

Installation Instructions

For

WiFi/LAN Video Intercom



PRO Version

1.4

BFT Americas

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SITE SURVEY BEFORE YOU INSTALL....



YES!

I have at least a little wifi signal at the gate with my phone.

(If not a repeater, bridge, powerline link or Ethernet cable will be required).

Note: 802.11n type wifi networks have double the range of 802.11b/g types!



YES!

Internet UPLOAD speed (not download) is at least 1 Megabit per second.

(If not then remote use is not recommended).



YES!

The WiFi network is WPA or WPA 2 type security.

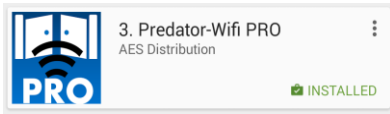
(WEP is older, less secure protocol and will not operate with this product).

IMPORTANT:

BENCH TEST & COMMISSION BESIDE ROUTER BEFORE
GOOSENECK MOUNTING

Android Configuration

IMPORTANT: The following process is only to be carried out with one device as the master device. Do **NOT** repeat with additional devices. To add more phones or tablets, see section on adding additional devices.



Step 1

Using one of the homeowners' Android phones, search for "**Predator WiFi PRO**", and find the icon shown on the Google Play store. Then download and install the **PRO** version to the users phone.

Step 2

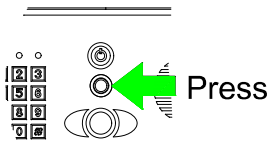


Locate the intercom on a bench or table beside the home router, along with the user phone. Connect the antenna & power supply provided to the intercom, red to +24v dc and black to 0v dc, and power on.



Step 3

Wait a full 60 seconds for the intercom to fully boot up.



Step 4

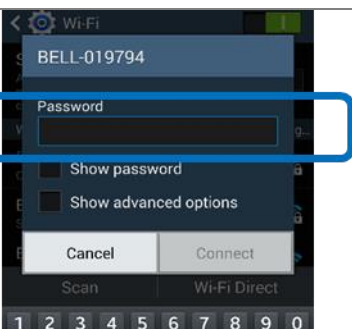
Press and hold the call button for more than **3 seconds**. A loud tone will be heard. The intercom will now be in configuration mode for 5 minutes.



Step 5

Enter settings on the ANDROID phone, select WiFi and scan for networks. The phone should detect the intercom. The network name will be BELL-XXXXX).

Select this network.



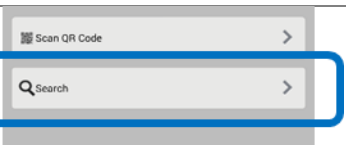
Step 6

Enter the following DEFAULT password... 123456789. Now the phone is connected directly to the intercom which is now broadcasting its own wifi network.



Step 7

Now open the WiFi-Predator PRO App on the phone and select as shown to **add intercom**.



Step 8

Press **SEARCH**.




Step 9

The app should find the intercom serial number. Press as shown to select it.



Step 10

The app screen will now show the intercom serial number or BELL ID, the default user name (admin) and the password should be blank. Press **DONE** to confirm.



Step 11

The normal user screen should now appear as shown. The status of the intercom should now show **ONLINE**.

Press the **SETTINGS** button as shown.



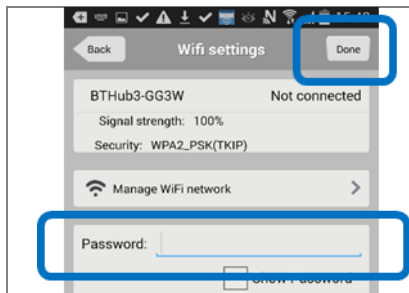
Step 12

Select **MANAGE WIFI NETWORK**. The intercom will now scan the area for available networks.



Step 13

Select the wifi network which you would like the intercom to connect to.



Step 14

Enter the wifi password and press **DONE**.

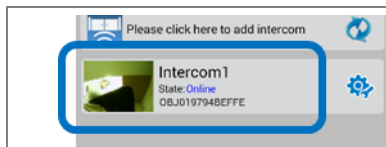
TIP: This unit will not work with older WEP networks, only WPA and WPA2.

TIP: Ensure the password is correct. The app will not know if the password is typed correctly or not. Case sensitivity applies.



Step 15

Wait 1 minute. The intercom will now disconnect from your phone, and attempt to connect to the wifi network with the details provided.



Step 16

If the connection is successful, the app should re-connect and show status **ONLINE**. You may now touch the banner as shown and view video.

You are now ready to install the intercom in the location which it will be used!

Adding Additional Phones

Please jump to page 13 to see how to add additional smart phones or devices.

I-phone Configuration

IMPORTANT: The following process is only to be carried out with one device as the master device. Do **NOT** repeat with additional devices. To add more phones or tablets, see section on adding additional devices.



Step 1

Using one of the homeowners' iPhones, search for "**Predator-WiFi PRO**" app on the Apple Store. Look for the **PRO** icon shown. Then download and install to the users phone.

Step 2

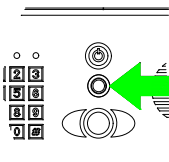


Locate the intercom on a bench or table beside the home router, along with the user phone. Connect the antenna & power supply provided to the intercom, red to +24v dc and black to 0v dc, and power on.



Step 3

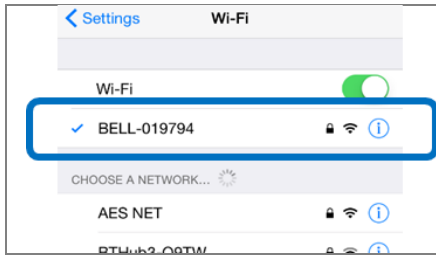
Wait a full 60 seconds for the intercom to fully boot up.



Press

Step 4

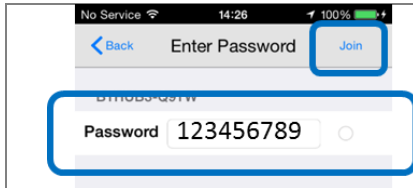
Press and hold the call button for more than **3 seconds**. The intercom will sound a long tone, and now be in configuration mode for 5 minutes.



Step 5

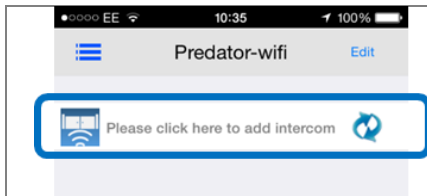
Enter settings on the apple device, select WiFi and scan for networks. The phone should detect the intercom. The network name will be BELL-XXXXX).

Select this network.



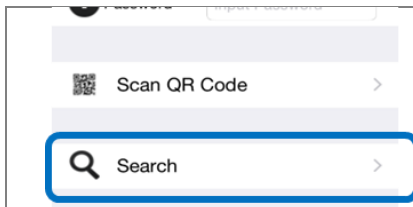
Step 6

Enter the following DEFAULT password... 123456789. Now the phone is connected directly to the intercom which is now broadcasting its own wifi network.



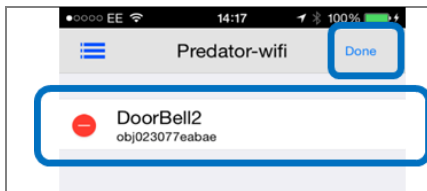
Step 7

Now open the WiFi-Predator **PRO** App on the phone and select as shown to **add intercom**.



Step 8

Press **SEARCH**.



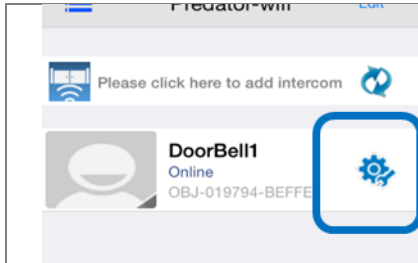
Step 9

The app should find the intercom serial number. Press the banner and then press **DONE**.



Step 10

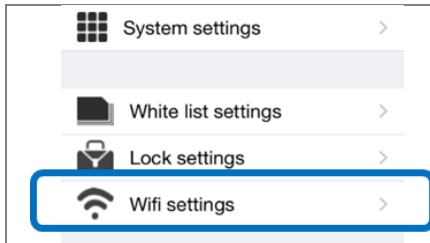
The app screen will now show the intercom serial number or BELL ID, the default user name (admin) and the password should be blank. Press **DONE** to confirm.



Step 11

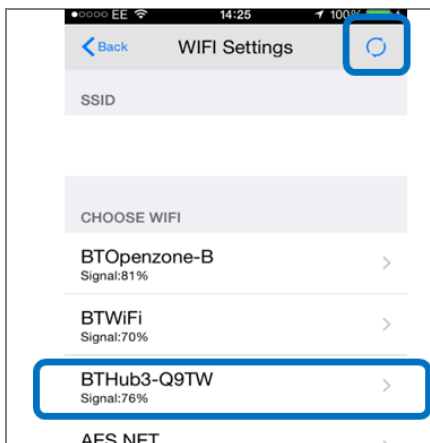
The normal user screen should now appear as shown. The status of the intercom should now show **ONLINE**.

Press the **SETTINGS** button as shown.



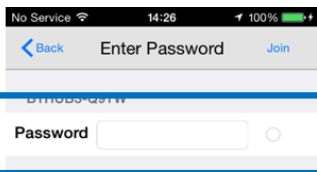
Step 12

Select WIFI SETTINGS. The intercom will now scan the area for available networks.



Step 13

Select the wifi network which you would like the intercom to connect to. You may need to press the refresh button as shown to scan for available networks.



Step 14

Enter the wifi password and press **JOIN**.

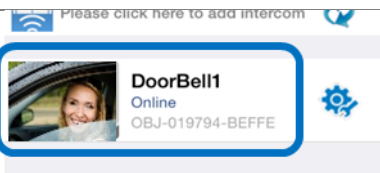
TIP: This unit will not work with older WEP networks, only WPA and WPA2.

TIP: Ensure the password is correct. The app will not know if the password is typed correctly or not. Case sensitivity applies.



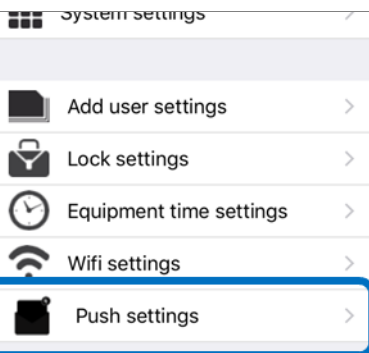
Step 15

Wait 1 minute. The intercom will now disconnect from your phone, and attempt to connect to the wifi network with the details provided.



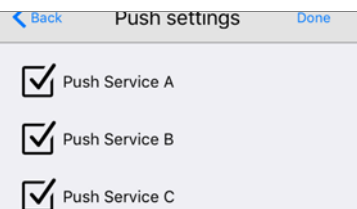
Step 16

If the connection is successful, the app should re-connect and show status **ONLINE**. You may now touch the banner as shown and view video.



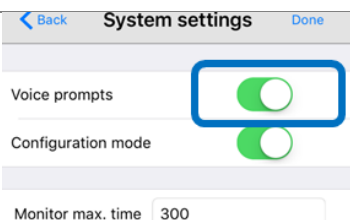
Step 17

Go to settings on the app, and then PUSH notifications as shown.



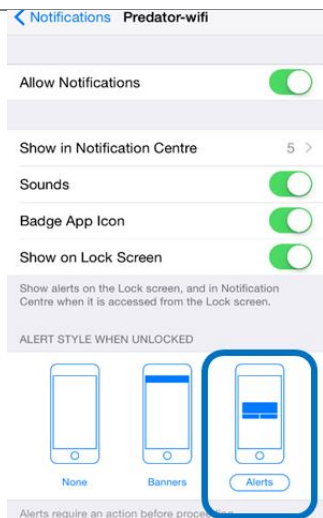
Step 18

To ensure your phone definitely gets a notification when the intercom calls, you may turn on all 3 PUSH servers A, B and C and press **DONE**.



Step 19

Go into settings > system settings and ensure the voice prompts toggle switch is set to **ON**.

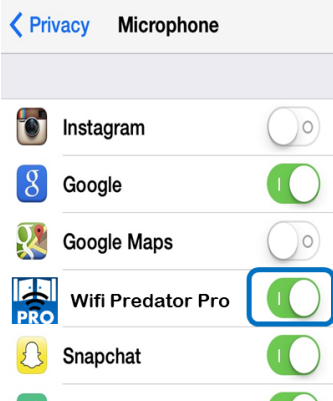


Step 20

Go out of the app, and into the general settings of the iphone. Go to settings > Notifications > Predator-wifi.

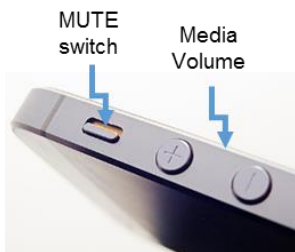
Ensure your screen looks like this, and all options are as shown.

Select the ALERTS option.



Step 21

Next, make sure the app has access to use the microphone on the device. Go to settings > Privacy > Microphone. Make sure the Predator app microphone setting is set to **ON**.



Step 22

Please ensure the user's iPhone has not been muted with the switch shown (please toggle if you cannot hear visitor at the gate), and ensure the media volume has not been turned down (set at around 75% volume for best results).

You are now ready to install the intercom in the location which it will be used!

Adding Additional Smartphones or Devices

TIP: This is a different and simpler process than adding the first Admin phone.

Tip: Do NOT add additional phones using the same username (admin) and password!


On the **ADMIN** Phone...


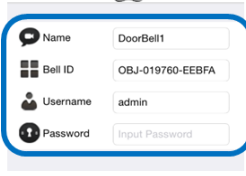
		<p>Step 1 Enter settings.</p>
--	--	--

		<p>Step 2 Enter "Add user Settings".</p>
--	--	---

		<p>Step 3 Press ADD to display the screen shown. Now create new user names and passwords for each device you wish to connect. Each device MUST have a unique username. TIP: Username min 5 characters. Password min 6 characters. Both case sensitive.</p>
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On the **NEW** Phone...

		<p>Step 4 On the new device, install the app, open it, and press "Add Intercom."</p>
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		<p>Step 5 Now enter the following...</p> <ol style="list-style-type: none">1. Bell ID (copy this from admin phone).2. Change admin username to the new user name you created for this device.3. Enter the password you created for this device & press DONE.
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TIP: If adding additional devices causes problems to the ADMIN phone, it is usually caused by duplication of the Admin username. If additional devices display "User ID does not exist", this is caused by a typo error, or upper/lowercase mismatch.

Range Test

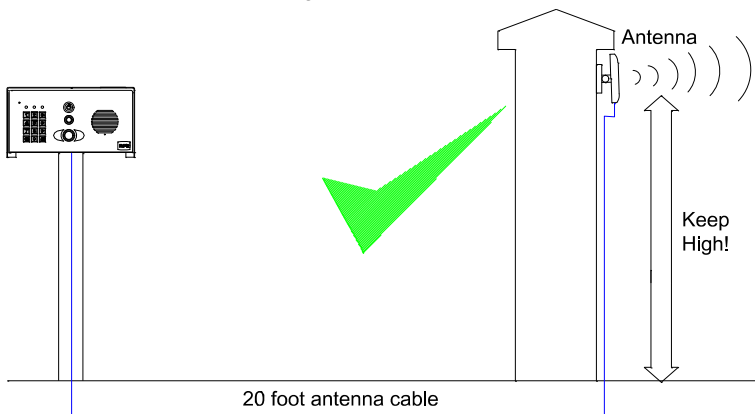
Before fully installing this product, it is strongly recommended to **temporarily** power the intercom at the gate and position the antenna to check that it is within range of the WiFi router. **The manufacturer will not give a full refund for a product which is not returned in brand new condition.**

Once the antenna is in position and the unit has been powered up for more than 2 minutes, use the users phone inside the house to check for range as follows..

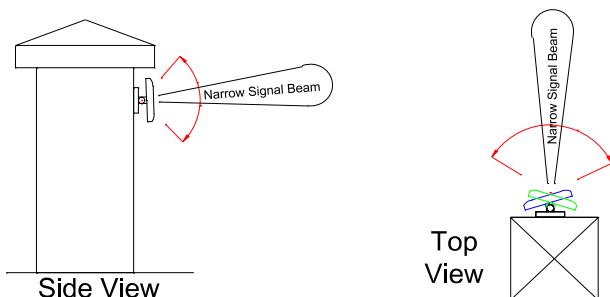


Check that the network which it is connected to is showing at least 20% strength. If it is not connecting, or is lower than 20%, then corrective action must be taken at this stage. Suggestions are as follows..

1. Ensure antenna is mounted as high as possible on the pillar or post.

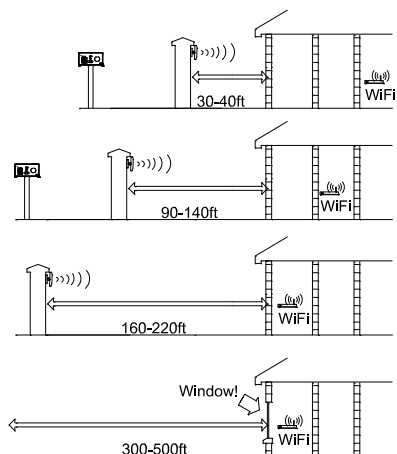


2. Change antenna angle slightly then re-scan the WiFi strength as shown above to check for improvements in strength. If signal improves, then continue to make small adjustments to the antenna angle and pitch to maximise strength.

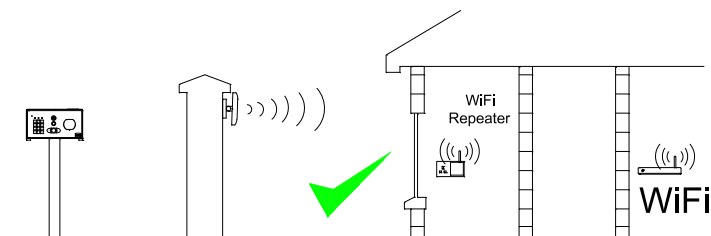


TIP: Antenna beam width is approximately 40 degrees. For short range door intercoms, ask your distributor or dealer for an omni-pole type antenna with 360 degree beam angle.

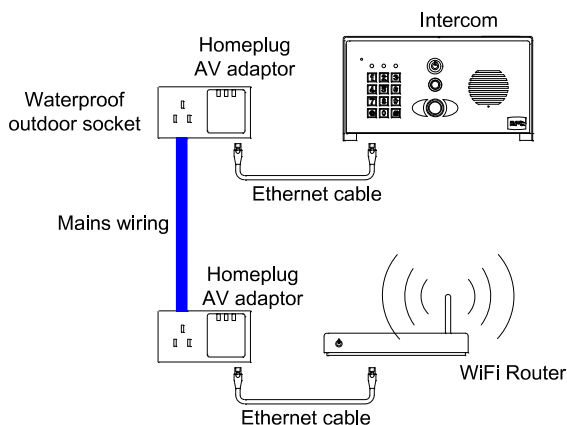
3. For longer range applications, check if the router is, or can be located at the front of the building, preferably near a window or glass, as this will greatly extend range as shown.



4. If it is not possible to have the WiFi router at the front of the building, then consider installing a standard “on the market” WiFi repeater or ranger extender. These can be purchased as a plug in device and are sold in DIY and consumer electronics stores.



5. For even greater range, you can alternatively install homeplug power line adaptor kits, which extend LAN over mains wiring. Simply plug one into the router and the other into the intercom call box.



Note: The router needs to be on the same trip device as the power to the intercom for this technique to work. Always consult a professional electrician regarding mains wiring.

Connecting via cable or LAN adaptors

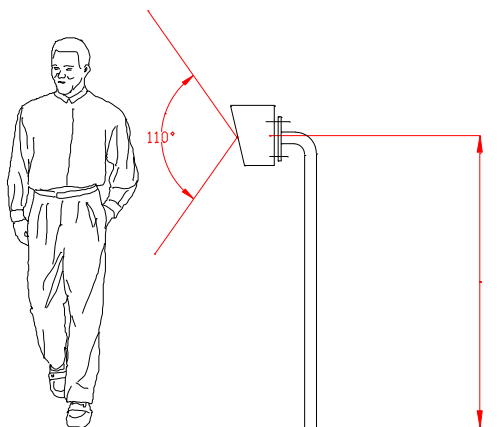


To setup the device with any form of either direct LAN connection cable, or homeplug adaptor, there is no need to go through the complete wifi setup.

Simply open the app, press “Add an Intercom” and enter the Bell ID / serial number of the device AES-xxxxx-xxxxx, along with the admin login and the default blank password, press DONE, and it should connect to the first device.

Installation

Assuming satisfactory operation at full range, you are ready to fully install the product.

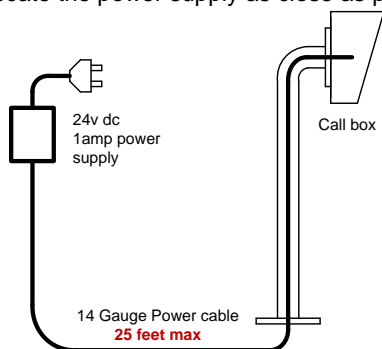


Mount the intercom at the desired height for pedestrian or car users. The camera angle is wide at 110 degrees to cover most scenarios.

Tip: Do not drill holes in the wall with the intercom in position, otherwise dust may get around the camera window and impair the camera view.

Power supply

If possible, locate the power supply as close as possible to the intercom.



TIP: Most technical calls received are due to installers using thin gauge cable over longer cable runs. This intercom has a peak current demand of up to 2 amps.

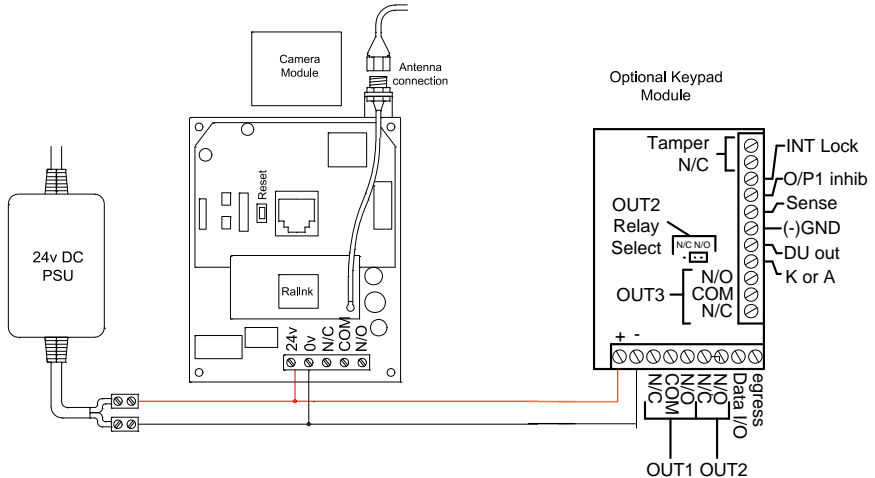
Up to 2 metres (6 feet) – Use minimum 0.5mm² (20 gauge)

Up to 4 metres (12 feet) – Use minimum 1mm² (16 gauge)

Up to 8 metres (25 feet) – Use minimum 1.5mm² (14 gauge)

Wiring

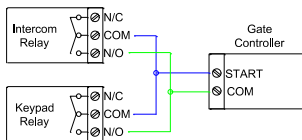
Connect power as shown. Please use only the power adaptor provided.



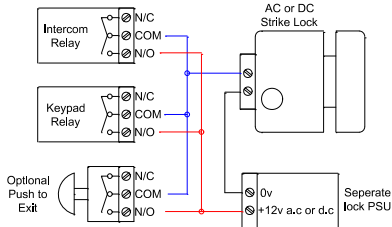
(Keypad power may already be connected for you)

Depending on your requirements, the intercom and keypad have both normally closed and normally open output contacts for connection to existing electric locks or gate automation controllers.

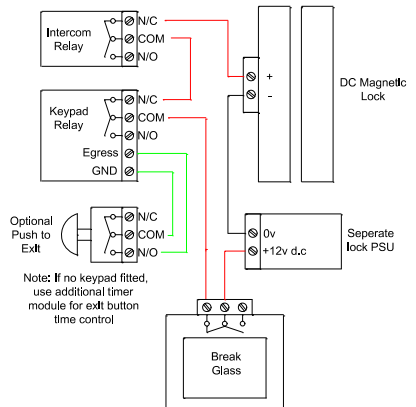
Connection to Automatic Gates



Connection to Door Strike Lock



Connection to Magnetic Lock



Note: If no keypad fitted, use additional timer module for exit button time control

Note: The manufacturer can only support the use, operation and functionality of the intercom and keypad themselves. Professional wiring to door release or automatic gate systems is the responsibility of the installer. Please consult a security integrator for further support.

Relay output

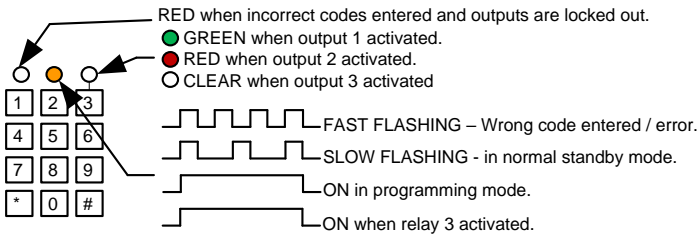
The app has an option to switch the relay output from normally open to normally closed. This is not usually needed because the relay output terminals already have hard connections for N/O and N/C contacts as standard.

The **relay time** may need changed to suit **lock** applications. It is adjustable from 1-9 seconds as shown..



Keypad Overview

This keypad has 3 outputs. The diagram below shows the LED indicators which indicate programming and relay status information.



TIP: After power up, as a security precaution, the keypad cannot be programmed for 60 seconds. Once this time elapses, you may begin.

TIP: Flashing amber LED is normal standby mode!

Basic Keypad Programming

For most installs, it is sufficient to simply enter a single user code as follows..

Quick start guide

1) Enter programming mode (amber LED should be ON)

0 0 0 0 * *

2) Enter a new user code...

1 0 2 0 0 0 ? ? ? ? #

3) Exit programming mode

* *

4) Enter the new user code to check the relay clicks.

Tip: The engineer code must be the same length as user codes. So if using a 6 digit engineer code, then user codes must also be 6 digits long etc.

Full Keypad Programming

Enter programming mode..

0 0 0 0 * *

The unit is now in programming mode. Amber LED on the keypad should remain permanently on. 0000 is the default programming passcode.

Exit programming mode..

* *

The unit should exit programming mode and the amber LED should start flashing again.

Enter a new ENGINEERS code...

Go into programming mode firstly then enter the following sequence...

0 1 ? ? ? ? #

Location

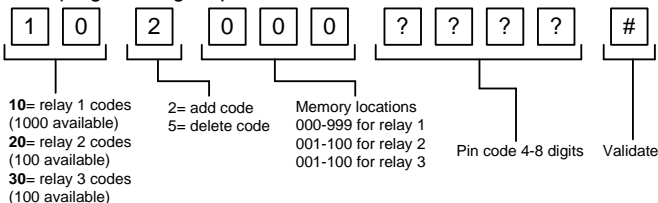
4-8 digit code

Validate

Replace ???? with your new ENGINEERS code.

Enter or delete new user codes

There are 3 groups of user codes. Group 10 for relay 1, group 20 for relay 2, and group 30 for relay 3. The programming sequence is shown below...

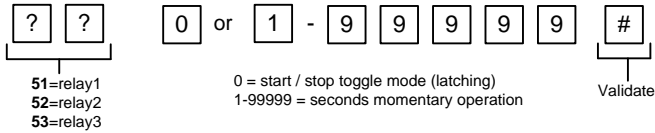


Example: Add user 31 to have access code 5555 operating relay 2....

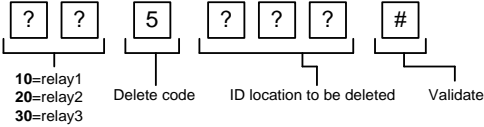
2 0 2 0 3 1 5 5 5 5 #

Group 2 Add code Location 31 Pin code 5555 Validate

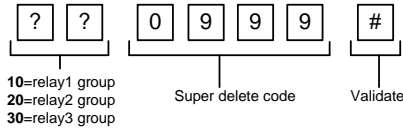
Programming relay output times and modes...



Delete a user code even if you don't know the code...

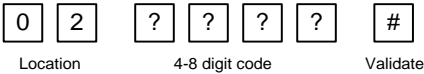


Delete an entire group of codes



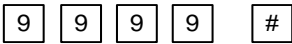
Programming super user codes...

A super user code can activate any of the 3 relays



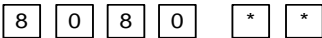
Restoring defaults

When in programming mode, you can enter the following sequence...



When the master code is forgotten....

- 1) Wire a push button (or replicate with wire link) across the Egress terminal and (-)GND.
- 2) Switch off power for 1 minute.
- 3) Switch ON power.
- 4) During the first 60 seconds, press the EG button once to enable the function.
- 5) Enter the following code..



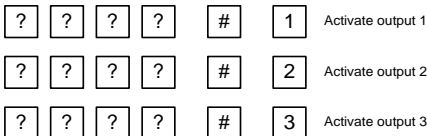
The keypad should now be in programming mode, ready to accept new data.

Using the keypad

Using the standard codes...

Once you have exited out of programming mode, simply enter the user code.

Using super user codes

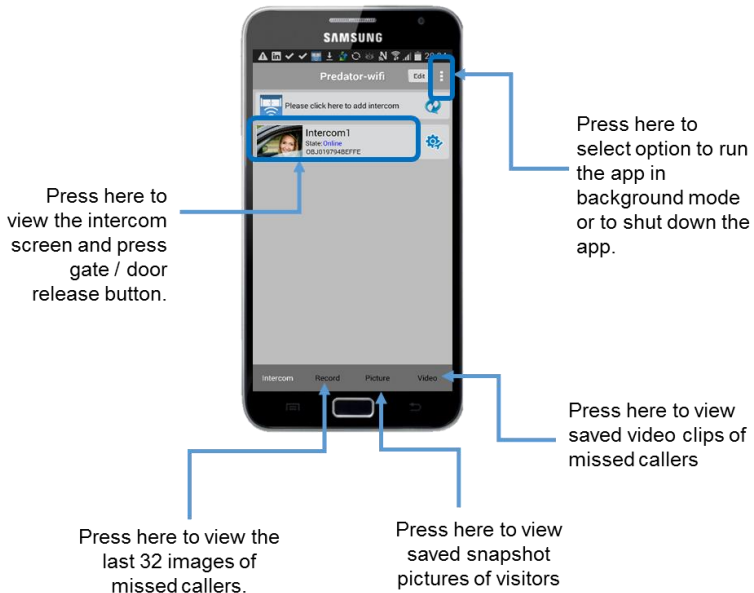


Using the Intercom on Android

When the intercom calls your phone, answer the call and note the options shown..



Other options...

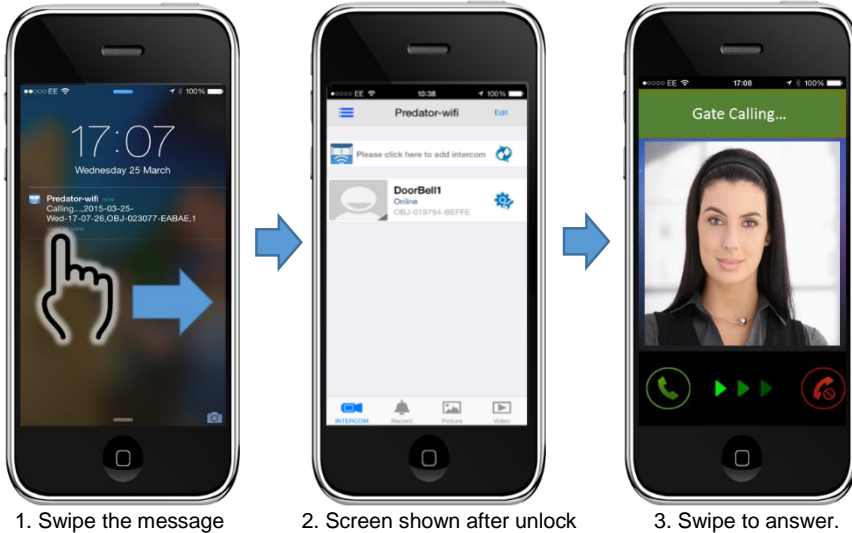


Using the Intercom on iPhone

When the intercom calls your phone, answer the call and note the options shown.

Note: Apple devices will require the user to accept and allow a notification message first, before the app can be successfully used.

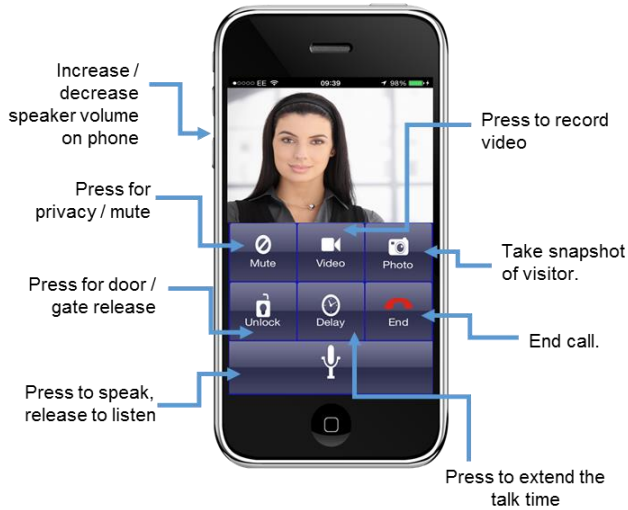
From a locked screen...



Receiving a call when the screen is not locked operates as follows...



Once the call is answered, the following screen is shown...



Other options for using the app...

You may view live video from the intercom at any time as shown below.



Fault Finding

The 3 most common cause of failures on the wifi intercom are as follows...

1. Unstable wifi network or excessive network traffic.
2. Range too long causing wifi drop out intermittently.
3. Excessively long power cable run from the 24v dc adaptor to the intercom causing poor range, no video, long connection times, or unstable operation.
4. Using 24v ac to power the device rather than the 24v dc adaptor supplied. This can damage the intercom.

Q: Unit works in the house, but will not work at the gate.

A: This will either be that the wifi range does not reach the gate, or the power cable is too long and thin. Please address as per the install manual recommendations.

Q: Unit was working on first phone, but not on second phone.

A: Check that both phones have different usernames and passwords.

Q: Unit works on local WiFi network, but not when my phone is on 3G or 4G.

A: This may be due to a slow upload speed. Please check it is at least 1 Meg UPLOAD.

A: This may also be due to firewall settings on some routers or networks. This can be overcome by opening ports to the MAC code of the intercom or if it is hard wired, open a port to the IP address of the unit. The recommended ports to assign are 6806, 6809 and 9123, 9124. It is recommended that this be carried out by your network administrator. You can find the MAC code of the device by running the Predator firmware updater tool at www.aesglobalonline.com/downloads.htm or calling technical support.

Q: Unit goes offline for several minutes when I switch from wifi to 3G/4G.

A: This is normal. Your phone needs time to send its new IP location to the servers, which is relayed to the intercom.

Q: Volume too low on my phone (cannot hear person at the gate).

A: The volume on your phone is restricted by the size of the loud speaker on the phone. Try increasing phone volume to maximum. Also check that the call point location is at a good height for someone to speak directly into the microphone.

Q: The intercom was working, but has stopped working.

A: Check if it is working on another phone. If yes, then restart and re-open the app on the phone in question.

A: If it is not working on any phones, re-start the router or hub, wait 5 minutes and try again.

A: Check the intercom still has power (illumination should still be on).

A: Check that the antenna at the gate is not overgrown with bushes or shrubs.

A: Check minimum power cable requirements have been met.

Q: On iPhone, sometimes the call is not connecting when I try to answer, or ends prematurely.

A: Go into system settings on the app and increase the calling time to at least 45 seconds and try again.

Q: On iPhone, when a call is received and I open the app, the ringing tone continues after I have answered?

A: This happens when the notification is not accepted first. You must accept the notification on screen and then allow the app to open itself and then swipe to answer the call.

Q: I am using iPhone, and I do not hear any ringing tone when the intercom calls me?

A: Check the ringer switch on the iPhone is set to the ON position, and check media volume is set to a high level.

Q: The intercom is working, but I cannot get the electric lock working.

A: If you can hear the intercom relay clicking, and you can prove that the relay is making contact with a multi-meter, then the problem is not the intercom. It will be either a wiring problem or some other issue with the lock. Please note that the manufacturer of this intercom is not in a position to give wiring advice on door access or electric locks. It is recommended that you consult a professional access control installer for advice.

Q: The intercom is working and I can monitor the gate, but when someone calls from the intercom, the app tries to connect but only displays a “Refresh” symbol.

A: This is caused by the router denying the predator access to your network. In some cases and particularly in commercial premises, a third party firewall is enabled and will block any incoming communication from the Predator Intercom but will allow outgoing connections to the intercom. This can be overcome by opening ports on the router to allow the Predator to communicate to the network. The recommended unassigned ports are 6806, 6809 and 9123, 9124. It is recommended that this be carried out by your network administrator.

Before calling technical support for any connectivity issues, try the following...

Power off and on the intercom, the hub, and the phone being used. After 5 minutes, try using the intercom again.

Revision Changes

Hardware	Firmware version	IOS version	Android Version
V1.1 – Improved speaker amplifier for louder volume.	V3.24.4.12 – Relay default set to N/O.	V1.0 – Custom ring tones added, relay defaulted to 1 second.	V3.0 – Customised ring tones added, relay defaulted to 1 second.
	V4.3.12.20 – Migrated to commercial push server system for iphone users.	V1.4 – Ringing tone replaces push notification alert for iphone users.	V3.2 – App updated for android version 5.2.
	V4.3.12.30 – Improved audio when using lower speed 3G networks.		V3.3 – Update to allow faster switching between wifi and 3G/4G connection. Battery consumption also reduced.
			V3.4 – Update to work better with firmware version V4.3.12.30 for 3G audio in slower speeds.
NEW PRO Version Starts HERE. Changes to algorithm to improve voice on poor 3G phone connections.			
V1.1 (unchanged).	V4.3.12.39 – New PRO version firmware.	V1.0 – optimised for audio on 3G.	V1.0 – optimised for audio on 3G.
	V4.5.12.11 – New nuclear firmware assembly for greater stability.		

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