With these in mind, here are some recommendations;

**Antenna Placement** - One of the advantages of the GBF IP Doorbell is the fact it has an external high-gain antenna (instead of the small wire antennas designed to fit within a plastic chassis). Mount the antenna vertically (it can be upside down as well) making sure that there is not any vertical-oriented metal *between* the antenna and your WAP (e.g. mounted on gate post side opposite of your router's line-of-site).

**Obstacle Composition** - The composition of the walls within your home will affect the overall range of your IP Doorbell. The following examples will negatively affect your WiFi range if between the IP Doorbell antenna and WAP in your setup;

- aluminum siding or foil insulation
- stucco walls (wire mesh bonding the scratch coat)
- in-floor heating (electric and hot water)
- window solar treatments, metallic blinds, and mirrors

**WiFi 'Pollution'** - We have customers living in the city with difficulty getting good WiFi just 25' from their router, whereas other customers living on farms who have excellent WiFi results at distances over 200'! This is typically a symptom of WiFi 'Pollution'. The most common sources of WiFi 'Pollution' in the 2.4GHz range WiFi are neighboring WiFi access points and some electrical appliances.

**A simple way to test the WiFi strength between your IP Doorbell and WAP during installation is to mount the IP Doorbell and antenna, and then, using your mobile phone, observe the WiFi strength of the IP Doorbell 'Hotpot' (SSID looks like LIDawXXXXXXXXX) while you are standing beside the intended WAP. Adjust the antenna orientation to achieve the highest observed signal near the WAP.**

# Weatherproofing

The GBF 960 Series carry an IP55 (Ingress Protection) rating, meaning that it is sufficiently protected from damage by dust, water, and human contact. This also means that your IP Doorbell is protected from low pressure jets of water (e.g. wind driven rain), but it is not sufficiently protected against a high pressure water stream (e.g. pressure washer). By design, the backbox and IP Doorbell chassis are not 'water tight' or sealed. A sealed design tends to 'vacuum' water vapor in to the sealed cavity as outdoor temperatures and humidity fluctuate, over time collecting enough water vapor inside to condense in the 'sealed' cavity and cause corrosion damage. Conversely, our design allows any water that may have found its way in to the IP Doorbell device to just as easily drain away and evaporate. The front panel of your IP Doorbell is waterproof, and the circuitry inside is coated to prevent water damage. Therefore...

## **Do Not Try to Make a Waterproof Seal Using Silicone or Other Sealants!**

This will only result in a gooey mess, frustration, and the possibility of trapping water that could create issues. This is our installation recommendation;

- Before installing the backbox, obtain some Rubber Foam Weather Stripping tape (closed cell) and apply some strips to the back side of the backbox in the dark areas shown in the illustration. For mounting to rougher surfaces, use stacked pieces to layer the tape to build up the thickness where required to form an effective seal when the tape is sandwiched behind the backbox and the mounting surface. Run your mounting screws through the tape. The bottom edge is not sealed to allow any incidental water to simply drain out. There, much less mess!

Before Seal...



After Seal...





# Wiring

**Wire Connectors:** As there is limited room within the IP Doorbell casing for wires, it is suggested to use gel-filled “B” Connector wire splices (blue-beans). Not only are these connectors thin, the dielectric gel inside them prevents your connections from experiencing corrosion issues, and they can be crimped with standard pliers!

**Poor Man’s POE:** If the length of a hardwired cable run is not excessively long, you could also use the 'poor man's POE' by removing (or cutting) the unused blue and brown wire pairs (assuming the Cat5e cable is terminated T568B) at each end of the Cat5E cable and use them as an extension to leads for the power supply included with the IP Doorbell (double up the wires for each polarity of the power supply, then the current is low enough not to cause too much voltage drop). Be sure to observe the correct polarity for the power if you are extending the power supply lead. This also makes for less clutter at the IP Doorbell end of the installation.

**Ethernet Cable Length Limits:** The theoretical cable length limit for ethernet cables is about 100 Meters (328 Feet). This is the same for both Cat5e and Cat6, but does require that the conductors are pure copper and not ccs (copper clad steel or aluminum) or similar, as is found in bargain priced cable. This maximum length, however, is ‘renewed’ after each ‘active’ (powered) ethernet device you place between cable lengths. An example of an active device is a POE extender, and an economical "extender" alternative can be to use a standard ethernet switch in a weatherproof environment.

## Keypad

The keypad on the PL960QPM uses touch-sensitive buttons (replaced with blue-light buttons on PL960TPM). This method allows for use with or without gloves and in all weather conditions. However, the buttons are highly sensitive to touch and may actually trigger the adjacent button if pressed too hard. During programming and use, be sure to touch the keypad buttons just light enough to hear the confirmation beep for consistent results.

## Appendix B:

### Disabling the IP Doorbell SSID Broadcast

When an IP Doorbell is successfully configured using WiFi, the device 'Hotspot' is automatically disabled. However, IP Doorbells that are hardwired to your router for internet access will still have the 'Hotspot' mode enabled and will be broadcasting an SSID (although without the external antenna attached, the range of this SSID broadcast will be very limited). The following optional process should only be performed ONCE using either IE (Internet Explorer), Chrome, Firefox, or Safari browsers. The purpose of this configuration is to disable the broadcast of your IP Doorbell's GID (contained in the SSID) through the IP Doorbell's Wi-Fi radio. This can be accomplished through the Web Browser Interface of the IP Doorbell. These steps do require some network knowledge. Therefore, do not alter any other settings unless you are sure of their purpose. To access this, perform the following steps;

1. Determine the IP address that your IP Doorbell has been assigned by your router. The IP address can be obtained by 'adding' an IP Doorbell manually in the App. If your mobile device is on the same network, the GID and IP Address will be displayed after the App performs a scan for devices. Devices already added to your app will show up in low contrast (difficult to see), but are still legible.
2. Enter the IP address of the IP Doorbell into the address bar of your browser (ideally using a computer on the same network), preceded by `http://` (e.g. `http://192.168.1.88` ).
3. Hit enter and a login request should appear. There may also be requests to install additional files, but if you are only intending to turn off the IP Doorbell SSID broadcast, then you can ignore these additional requests.

## Appendix B: (cont.)

4. Enter the 'User Name' (default is 'admin').
5. Enter the 'Password' (default is '1234').
6. Click 'Login'.
7. Click 'Config' tab.
8. Expand 'Network Settings'.
9. Click 'Wireless'.
10. Depending on the build version of your IP Doorbell, you will either click 'Close', or choose 'WLAN Mode' from the pull-down menu (currently shows AP Mode).
11. Click 'OK' to save the setting and restart the IP Doorbell. After the IP Doorbell finishes its reset (just after the illuminator LED's flash, about 1 minute), log back in to the Web Browser Interface again.
12. Click 'Config' tab.
13. Expand 'Network Settings'.
14. Click 'LAN'.
15. Ensure that the Gateway and Preferred DNS IP addresses match the IP address of your router. If they do not match, ensure that the 'DHCP Enable' box is checked, click 'Save', and let the IP Doorbell reset again.

The IP Doorbell SSID should no longer be available in the list of available WiFi networks viewable from your mobile device.

Holes in  
the wall

Plastic  
Wall Plug

**USER MANUAL**

Screws

Allen wrench

**GBF**<sup>TM</sup>

GBF Electronics Inc  
Tech Support: 604-278-6896 or 604-285-8721  
<https://gbfelectronics.com>  
[info@gbfelectronics.com](mailto:info@gbfelectronics.com)