## **Dealer Manual**

# DO **NOT** GIVE TO HOME OWNER FOR PROFESSIONAL USE ONLY





### Cellular Intercom System

Note: For legal reasons, telephone technical support is for registered and qualified product dealers only. Home owners and end-users should contact their dealer for product technical support.



## WARNING

Do not power from the gate controller. Only use the provided UL power supply, otherwise damage may occur and warranty may be void.



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## Overview of System

Please read this entire manual before attempting to install this system.

This system should only be installed by a professional automatic gate installer or access control specialist dealer.

It is recommended that the system be set up, configured, commissioned and tested on a workshop bench **before** taken to site for installation.

## Site Survey

Before installing this system, you need to be sure that there is good mobile GSM cell coverage in the area it is to be installed. It is recommended that you conduct a site survey, and check reception on the site for a GSM network. If reception is poor in the area, then this system is not recommended. This unit can operate on At&T and T-Mobile networks in the USA.

#### SIM Card

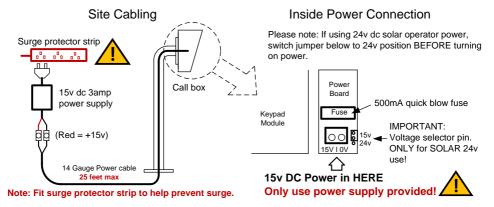
You will need a SIM card in order to use this system. It should be a regular voice and SMS text SIM card. Do not use a data only SIM, as this is only for tablets and will not work in the unit.



- 1) Ensure the SIM has calling credit, and can make and receive calls on a cell phone.
- 2) Check that the SIM is not locked to a phone and can be used in other devices. Call the service provider to unlock it if required.
- 3) Check that the SIM does not have a PIN code request.
- 4) You are now ready to begin programming.

#### **Power**

This system comes with a 15v d.c. power supply. It is recommended that it is located within 25 feet of the intercom and cabled in 14 gauge cable, otherwise damage can occur to the product.



Note: The power board supplies filtered power to the keypad and cellular module, and has surge protection plus a fuse. In the event of a power surge or lightning surge, the fuse is designed to blow and help protect the equipment.

## Pedestal Style Call Box Overview

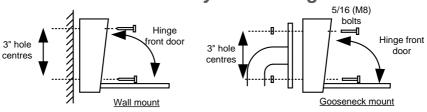


## Wall Mount Style Overview

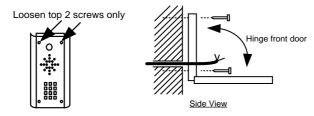


**Tip:** Keep all protective covers and films on the unit until fully installed. These covers are to protect the unit from scratches during installation.

## Pedestal Style Mounting

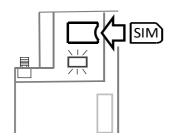


## Wall Style Mounting



## Inserting the SIM card

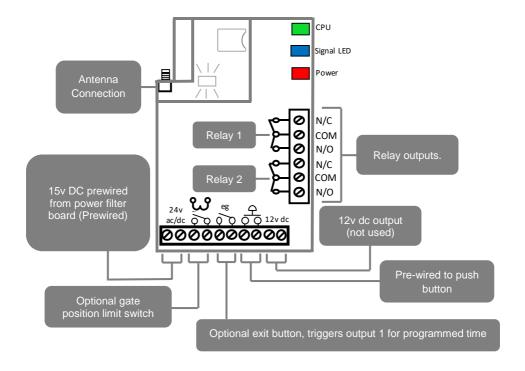
Note: This unit is a dual 3G/4G system, operating on either 3G or 4G network frequencies.



Please ensure the SIM card is a regular voice SIM card with SMS, from either At&T or T-Mobile. Do not use a data SIM as these are only for tablets.

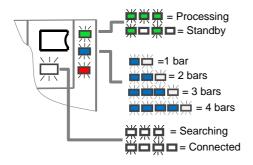
- 1) Put the SIM into a phone to activate and register it with the network.
- 2) If you are using pay and go, top up the SIM with some airtime credit.
- 3) Test that the SIM can make and receive calls and can send and receive a SMS.
- 4) Ensure the power is OFF.
- 5) Slide the SIM card into the holder (pads down as shown).

#### Connections on the GSM Controller



## Powering Up

Perform a final check of wiring and ensure the antenna is connected before switching on the power. Once the power is switched on, the power LED should illuminate.

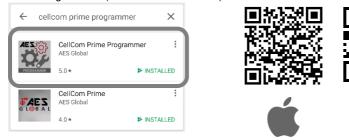


#### TIPS: My GSM LED is still searching...

- -Check the SIM card is registered and can make a call in a phone.
- -Check the SIM card is seated correctly. Power off, clean the contacts on the SIM and the GSM unit, and reinsert the SIM.
- -Check power cable distance and thickness.
- -Increase antenna height.
- -Change network.
- -Move antenna away from metal objects.
- -Fit a high gain antenna.

## Installing the Programmer APP for the first time

1. For android or apple devices you can download the AES programming app called "Cellcom Prime Programmer" (or scan QR code below).



2. Open the app and allow all permissions (Android users).





## Programming a Brand-New Install

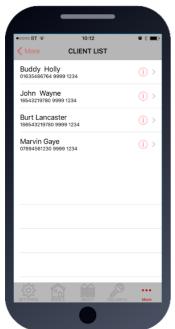
Press SETTINGS to reveal the screen shown. This screen will store details for the client.

Enter name or site name for customer.

Enter INTERCOM SIM phone number.

Default Engineer's and user's pass codes. These can be changed later.

Now you are ready to begin programming!



## Programming an EXISTING Install

1.Go to MORE>CLIENT LIST to reveal the screen shown.

2.Press and HOLD to select the desired client.

3.Iphone users press the info symbol. Android users **press and hold** the client, and then press upload to begin programming.

Now you are ready to begin programming!

## **Programming**

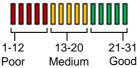
Now that you have either entered a new client, or selected an existing client from the client list, you are now ready to begin programming.



## **Step 1: Check Reception**

Go to MORE>INFO & press the reception check button. On Android the app will automatically send a SMS string (\*20#) to the intercom.

On iphone, users will be taken to their SMS screen to confirm before sending the string. The intercom should then reply with a signal level between 1 and 31.



For good performance, signal level on 2G should be at least 13. On 3G/4G signal it should be no less than 10.

TIP: If signal is lower than recommended, then take IMMEDIATE action. Change network if possible, or use an optional high gain antenna. Check power cable is within recommended specification. (Poor power cable can lower reception).

Note: SMS string= \*20#

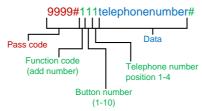




## Step2: Programming Numbers for the intercom to call on button press.

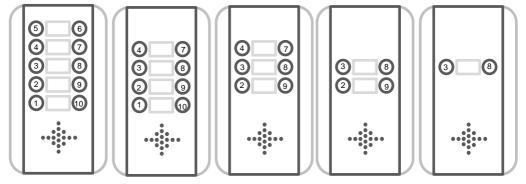
- 1.Press the SINGLE home icon for a 1 button system, or MULTI for a 10 button system.
- 2. Simply enter cell phone numbers and/or landline phones which the intercom is to call when the call button is pressed. (10 button model please enter button number).
- **3**. Press SAVE. Note: iphone users will be taken to their SMS screen to confirm the SMS string (press send).
- **4**. The intercom should reply with an SMS to your phone showing the SMS string and an OK status.

#### SMS Programming Format:



E.g. 9999#111firstnumber#112secondnumber#113thirdnumber#

## Programming dial out numbers for multi button versions



Please note the position of the buttons on the above panel options. For example, if you have a 2 button panel, you will be programming dial out numbers for buttons 3 and 8. For a 4 button panel, the corresponding button locations are 2,3,8 and 9.



## Step3: Programming Caller ID access numbers (100 max).

- 1. Press the CALLER ID button.
- 2. Simply enter cell phone numbers of visitors whom should have access with caller ID (up to 8 at a time).
- **3.** Press SAVE. Note: iphone users will be taken to their SMS screen to confirm the SMS string (press send).
- **4.** The intercom should reply with an SMS to your phone showing the SMS string and an OK status.

To delete, enter number above and press delete

#### **SMS Programming Method:**

Add numbers -

9999#72telephonenumber#72telephonenumber#

Delete specific number -

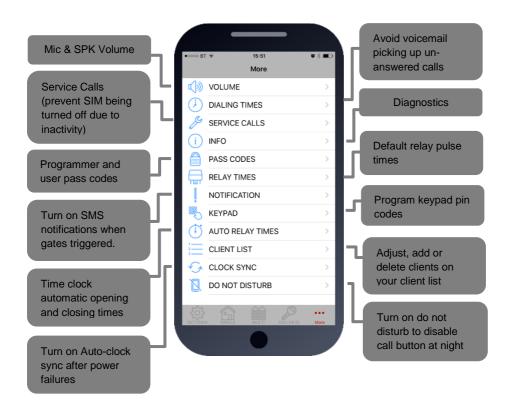
9999#73telephonenumber#

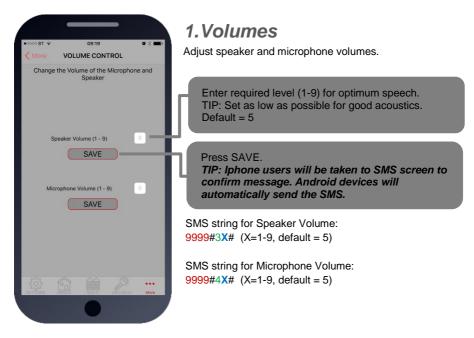
Delete all -

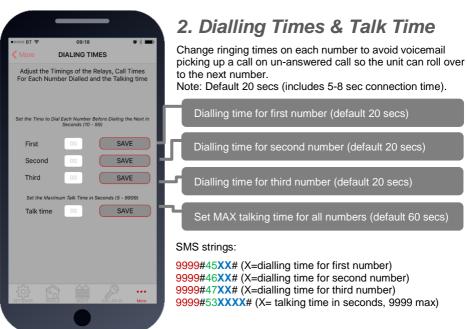
9999#73\*#

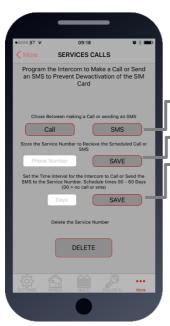
## **Programming Additional Features**

The intercom should now be able to call users and have some basic Caller ID access. Now you may wish to program additional features for the client, including keypad codes, dialling times (to avoid voicemail on un-answered calls, auto-trigger times etc.









#### 3. Service Calls

This feature is normally only used on intercoms which are seldom used and only for SIM cards which are likely to be de-activated by the network due to inactivity. It can be programmed to make a chargeable outgoing call or SMS to a number of your choice using this screen.

Choose SMS or CALL

Enter the phone number which is to receive the call

Enter the frequency of calls (1-60 days).

TIP: This will call or SMS at the time at which the feature was activated. So, if you set this feature up at 5pm, it will make the service call or SMS at 5pm at the next interval.

SMS string for choosing SMS or CALL:

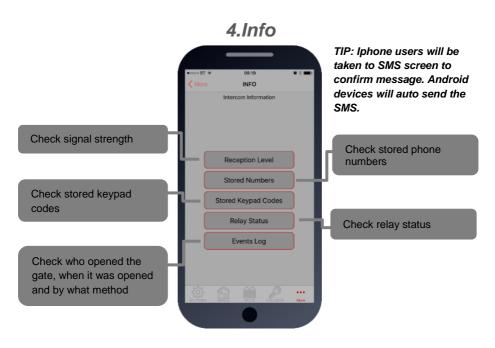
9999#58**X**# (For calls, X=2, for SMS, X=1)

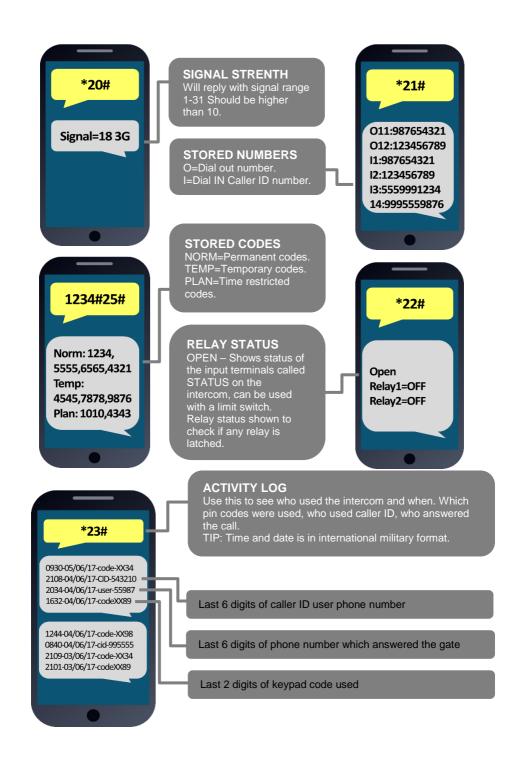
SMS string for entering phone number:

9999#77XXXXXXX# (X=cell phone number) 77\*# to delete.

SMS string for frequency of calls:

9999#57**XX**#







### 5. Pass Codes

CAUTION: Take care when changing pass codes. There are 2 levels of 4-digit code (both must be different):

- 1. Engineers/Programmers code (default 9999)
- 2. Access/user code (default 1234)

You may wish to change both from their defaults for security.

Restore the app to using default codes (does not restore the intercom)

Enter new programmers code (default 9999)

Enter new user/access code (default 1234)

If changing default codes, then you will now need to update the client list before you can do any further programming. If the 1234 user access code is changed, then you will also need to change it on the home owners app.

SMS Strings:

9999#01XXXX# (X=new programmers code) 9999#02XXXX# (X=new user access code)



## 6.Relay Times

Relay default trigger times are 1 second. Use this feature to change a relay for a longer time perhaps for a magnetic door lock or to make one relay a momentary relay and the other a 1 hour relay for example.

Enter time in SECONDS then press SAVE to send SMS

TIP: Iphone users will be taken to SMS screen to confirm message. Android devices will auto send the SMS.

SMS string for relay 1:

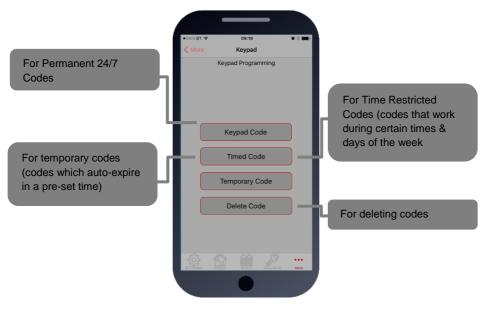
9999#50XXXX# (X=time in seconds, 1-9999)

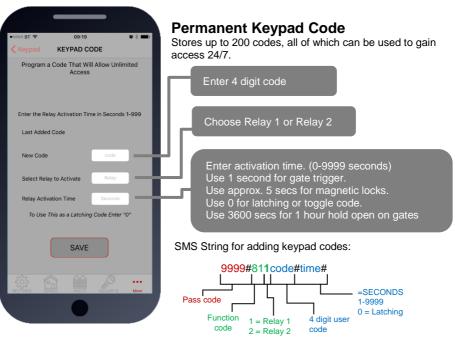
SMS string for relay 2:

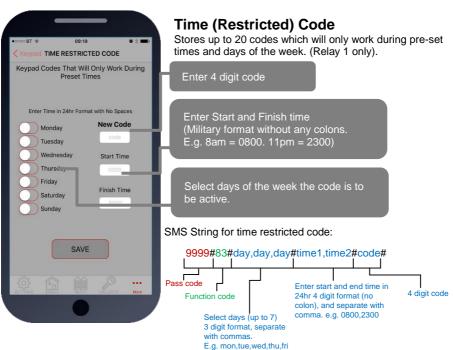
9999#51XXXX# (X=time in seconds, 1-9999)

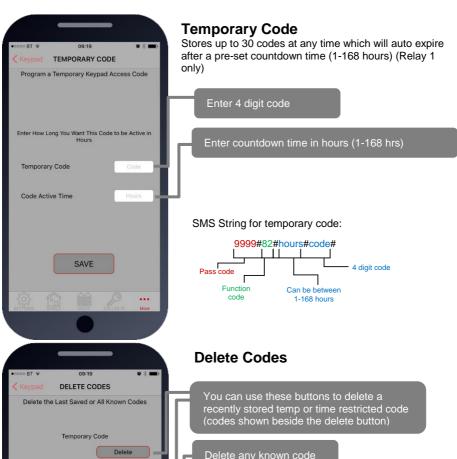


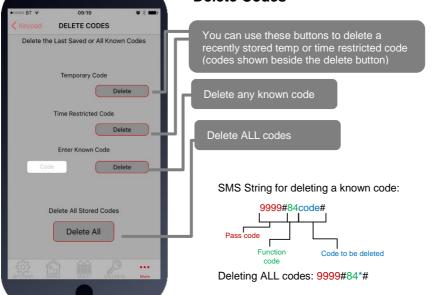
## 8. Keypad Programming

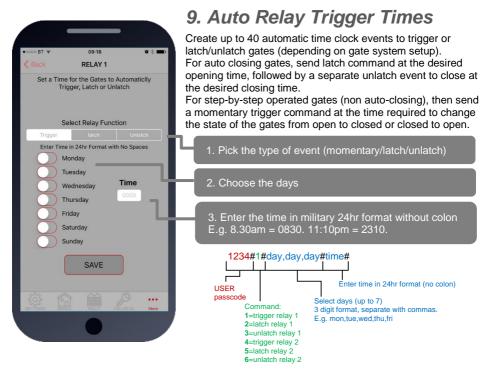




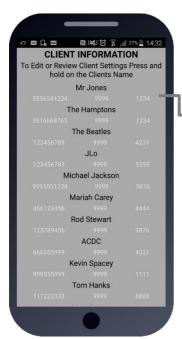












## 10. Client list on android

The client list allows you to save sim phone number, customer name and pass codes for all your installs.





## 11. Clock Sync

program their intercom.

The unit has an internal time clock counter, which reads the time from an incoming SMS message, and uses this to calibrate its time clock.

For power failure events, this feature allows the unit to send a SMS to itself after a power failure.

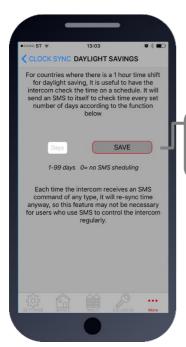
Simply press the button and the app will send a SMS string to the intercom storing the phone number from the SIM card inside memory.

TIP: Use this if your area experiences regular power cuts and your client is using timed features.

Note: Using this feature will cause the unit to be busy for 2-3 minutes after a reboot. Please be patient with programming etc after a re-boot.



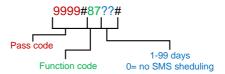
TIP: 9999#86\*# will delete this number again



## 11b. Daylight Saving

For regions where there is a 1 hour time shift for daylight saving, it can be useful to have the intercom send itself a SMS every set number of days to re-synchronise the internal clock. The intercom will do this anyway each time a SMS is received.

Set the number of days between SMS message sending (depending on carrier provider, this may be chargeable to the customer).





## 12. Do not disturb

This feature allows the push button on the intercom to be active during pre-set times, and ignore button presses all other times.

Use this screen to set the **ACTIVE** times and days for the button.

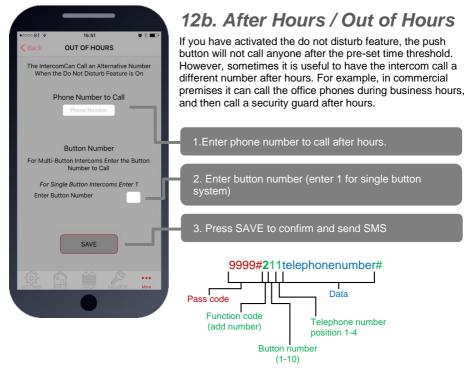
Quick enable/disable button

Select start and finish times for the button to work (24hr format, no spaces or colon. E.g. 8:30am = 0830

Press save to send SMS command.

To activate, enter the following code:

1234#21#ON# (change ON to OFF to disable again).



## Complete list of parameters

The table below show the complete list of features.

Changing pass codes

| 9999#01????# | Change programming password  | 9999 |
|--------------|--|------|
| 9999#02????# | Change access control password (SMS control of relays, or non-stored numbers can call intercom & enter code to activate output 1). | 1234 |
| 9999#03????# | Change monitoring mode password (user can call the intercom, enter this pass code to listen in and speak)                          | 5555 |

#### Dial out numbers

| 9999#1XY????# | Store dialling out numbers. (X = button number 1-9 & 0 for button 10) (Y = number dialled 1-4) (???? = phone number) | N/A |
|---------------|--|-----|
| 9999#1XY*#    | Delete a dial out number. (X = button number) (Y = number position 1-4)  | N/A |

#### Volume controls

| 9999#3?# | Speaker volume. Where ? = 1-9. 1 = lowest, 9 = highest.    | 5 | l |
|----------|--|---|---|
| 9999#4?# | Microphone volume. Where ? = 1-9. 1 = lowest, 9 = highest. | 5 |   |

**Timings** 

|              | · ·······ge   |         |
|--------------|---|---------|
| 9999#50?#    | Relay 1 time. ? = seconds, 1-9999   | 1 sec   |
| 9999#51?#    | Relay 2 time. ? = seconds, 1-9999.  | 1 sec   |
| 9999#45??#   | Calling time for first number, adjust this to avoid voicemail picking up a call (10-99 secs)  | 20 secs |
| 9999#46??#   | Calling time for second number, adjust this to avoid voicemail picking up a call (10-99 secs) | 20 secs |
| 9999#47??#   | Calling time for third number, adjust this to avoid voicemail picking up a call (10-99 secs)  | 20 secs |
| 9999#53????# | Talking time. 5-9999 seconds.   | 60 secs |
| 9999#55??#   | Max monitoring time (for listen in mode when calling the intercom) 00-60 mins. 00 = no limit. | 10 mins |

#### Scheduled service calls

| 9999#<br>77number# | Store a service number to receive a scheduled call or SMS from the unit. Useful for SIM cards which are not often used to prevent switch off by the network provider. | N/A |
|--------------------|---|-----|
| 9999#57??#         | Set the time schedule for the intercom to make a scheduled call or SMS to the service number. 00-60 day time schedule. 00 = no call or SMS.                           | 00  |
| 9999#58?#          | Choose between making a scheduled call or scheduled SMS. 1 = SMS. 2 = call.   | 1   |
| 9999#77*#          | Delete the stored service number  | N/A |

#### Caller ID features

| 9999#<br>72number# | Store caller ID number. Max 14 digits. Only last 6 digits compared. | N/A |
|--------------------|---|-----|
| 9999#<br>73number# | Delete caller ID number.  | N/A |
| 9999#73*#          | Delete all caller ID numbers  | N/A |

Service & diagnostic messages (no passcode required for some of these!)

| *20#     | Check reception level 1-31 (no passcode needed)   | N/A |
|----------|---|-----|
| *21#     | Check stored numbers. O = dial out number. I = dial in number. E = end of message. (no passcode needed) | N/A |
| *22#     | Check input status and relay status. (No passcode needed)   | N/A |
| *23#     | Sends SMS messages of the last 20 events.   | N/A |
| 1234#25# | Check stored keypad codes.  | N/A |

Keypad Programming

| 9999#<br>81Xcode#time#                            | Permanent codes - X=1 or 2 for relay 1 or 2. Code = 4-6 digits. Time = 1-9999 seconds, or 0 for latching code.   | N/A |
|---|--|-----|
| 9999#<br>83#day,day,day<br>#time1,time2#<br>code# | Time restricted codes  Day = day of the week e.g. mon,tue,wed,thur,fri.  Time1 = start time. Time2 = end time (24 hr format, no colon.  E.g. 11:30pm = 2330. 8.30am = 0830.  Code = pin code 4-6 digits. | N/A |
| 9999#<br>82#hours#<br>code#                       | Temporary codes Hours = time to expire in hours (1-168 hours). Code = Pin code 4-6 digit code.   | N/A |

| 9999#84code#                             | <b>Delete code</b> – Code=known code to be deleted.   | N/A |
|--|---|-----|
| 9999#84*#                                | Delete all codes.   | N/A |
|  | Notifications   |     |
| 9999#80 <b>X</b> #                       | X=1 to disable. X=2 to enable.  | N/A |
| 9999#78 <b>XXX</b> #                     | X=phone number to send notifications to. (*=delete number)  | N/A |
| 9999#79 <b>text</b> #                    | X=text to send to the receiving phone e.g. "gate opened"  | N/A |
|  | Automatic Time Clock Trigger Times  |     |
| 1234#X#<br>day,day,day#<br>time#         | X=1,2.3 (trigger, latch, unlatch relay 1) 4,5,6 (relay 2) Day = days of the week (mon,tue,wed,thur,fri,sat,sun) Time = time of day (24 hr format, no colon. E.g. 8:30am = 0830) | N/A |
| 1234*X#                                  | Delete ALL automatic trigger times.   | N/A |
|  | Clock Sync - Auto Time Calibration after Power Fail   |     |
| 9999#86XXX#                              | X=telephone number of SIM inside the intercom.  | N/A |
| 9999#86*#                                | Delete the phone number.  | N/A |
|  | Summer Daylight Auto Correct  |     |
| 9999#87??#                               | ?? = number of days between SMS calibration SMS should be sent. 0 = no message sending.   | N/A |
| D  | o Not Disturb (push button de-activated during set times)   |     |
| 1234#21#ON#                              | ON = activated. OFF = de-activated.   | OFF |
| 9999#<br>21#day,day,day<br>#time1,time2# | Enter all active days during which button should operate. Enter start and end time button should operate (24 hr format, no colon. E.G 8:30am = 0830)                            | N/A |
| 9999#<br>21X????#                        | X = button number (1-9. Enter 1 for 1 button system. Enter 0 for button 10) ???? = Alternative phone number to call out of hours.   |     |
|  | Restore Defaults  |     |
| 9999#999#                                | Send with passcode string to clear all programming.   | N/A |
|  | •   |     |

## **Troubleshooting**

Please see faults in order of most common...

#### 1: Not detecting network (blue light flashing 5 times in search mode, no green CPU light).

A: SIM card not detected. Power off, remove, clean sim contacts and re-insert and power on again.

- A: SIM card inserted wrong way round. Check manual for correct orientation.
- A: SIM is a data sim, or has not been activated.
- A: SIM has no signal in the area.
- A: Antenna not connected.
- A: Too many sharp bends on antenna cable.
- A: Antenna mounted too low or inside metal enclosure.
- A: Power cable from psu is too long or too thin. Refer to manual for guidelines.

#### 2: Not responding to SMS messages and not making outgoing calls.

- A: No credit on SIM card.
- A: Power cable not within spec. Refer to manual for guidelines.

#### 3: Not triggering gates or lock when activated from phone.

- A: Check relay with multi-meter.
- A: Check relay 2 with multi-meter. If relay 2 works but relay 1 does not, then relay 1 may be defective.
- A: Check power cable is within specifications according to this manual.
- A: Check if it works by SMS. Try latching a relay then use the status button to check if the relay is latched. If that works, problem could be the phone being used, or low signal strength at the intercom.

#### 4: Poor sound or buzzing

A: Ensure there is no spare antenna cable inside the call point with the intercom. Straighten excess cable.

- A: Install the antenna further away from the intercom.
- A: Check the power cable is within guidelines of this manual.

#### 5: Home owner app not working correctly

A: Check the settings on the app has the intercom SIM number and pass codes entered correctly.

## Change History

Key:

P = Panel version H = Hardware PCB version S = Software version

| Version |   | n | Reason for change |
|---------|---|---|-------------------|
| Р       | Н | S |                   |
| 1       | 1 | 1 | First version.    |
|         |   |   |                   |
|         |   |   |                   |
|         |   |   |                   |
|         |   |   |                   |
|         |   |   |                   |
|         |   |   |                   |
|         |   |   |                   |