

Installation & User Manual  
For

CELLCOM  
*Prime*



### GSM Intercom System

Models 5AB, 5ABK, 5AS, 5ASK, 5HS, 5HSK, 5HB, 5HBK, 5FB, 5FBK, 5IMP, 5IMPK  
Manual Version 1

Save time, scan the code below and watch the installation video!



The logo for AES Global, featuring a stylized red and black 'A' with a globe icon, followed by the text 'AES GLOBAL' in a bold, black, sans-serif font.

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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.

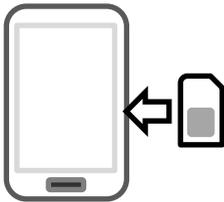
It is recommended that the system be set up, configured, commissioned and tested on a workshop bench **before** taken to site for installation.

## 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.

## 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 and capable of running on 2G service. 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 mobile cell phone.
- 2) Check that the SIM is not locked to a phone and can be used in other devices.
- 3) Check that the SIM does not have a PIN code request.
- 4) Disable voicemail service on the SIM.
- 4) You are now ready to begin programming.

## Power

**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 (2 amp peak). Please use following cable...**

Up to 2 metres (6 feet) – Use minimum 0.75mm<sup>2</sup> (18 gauge)

Up to 4 metres (12 feet) – Use minimum 1mm<sup>2</sup> (16 gauge)

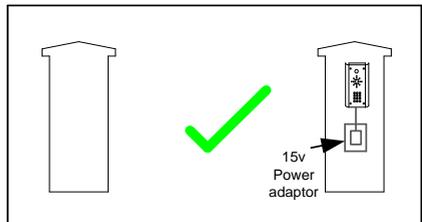
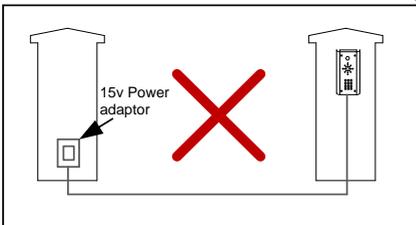
Up to 8 metres (24 feet) – Use minimum 1.5mm<sup>2</sup> (14 gauge)



### WARNING

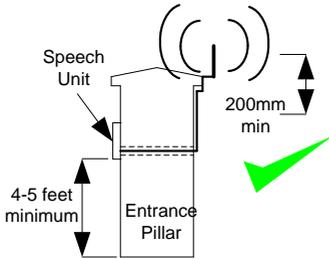
Warranty VOID if power cable requirements are not followed!

Using insufficient power cable thickness will cause excessive stress on electronic components, and therefore void the manufacturer's warranty.



To avoid such problems, it is recommended (and is good practice) to locate the power supply as close to the transmitter as possible. This avoids power cable noise and interference and enhances the lifetime of the product.

## Installation

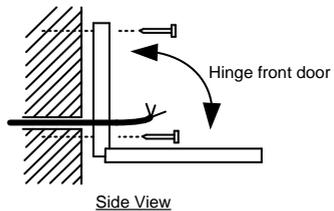
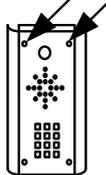


Do not remove the protective film until the system is fully installed and working. Protective coverings are there to protect the intercom from scratches and marks during installation.

Antenna height is best higher than intercom for cleaner audio and also better reception.

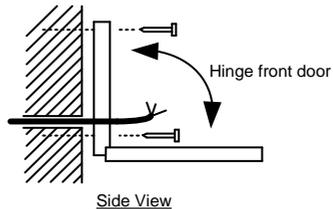
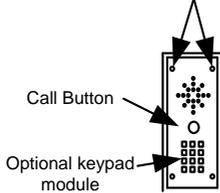
## Architectural Panels

Loosen top 2 screws only

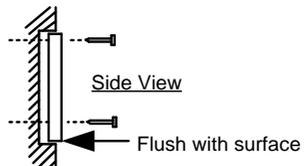
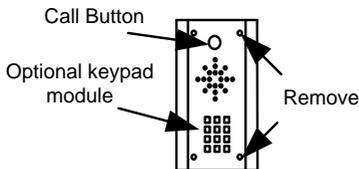


## Hooded Panels

Loosen top 2 screws only



## Flush Panels



**Tip:** Use appropriate fixings to ensure the intercom cannot be removed from the wall.

# Inserting the SIM card

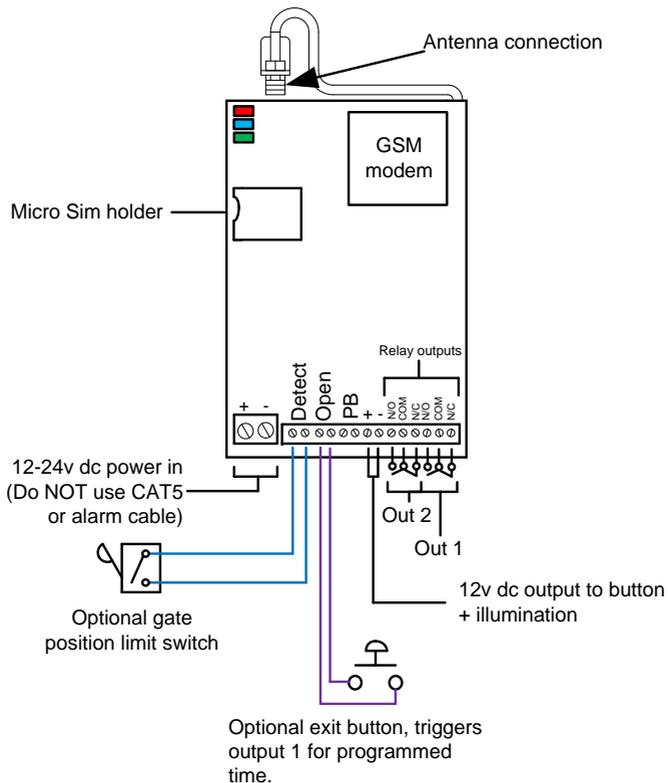
Note: This unit is a 2G quad band system, operating on standard 2G network frequencies of 850/900/1800/1900MHz.



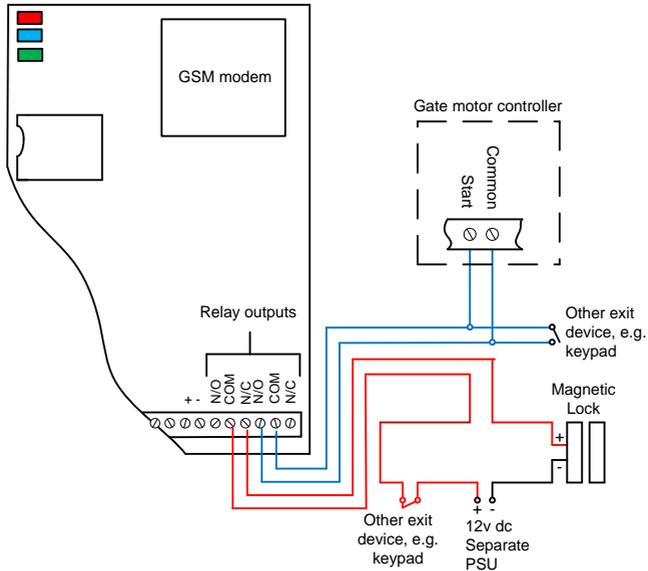
Please ensure the SIM card is a 2G compatible Micro SIM card. The SIM may also be 3G and 4G capable as well, as long as both the SIM and the network also support 2G. Do not use a SIM card for a tablet, as these only support data, and do not support voice and SMS. You simply require a mobile phone type SIM card.

- 1) Ensure the power is OFF
- 2) Slide the SIM card holder in the open direction, and carefully open the door. Do NOT force it.

## Connections on the GSM Controller



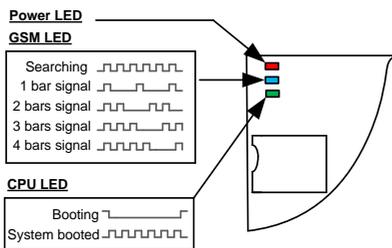
## Output Connections Example



This example shows relay 1 connected to a gate motor controller for vehicle gates, and output 2 connected to a magnetic lock for a door or pedestrian gate.

## 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...**

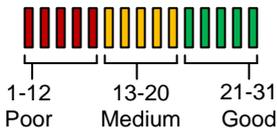
- Check the SIM card is registered and can make a call in a phone.
- Check the SIM card is seated correctly. Power off, clean the contacts on the SIM and the GSM unit, and reinsert the SIM.
- Check power cable distance and thickness.
- Increase antenna height.
- Change network.
- Move antenna away from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

# Programming

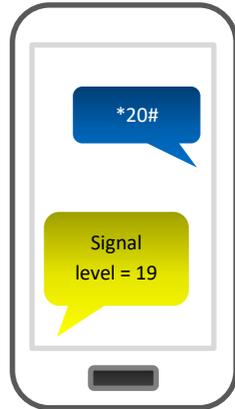
**TIP:** The GSM unit programming is by sending SMS text messages to the unit from a phone.

## Check Reception

Send the SMS **\*20#** as shown, to the SIM card number of the intercom. The unit should reply with a reception level between 1 and 31.



Note: Reception levels below 14 can cause problems with DTMF relay control, poor quality audio, no audio coming from the microphone on the intercom (the person on the phone cannot hear anything), or buzz on the loud speaker.

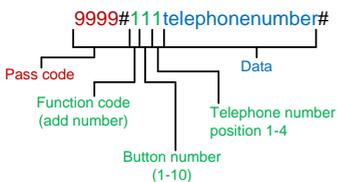


**TIP:** If reception levels are low, **take action now!** Either increase the height of the antenna to improve reception or request a higher gain antenna from your distributor or change to another network which may have better coverage.

## Programming dial out numbers (Function 11)

Programming text messages must start with a pass code string, followed by a command, followed by data, and each command is separated in the SMS by #.

To begin, program the unit to dial numbers when the call button is pressed. This module will dial up to 4 telephone numbers in sequence, for each push button.



TIP...

111 = Telephone number 1.

112 = Telephone number 2.

113 = Telephone number 3.

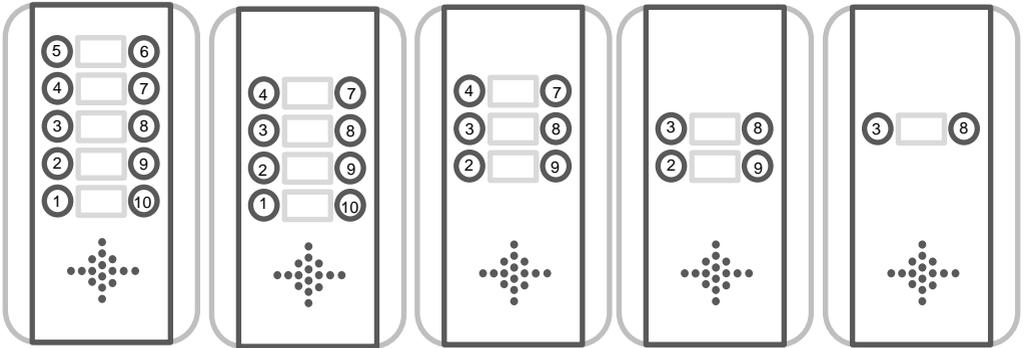
The phone image shows an example of a number being stored and the reply sent by the unit to confirm OK.

Up to 4 numbers can be sent in a single SMS. The pass code only needs entered at the beginning of each message, and then each new command string is separated by #.



E.g. 9999#111telephonenumber1#112telephonenumber2#113telephonenumber3#

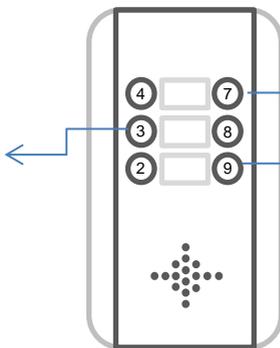
## Programming dial out numbers for multi button versions



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.

To program various button locations, change the button number digit to the button number as shown.

131 = button 3, tel no 1.  
 132 = button 3, tel no 2.  
 133 = button 3, tel no 3.  
 134 = button 3, tel no 4.



171 = button 7, tel no 1.  
 172 = button 7, tel no 2.  
 173 = button 7, tel no 3.  
 174 = button 7, tel no 4.

191 = button 9, tel no 1.  
 192 = button 9, tel no 2.  
 193 = button 9, tel no 3.  
 194 = button 9, tel no 4.

### Example

To program second number for button 8, enter string **9999#182**telephonenumber#

**TIP:** For button 10, use **zero** as the button location, e.g. **101** = button 10, first number. **102** = button 10, second number etc.

## Calling time (Function 45-47)

This is the time the unit will spend attempting to call a number before aborting the call and calling the next number on the list. It is very useful to adjust this time so that if there is voicemail or answer machine on a number, that the intercom aborts the call before the machine picks up, otherwise the unit will think the call is answered and never call the next number. To adjust these times, send the following SMS messages...

9999#45??# Ringing time for first phone number (Where ?? = time in seconds 10-99)

9999#46??# Ringing time for second phone number (Where ?? = time in seconds 10-99)

9999#47??# Ringing time for third phone number (Where ?? = time in seconds 10-99)

**TIP:** Remember to include the network connection time. A mobile phone needing to ring for 10 seconds may need a programmed ringing time of 15 seconds, because it can take 5 seconds to connect the call.

## Caller ID access control (Function 72)

This feature allows up to 100 numbers to be stored in memory. Any of these numbers can call the intercom. It will recognise the number, end the call without answering, and activate the output relay 1, all within a few seconds.

**Tip:** The intercom only compares the last 6 digits of the number with memory; therefore it is not necessary to enter country codes.

To add numbers, send the following SMS (up to 4 numbers can be entered in the same SMS)...

9999#72telephonenumber#72telephonenumber#72telephonenumber#72telephonenumber#

**Tip:** Even if a number is stored as a dialling out number when the call button is pressed, it needs stored again under the 72 feature if it is also required to have caller ID access.

## Internal Clock (Function 86)

The PRIME model has many additional features which require the intercom to have the current time and day stored. Each time the intercom receives a SMS, it will use the time and date from the incoming message to re-calibrate its internal time clock. In the event of a power failure, the time will be lost, however the intercom can send a SMS to itself after rebooting. To activate this feature, enter the following code...

9999#86telephonenumber#

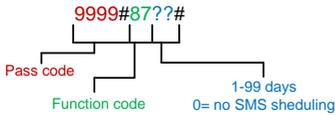
```
graph TD
    A[9999#86telephonenumber#] --- B[9999]
    A --- C[#86]
    A --- D[telephonenumber#]
    B --- B_label[Pass code]
    C --- C_label[Function code]
    D --- D_label[Phone number of the SIM card in the intercom]
```

**Note:** Activating this feature will cause the unit to be busy for 2-3 minutes after boot up. Please be patient with the unit while it re-configures.

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

## Winter/Summer Daylight Saving (Function 87)

For countries where there is a 1 hour time shift for daylight saving, it is useful to have the intercom check the time on a schedule. It will send an SMS to itself to check time every set number of days according to the function below..



Note: Each time the intercom receives an SMS command of any type, it will re-sync time anyway, so this feature may not be necessary for users who use SMS to control the intercom regularly.

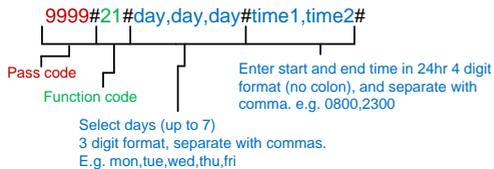
## Do Not Disturb (Function 21)

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

To activate, enter the following code:

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

Now enter the times during which the button should be active as follows....

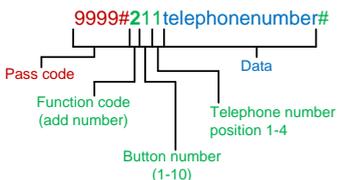


Example: to program the unit to be active between 8.00 am and 11pm, for all days send the following SMS...

**9999#21mon,tue,wed,thu,fri,sat,sun#0800,2300#**

## Out of Hours Number (Function 21)

This intercom can call an alternative number after the watershed "Do Not Disturb" time. Enter the number with the following code:

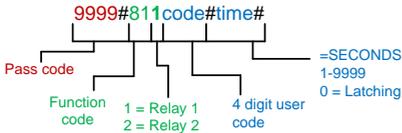


# Programming Keypad Codes

There are 3 types of keypad code which can be stored in the unit.

1. Permanent code. (Capacity 200).
2. Temporary code – will expire after a desired length of time. (Capacity 30 at any time)
3. Time restricted code – will only operate at specified times of the week. (Capacity 20)

## Programing a Permanent Code (Function 81)



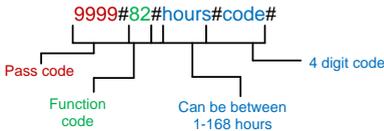
Examples:

To program code 5555 to trigger relay 1 for 1 secs, send the following SMS: 9999#8115555#1#

To program code 6666 to trigger relay 2 for 6 secs, send the following SMS: 9999#8126666#6#

To program code 1234 to trigger relay 2 in **latching** mode send SMS: 9999#8121234#0#

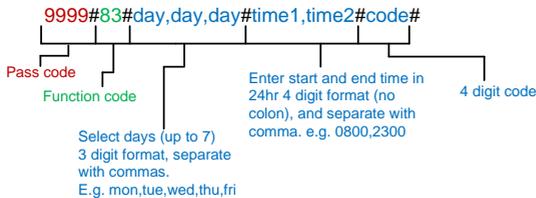
## Programing a Temporary Code (Function 82)



Note: This feature is only active for relay 1, and will only trigger relay 1 for the default programmed trigger time.

Example: To program a code 4321 to be active for 8 hours, send SMS: 9999#82#8#4321#

## Programing a Time Restricted Code (Function 83)



Note: This feature is only active for relay 1, and will only trigger relay 1 for the default programmed trigger time.

Examples:

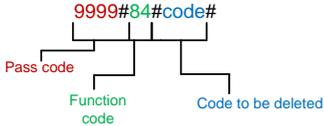
To program a code 1234 which will only operate Monday-Friday between 9am and 5pm:

9999#83#mon,tue,wed,thu,fr#0900,1700#1234#

To program a code 4321 which will only operate Wednesday between 9am and 11am:

9999#83#wed#0900,1100#4321#

## Delete a keypad code (Function 84)

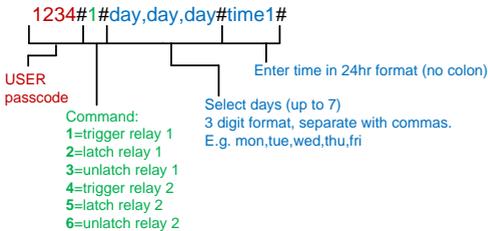


## Delete all keypad codes (Function 84)

9999#84\*#

## Set Automatic Triggering times

This feature is useful to automatically trigger electric gates at pre-set times of the day or night. For gates not set on “auto-closing”, this can be used to have opened and closing times with momentary triggers. For gates on “auto-closing”, this feature can be used with latching control, again to hold gates open during certain times.



Example:

For gates on step-by-step operation, to automatically close every night at 10pm send SMS:

1234#1#sun,mon,tue,wed,thu,fri,sat#2200#

For gates on automatic closing, to hold open between 8am and 7pm, send SMS:

1234#2#sun,mon,tue,wed,thu,fri,sat#0800# and then a second SMS:

1234#3#sun,mon,tue,wed,thu,fri,sat#1900#

Note: Up to 40 events can be stored.

## Delete ALL Automatic Triggering times

1234\*#

## Notification Number

This feature will send a SMS notification to a master user phone number every time the intercom is used to grant access. It will send a SMS any time a relay is activated.

To use this feature firstly turn the function on:

9999#802# (change 2 to 1 to disable again).

Now you must store the phone number which is to receive the notification:

9999#78number#

Now you may store a customised SMS content, which will be sent to the stored number:

9999#79enter any text here#

For example, you may wish to store the following message "My Gates Triggered", or "Gates Opened".

## Complete list of parameters

The table below show the complete list of features. **Programming messages below must begin with 9999# (assuming 9999 is still the programming passcode)...**

### Changing pass codes

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

### Dial out numbers

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

### Volume controls

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

### Timings

50?#	Relay 1 time. ? = seconds, 1-9999	1 sec
51?#	Relay 2 time. ? = seconds, 1-9999.	1 sec
45??#	Calling time for first number, adjust this to avoid voicemail picking up a call (10-99 secs)	20 secs
46??#	Calling time for second number, adjust this to avoid voicemail picking up a call (10-99 secs)	20 secs
47??#	Calling time for third number, adjust this to avoid voicemail picking up a call (10-99 secs)	20 secs
53????#	Talking time. 5-9999 seconds.	60 secs

55??#	Max monitoring time (for listen in mode when calling the intercom) 00-60 mins. 00 = no limit.	10 mins
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#### **Scheduled service calls**

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
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
58?#	Choose between making a scheduled call or scheduled SMS. 1 = SMS. 2 = call.	1
77*#	Delete the stored service number	N/A

#### **Notification Number**

78number#	Store a master user, who will receive a SMS notification from the intercom each time any of the output relays are triggered.	N/A
79text#	Where "text" is the content of the message to be sent. E.g. "Gates Opened, or Door Opened". This will be sent on closing of any output relay.	N/A
80?#	When ? = 1, this function is disabled. Set to 2 to enable.	N/A

#### **Caller ID features**

72number#	Store caller ID number. Max 14 digits. Only last 6 digits compared.	N/A
73number#	Delete caller ID number.	N/A
73*#	Delete all caller ID numbers	N/A

#### **DTMF**

95?#	To prevent or disable latching relays by DTMF tones. 0=disabled. 1=enabled. (note latching still possible by SMS)	1
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#### **Service & diagnostic messages (no passcode required for these!)**

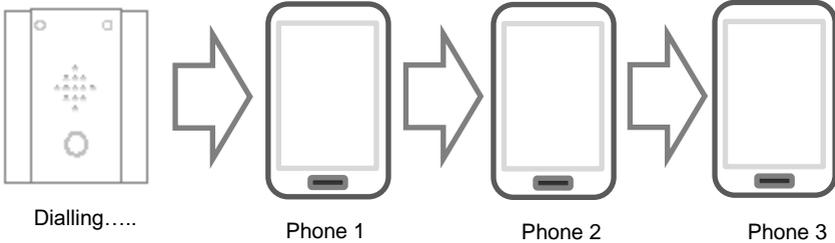
*20#	Check reception level 1-31 (no passcode needed)	N/A
*21#	Check stored numbers. O = dial out number. I = dial in number. E = end of message. (no passcode needed)	N/A
*22#	Check input status and relay status. (No passcode needed)	N/A
*23#	Sends SMS messages of the last 20 events.	N/A

#### **Restore Defaults**

999#	Send with passcode string to clear all programming.	N/A
------	---	-----

## Using the intercom

This cellular intercom can dial up to 4 numbers in sequence for any call button when pressed..



Any user receiving the call can answer, speak to the visitor, and press the following digits on their mobile or fixed line telephone to control the relays on the device...

### Relay 1

Press **1** to trigger (use this mostly)  
Press **2** to Latch or hold open  
Press **3** to unlatch or close.



### Relay 2

Press **4** to trigger  
Press **5** to Latch or hold open  
Press **6** to unlatch or close

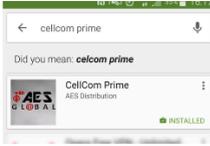
## Opening Gates/Door from a stored number

Any stored phone number (up to 100 numbers), can call the intercom. It will recognise the number, terminate the call without answering, and automatically trigger relay 1.

## Opening Gates/Door from a non-stored number

If a phone number is not stored, when that phone calls the intercom, the intercom will answer the call. The user can then enter a 4 digit passcode to trigger relay 1 (default user passcode 1234).

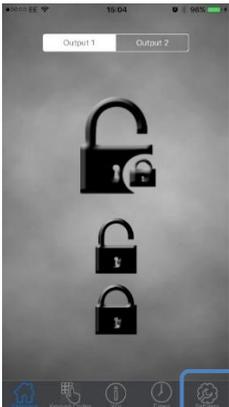
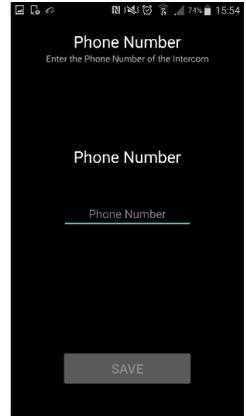
# Setting up the Free App on Android & Iphone



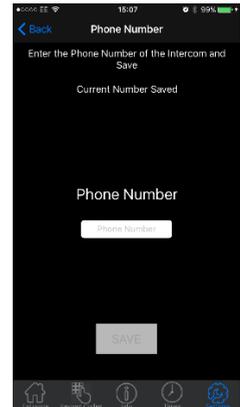
Android and Iphone users can download an optional app called **Cellcom PRIME**. This makes the procedure of adding and deleting keypad codes easy, as well as other control features.



## Android Setup



## Apple Setup



1. Install and launch the app. Press **SETTINGS** as shown.

2. Press the **PHONE NUMBER** button.

3. Enter the phone number of the intercom SIM card.

**Note:** If the default engineers code or user code have been changed from their defaults, then please change as required in the relevant section above.

Now you should be ready to use the app

## Using the App on Android

The screenshot shows the main interface of the app for 'OUTPUT 1'. At the top, the status bar displays signal strength, Wi-Fi, 64% battery, and 08:23. The app title 'OUTPUT 1' is prominently displayed. Below the title are three large buttons, each with a padlock icon: the top one is open, the middle one is closed, and the bottom one is closed. At the bottom of the screen is a navigation bar with four icons: a home icon, a keypad icon, a settings gear icon, and an information icon. Six callout boxes provide detailed instructions for each of these elements.

**OPEN GATES**  
Press to trigger the relay (speed dials intercom for output 1 and sends SMS to intercom for output 2)

**UNLATCH / UNHOLD**  
Press to release a latched relay (allow gates to close)

**HOME / TIME SETTINGS**  
Features such as auto triggering, do not disturb, activity log.

**KEYPAD SETTINGS**  
Create or delete keypad codes, temporary codes, time restricted codes.

**OUTPUT 1**  
Press to change controls from relay 1 to relay 2 (useful for pedestrian gates)

**LATCH / HOLD OPEN**  
Press to hold ON the relay

**NOTIFICATION OPTION**  
Press to setup SMS notifications when gates are triggered.

## Do Not Disturb

Do Not Disturb  
Turn On the Do Not Disturb Feature  
Enter Time in 24hr Format with No Spaces

OFF

Monday  
 Tuesday  
 Wednesday  
 Thursday  
 Friday  
 Saturday  
 Sunday

Start Time  
0830

Finish Time  
2200

SAVE

Select the days and times which the push button is to be active. Any button press outside of these times will be ignored.  
Turn ON the feature, select days and times as shown.

TIP: Enter times in 24 hour format without any colon.

## Out of Hours

Out Of Hours  
The Intercom Can Call an Alternative Number When the Do Not Disturb Feature is On

Phone Number to Call  
Phone Number

Button Number  
For Multi-Button Intercoms Enter the Button Number to Call  
For Single Button Intercom Enter 1

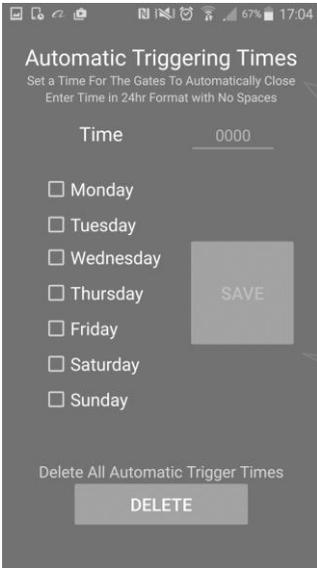
Enter the Button Number 1

SAVE

For commercial installations, sometimes it is desirable to call an alternate number after the “do not disturb” watershed time. If a phone number is entered in this screen, then the intercom will call the previously programmed standard numbers during normal operating times, and this alternate phone number after hours

TIP: For multi-button panels, repeat entering the out of hours number for each active button on the panel (see button numbers in this manual).

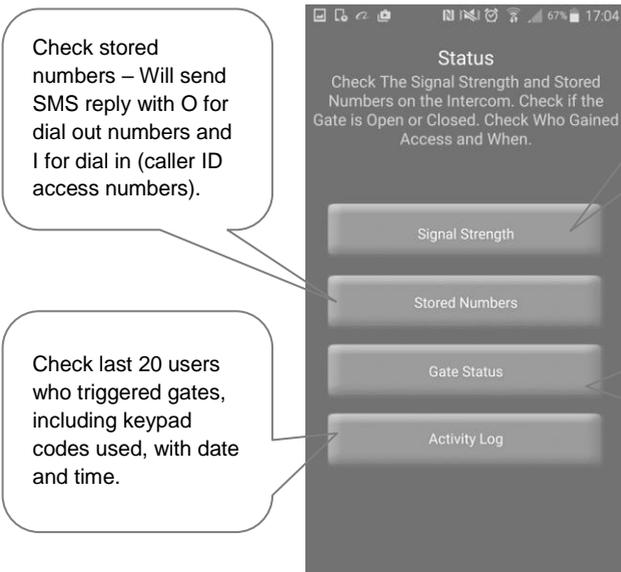
## Automatic Triggering Times



This feature is for automatic gate systems which are not in automatic closing mode, and are in step-by-step mode. I.e. When triggered they open and stay open until triggered again. You can use this feature to automatically trigger gates to perhaps open every morning at a pre-set time, or close every night at a pre-set time.

Tip: Up to 4 auto-trigger events per day can be stored.

## Status



Check stored numbers – Will send SMS reply with O for dial out numbers and I for dial in (caller ID access numbers).

Check last 20 users who triggered gates, including keypad codes used, with date and time.

Check signal strength on your intercom. Level 1-31. Must be above 14 for successful operation.

Check the state of both relays (ON or OFF). ON = latched open state. Check status of gate limit switch (if fitted).

# Keypad Codes

## Timed Code

**Time Restricted Code**  
Keypad Codes That Will Only Work During Preset Times.  
Enter Time in 24hr Format with No Spaces

New Code

Monday  
 Tuesday   
 Wednesday   
 Thursday  
 Friday   
 Saturday   
 Sunday

Tip: For time restricted codes.

## Temporary Code

**Temporary Code**  
Program a Temporary Keypad Access Code.  
Enter How Long You Want This Code to be Active in Hours

Temporary Code   
Code Active Time

Tip: Enter code and time in hours (1-168). Code auto deletes after time expires.



## General Tips

Permanent codes can be programmed for relay 1 or relay 2. Temporary and scheduled codes can only be programmed for relay 1.

## Permanent Code

**Keypad Code**  
Program a Code That Will Allow Unlimited Access.  
Enter the Relay Activation Time in Seconds

New Code

Select Relay To Activate

Relay Activation Time

Tip: Select relay 1 or 2.  
Tip: Enter 1 sec for automatic gates or strike lock, 7 secs for mag lock. 0 for latching

## Delete Code

**Delete Saved Codes**  
Delete the Last Saved or All Known Codes

Temporary Code  
Code

Time Restricted Code  
5555

Enter Known Code  
Code

Delete All Stored Codes

Tip: Delete last saved temp or time restricted code, or any known code.

## Using the app on Iphone



The screenshot shows the app's main interface on an iPhone. At the top, there are two toggle buttons for 'Output 1' and 'Output 2'. Below these are three large padlock icons. The top padlock is open, the middle one is closed, and the bottom one is closed. At the bottom of the screen is a navigation bar with five icons: Home, Keypad Codes, Info, Times, and Settings. The status bar at the very top shows the time as 15:04 and battery at 98%.

**OPEN GATES**  
Press to trigger the relay (speed dials intercom for output 1 and sends SMS to intercom for output 2)

**UNLATCH / UNHOLD**  
Press to release a latched relay (allow gates to close)

**KEYPAD SETTINGS**  
Create or delete keypad codes, temporary codes, time restricted codes.

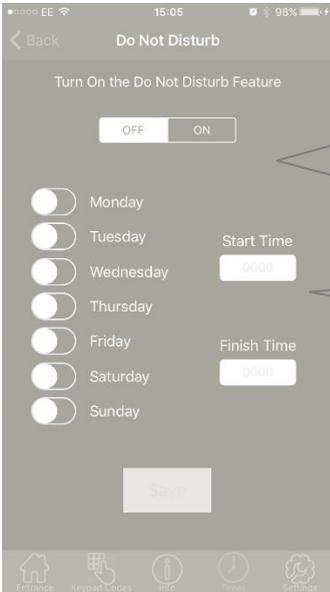
**TIME SETTINGS**  
Features such as auto triggering, do not disturb, activity log, set clock etc.

**Press to change controls from relay 1 to relay 2 (useful for pedestrian gates)**

**LATCH / HOLD OPEN**  
Press to hold ON the relay

**NOTIFICATION OPTION**  
Press to setup SMS notifications when gates are triggered.

## Do Not Disturb



Select the days and times which the push button is to be active. Any button press outside of these times will be ignored.

Turn ON the feature, select days and times as shown.

**TIP:** Enter times in 24 hour format without any colon.

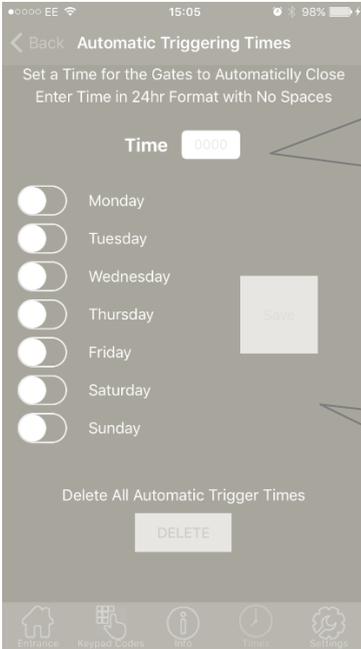
## Out of Hours



For commercial installations, sometimes it is desirable to call an alternate number after the “do not disturb” watershed time. If a phone number is entered in this screen, then the intercom will call the previously programmed standard numbers during normal operating times, and this alternate phone number after hours

**TIP:** For multi-button panels, repeat entering the out of hours number for each active button on the panel (see button numbers in this manual).

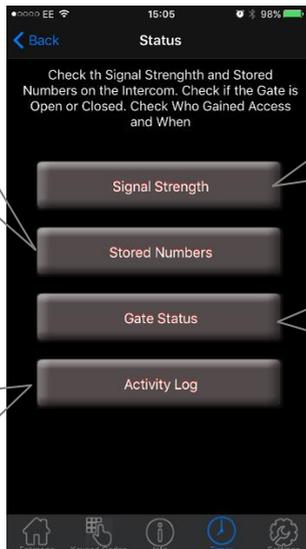
## Automatic Triggering Times



This feature is for automatic gate systems which are not in automatic closing mode, and are in step-by-step mode. I.e. When triggered they open and stay open until triggered again. You can use this feature to automatically trigger gates to perhaps open every morning at a pre-set time, or close every night at a pre-set time.

Tip: Up to 4 auto-trigger events per day can be stored.

## Status



Check stored numbers – Will send SMS reply with O for dial out numbers and I for dial in (caller ID access numbers).

Check last 20 users who triggered gates, including keypad codes used, with date and time.

Check signal strength on your intercom. Level 1-31. Must be above 14 for successful operation.

Check the state of both relays (ON or OFF). ON = latched open state. Check status of gate limit switch (if fitted).

# Keypad Codes

**Time Restricted Code**

Keypad Codes That Will Only Work During Preset Times  
Enter Time in 24hr Format with No Spaces

New Code  Code

Monday

Tuesday  Start Time

Wednesday  0000

Thursday

Friday  Finish Time

Saturday  0000

Sunday

SAVE

Tip: For time restricted codes.

**Temporary Code**

Program a Temporary Keypad Access Code  
Enter How Long You Want This Code to be Active in Hours

Temporary Code  Code

Code Active Time  Hours

SAVE

Tip: Enter code and time in hours (1-168). Code auto deletes after time expires.

**Keypad Controls**

Program and Delete Codes That Operate the Keypad

Keypad Code

Timed Code

Temporary Code

Delete Code

Entrance Keypad Codes Info Times Settings

**General Tips**

Permanent codes can be programmed for relay 1 or relay 2.  
Temporary and scheduled codes can only be programmed for relay 1.

**Permanent Code**

Keypad Code

Program a Code That Will Allow Unlimited Access  
Enter the Relay Activation Time in Seconds

New Code  Code

Select Relay To Activate

Relay Activation Time  Seconds

SAVE

Tip: Select relay 1 or 2.  
Tip: Enter 1 sec for automatic gates or strike lock, 7 secs for mag lock, 0 for latching

**Delete Code**

Delete Saved Codes  
Delete the Last Saved or All Known Codes

Temporary Code

Code  DELETE

Time Restricted Code

5555 DELETE

Enter Known Code

Code  DELETE

Delete All Stored Codes

DELETE ALL

Tip: Delete last saved temp or time restricted code, or any known code.

## Control by SMS

This intercom allows a user to send SMS commands to control the relays and check status as follows (assuming default passcode is still 1234)...

1234#**1**# - Relay 1 momentary trigger.  
1234#**2**# - Relay 1 latch ON or hold ON.  
1234#**3**# - Relay 1 unlatch or switch OFF.

1234#**4**# - Relay 2 momentary trigger.  
1234#**5**# - Relay 2 latch ON or hold ON.  
1234#**6**# - Relay 2 unlatch or switch OFF.

## Check if door or gate is open or closed



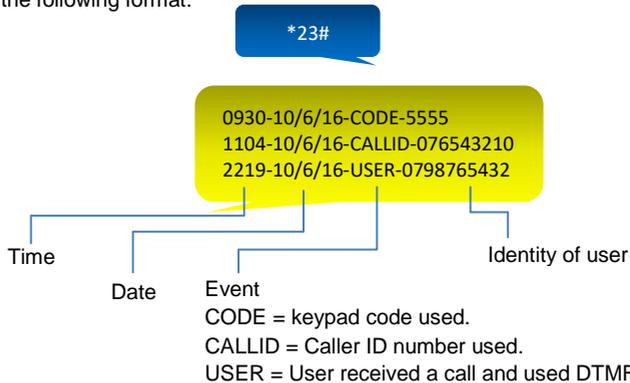
Send the SMS as shown, and the unit will reply showing the status of the input limit switch (if used), and the relay..

This example shows that the input sensor is in OPEN state. Relay 1 is OFF and Relay 2 is latched ON.

**TIP:** If there is not a physical limit switch fitted to the door or gate, then the status input will always show OPEN.

## Check User LOG

Any phone can send the SMS \*23# to the SIM card in the intercom and it will reply with a log of the last 20 events in the following format:



# Maintenance of the Intercom

The intercom SIM card will need topped up occasionally if it is a pre-pay casual SIM card. It is recommended that you register this SIM card on the provider's web site. You can register card payment details. Many networks offer an auto top up feature, which means they will automatically top up your intercom when the balance runs low.

The stainless steel can dull or discolour over time in weather conditions. This can be polished with a suitable stainless steel cleaner.

## Troubleshooting guide

### **Q. The unit will not power up. No LEDs on.**

A. Check power supply voltage at intercom is within 0.5V of PSU spec. Cable length from PSU to intercom should be within spec as per this manual.

### **Q. The unit powers up but is not showing network reception or will not respond to SMS.**

A. This means the unit is not able to detect the network for some reason.

-Check the SIM card is activated and has calling credit.

-Power off the unit, remove the SIM and check it in a mobile phone to verify it can make a call.

-Check the SIM does not ask for a PIN code when put in a phone. If it does, then disable the PIN code request.

-Check the SIM is a standard voice 2G capable SIM. If you are unsure, contact your SIM card provider to verify. Frequency of operation should be any one of international quad band standards, 850 / 900 / 1800 / 1900 MHz.

-Check the reception is good. Poor reception is not sufficient.

-Check voltage at the intercom is minimum 23V and that the cable from power supply to intercom is less than 15 feet and that the cable thickness is sufficient.

-Power off, remove the SIM, use fine sand paper to lightly sand the SIM pads and contacts on the GSM unit, lightly bend the contacts upwards so that they make better contact with the SIM and try again.

### **Q. The unit calls the first number, but there is not enough time to answer before it diverts to the next number.**

A. Increase the no answer time as per programming instructions.

*Q. The unit calls the first number but voicemail comes on before it can ring the second number.*

A. Decrease the no answer time as per programming instructions.

### **Q. The caller ID part does not work.**

A. Be sure to program the caller ID part under 72 feature. If your number is a private or number withheld, then it will not work.

-Even if you have already programmed a number to receive a call from the intercom, if you also want that number to have caller ID access, it must be programmed under the 72 feature also.

-Ensure the number is entered as you would normally dial it from another phone.

### **Q. There is no audio from the gate, but the person at the gate can hear ok.**

A. This can be due to low reception or excessively long power cables.

-Check reception level by \*20#.

**-Change SIM card if necessary to another network which may have better coverage.**

-Purchase a high gain antenna.

-Increase height of antenna.

This may also be caused by a defective microphone, water on a microphone from a sprinkler for example, or dirt blocking the microphone hole. If reception is optimum and the problem persists, contact your supplier or installer.

**Q. The audio quality that can be heard on the remote telephone is poor or humming (buzzing).**

A. A small amount of GSM buzz can be considered normal on GSM intercoms, but not so much that causes inability to hear the person speaking. This can be caused by the GSM antenna being mounted too close to the speech panel or not mounted high enough, or poor power cables being too long or thin.

-Try earthing the speech panel chassis to 0V of the power supply.

-This is also a symptom of poor reception. Try above steps on checking and improving reception.

**Q. The keys do not work when the intercom calls a phone.**

A. Check if you can hear the relay clicking at the gate when the keys are pressed during a call. If it can be heard, then the system is working, check wiring between the relay and the lock or gate panel. If the relays do not make a clicking sound, then check this feature on a different mobile cell phone or landline. If it works on a different phone, check the settings on the phone in question under DTMF tones.

Failure of DTMF tones to operate correctly is also a symptom of low reception. Check steps above on improving reception. Try pressing the buttons longer when attempting to activate the gates or door.

. Also check that the relays are not already latched with the \*22# command. If they are latched, they need unlatched before the trigger keys will work.

**Q. The keypad confirmation beeps when I enter my code but the gates or door lock does not open.**

A. Check wiring. The keypad relay should be connected to the lock or gate system as well as the relay inside the GSM cellular part of the intercom.

- Check for voltage drop. If the voltage is a little low, the keypad may operate but fail to fire the relay. Do not wire power to the intercom in alarm cable or CAT 5 cable. It should be proper power cable and the power cable length should be less than 15 feet if possible.

**Q. The system was operating the gates fine, but now it will not trigger the gates.**

99% of the time, this is caused by the user accidentally latching the relay. This latches the output relay permanently on. Send the intercom the following SMS \*22#. The intercom should reply with a message detailing the relay status.. If it has been latched, then the message will state "the relay is ON". In this case refer to the user guide to read how to unlatch it again.

**Q. The unit no longer calls out to phones but I can make a call to it from my phone.**

A – Check there is balance on the SIM card.

A – Switch off the power, remove the SIM, put it into a phone, and check that a call can be made from a phone. This will verify if the SIM is still working and in service.

# Change History

Key:

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

Version			Reason for change
P	H	S	
1	1	1	First version.
1	2	1	Power chip upgraded to work on 24v dc (24v adaptor in kits).
1	2	2	Software feature added for call log to show last 25 caller ID calls.
1	3	2	Main capacitor, regulator & diode upgraded for 24v ac.
1	4	2	Micro Sim Holder and complete board respin
1	4	3	Caller ID fix for international + symbol. (October 2016)
1	5	4	PRIME model, new firmware plus larger flash storage. (November 2016)

