

# Praetorian Guard 4G - IP Intercom with Integrated 4G Router



STILL HAVING TROUBLE?  
Find all of our support options such as Web Chat,  
Full Manuals, Customer Helpline and more on  
our website:  
[WWW.AESGLOBALUS.COM](http://WWW.AESGLOBALUS.COM)

\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RESTOCKING FEES \*

## Install Preparation

Ensure you read all instructions before continuing. An active nano 4G SIM card with data allowance is required for correct operation.

1

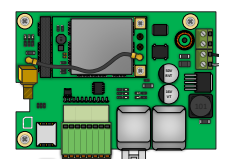


**Note:** Data allowance required per month will be dependent on how often the intercom is used to view the camera. Guidelines are:  
**Low Activity – 1GB p/month\***  
**High Activity – 3GB p/month\***  
  
\*Ensure you monitor the system closely if it has activity to ensure you do not go over any data limitations to avoid additional costs from your network provider.

## Setup 4G Router

Follow the Quick Guide overleaf.  
**Computer is Required for this step.**

2



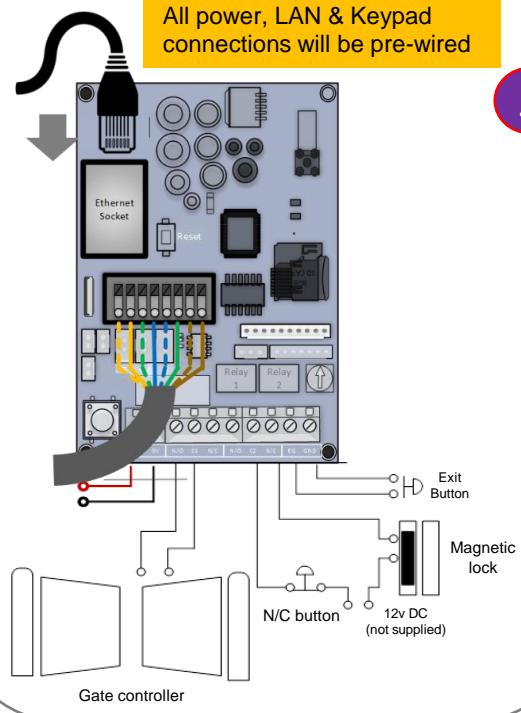
**Please Turn Over**

**Step 1 & 2 must be completed before Install!**  
Please see additional support and on our website.

## Relay Connections

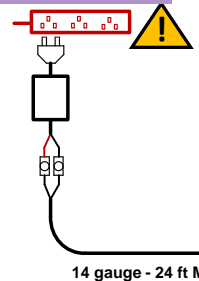
All power, LAN & Keypad connections will be pre-wired

5



## Site Wiring

Use 110V surge protection!



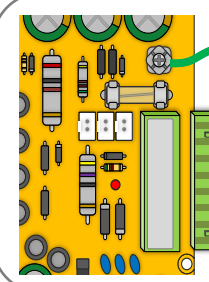
3

## Power

To Earth Rod!

24V DC IN (PSU included)

4



## SITE SURVEY



I have 4G signal at the gate with my phone! If not, STOP



I have at least 1.5Mbps UPLOAD speed. If not, STOP!

**Note:** When using our 4G access point the upload speed will be influenced by the GSM signal being received. With a high signal level the access point can pull approx. 10Mbps upload.

The Praetorian Guard is specially designed to transmit the video and audio stream using on average 400 KBit/sec (peaking to 1Mbps). This loosely translates to requiring a minimum of 1.5Mbps UPLOAD speed on the network that the intercom is connected to. The higher the upload speed the better quality of image up to approx. 4Mbps.

If you have a good GSM signal for the network being used you can expect to have an upload speed of up to 10Mbps.

## POWER CABLE

KEEP POWER SUPPLY AS CLOSE AS POSSIBLE.

**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! ( 1.2amp peak )

*Please use the following cable:*

- Up to 2 metres ( 6 feet ) – Use minimum 0.5mm<sup>2</sup> ( 18 gauge )
- Up to 4 metres ( 12 feet ) – Use minimum 0.75mm<sup>2</sup> ( 16 gauge )
- Up to 8 metres ( 24 feet ) – Use minimum 1.0mm<sup>2</sup> ( 14 gauge )

**Power Consumption:**  
Standby = 80mA  
Calling Out = 300mA

## EARTHING

This product **MUST** be EARTHED in the following states in order to qualify for manufacturers warranty

FL, LA, MS, AR, OK, MO, AL, IL, KY, TN, IN, KS, SC, GA, IA, TX, OH, NC, NE, MD, WV, VA, DE



EXTRA RESOURCES

## NEED MORE ASSISTANCE?

+1 (321) 900 4599

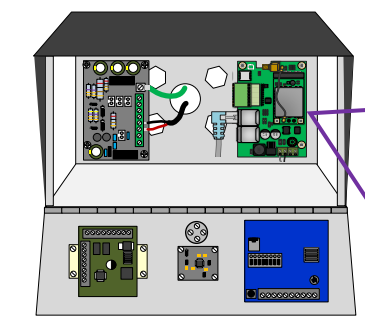
SCAN THIS QR CODE TO BE BROUGHT TO OUR RESOURCES PAGE.

VIDEOS | HOW-TO GUIDES | MANUALS | QUICK START GUIDES

**LIGHTNING PRONE AREAS MUST USE SURGE PROTECTION FOR POWER SUPPLY!**

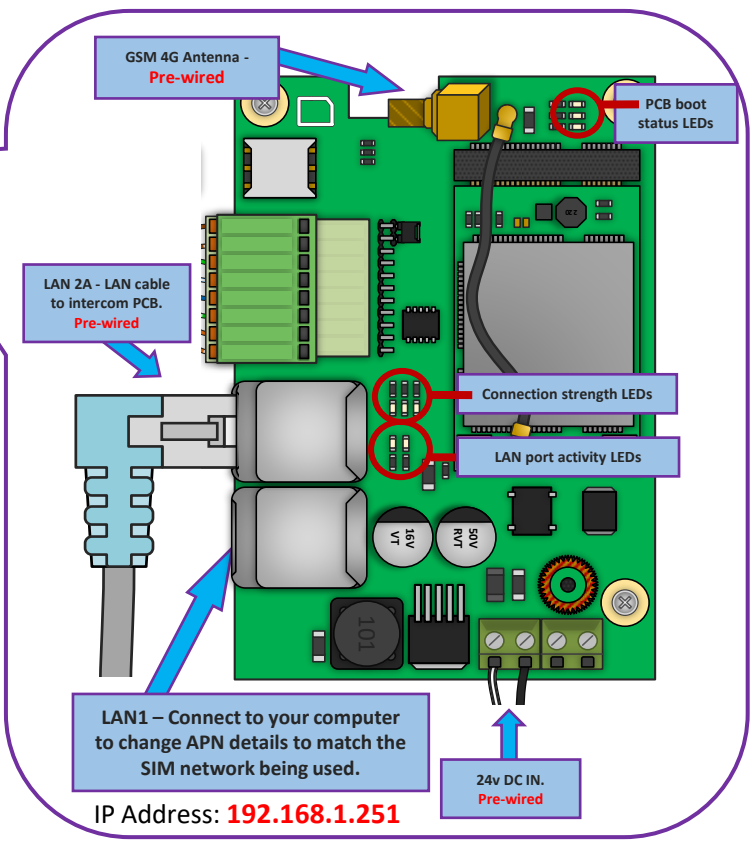
\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RESTOCKING FEES \*

## Setup 4G Router



APN (or Access Point Name) settings contain information that's needed to make data connections and provide an internet connection for your IP intercom.

If you are using a T-Mobile SIM the settings will be automatically set up so you can use the 4G router straight away.



IP Address: **192.168.1.251**

**Note:** If you wish to use a different network then the APN settings need changed. This will require a computer with a RJ45 LAN port connection.

  
**Computer Required!**



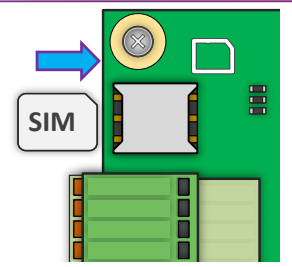
## - ATTENTION! -

This module will come the APN pre-set for the T-Mobile SIM that is provided with the unit. Once the SIM has been setup with a data package then this module will provide an internet connection for the main PCB.

Please contact support if you need assistance programming a different APN for another network.  
**+1 (321) 900 4599**

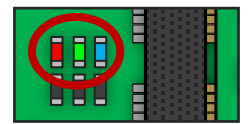
## SIM ORIENTATION

**ALWAYS** ensure that the system is switched **OFF** any time you are adding or removing the SIM card and also ensure that the orientation is correct before powering the router back on.



## PCB BOOT STATUS LEDS

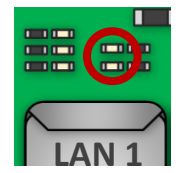
When the PCB has successfully booted up you should have activity on all 3 LEDs:



**RED:** Constant ON = **PCB Powered ON** | Constant OFF = **PCB Powered OFF**  
**GREEN:** Steady Flash = **Connected to Network** | Constant OFF = **Not Connected**  
**BLUE:** Steady Flash = **Standby Mode** | Constant OFF = **Booting / OFF**

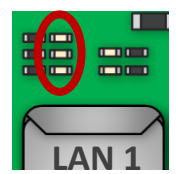
## DATA TRANSFER LEDS

The 2 LEDs behind LAN 1 Port will flash **GREEN** when you have connection activity.



## SIGNAL STRENGTH LEDS

The 3 LEDs behind LAN 1 Port will illuminate **WHITE**.  
- Flashing = 3G signal  
- Solid On = 4G signal



## Did you know?



We also offer addition viewing points with our external IP CCTV cameras. (release TBC)

We offer a wall mounted monitor that can be mounted inside your property for convenience when receiving calls while at home.



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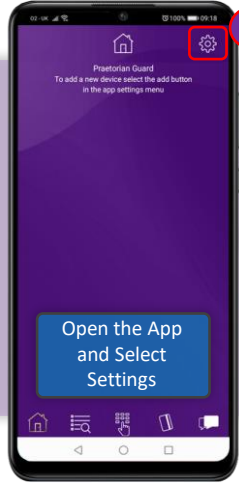
## 1 Download the programming/user app. 'Praetorian Guard'



Note: Slight differences will be seen between the Android and iOS app versions, any major differences will be highlighted in the screenshots below.




## Add Intercom to Device



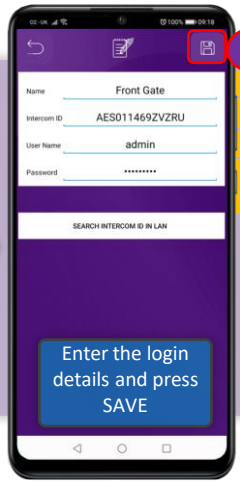
1

Open the App and Select Settings



2


Select Add New Device



3

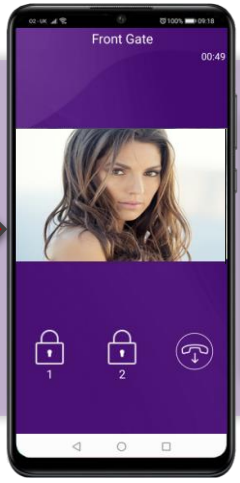
Enter Reference Name  
Enter Intercom ID  
Enter "admin" for the user  
Enter "123456789" as the default password

Enter the login details and press SAVE



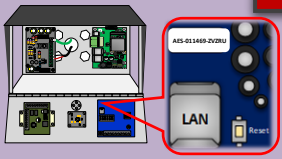
4

Ensure Intercom is ONLINE & View the Camera



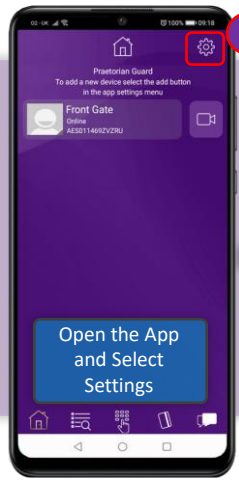
5

If you can see live video and hear audio, the intercom has successfully connected to the network.  
If for some reason this does not work, ensure the 4G router is connected correctly and configured.



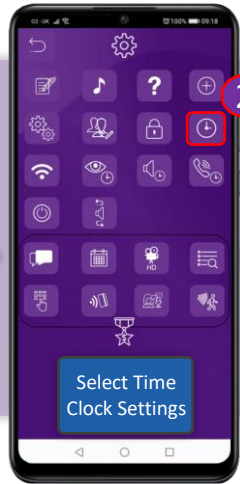
Tip: The intercom ID number can be found on a sticker beside the LAN port connection. (RJ45 connector may need removed to see the full ID.)

## Time Sync



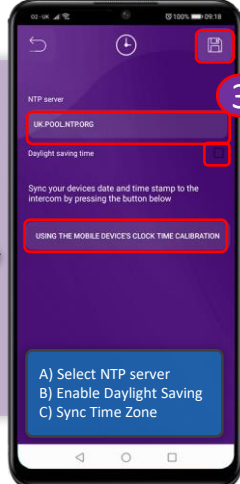
1

Open the App and Select Settings



2

Select Time Clock Settings

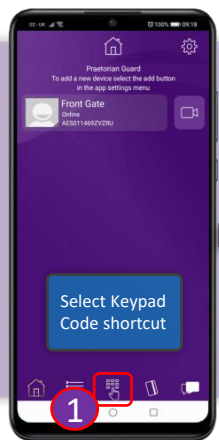


3

Sync your devices date and time stamp to the intercom by pressing the button below  
USING THE MOBILE DEVICE'S CLOCK TIME CALIBRATION

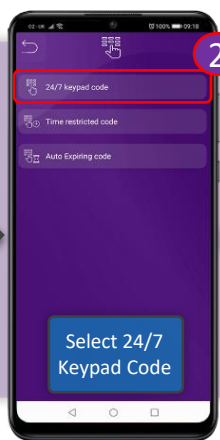
A) Select NTP server  
B) Enable Daylight Saving  
C) Sync Time Zone

## Add Keypad Code \*Keypad Models Only



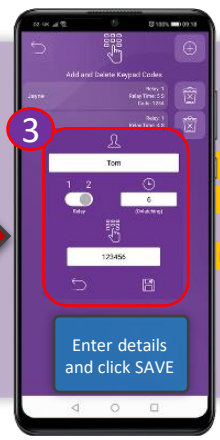
1

Select Keypad Code shortcut



2

Select 24/7 Keypad Code



3

Enter details and click SAVE

Enter Reference Name  
Select Relay Option & Time  
Enter 4-6 digit code



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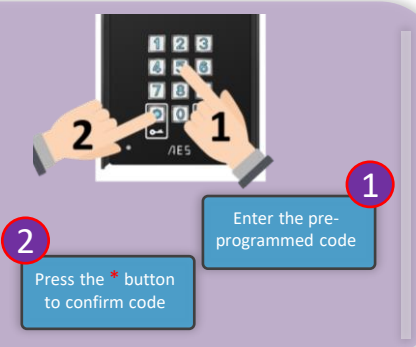
Download the programming/user app. 'Praetorian Guard'



Note: Slight differences will be seen between the Android and iOS app versions, any major differences will be highlighted in the screenshots below.



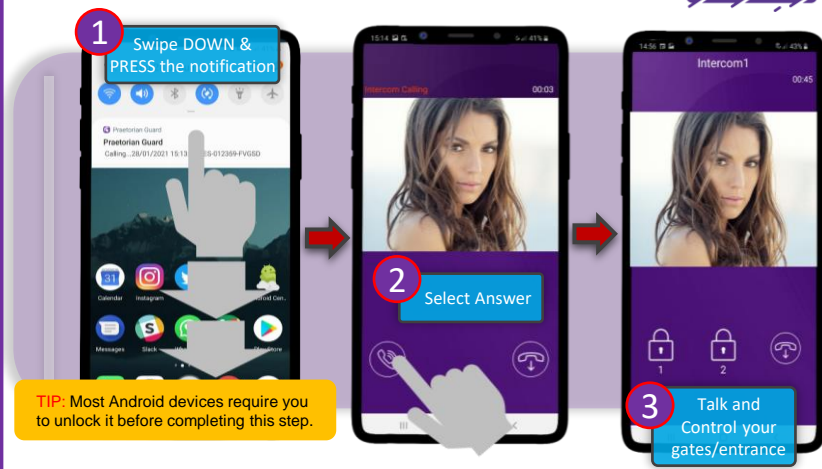
## Test Keypad Code



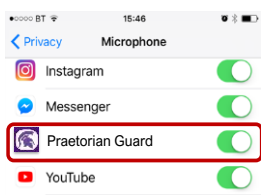
## Test Push Notifications & Relay Code



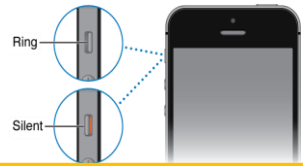
## Answering on Android



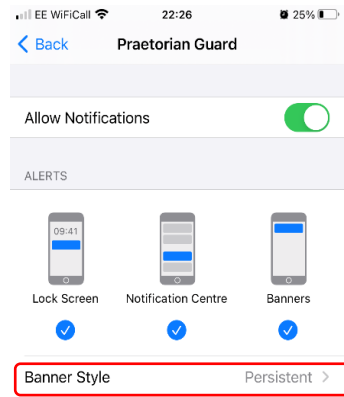
## Additional Apple Settings



TIP: If there is no voice from the speaker at the gate, check the iPhone microphone permissions in Settings > Privacy / Microphone

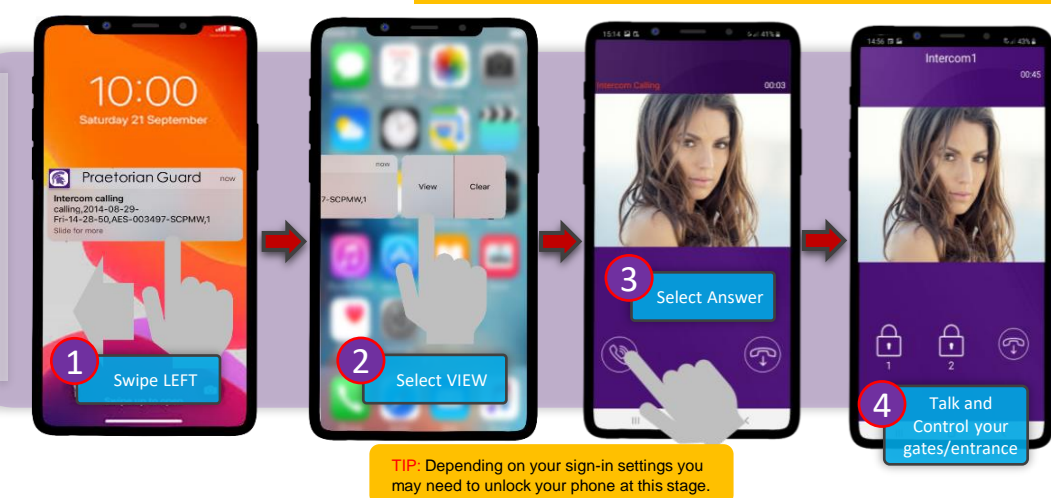


4 TIP: Make sure ringer switch is ON and volume is turned up.



TIP: If you don't get notifications then check the banner style in Settings > Notifications and select Praetorian Guard.

## Answering on iOS (Apple)



Note: Various versions of iOS and Android OS will have different notification acceptance techniques. Please refer to online support for your device if needed.

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Note: Slight differences will be seen between the Android and iOS app versions, any major differences will be highlighted in the screenshots below.



## Adding Additional APP Users: Create User Account



1. Open the App and Select Settings

2. Select Users

3. Select Add New User

4. Enter a Username & Password & Click Save

Admin Device!

## INTERCOM MAINTENANCE

Bug ingress is a common issue in unit failures. Ensure that all components are sealed accordingly and check occasionally. **(Do not open the panel in the rain / snow unless correctly equipped to keep the internals dry. Ensure the unit is securely closed after maintenance)**

If you have an AB, AS, ABK, ASK callpoint it will have silver edges which are marine grade stainless steel so in normal weather conditions should not rust however it can dull or discolor over time. This can be polished with a suitable stainless-steel cleaner and cloth.

## 4G ROUTER MAINTENANCE

If using a pre-pay casual SIM card it will need topped up occasionally. It is recommended to advise the home owner / end user to register the SIM card on the provider's web site if available. Most major networks allow registration of card payment details for an auto top up feature, which means they will automatically top up your intercom when the balance runs low or in some cases, they offer a low balance reminder to be sent if they do not wish the auto top up feature.

## ENVIRONMENTAL INFORMATION

The equipment that you bought has required the extraction and use of natural resources for its production. It may contain hazardous substances for the environment. In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems. Those systems will reuse or recycle most of the materials of your end-of-life equipment.



The crossed-bin symbol marked in your device invites you to use those systems.

If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration. You can also contact AES Global Ltd for more information on the environmental performances of our products.

## Adding Additional APP Users: Add Intercom to New Device



1. Open the App and Select Settings

2. Select Add New Device

3. Enter Intercom ID and Password

4. Enter Name, Intercom ID, User Name, and Password

NEW Device!

Note: Maximum 8 separate users and devices.

## WARRANTY

Please note, by installing this product, you are accepting the following warranty terms:

1. The manufacturer's warranty is a "return to base" 2 year warranty from date of manufacture. This means that any suspected defective components or items are returned to the manufacturer's agent for investigation and diagnosis and returned at the cost of the customer.
2. The warranty does not cover, nor is the manufacturer or agent responsible for any of the following whatsoever: Storm damage, lightning or surge damage, flooding, accidental damage, vandalism or deliberate damage, unexplained corrosion or unusually harsh environments, failure of telephone networks, future un-interopability between the product and network providers which cause malfunction due to changes implemented by the phone providers after manufacture of the product, or that which is outside of control of the manufacturer (e.g. 2G, 3G switch off, removal or inability to obtain VOLTE service), and damage due to not proper installation.
3. The manufacturer in no way accepts liability for any of the following incurred due to a product defect: Cost of attending site, inconveniences, labour rates, time lost, loss to or damage to property, security breaches, late payment clauses or breaches of any contracts between the installer and the client.
4. This is a profession install product only. The product is a component of an overall system. Therefore, it is the responsibility of the installer to certify the safety and compliance of the overall finished system. As soon as this product is fixed to another item, or connected to another third-party device, then the product has been modified, and compliance with local regulations in the country of install is strictly the responsibility of the installer.
5. Re-stocking fees may apply to items returned that are found to be non-defective. Complete units will also attract a re-stocking fee if returned for credit, regardless if a defect is discovered or not. Re-stocking fees may vary depending on the condition of the item being returned, and whether it can be determined as in brand new condition. The warranty terms do not entitle customers to an automatic full refund. For more details on returns procedures and re-stocking fees, contact the agent.
6. Items with physical signs of surge damage are not covered by warranty. Items with visible signs of surge damage will only be covered by warranty if photographic evidence is provided from site, showing surge protection has been installed.

Full warranty terms and conditions available upon request to AES Technical Department.



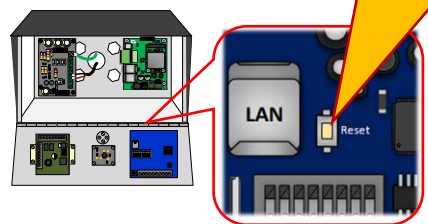
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## TROUBLESHOOTING

Symptoms caused	Problem/error	Solution
App showing offline status, video image shows "fetching, long lag on calls, intermittently showing online/offline, delayed push notifications.	4G Router Signal / APN Settings	Connect to the 4G router via LAN cable and test if you can load a web page. If not check the signal levels and APN settings to ensure they match the SIM network.
Delayed push notifications, video lag, voice problems, freezing, relays not opening the gate.	Wrong power cable (too thin) installed from 24v adaptor to the intercom, or power adaptor too far from intercom.	Change the power cable to specifications shown within this manual.
Lagging video or audio, delayed notifications, status showing intermittently online/offline, no or randomly operation of push notifications.	Poor GSM signal	Reboot the router and then try again. Connect to the 4G router via LAN cable and check the signal level. If low check with the coverage via the network providers website.
Can randomly display status "id already in use"	Additional user added incorrectly.	When an additional user was being added, the process was done incorrectly. Additional users MUST be added by the admin device first, with separate usernames created for each. The new usernames and passwords must be used by the new devices as shown in this manual to login to the intercom.
App shows online when phone is in the same network but offline when phone on 3G/4G or on a remote Wi-Fi network, App works fine remotely to view gates but push notifications are not working at all.	Commercial firewall	This will be a job for the IT provider for the business. A port will need opened to allow P2P and PUSH notification traffic to pass through the firewall. Recommended unassigned ports which your network administrator can open are 6806, 6809 and 9123, 9124.
App shows online status locally and when phone is remote, but push notifications may be delayed, or video lag, or showing "fetching" on video screen.	Insufficient upload speed / Poor GSM Signal	Reboot the router and then try again. Connect to the 4G router via LAN cable and check the signal level. If low check with the coverage via the network providers website.
Intercom is online and working even through the application, but I am receiving no notifications even for calls! I have checked my Wi-Fi/Ethernet and the intercom meets minimum requirements	Incorrect time setting on the Intercom.	Cycle to the settings menu and navigate to the clock settings and press "sync phone time" to sync the current time from the cellphone. This should only ever need done once as the time is pulled from the server.
I think my intercom is not functioning correctly.	Potential conflict of interest/firmware/software bug.	<p>This is not something that happens frequently and can only happen if a new firmware was pushed to the unit. Seldom instances can however occur resulting in a soft reboot needing done. Cycle to the settings menu and navigate to the power icon, pressing this will initiate a soft reboot. This soft reboot will remove any open communications or potential non-functioning features to be re-enabled.</p> <p>If this issue still persists a hard reset may need to be performed. Access inside the panel is required and this will delete all current data programmed to the intercom and remove any additional users etc.</p>

## Reset / Default Unit

**Press & Hold for 10 seconds**



If you are experiencing problems with not receiving notifications, the system may need defaulted to factory settings. This will clear any programmed data such as keypad codes and Prox ID's and will also clear any users and default the ADMIN password.

Most importantly it will also clear all authentication tokens that have been issued from the server allowing new devices connected to now receive PUSH notifications from the system.

**Note:** Performing this process will remove all current programming including saved users & access codes.

FCC ID: 2ALPX-WIFIIBK  
Grantee: Advanced Electronic Solutions Global Ltd



This device complies with Part 15E of FCC rules. Operation is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation. Output power listed is conducted.

This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance. This device has 20MHz and 40 MHz bandwidth modes.

*This product is not a complete product until fully installed. It is therefore considered a component part of an overall system. The installer is responsible to check that the end installation complies with local regulatory requirements. This equipment forms part of a "fixed installation".*

**STILL HAVING TROUBLE?**  
Find all of our support options such as Web Chat, Full Manuals, Customer Helpline and more on our website:

[WWW.AESGLOBALUS.COM](http://WWW.AESGLOBALUS.COM)  
**+1 (321) 900 4599**