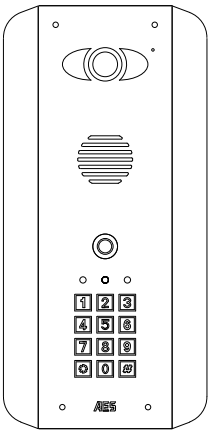
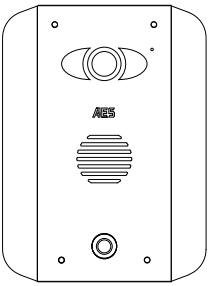
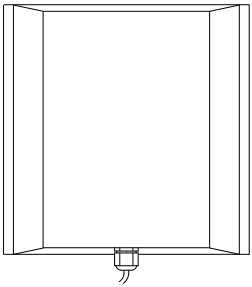
Installation Instructions

For

WiFi-Predator







PUSH Version

Manual version 3.4

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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!

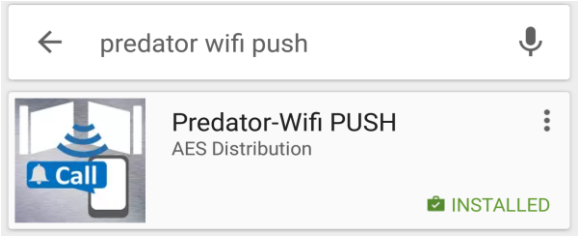
The WiFi network is WPA or WPA 2 type security.
(WEP is older, less secure protocol and will not operate with this product).

IMPORTANT:

BENCH TEST & COMMISSION BESIDE ROUTER BEFORE INSTALLATION

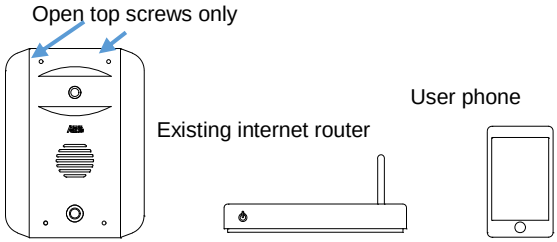
Android Configuration

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 PUSH**", and find the icon shown on the Google Play store. Then download and install the **PUSH** version to the users phone.

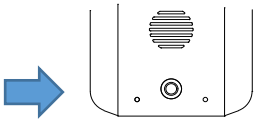
Step 2



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).

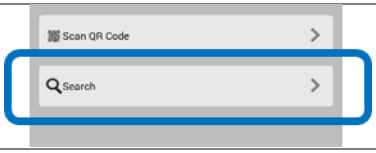
Select this network.

Step 6

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

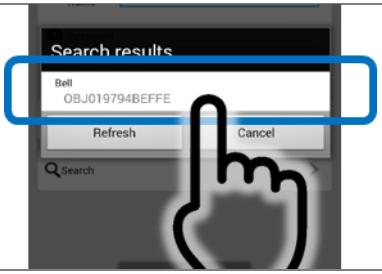
Step 7

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



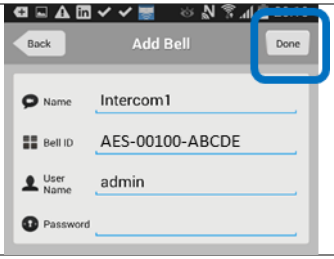
Step 8

Press **SEARCH.**



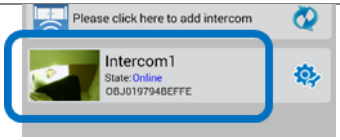
Step 9

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,
Username: admin
Password:**LEAVE BLANK**
Press **DONE** to confirm.



Step 10b

The phone and intercom should now be DIRECTLY connected and display ONLINE status. Press as shown and check that there is video and audio.

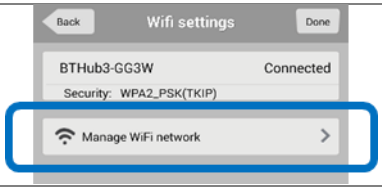
IMPORTANT

If video and audio is working, then the product is working perfectly. Should you have problems after this step, then it is likely either networking, setup or a range issue. Consult technical support in such an event.

Step 11

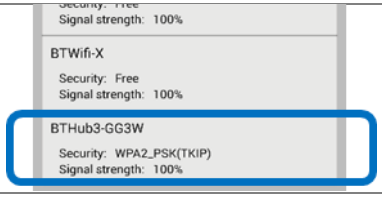
The normal user screen should now appear as shown. The status of the intercom should now show **ONLINE**.

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 sucessful, 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 14 to see how to add additional smart phones or devices.

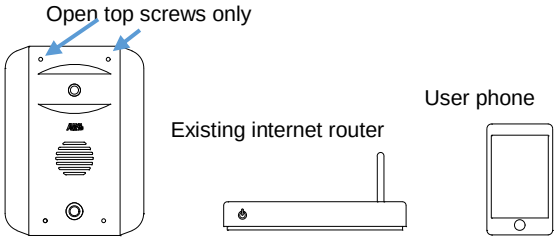
I-phone Configuration

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.

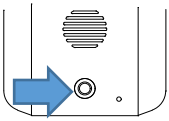
Step 2



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.

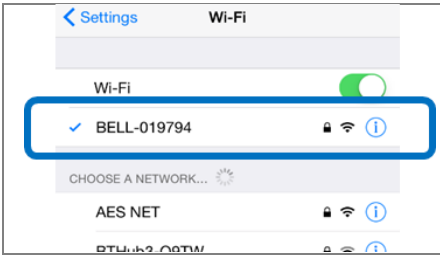
Step 3

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



Step 4

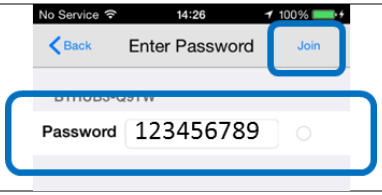
Press and hold the call button for more than **3 seconds**. The intercom will sound a long tone, and now be in configuration mode for 5 minutes.



Step 5

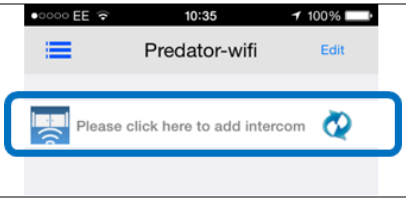
Enter settings on the apple device, select WiFi and scan for networks. The phone should detect the intercom. The network name will be BELL-XXXXX).

Select this network.



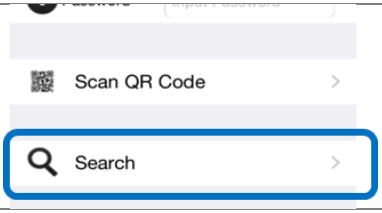
Step 6

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



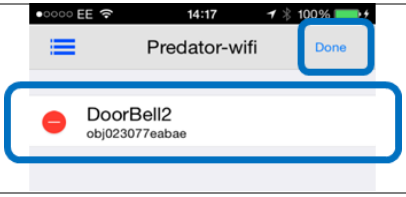
Step 7

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



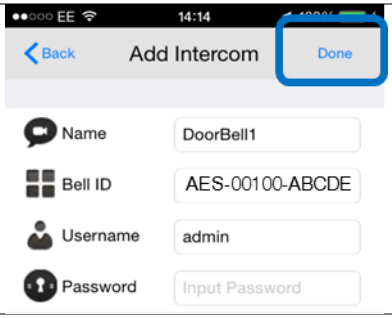
Step 8

Press **SEARCH.**



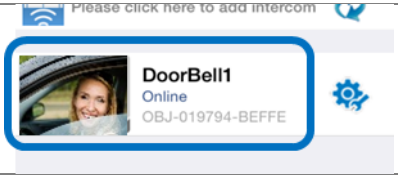
Step 9

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,
Username: admin
Password: LEAVE BLANK
Press **DONE** to confirm.

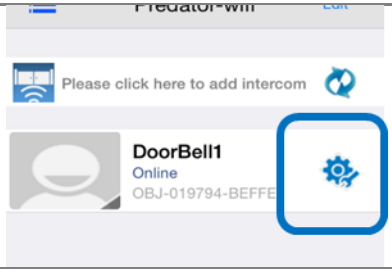


Step 10b

The phone and intercom should now be DIRECTLY connected and display ONLINE status. Press as shown and check that there is video and audio.

IMPORTANT

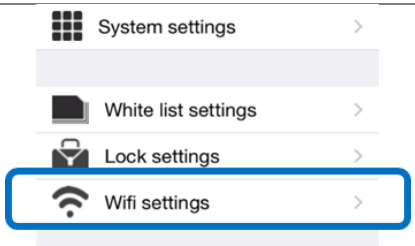
If video and audio is working, then the product is working perfectly. Should you have problems after this step, then it is likely either networking, setup or a range issue. Consult technical support in such an event.



Step 11

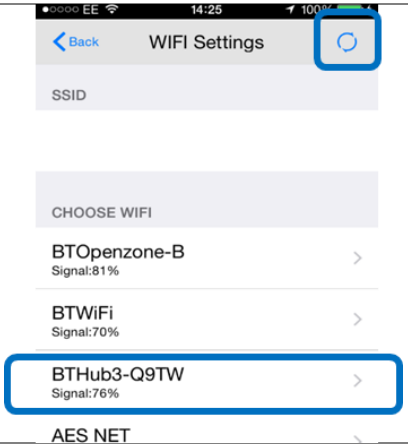
The normal user screen should now appear as shown. The status of the intercom should now show **ONLINE**.

Press the **SETTINGS** button as shown.



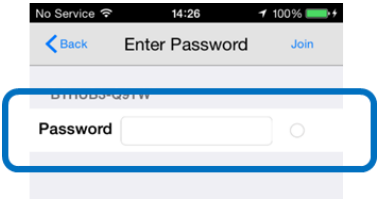
Step 12

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

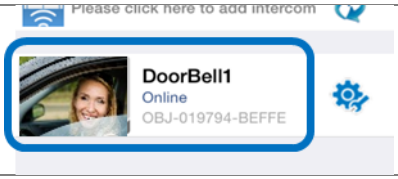
Enter the wifi password and press **JOIN**.

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.

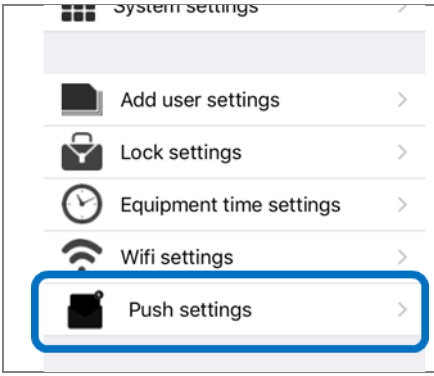
Step 15

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



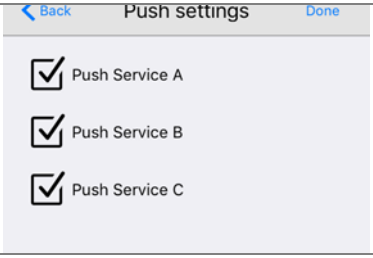
Step 16

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



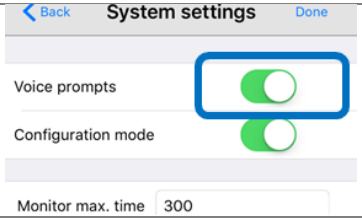
Step 17

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



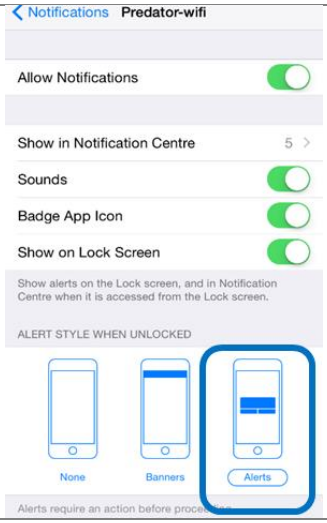
Step 18

To ensure your phone definitely gets a notificaton 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**.

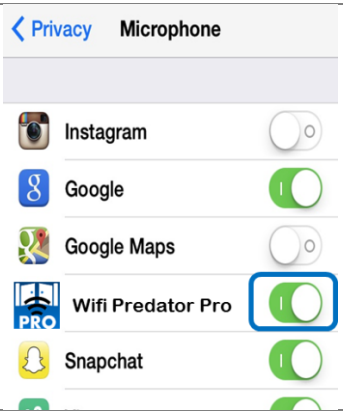


Step 20

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 users i-phone 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!

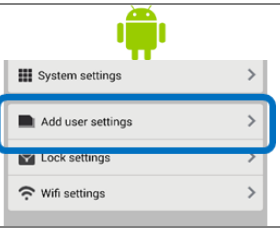
Adding Additional Smartphones or Devices

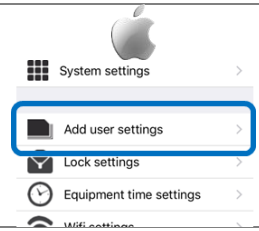
TIP: This is a different and simpler process than adding the first Admin phone.

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

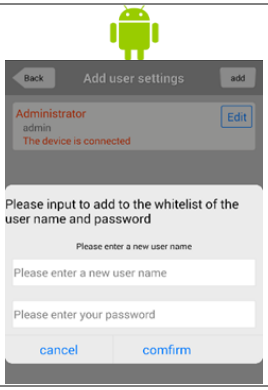
On the **ADMIN** Phone…

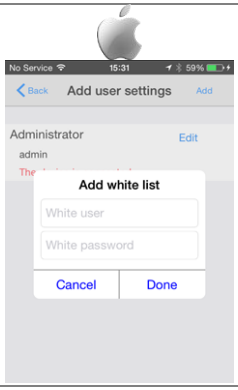
Step 1
Enter settings.





Step 2
Enter “Add user Settings”.

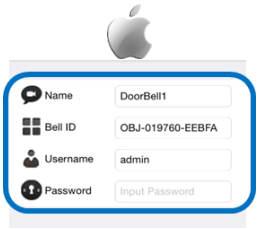




Step 3
Press ADD to display the screen shown.
Now create new user names and passwords for each device you wish to connect. Each device MUST have a unique username.
TIP: Username min 5 characters. Password min 6 characters. Both case sensitive.

On the **NEW** Phone…

Step 4
On the new device, install the app, open it, and press “Add Intercom.



Step 5

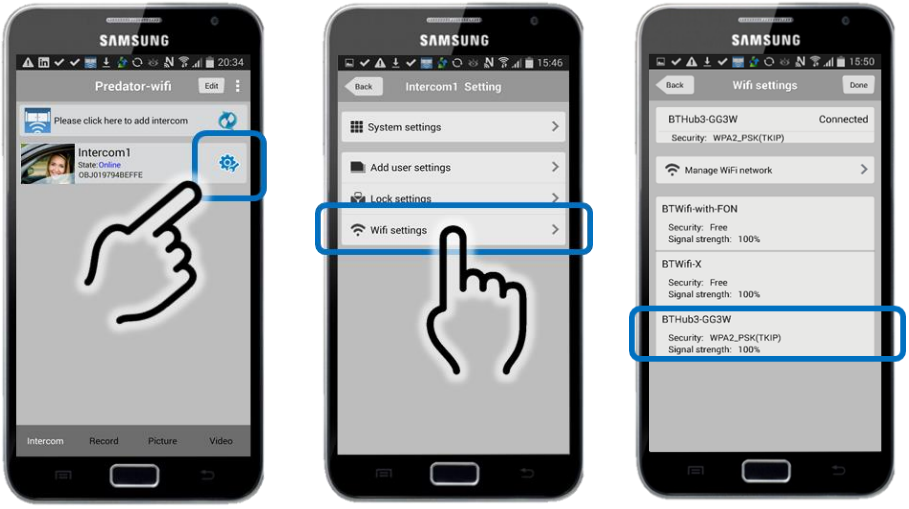
Now enter the following...
1. Bell ID (copy this from admin phone).
2. Change admin username to the **new** user name you created for this device.
3. Enter the password you created for this device & press DONE.

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

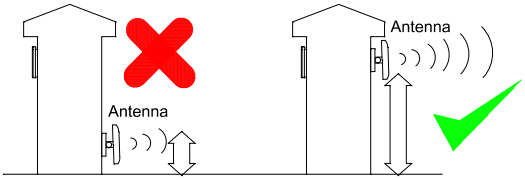
Before fully installing this product, it is strongly recommended to **temporarily** power the intercom at the gate and position the antenna to check that it is within range of the WiFi router**. The manufacturer will not give a full refund for a product which is not returned in brand new condition.**

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..

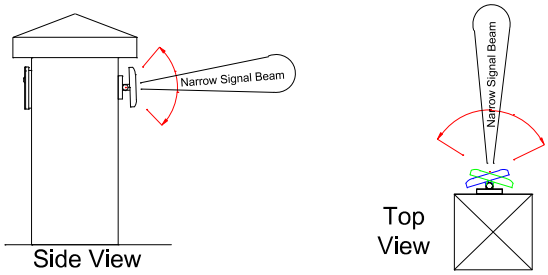


Check that the network which it is connected to is showing at least 20% strength. If it is not connecting, or is lower than 20%, then corrective action must be taken at this stage. Suggestions are as follows..

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

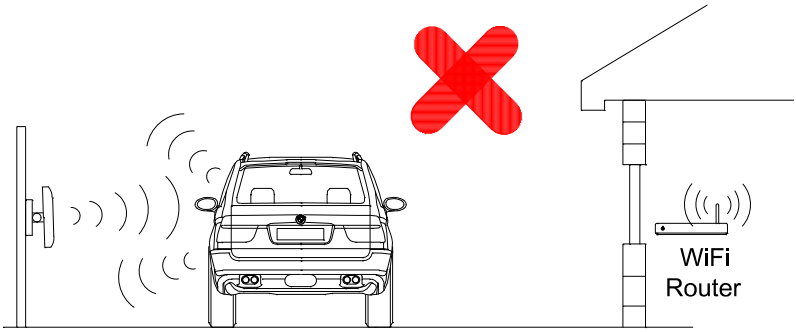


2. Change antenna angle slightly then re-scan the WiFi strength as shown above to check for improvements in strength. If signal improves, then continue to make small adjustments to the antenna angle and pitch to maximise strength.

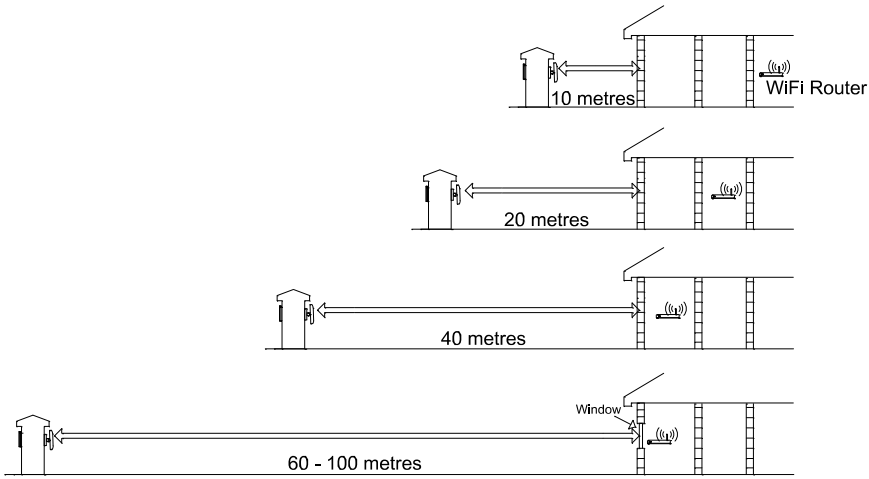


TIP: Antenna beam width is approximately 40 degrees. For short range door intercoms, ask your distributor or dealer for an omni-pole type antenna with 360 degree beam angle.

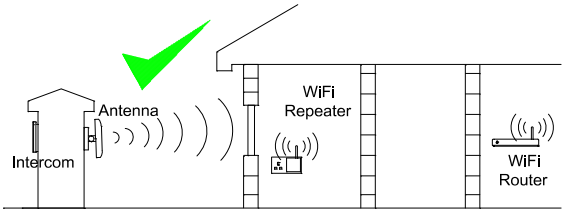
TIP: Vehicles interrupting line of sight can totally block wifi signals.



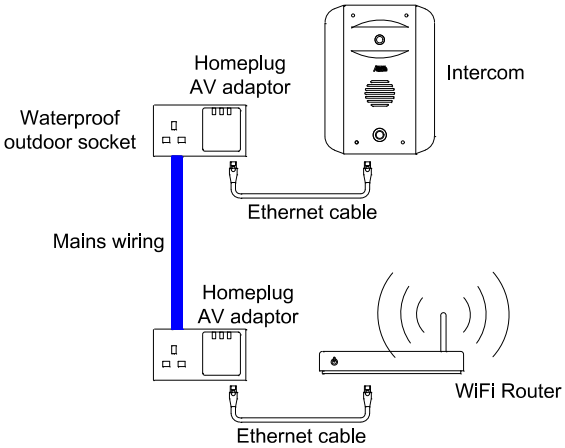
3. For longer range applications, check if the router is, or can be located at the front of the building, preferably near a window or glass, as this will greatly extend range as shown.



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.

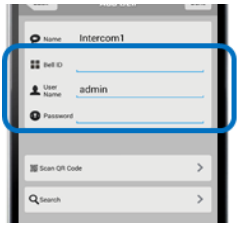


5. For even greater range, you can alternatively connect home plug power line adaptors to the LAN socket on the intercom and on the home router.



Note: The power to the gate needs to be on the same RCD trip as the power connected to the router for this option to work. Always consult a qualified electrician regarding mains wiring.

Connecting via cable or LAN adaptors

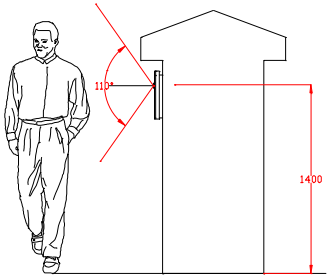


To setup the device with any form of either direct LAN connection cable, or homeplug adaptor, there is no need to go through the complete wifi setup.

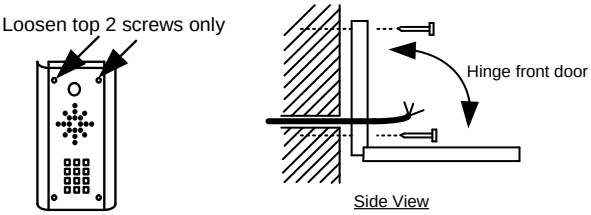
Simply open the app, press “Add an Intercom” and enter the Bell ID / serial number of the device AES-xxxxx-xxxxx, along with the admin login and the default blank password, press DONE, and it should connect to the first device.

Installation

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



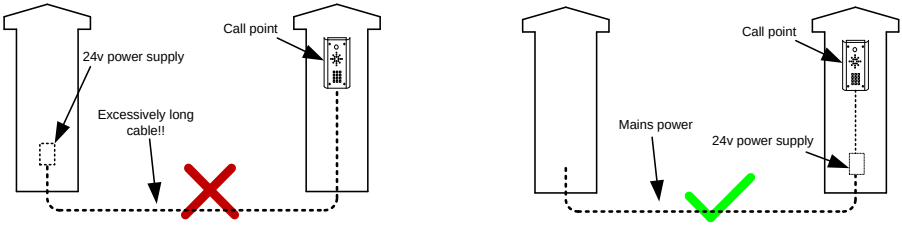
Mount the intercom at the desired height for pedestrian or car users. The camera angle is wide at 110 degrees to cover most scenarios.



Tip: Do not drill holes in the wall with the intercom in positon, 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.

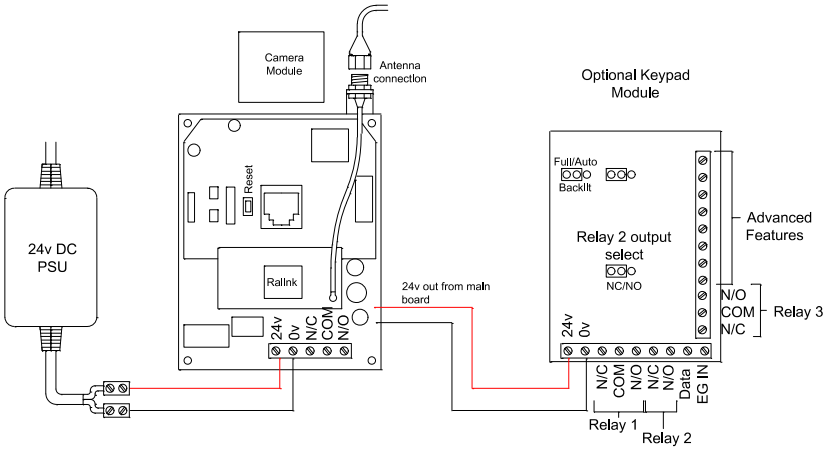


TIP: Most technical calls received are due to installers using CAT5 or alarm cable to power the unit. Neither are rated to carry enough power (1.5 amp peak). Please use following cable sizes…

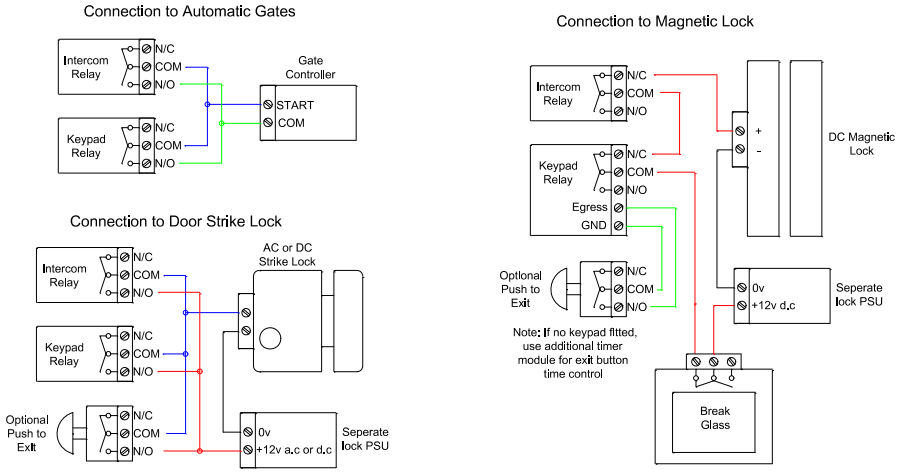
Up to 2 metres (6 feet) – Minimum 0.5mm^2 (20 gauge)
Up to 4 metres (12 feet) – Minimum 1mm^2 (16 gauge)
Up to 8 metres (24 feet) – Minimum 1.5mm^2 (14 gauge)

Wiring

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



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.



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 normally 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..

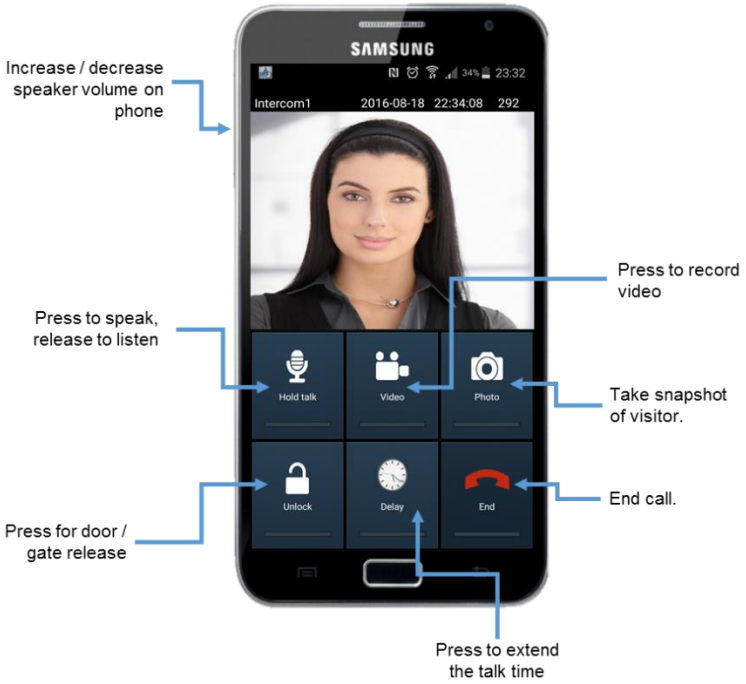
Using the Intercom on Android

The android app now can operate in background mode for instant calling effect, or to save battery consumption, you can close the app and use the Google PUSH notification service as follows..

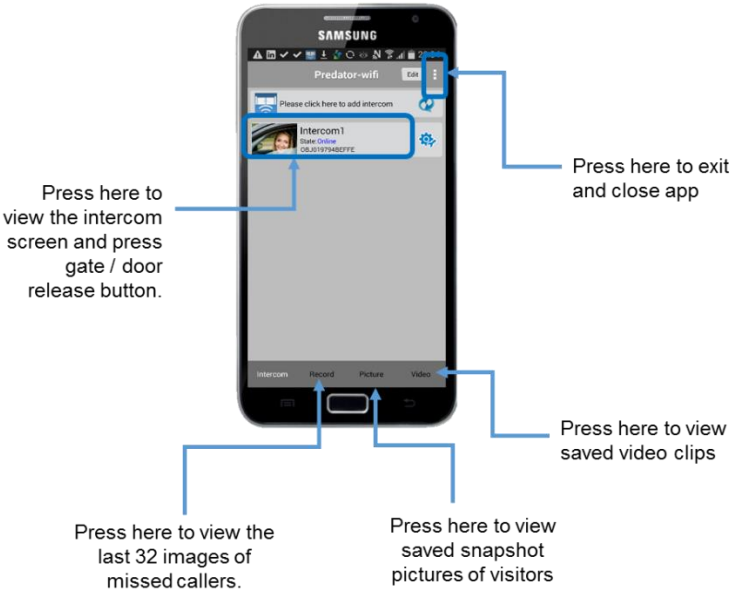
1. Touch the notification and if needed unlock the phone.
2. Wait a few seconds for the app to launch.
3. Swipe to answer once the ringing screen appears.

Note: From an unlocked screen the notification appears at the icon top banner. Drag down and activate the notification to answer a call.

Other options…



Other options…



Using the Intercom on iPhone

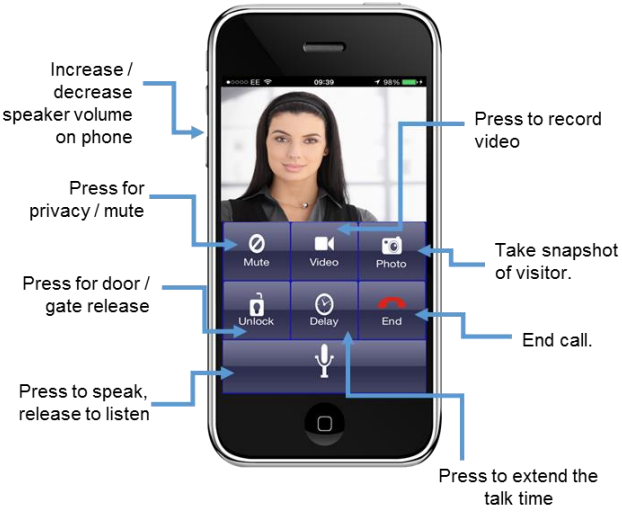
When the intercom calls your phone, answer the call and note the options shown.
Note: Apple devices will not allow a calling app to launch without receiving a notification first.
From a locked screen…

1. Swipe the message. 2. Screen shown after unlock. 3. Swipe to answer.

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

1. Accept the message. 2. Screen shown afterwards. 3. Swipe to answer.

Once the call is successfully answered, the options shown below are available.

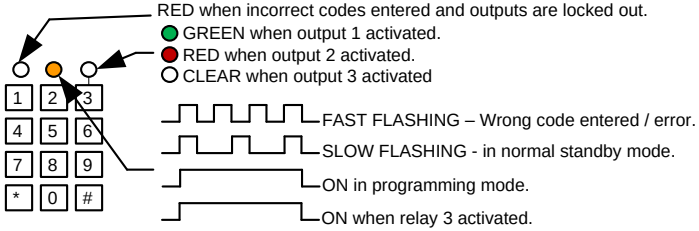


Other options…

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

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…

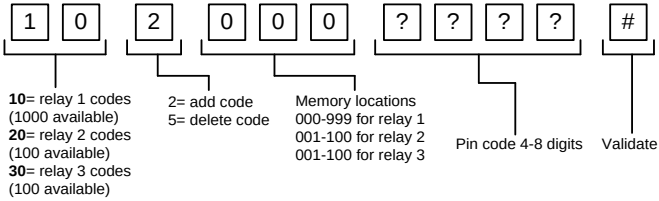
[0] [1] [?] [?] [?] [?] [#]

Location | 4-8 digit code | Validate

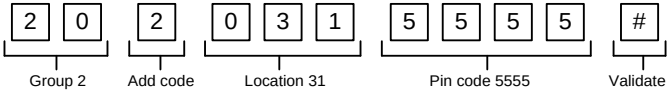
Replace ???? with your new ENGINEERS code.

Enter or delete new user codes

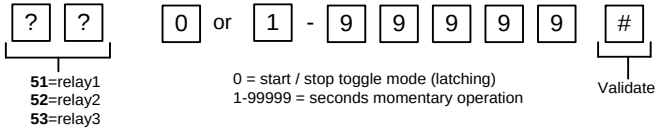
There are 3 groups of user codes. Group 10 for relay 1, group 20 for relay 2, and group 30 for relay 3. The programming sequence is shown below…



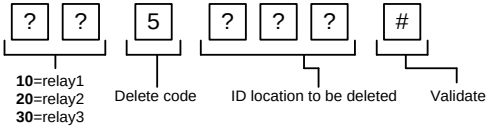
Example: Add user 31 to have access code 5555 operating relay 2….



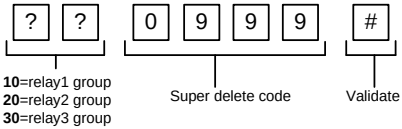
Programming relay output times and modes…



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

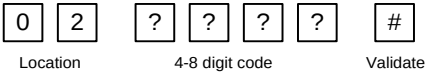


Delete an entire group of codes



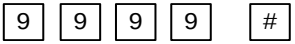
Programming super user codes…

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..

8	0	8	0	*	*

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.

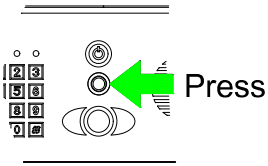
Using super user codes

?	?	?	?	#	1	Activate output 1
?	?	?	?	#	2	Activate output 2
?	?	?	?	#	3	Activate output 3

Troubleshooting

Quick Test

If your intercom is not calling phones, or is delayed or not connecting at all, the following test is a quick method to establish whether the problem is likely to be an installation / site issue, or an issue with the device. Perform the following steps:

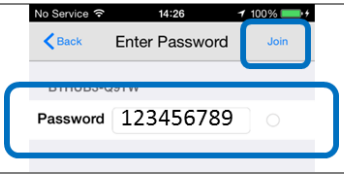


Step 1

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.

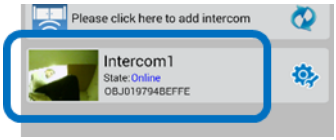
Step 2

Enter wifi settings on the phone and connect to the bell network.



Step 6

Enter the following DEFAULT password… 123456789. Note that this may already be stored in the phone.



Step 7

Now open the intercom App on the phone. The intercom and the phone should be DIRECTLY connected together, and showing Online status.

If you have an online status, press as shown and check there is video feed and audio.

IMPORTANT: If you have video and audio, then your intercom is **working** and not likely the cause of your problem. Check further trouble shooting tips below and if necessary call technical support for assistance.

If everything works up to step 7 but does not show online status, then the problem is likely a configuration error. Delete the intercom settings from the app, restore defaults on the intercom by pressing and holding the reset micro-switch (located beside the LAN socket) for 3 seconds, and start the installation process again.

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 slow broadband speeds at your router. Remember, a good download speed is not useful, as the intercom uploads video to the internet, not downloads from the internet. Consult your broadband provider, re-start your router. Minimum recommended upload speed is 0.5 Meg, however this may need to be much more for heave use networks.
A: This may also be due to firewall settings on some routers or networks. Consult your IT manager or provider.

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

Top Version	Panel Version	PCB version	Firmware version	IOS version	Android Version
	1	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.
	1		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 OS version 5.2
	1				V3.3 – Update for faster switching between wifi and 3G/4G. Also lower battery consumption.
New PRO version starts HERE.					
	1	V1.1 - Unchanged	V4.3.12.39 – Optimised for audio priority on 3G.	V1.0 – New algorithm to improve audio on 3G.	V1.0 – New algorithm to improve audio on 3G.
	1		V4.5.12.11 – New nuclear firmware build for greater stability.	V1.1 – Solve database library errors due to Amazon server issue.	
Google PUSH for Android Starts HERE					
1.2.5	1	V1.1	V4.5.11-12.24.20160726 (PC software shows as 4.5.11.24) – New firmware to allow PUSH notifications on Android devices.		V4.5 – Predator-wifi PUSH app created to allow Google PUSH notifications and save battery.

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