

Holes in  
the wall

# GBF WiFi IP Doorbell (3rd Gen)

USER MANUAL



# WELCOME

Congratulations on purchasing the GBF PL963 Series of smart IP Door Station. 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, unlocking your gate 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 PL963 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. You might also use hardwired Rj45 cable or POE connection for this system as well.



# PACKAGE CONTENTS

- (1) GBF POE IP Door Station PL963PM/963M
- (1) Metal Back Box
- (1) External Wi-Fi Antenna with 3' Cable
- (1) 12VDC, 1A 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.

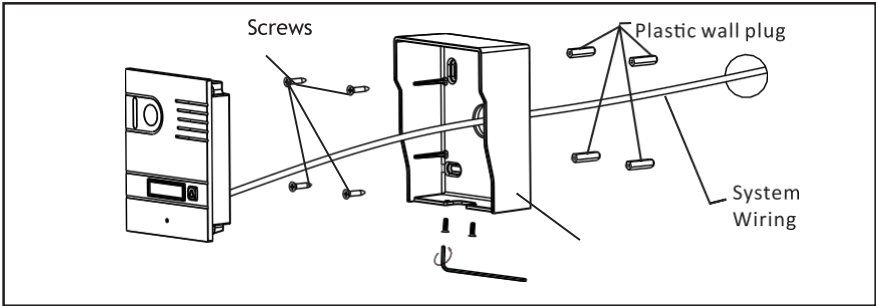
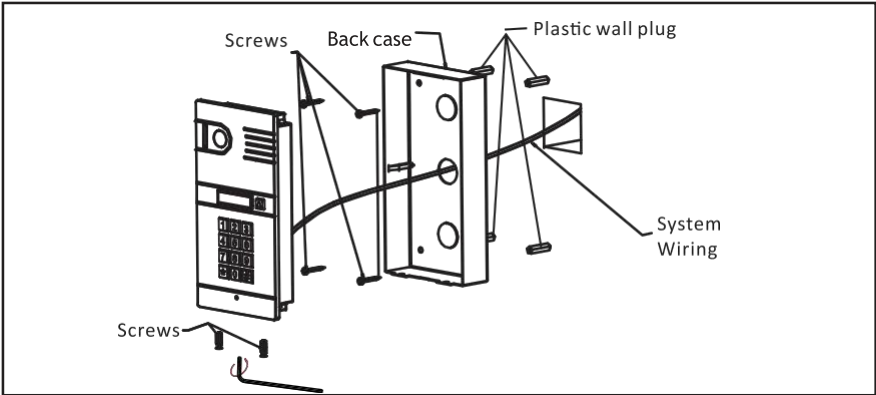
**-Location:** Choose a location for your new IP Doorbell, taking into consideration sightlines, shadows, and excessive back - ground lighting for the camera. You must also consider proximity to AC power and the ability to run wiring for additional optional accessories. Optimal mounting height would 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.

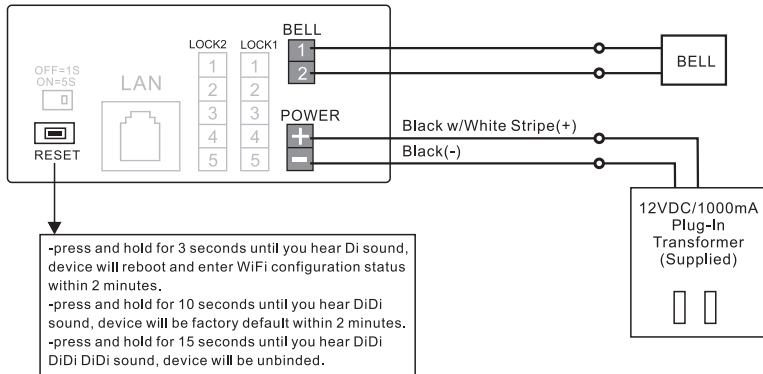
**-Back Box Mounting:** Feed the power supply wiring, wiring harness(s), and the Wi-Fi Antenna cable or the RJ-45 cable through the hole from the back side of the back box. Use the four screws (and anchors, if required) supplied to mount the back box to the wall in the desired location.

-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).

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

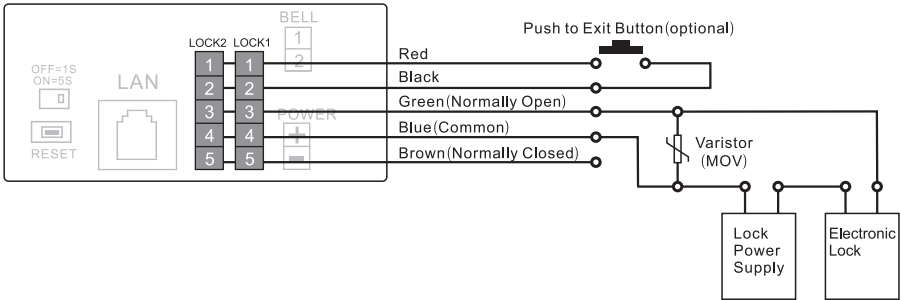


## Wiring Diagram for Power Supply Connections and Connection to Existing Door Chime (Optional)



**\*PL963M/PM Lock and Bell Relays are Rated Maximum 3 Amps at 250VAC or 30VDC**

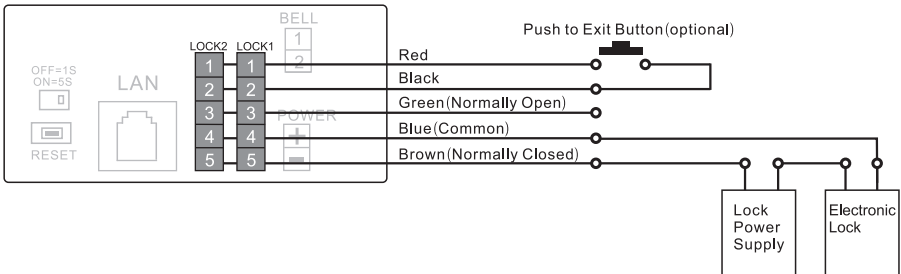
**Wiring Diagram for Normally Open Circuit  
(e.g. Electronic Door Strike or Deadbolt)**



**\*PL963M/PM Lock and Bell Relays are Rated Maximum 3 Amps at 250VAC or 30VDC**

**Please be advised that LOCK1 could be triggered by APP and Access Codes, but LOCK2 could be triggered ONLY by APP, not Access Codes. If you only use this system for one Door, please connect LOCK1 for your application.**

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



**\*PL963M/PM Lock and Bell Relays are Rated Maximum 3 Amps at 250VAC or 30VDC**  
**Please use LOCK1 for your gate control connection if this system is for controlling one door/ gate**

## 2. Configuration Preparations

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

1. Connect the WiFi antenna with outdoor station **or** connect your Router directly to the IP Doorbell with an ethernet cable.
2. This device has a Poe built-in, you could directly power this device with RJ45 cable through POE switch. Or use the power adapter in the package to power this device. It requires 12V DC 1A power supply to work properly.
3. Within 30 seconds, press and hold the 'Reset' button on the back of the device for 15 seconds until you hear 3 beeps sound. Then release the reset button.

**\*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 Doordeer APP. Free downloading are available on the Google Play Store (Android) and the Apple App Store (iOS)



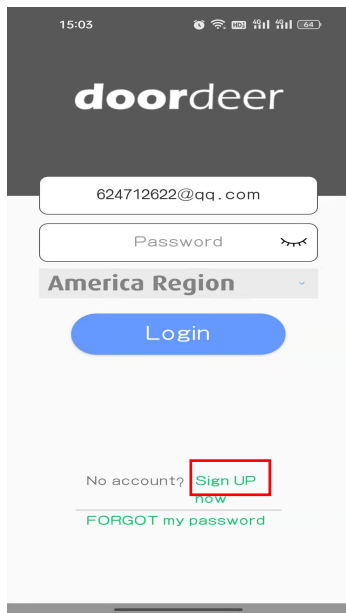
Note:

- The Doordeer APP is free to use.– Please keep the Doordeer APP updated.
- The applications 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 and Bluetooth during the initial configuration of the IP Doorbell.**

1. Make sure your smartphone is connected to the 2.4G WiFi network to which you want the GBF IP Doorbell to be connected.
2. Open Doordeer APP.
3. Create an account by clicking on the “Sign Up”. Choose American Region.



**\*NOTE: Every mobile device requires a separate APP account for accessing this smart IP door station.**

4. Enter a username (email address is required), password, password confirmation.
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.

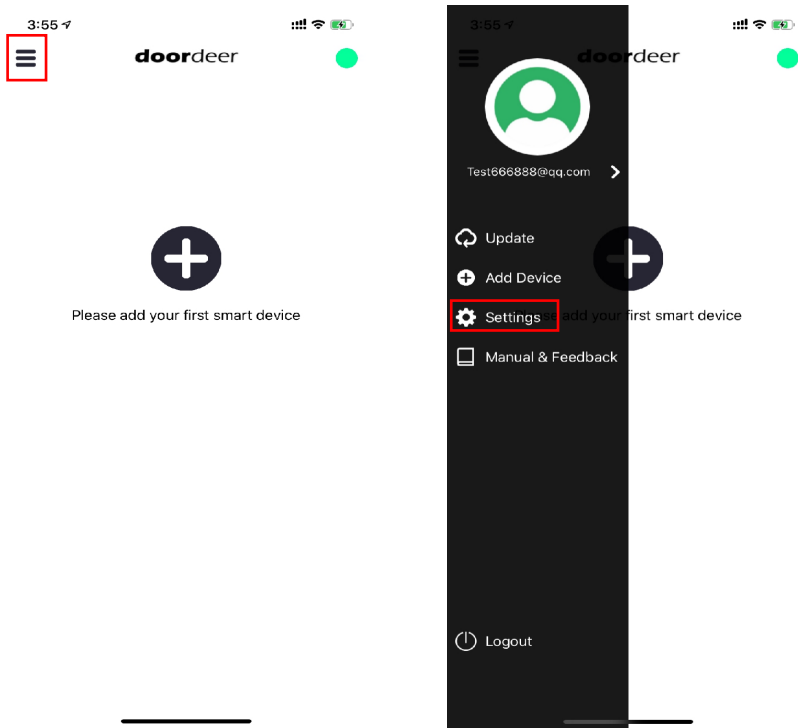
**\*To Proceed with a Wireless (Wi-Fi) installation, go to step 3.1.1 (android) or 3.1.2 (iOS).**

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

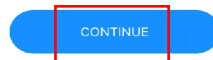
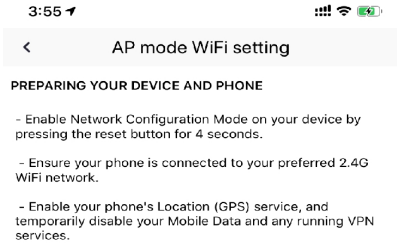
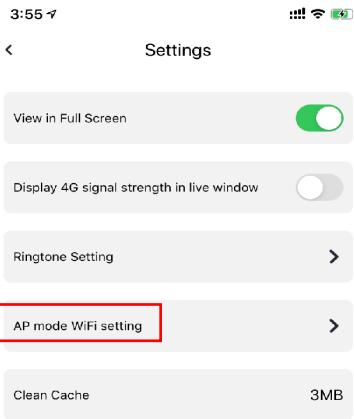
# 3. WiFi APP Configuration

## 3.1. Configuration Using the Android or iOS App

1. Inside the app, click Settings on the menu.



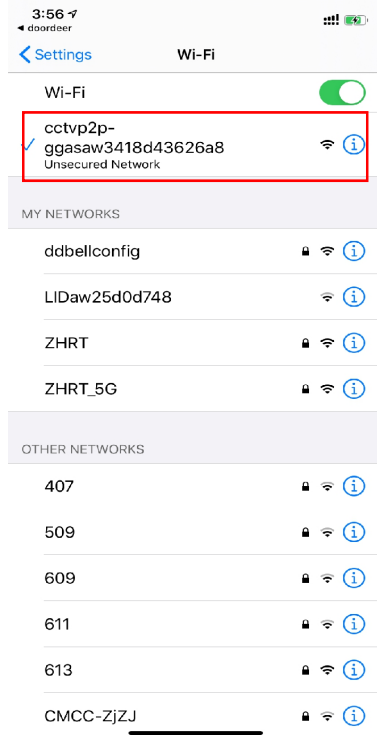
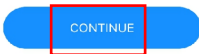
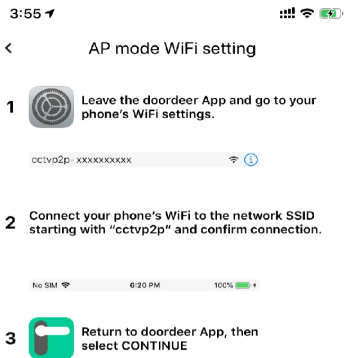
2. In the APP settings Page, Select AP Configuration. Then in AP Configuration Page, Click “CONTINUE”.



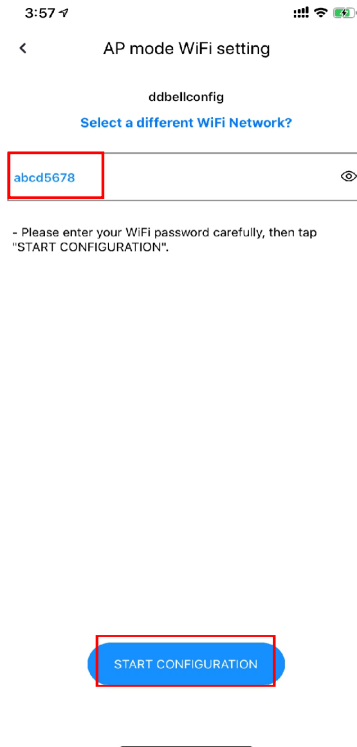
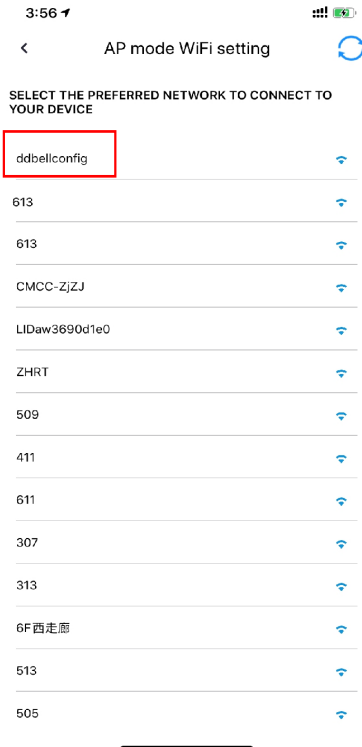
3. You will see there are three steps for AP configuration.

Leave Doordeer APP and go to your smart phone WiFi settings, and find GBF door station hotspot which starts at: cctvp2p- xxxxxxxx. Then connect your smart phone to this door station wifi.

**Note: If you don't find cctvp2p-xxxxxxx, you can turn to the back, press the reset button and hold it for 15 seconds until hear three beep to reset this device again.**

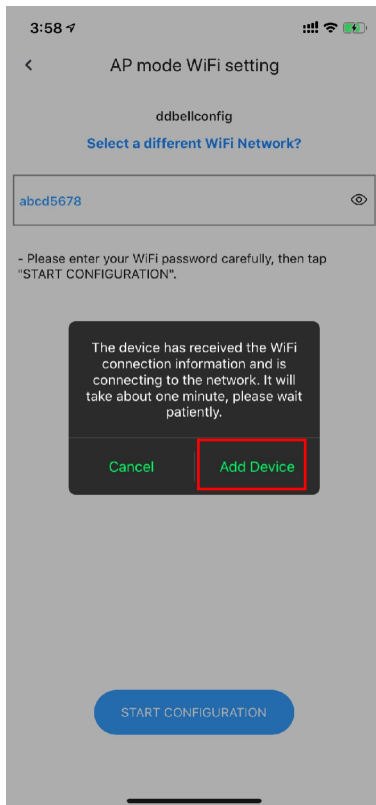


4. After you successfully connect your smart phone to this door station WiFi, go back to Doordeer APP AP Configuration mode again, the APP will automatically search your local 2.4G wifi. Then Click your local 2.4G wifi. If you do not see your local wifi name, just wait about 30 seconds around, click the refresh button on the top right corner, your local wifi name will be shown up, then click that and add your wifi password.

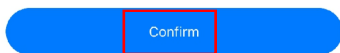
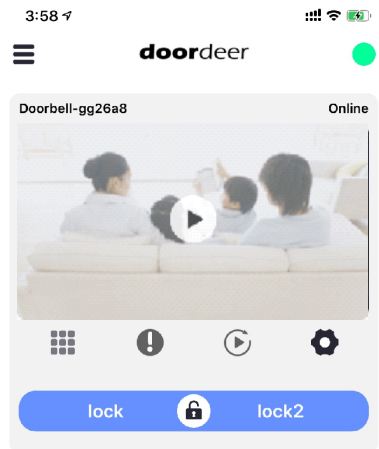
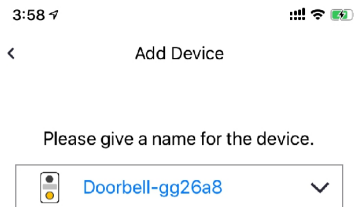




5. Add your local wifi password and click “START CONFIGURATION”. Then the APP will automatically search the device and you will hear one “Ding” sound from this door station. The message bar will be shown up for you to Add Device. Click “Add Device”. In the LAN Search page, you will find this door station ID and click the device.



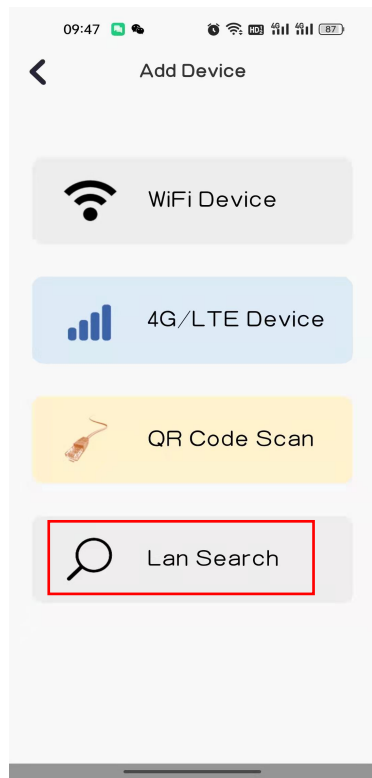
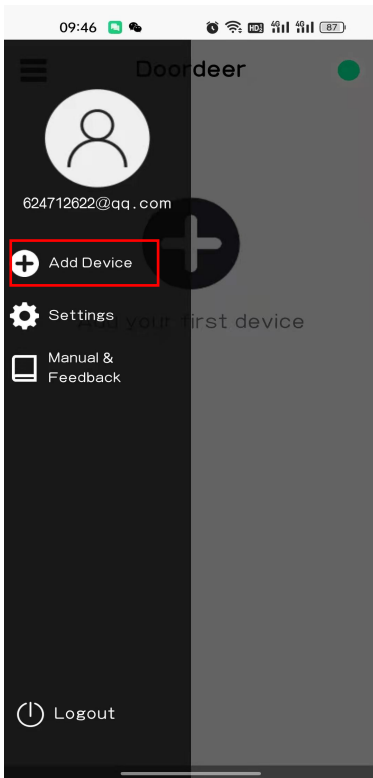
6. Naming your door station such as “Front Door”, then click “CONTINUE”. Your door station will be successfully added into your Doodeer APP account. **This new model has two unlocking relays to unlock two different locks, so you will see lock1 and lock2 and then you can choose to unlock which lock by swiping the lock button.**



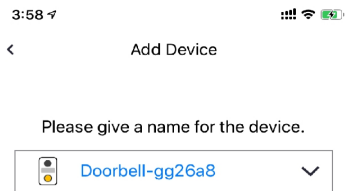
## 3.2 Adding a configured or wired IP Doorbell

You can add a previously configured or hard wired IP Doorbell device using the following method.

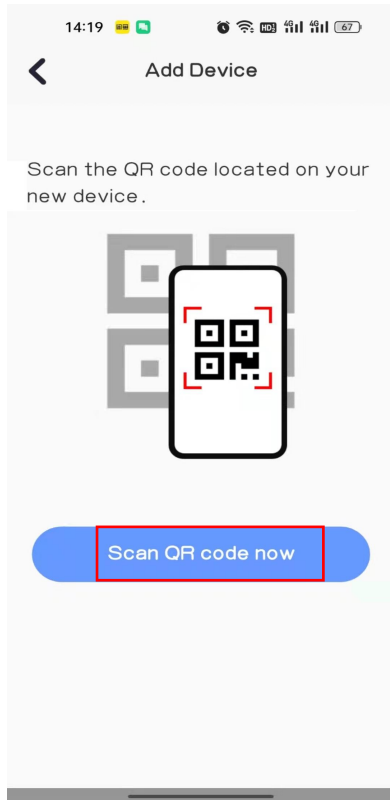
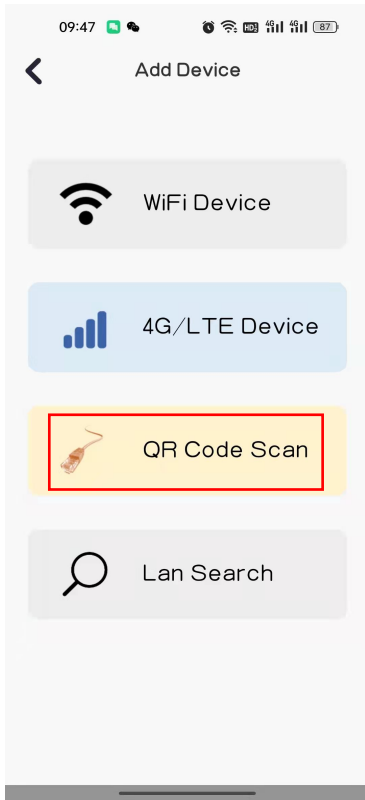
1. Connect your mobile device to the Wi-Fi/LAN network which contains the IP Doorbell.
2. Clip the top left corner three black line, the menu bar is shown up. Click Add Device. Then Select LAN Search, the AP will automatically start to search the new device for you.



3. The new device will be shown on the device list. Click the new device and Name your device, then click “Confirm” to add your device successfully on Doordeer APP.

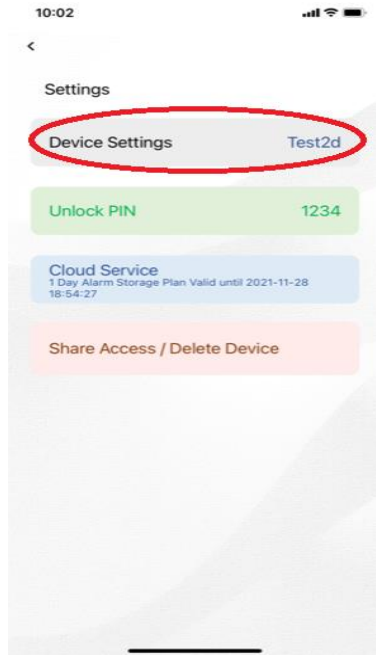
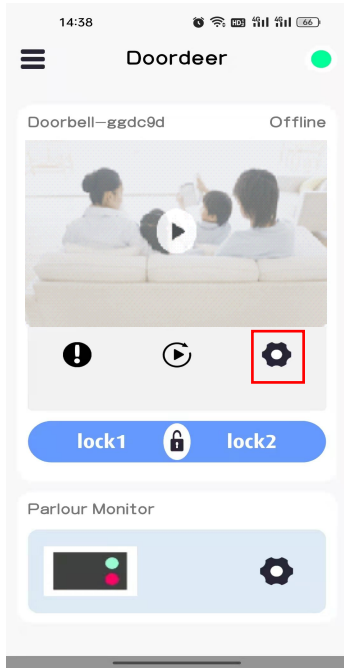


4. You could also add your device by QR Code Scan. There is one QR code label on the back of the device. The device GID no. is under this QR code. You could use QR code scan the QR code and add the new device if you are not in the same network with the device.



## 4. Settings

Inside the app, click setting symbol on the device window.  
The APP shows Setting Page which includes Device Setting  
Option, Unlock Pin, Cloud Service and Share Access...



**To use PIN Code to unlock the door, Press PIN CODE + # will trigger the device relay to unlock your door.  
The PIN Codes only work for LOCK1, not LOCK2. If your PIN Codes do not trigger your door lock, please check the device connection port to make sure to use LOCK1 port for your application.**



## 4.1 Device Setting.

2. Click Device Setting and it will lead you to the device detail setting page includes:

Device Labels: you could change your device name and two different locks name as well.

Sync Device Time: Sync your device with your local time.

SD card and Recording: Check your device event history through SD card or Cloud Server.

Motion Detection: Set motion detection area and schedule

Unlock PIN code: Change your PIN code.

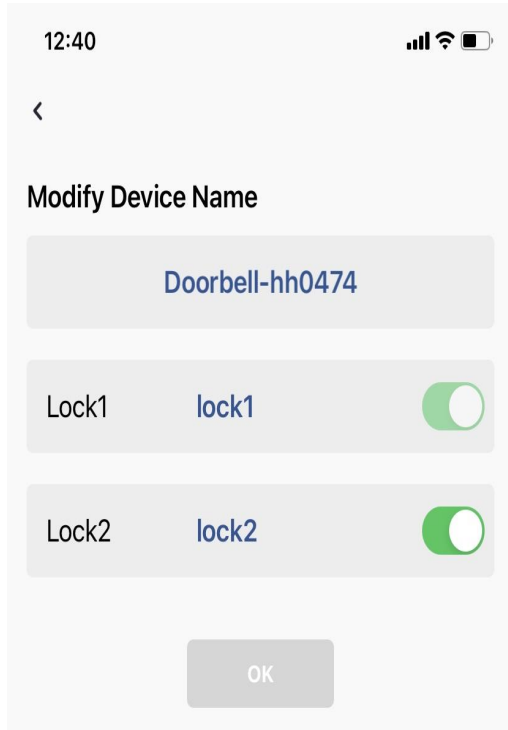
Visitor PIN code Length: Set temporary code length from 4 to 8 digitals.

### Device Settings

|                         |                 |
|-------------------------|-----------------|
| Device Labels           | Doorbell-hh0474 |
| Sync Device Time        |                 |
| SD Card and Recording   | >               |
| Motion Detection        | >               |
| Unlock PIN Code         | >               |
| Visitor PIN Code Length | 8               |
| Update firmware         | >               |
| Restart/Restore Default | >               |
| Device Status           | >               |
| Upload Error Log        | >               |

## 2.1 Device Name or Locks Name:

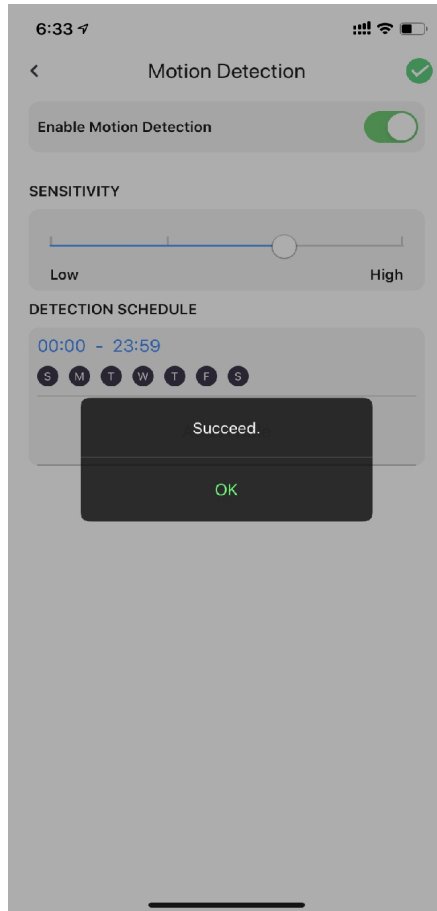
You could modify your Device name and your two different locks or doors through Doordeer APP.



Click Lock1 or Lock2, you could change the two Lock names to “Front Door” or “Side Gate” etc..

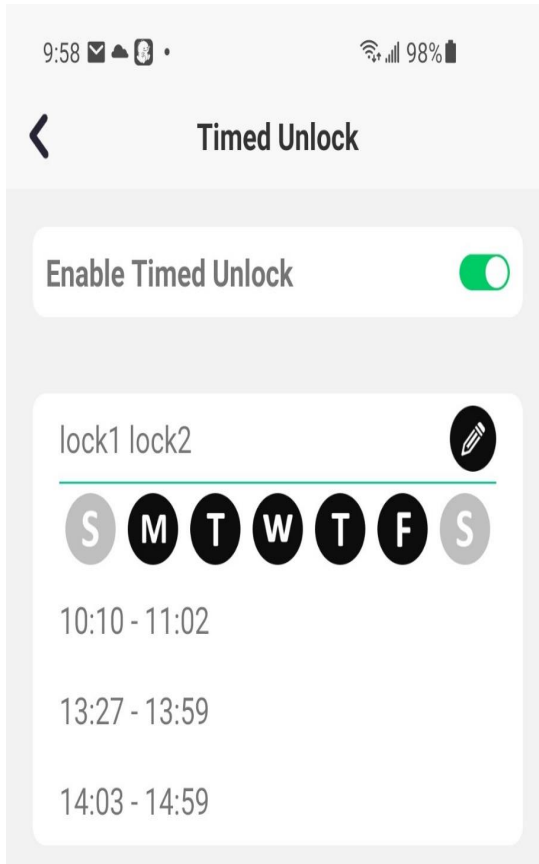
## 2.2 Motion Detection:

You could set your motion detection areas and schedule your motion detection period.



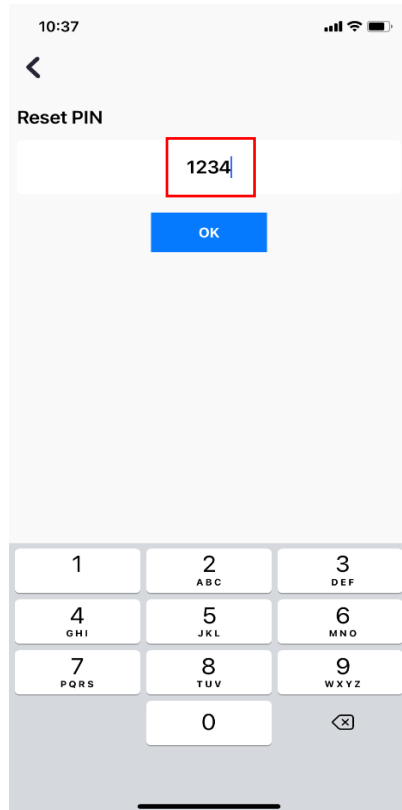
### 2.3. Time Unlock Hold:

Turn on this Time Unlock Feature, You could use your APP to hold your gate open for any time slot. You could hold your gate open for several minutes or several hours, and repeat that in specific day.



## 2.4. Unlock PIN Code:

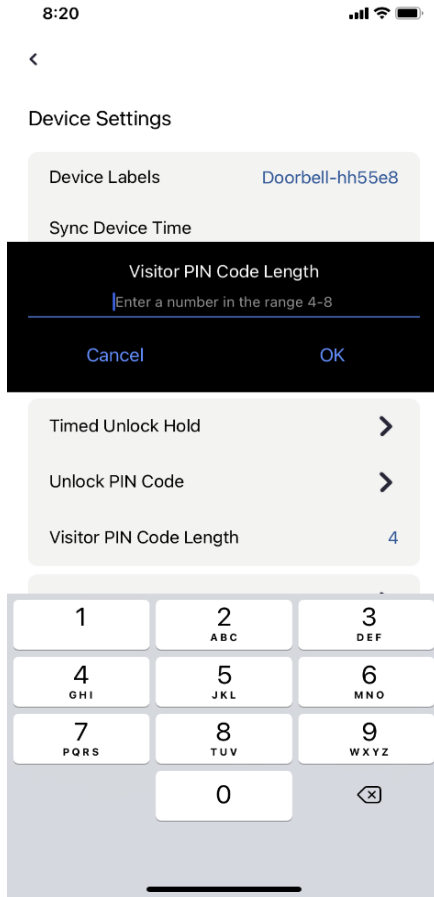
You could change your existing pin code through your APP from anywhere.



Press PIN CODE+ # to unlock your gate.

## 2.5 Visitor PIN Code Length:

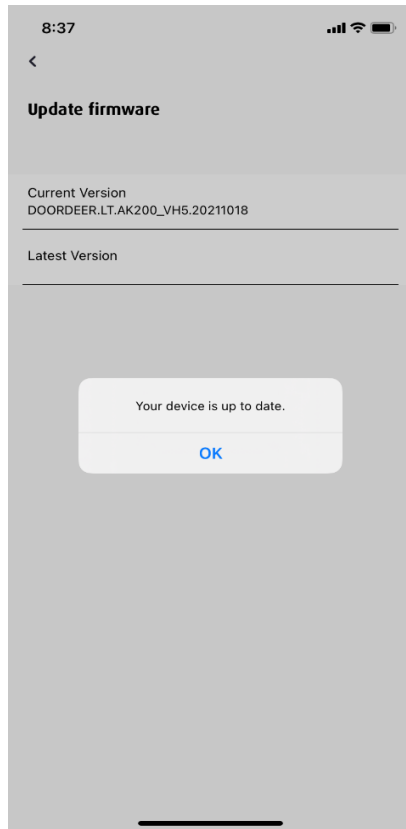
You could set up your visitor PIN code length from 4 digital to 8 digital through your APP.





## 2.6 Update firmware :

You could check the latest device firmware through your APP and update your device firmware remotely.



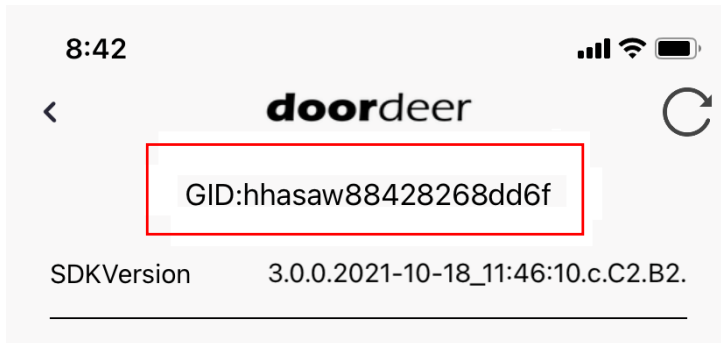
## 2.7 Restart/ Restore Default:

You might restart your system through your APP remotely if you experience some connection error.

Or Restore your device to the factory default setting..

## 2.8 Device Status:

**You could find out your device GID no. from the Device Status.**

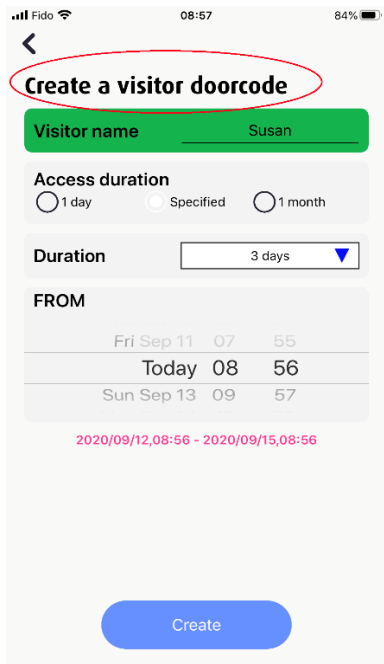
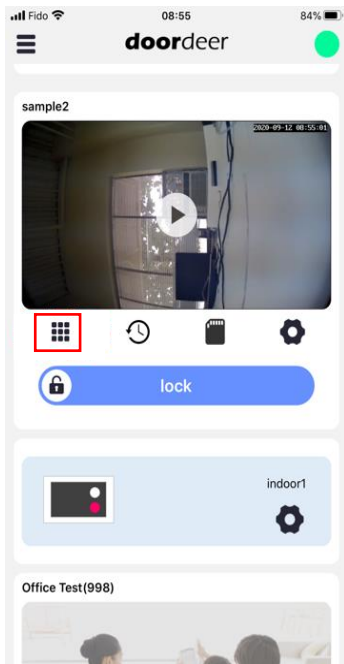


## 2.9 Upload Error Log:

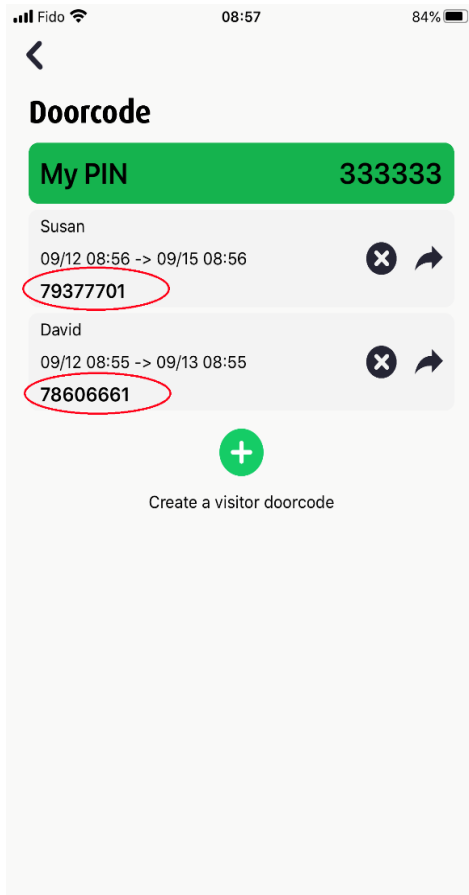
In case you experience some errors, you might upload your error log file to our IT engineers for troubleshooting. Please send your device GID no. to [info@gbfelectronics.com](mailto:info@gbfelectronics.com) as well.

## 5. Temporary access code

1. In the APP, Click keypad symbol on the device window. Press + to create a new temporary doorcode on the APP. You could set access duration for each temporary access code by 1 day, Specified time period, or 1 month or 10 years etc.



2. You could create multiple temporary access codes for this access keypad.

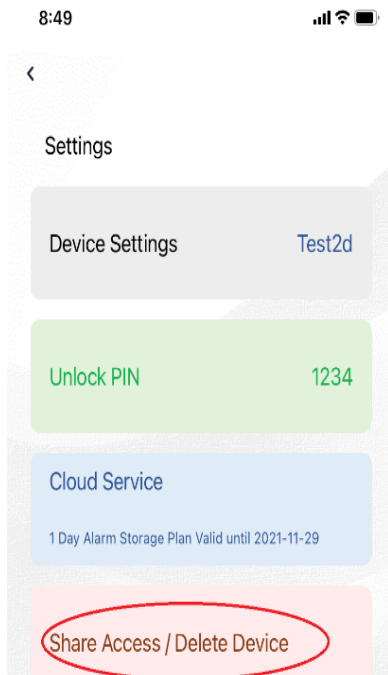
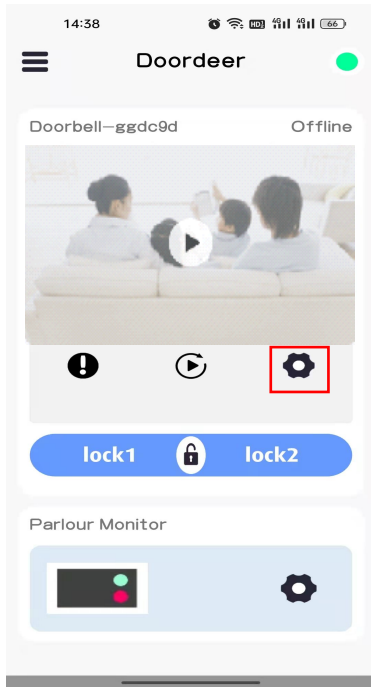


3. Press TEMPORARY ACCESS CODE + # will trigger the device relay to unlock your gate.

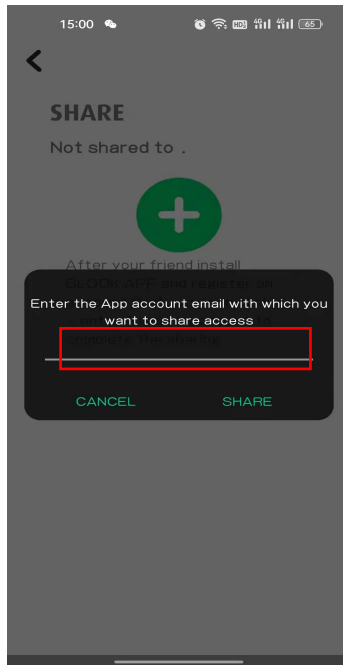
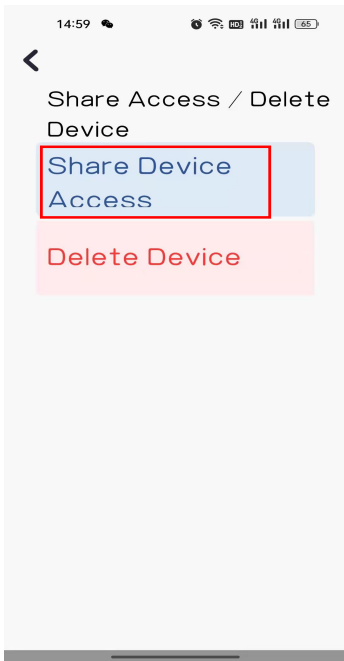
## 6. Other features

### 6.1. Share Access

1. In the APP, go to device setting page to share your device with others. Click Device Setting Icon and go to Configuration page, you will see “Share Access”.



2. Click the “share Access” to the Share Access page. Click + icon, and add the person’s email address you want to share with. Please make sure the person use the same email address to sign up the Doordeer APP login account. You could share the device with multiple persons. And You could remove the share device anytime from APP if you do not want to share the access with the person.



# 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 cctvp2p-xxxxxxxxxx) while you are standing beside the intended WAP.**

**Adjust the antenna orientation to achieve the highest observed signal near the WAP.**

# Weatherproofing

The GBF 963 Series carry an IP65 (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). 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.

## Device Offline Issue:

If the connection cable is more than 200 ft, it is possible that the device might be shown offline due to internet variation. You might try to use one internet switch directly connect with device to see that will solve that offline issue.

Internet firewall is other factor which might cause the device offline.

Doordeer system uses the following ports which requires to be open:

TCP : 80 · 443 · 4110 · 20000-65000

UDP : 28678



Plastic Wall Plug

USER MANUAL

Screws

Allen wrench

The diagram shows an exploded view of a GBF device. At the top, a 'Plastic Wall Plug' is shown with a line pointing to its location on the device's back panel. Below it, the 'USER MANUAL' is shown as a separate component. The main device is shown with several 'Screws' being inserted into its back panel. An 'Allen wrench' is shown at the bottom left, with a line pointing to a hole on the device's front panel. The device itself is a rectangular box with a front panel and a back panel. The back panel has several screws and a plastic wall plug. The front panel has a circular opening and a handle. The device is shown in an exploded view, with lines indicating the assembly points for the various components.

**GBF**™

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