# CellCOM Prime 7 4G - *Advanced GSM Intercom*

**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**

*** ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE *** See full T&C's on our website

## SIM Preparation

1

Ensure you read all instructions before continuing.

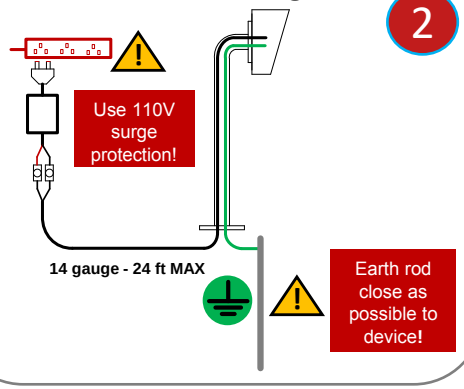
**The SIM cards provided need activated before use.** Follow the instructions provided or visit our telecoms website for more details:

www.aesglobaltelecom.com

The system will be pre-programmed with the APN for the **Tracfone** network.
If you wish to use a different network then the correct APN must be set for full operation. See Details overleaf on setting a new APN.

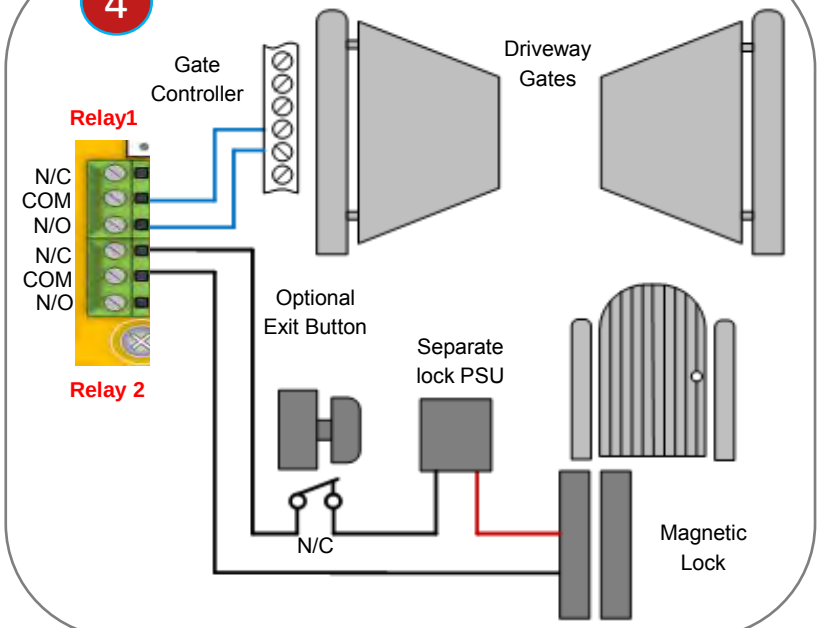
## Site Wiring

2



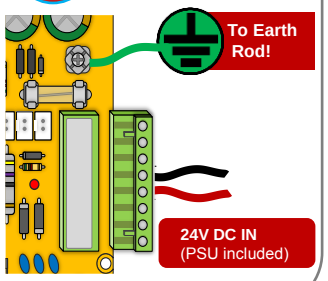

## Relay Connections

4




## Power

3




## 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**

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

**See overleaf for more PCB details**

## SITE SURVEY

**Please read this entire manual before installing this product. A full comprehensive manual is available on our website for additional information.**

Ensure there is good 4G signal on site. 4G units will fall back to 3G service in some countries.

Set up on a bench in workshop **BEFORE** going to site. Program the unit in the comfort of your work bench and call technical support should you have any questions.

This product requires a regular voice & SMS SIM card.
**Do not use a data only SIM, as this will not work in the unit.**
In order to make voice calls on a 4G system and get optimum service, your SIM and provider will need to offer VOLTE support (Voice over LTE).

## 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 **0.5mm²** **( 18 gauge )**
Up to 4 metres ( 12 feet ) – Use minimum **0.75mm²** **( 16 gauge )**
Up to 8 metres ( 24 feet ) – Use minimum **1.0mm²** **( 14 gauge )**

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

## INGRESS PROTECTION

We recommend sealing all entry holes for prevention of insects that can cause issues with a risk of shorting out components.

To maintain the IP55 rating please follow the sealing instructions included. (also available online)

EXTRA RESOURCES

**NEED MORE ASSISTANCE?**
**+1 (631) 565-7288**
SCAN THIS QR CODE TO BE BROUGHT TO OUR RESOURCES PAGE.
VIDEOS | HOW-TO GUIDES | MANUALS | QUICK START GUIDES

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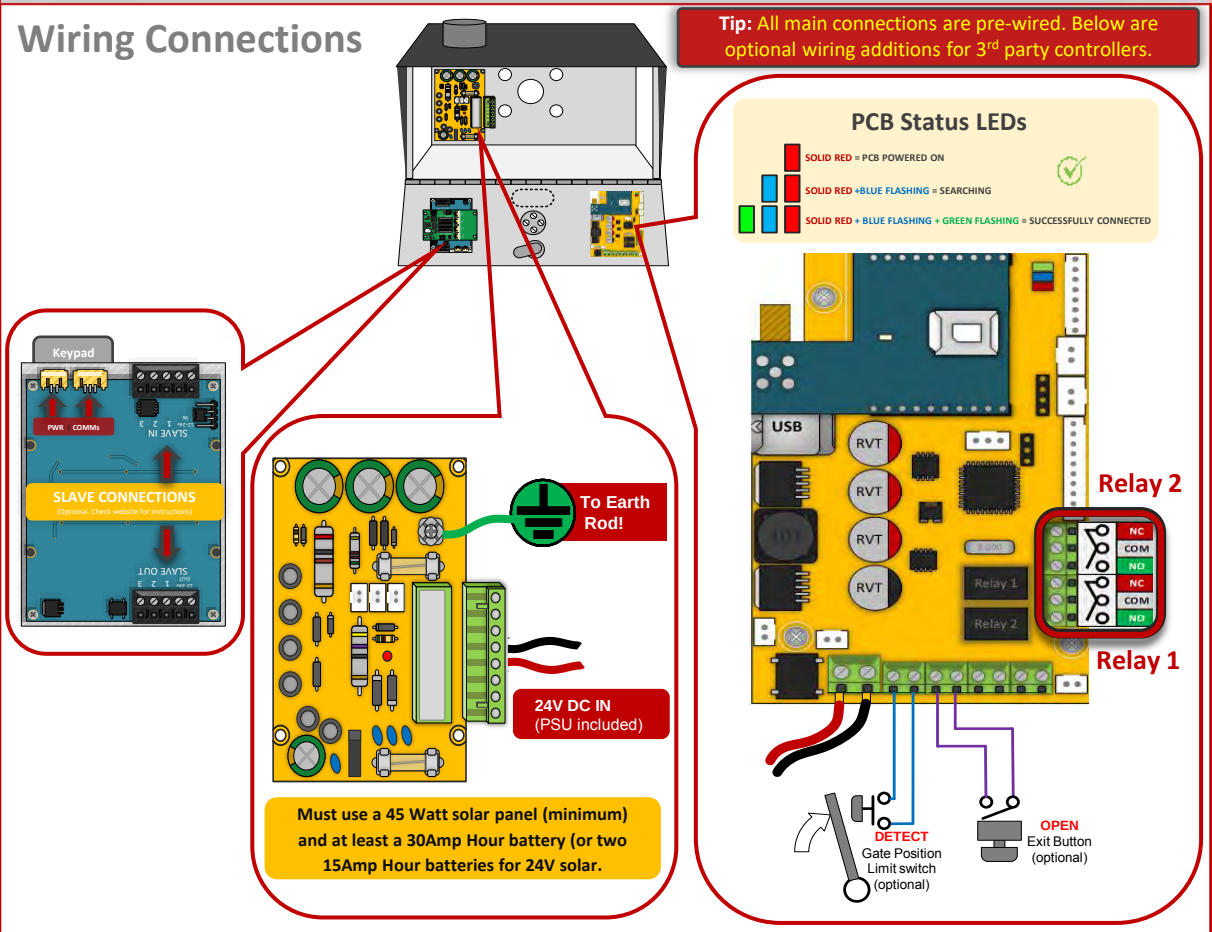
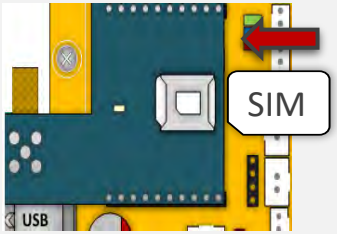
## Wiring Connections

**Tip:** All main connections are pre-wired. Below are optional wiring additions for 3rd party controllers.

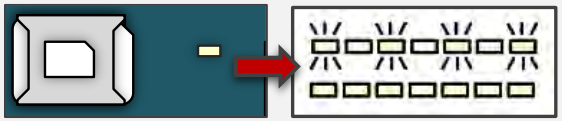



## SIM ORIENTATION

**ALWAYS** ensure the system is switched **OFF** when adding or removing your SIM card and ensure the orientation is correct.




## CONNECTION TO NETWORK



MODEM LED INDICATOR

**4G:** Quick Flashing = **Standby** | Constant **ON/OFF** = **Searching**

## CHANGE APN (for VoLTE / 4G services)

The system will be pre-programmed with the APN for the **Tracfone** network. If you wish to use a different network then the correct APN must be set for full operation.

Check with your network provider for the correct APN for 4G data.
Once you have confirmed the APN enter it in place of 'APNinfo' in an SMS to the intercom.

### via SMS (if connected to network)

Ensure the PCB is powered on and connected to the network with a GREEN flashing LED.

Then send the below text as an SMS to the intercom Sim number. A power reboot is required after the 'OK' reply message is received back.

**9999#97APNinfo#**

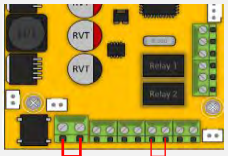
Passcode
Command (add APN)
APN info for SIM network

EXTRA RESOURCES
Search for 'APN Flyer – PRIME'

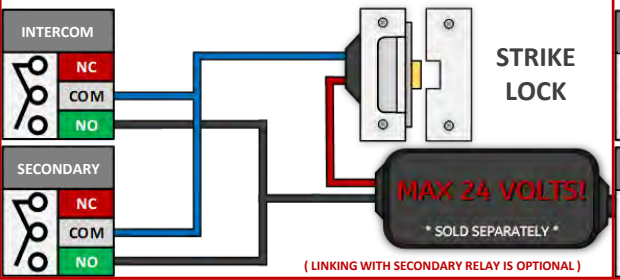
### via Keypad (if no 3G signal)

Contact Technical Support or check our resource page for a list of the APN serial number.

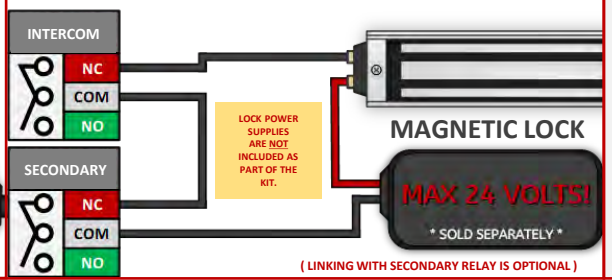
1. Power off the unit, then press and hold the call button and power the unit on again.
2. Upon power up, a long tone will be emitted from the speaker and the blue LED will remain solid - it is now in the APN setting mode.
3. After this, enter the APN serial number through the keypad then press #.
(e.g. if you want to set APN No. 18, press 1 - 8, then #. A long beep will again be heard).
4. Reboot unit.




## ALTERNATIVE WIRING EXAMPLE




## ALTERNATIVE WIRING EXAMPLE



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AES 7th GENERATION

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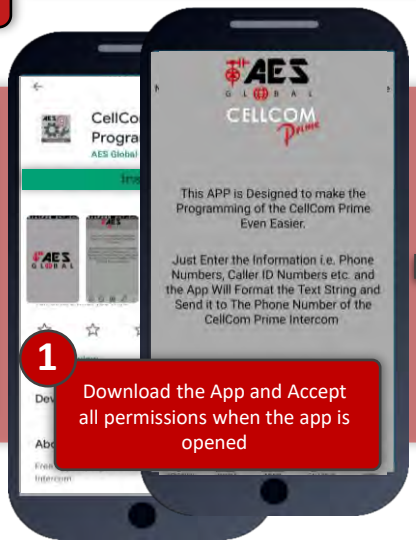
Download the programming app. 'Cellcom Prime Programmer'

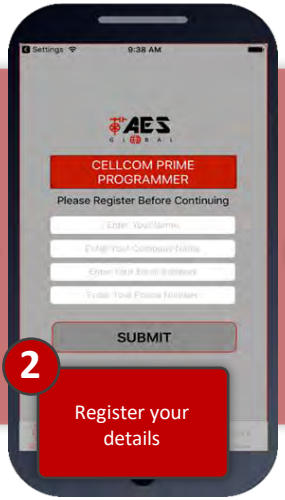
**Note:** Slight differences will be seen between the Android and iOS app versions, any major differences will be highlighted in the screenshots below.

**Tip:** New app release late 2021

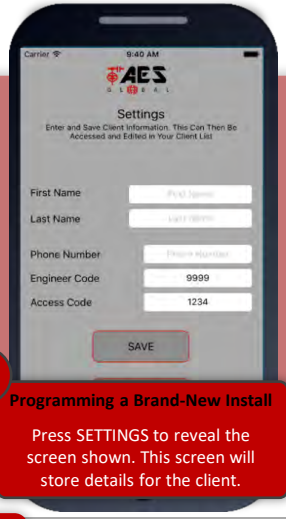
**Tip:** This product is programmed via SMS. This app is designed to assist with creating the correct text strings. The app does not directly control the intercom!




1 Download the App and Accept all permissions when the app is opened

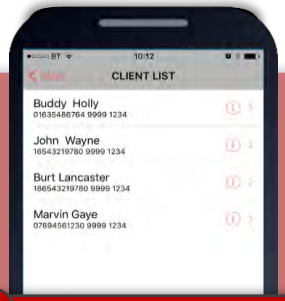



2 Register your details




3 **Programming a Brand-New Install**

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



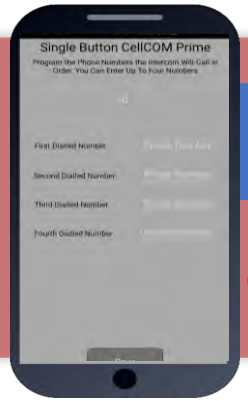

3b **Programming an EXISTING Install**

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

2.) iPhone users press the info symbol. Android users press and hold the client, and then press upload to begin programming.

## Basic Programming Setup

### Add Dial Out Numbers



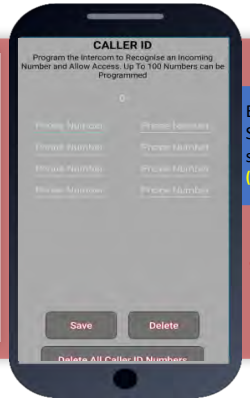

Enter up to 4 Dial Out Numbers & Press Save to create the text string.

**Direct SMS**

9999#111telephonenumber#

Pass code; Function code (add number); Button number (1-10); Telephone number position 1-4; Data

### Add Caller ID Numbers

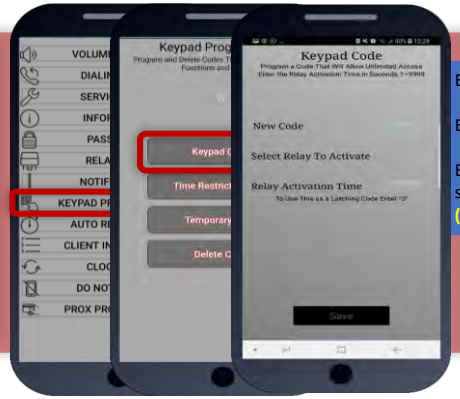



Enter up to 8 numbers per SMS for CallerID & press save to create the text string. **(max 250 separate numbers)**

**Direct SMS**

9999#72telephonenumber#

### Add 24/7 Keypad Codes




Enter 4 digit code

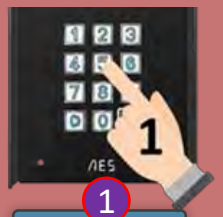
Enter Relay code will activate

Enter Relay activation time in seconds. (0 = Latch) **(max 250 separate numbers)**

9999#31code#time#

Pass code; Function code; 1 = Relay 1, 2 = Relay 2; 4 digit user code; =SECONDS 1-9999, 0 = Latching

### Using Keypad Codes



1 Enter the pre-programmed code

**Note:** You need to send the SMS message created by the app to the intercom SIM number and receive the 'OK' reply for correct programming. .

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## Advanced Programming Setup

SETTINGS | SINGLE | MULTI | CALLER ID | MORE

**VOLUME CONTROL**
Microphone & Speaker Volume

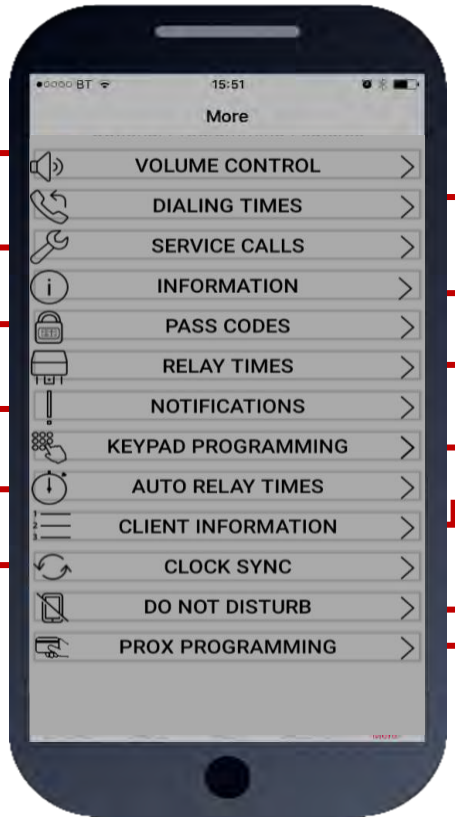
**SERVICE CALLS**
Prevent SIM being turned off due to inactivity.

**PASS CODES**
Programmer and user pass codes

**NOTIFICATIONS**
Turn on SMS notifications when gates triggered.

**AUTO RELAY TIMES**
Time clock automatic opening and closing times

**CLOCK SYNC**
Turn on Auto-clock sync after power failures




**DIALING TIMES**
Avoid voicemail picking up un-answered calls

**INFORMATION**
Check firmware version, signal levels and stored data

**RELAY TIMES**
Change relay pulse times

**KEYPAD PROGRAMMING**
Adjust, add or delete keypad pin codes

**CLIENT INFORMATION**
Adjust, add or delete clients on your client list

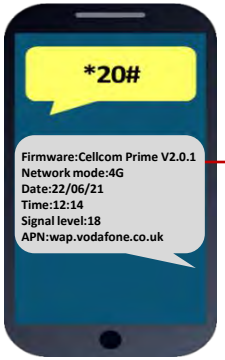
**DO NOT DISTURB**
Turn on do not disturb to disable call button at night

**PROX PROGRAMMING**
Adjust, add or delete Prox card/tag ID's

**Tip:** New app release due late 2021

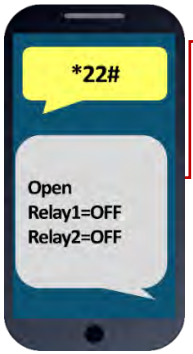
**Note:** You need to send the SMS message created by the app to the intercom SIM number and receive the 'OK' reply for correct programming. .

## INFORMATION *(SMS Reply Examples)*



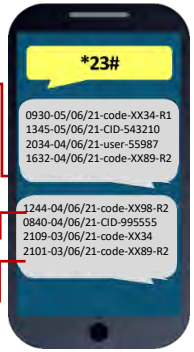

**SIGNAL STRENTH**
Will reply with signal range 1-31. Min signal level should be 10 on 4G systems

**STORED NUMBERS**
O=Dial out number.
I=Dial IN Caller ID number.
N = Another message to follow
E = End of messages



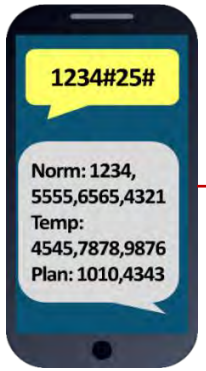

**RELAY STATUS**
OPEN – Shows status of the input terminals called
DETECT - Can be used with a limit switch. Relay status shown to check if any relay is latched.

**ACTIVITY LOG**
Use this to see who used the intercom and when. Which pin codes were used, who used caller ID, who answered the call.
TIP: Time and date is in international military format.



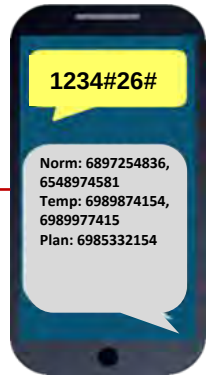

Last 6 digits of caller ID user phone number

Last 2 digits of keypad code used (Relay number triggered will be noted as R1 or R2)




**STORED KEYPAD CODES**
NORM=Permanent codes.
TEMP=Temporary codes.
PLAN=Time restricted codes.

**STORED PROX ID CODES**
NORM=Permanent codes.
TEMP=Temporary codes.
PLAN=Time restricted codes.



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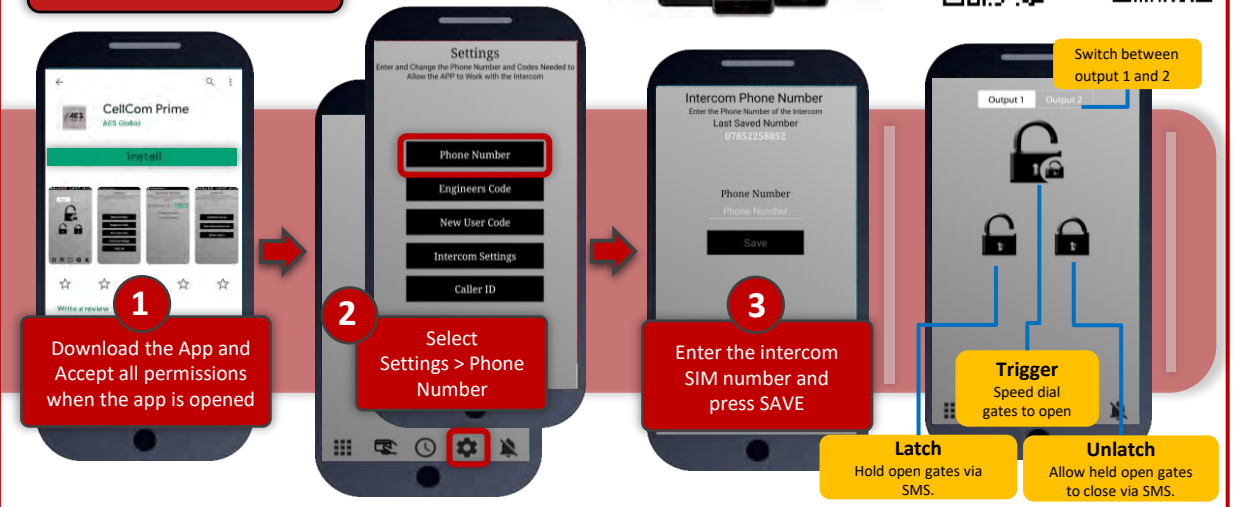
## Using End User App to Manage Gates

Download the user app.
**'Cellcom Prime'**




## Basic SMS Strings to Manage Gates

| Function | CMD String (SMS) |
|---|---|
| **Manually trigger, latch or unlatch relay by SMS.**<br>X = Relay Function.<br>(1 = Trigger relay 1, 2 = Latch relay 1, 3 = Unlatch relay 1)<br>(4 = Trigger relay 2, 5 = Latch relay 2, 6 = Unlatch relay 2) | 1234#X# |
| **Check Intercom Status**<br>(min signal level required for full operation is 10) | *20# |
| **Check Stored Numbers**<br>O = Dial out number. I = Dial in number.<br>N = Another message. E = End of messages. | *21# |
| **Check Relay Status** | *22# |
| **Events Log (check last 20 events, most recent first)**<br>USER = dial out call made; CID = caller ID used;<br>CODE = keypad code used; CARD = prox card/ tag used. (UK date format). | *23# |
| **Check Stored Keypad Codes**<br>Norm = permanent keypad codes; Plan = time restricted keypad codes; Temp = temporary keypad codes. | 1234#25# |
| **Check Stored Prox Cards/Tag IDs**<br>Norm = permanent prox card/tags; Plan = time restricted prox card/tags; Temp = temporary prox card/tags. | 1234#26# |
| **Store Dialling Out Numbers (max 4)**<br>X = 1-4 (sequence number dialled)<br>Number = Phone number (max 14 characters) | 9999#11Xnumber# |
| **Add Caller ID Number (max 250)**<br>(14 digits maximum) | 9999#72number# |
| **Add Keypad Code (max 250)**<br>X = 1 or 2 (relay 1 or 2)<br>Code = 4 digit passcode.<br>Time = 1-9999 seconds, 0 for latching code. | 9999#81Xcode#time# |
| **Add Prox Cards/Tag IDs (max 250)**<br>X=1 or 2 for relay 1 or 2. Card ID = Prox ID number (fixed 10 digits)<br>Time = 1-9999 seconds, or 0 for latching code.<br>Name = Name of cardholder (max 6 characters) | 9999#61XcardID#time#name# |
| **Change Relay Time**<br>Time = 1-99 secondes | 9999#50time# |
| **Enable Latching via DTMF (Disabled by Default)**<br>X = 0 or 1 (0 = Disable, 1 = Enable) | 9999#95X# |
| **Factory Reset (Default Everything)** | 9999#999# |

## Receiving A Call and Opening Gates / Door

Visitors can press the call button, which will initiate a call from your intercom to the designated phone numbers which will have been programmed by your installer.

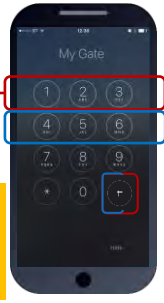
1. Press call button

2. Intercom calls up to 4 phones in sequence

3. Answer the call, speak to visitor, and grant access with phone keypad.

**Output 1**

This is usually main gate/door.
Press 1# to open
Press 2# to hold open
Press 3# to un-hold




**Output 2**

This can be pedestrian gate, driveway lights or other.
**Press 4# to open**
Press 5# to hold open
Press 6# to un-hold

**Change DTMF Confirmation**
Remove the '#' confirmation. Press 1, 2, 3 to trigger, latch & unlatch.
(False triggering may occur when disabled)

**9999#52X#**
**(X=1 enable; X=0 disable)**

**ENABLE Latching feature via DTMF.**
If latching is required.

**9999#95X#**
**(X=1 enable, X=-0 disable)**

**Default = DISABLED**

## 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.

## SIM 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.

## 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, un-explained corrosion or unusually harsh environments, failure of telephone networks, future un-interoperability between the product and network providers which cause mal-function 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.

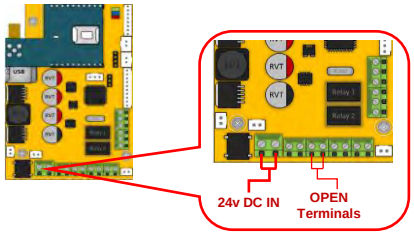
6. Items with physical signs of surge damage are not covered by warranty. Items with visible signs of surge damage will only be covered by warranty if photographic evidence is provided from site, showing surge protection has been installed.

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

# TROUBLESHOOTING

| Symptoms caused | Problem/error | Solution |
|---|---|---|
| No LEDs on. | The unit will not power up. | Check power supply voltage at intercom is 23.4v DC or more. Cable length from PSU to intercom should be less than 25 feet and in 14 gauge for longer distances. See guide. Check the fuse. |
| No green CPU light | 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.<br>-Power off the unit, remove the SIM and check it in a mobile phone to verify it can make a call and has calling credit if it is a Pay As You Go SIM.<br>-Disable any PIN code request if active on the SIM card.<br>-Check the SIM is a standard voice capable SIM. If you are unsure, contact your SIM card provider to verify.<br>-Check the reception is medium or good. Poor reception is not sufficient.<br>-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.<br>-Check antenna is connected and does not have too many sharp bends on the antenna cable.<br>-Check the height of the antenna and make sure it is not inside a metal enclosure.<br>- Check correct power cable size for cable length from PSU. Refer to manual for guidelines |
| Call is going to voicemail if not answered. | The unit calls the first number, but voicemail comes on before it can ring the second number. | Decrease the calling time as per programming instructions. |
| The caller ID function does not work. | Incorrect programming or poor signal | If your number is a private or number withheld, then it will not work.<br>-Ensure the number is programmed as you would normally dial it from another phone.<br>- Ensure you have adequate GSM signal at the intercom by sending *20# as a text. |
| There is no audio from the gate, but the person at the gate can hear ok. | This can be due to low reception or excessively long power cables or underspec power cables. | -Check reception level by *20#.<br>-Change SIM card if necessary, to another network which may have better coverage.<br>-Purchase a high gain antenna.<br>This may also be caused by a defective microphone, water on a microphone from a sprinkler for example, or dirt/insects blocking the microphone hole. If reception is optimum and the problem persists, contact your supplier or installer. |
| The audio quality that can be heard on the remote telephone is poor or humming (buzzing). | Poor reception or underspec power cables. | 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 is a symptom of poor reception. Try above steps on checking and improving reception. Consider fitting an external high gain antenna. Move the antenna further away. Remove any short bends in the antenna. Ensure the spare antenna cable is not rolled up inside the call station. |
| The trigger keys do not work when the intercom calls a phone. | Poor GSM signal at the gate or issue with gate control PCB | 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.<br>Failure of DTMF tones to operate correctly is also a symptom of low reception or insufficient power cabling. Check steps above on improving reception or addressing the power problem.<br>-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.<br>-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. |

## Reset / Default Unit




1) Power off the unit. (approx 60 secs)

2) Make a link across the terminals marked OPEN.

3) Switch on power

4) After several seconds the relay will click.

5) The unit will then clear memory and be defaulted

6) Remove the link and wait around 20 seconds.

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

FCC Warning
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
(1)this device may not cause harmful interference,
(2)this device must accept any inte rference received, including interference that may cause undesired operation.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interferenceto radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or
more of the following measures:
·Reorient or relocate the receiving antenna.
·Increase the separation between the equipment and receiver.
·Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
·Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits a RF radiation exposure limitsset forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

*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
+1 (631) 565-7288