MANUAL

3G VIDEO INTERCOM

AN1104 3G Video Intercom (ACCESS CONTROL SYSTEM)

Please read these instructions before using.

Keep for future reference.

TABLE OF CONTENTS

Thank you for purchasing the AN1104 3G Video Intercom. Please read this manual carefully before using.

Be sure to keep this manual for future reference in case of any problem or question should arise.

IMPORTANT SAFTY INSTRUCTIONS

When using this AN1104 3G Video Intercom, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Please read the following before using your equipment.

1. Follow all warning and instructions on the product.

2. Unplug all the connections of product before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

3. Do not use this product near water.

4. Do not use this product near an area where there is a potential of gas leaks or near any fumes that can be explosive.

5. Do not place this equipment near or over a radiator or any other heat source.

6. Do not overload the wall outlet or power cord where the power adapter is installed. This can result in fire or electric shock

7. Avoid spilling liquids on this equipment and do not insert any objects through the ventilation slots.

8. Avoid using the equipment during an electrical storm. There is a remote risk of electrical shock from lighting.

AN1104 3G VIDEO INTERCOM INTRODUCTION

The 3G Video Intercom AN1104 is an intercom system which can be installed at the entrance of a building, factory, farm or car park. It is an ideal product to replace a traditional door phone. The user has the option to see and speak with visitors at the door entrance via simple video call from a 3G/ UMTS mobile phone. The mobile doesn't need operating system appliction, just 3G connection and the ability to make video calls. The user, without this feature, will still be able to receive audio calls on their mobile phone or land line.

Door or gate release is from the phone keypad by pressing * duration the conversation and can also be activated by calling the SIM card in the unit from an authorized phone number, the unit will recognize an authorized phone number calling it and will then reject the call without answering, free of charge.

Product main features:

1. Stainless-Steel faceplate, Weatherproof.
2. Standalone and Vandal resistant design.
3. Choose to use video or audio call feature
4. Rings up to 3 numbers in sequence.
5. Caller ID access by free call from an authorized phone number, up to 100 numbers.
6. Can be used for silent monitoring.
7. Ring time/ call time/ relay time is changeable.
8. Relay can control holding or releasing a gate or boom.
9. Simple programming via SMS
10. Works with power supplies in the range 12~24V AC/DC.
11. Check stored numbers via text message.
12. Works with mobile phones and land lines.

AN1104 3G VIDEO INTERCOM WITH ACCESSORIES

Item	Description	Q'ty	Included	Optional
1	AN1104 - 3G Video Intercom	1	◎	
2	Power adapter	1	◎	
3	Operational manual	1	◎	

INSTALLATION

This 3G Video Intercom is suitable for flush mounting.
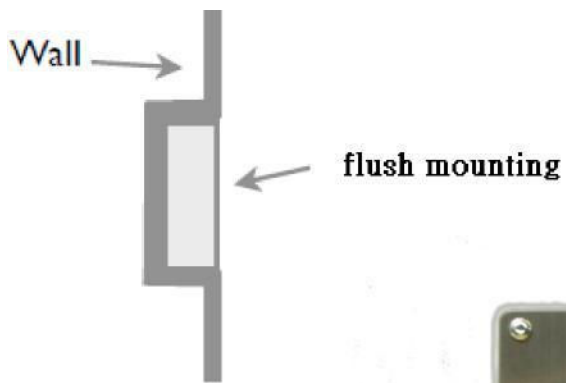
(Front View)

(Side View)

(Rear View)

AN1104 3G Video Intercom Unit
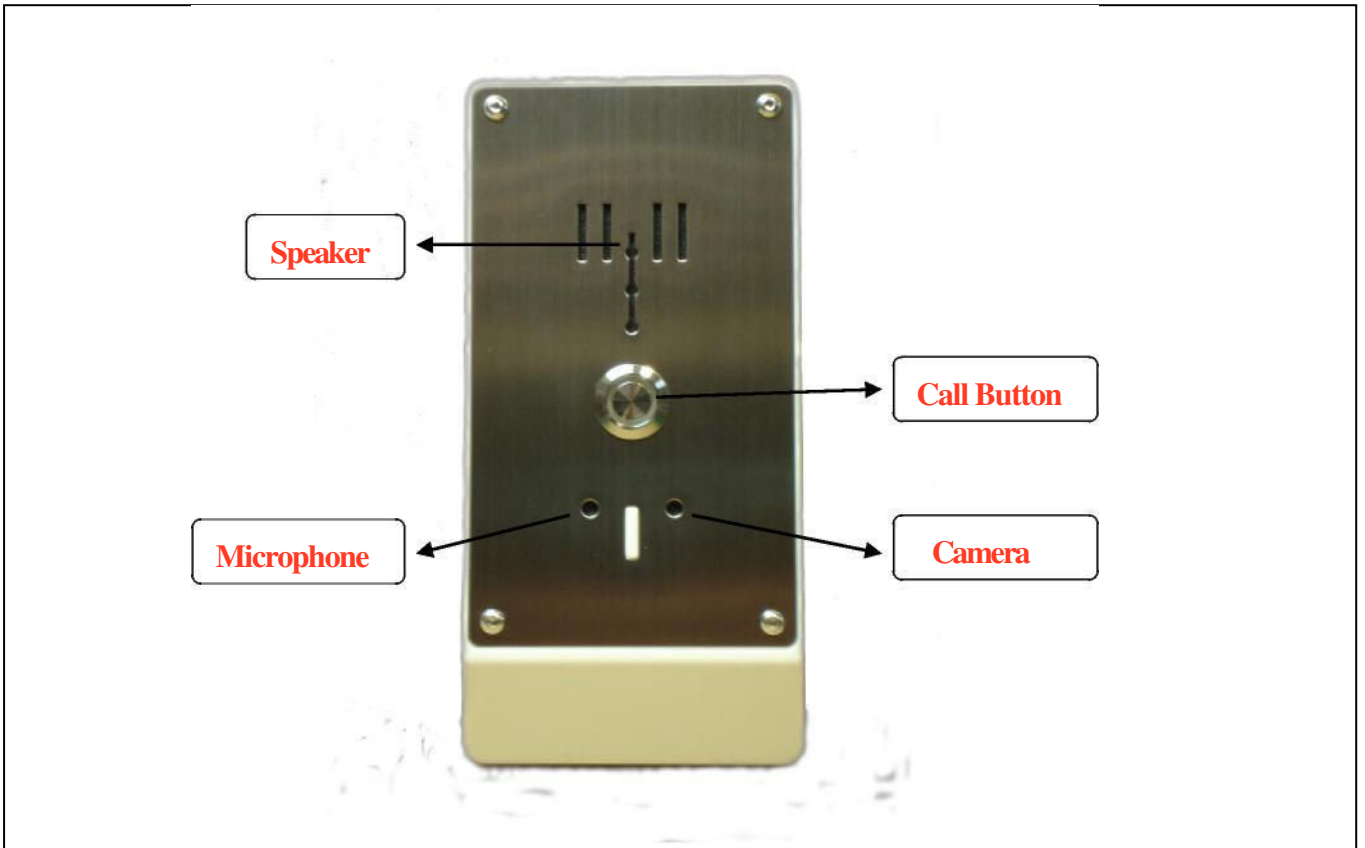
Wiring Diagram
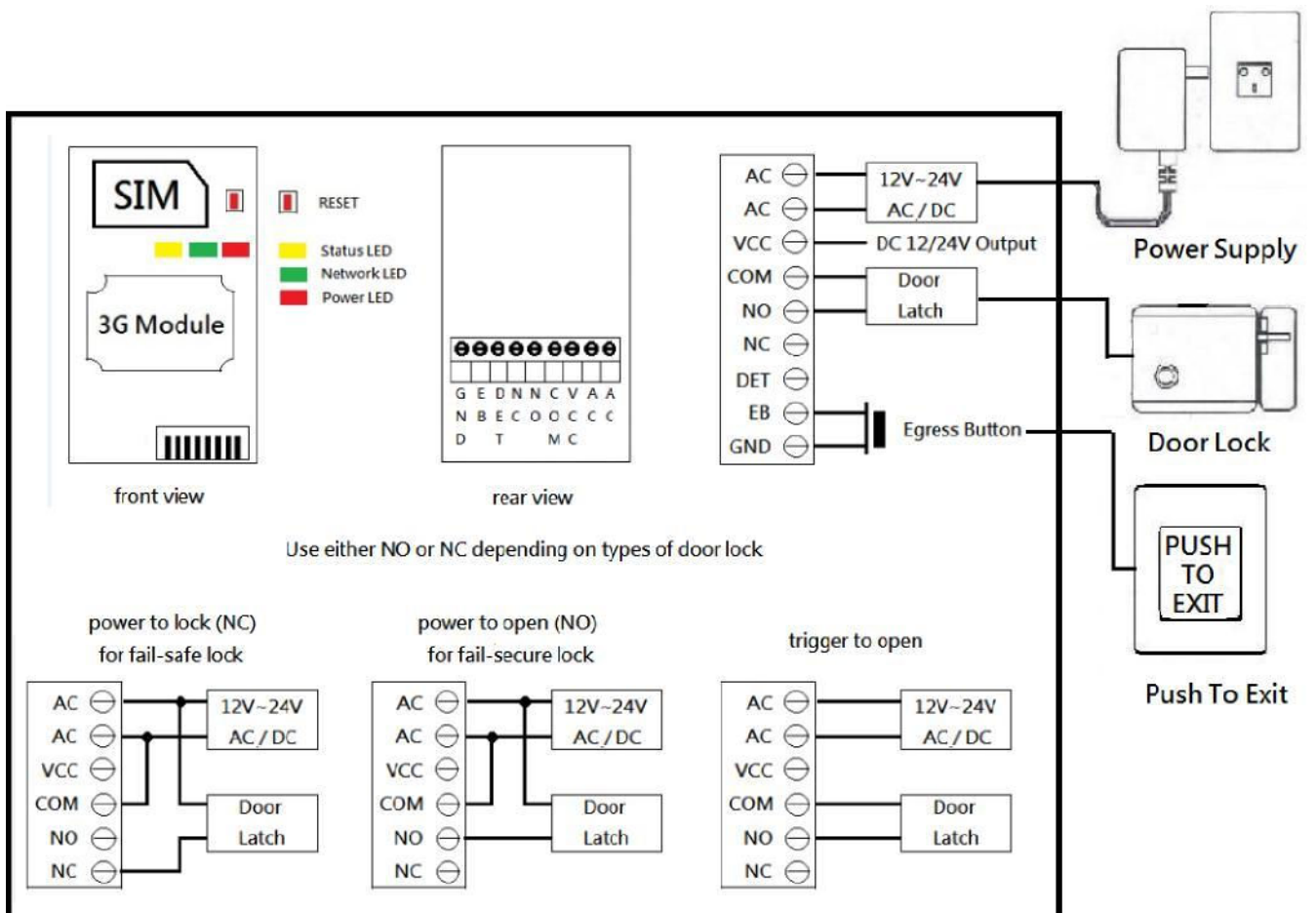
LED INDICATORS

1. LED "**Intercom Status** " Indicat**or**

LED	Status
Red (standby)	0.1sec ON / 2 sec OFF
Red (using)	Solid

2. LED '**Network** "Indicat**or**

LED	Status
Red (ready)	1 sec ON/ 1 sec OFF
Red (searching)	Solid
Red (busy)	Solid

3. LED " Power " Indicat**or**

LED	Status
Red (power on)	Solid
Red (power off)	Off

1. SIM card

    You MUST remove the PIN lock from the SIM before inserting it in the unit AN1104.

    (use your mobile phone to remove the SIM PIN lock)

    Insert the SIM card into the SIM card holder and close it carefully.

2. Power Supply

    Connect a 12 volt DC power supply to terminals marked "AC" and "AC"

    The AN1104 is designed to work with power supplies 12V~24V AC/DC.

    The power supply should be capable of supplying a constant current of no less than 1amp,

3. Door Lock

    Connect an electric door lock to terminals marked "door latch".

AN1104 3G VIDEO INTERCOM OPERATION

When the visitor pushes the call button to activate the AN1104 ring tone will be heard from the 3G Video Intercom. At the same time connection is established with the phone number that is stored in the AN1104. If the first number is busy or not answered the call can be diverted to another phone number, mobile or landline. The remote phone answers the call from AN1104 and starts conversation or live video call with the visitors. Open the gate or door by pressing * through your phone during the conversation. The relay switches can also be temporarily or permanently switched on or off by press **#** and **1**.

Enter system menu

There are three different modes under system menu.

1. Monitoring mode

2. Access control mode

3. Programming mode

To gain access to the system menu via dial in, follows these steps:

1. Call the telephone number of the 3G Video Intercom

2. Wait for the intercom to answer and signal by one beep to enter system menu

3. Press the password of the mode you would like to enter

4. Password correct one beep, password error 3 beeps.

5. 3 times failure attempt on password , hang up the call

System flow Chart

Dial in the 3G video intercom

To search if the phone number is stored in the list as a door open ID.
(Nlax:100 numbers)

No

Yes

Open the door without answering the call

Intercom would answer the call (signal by one beep)

Enter system menu

incorrect

3 times failure
Hand up the call

correct

Programm
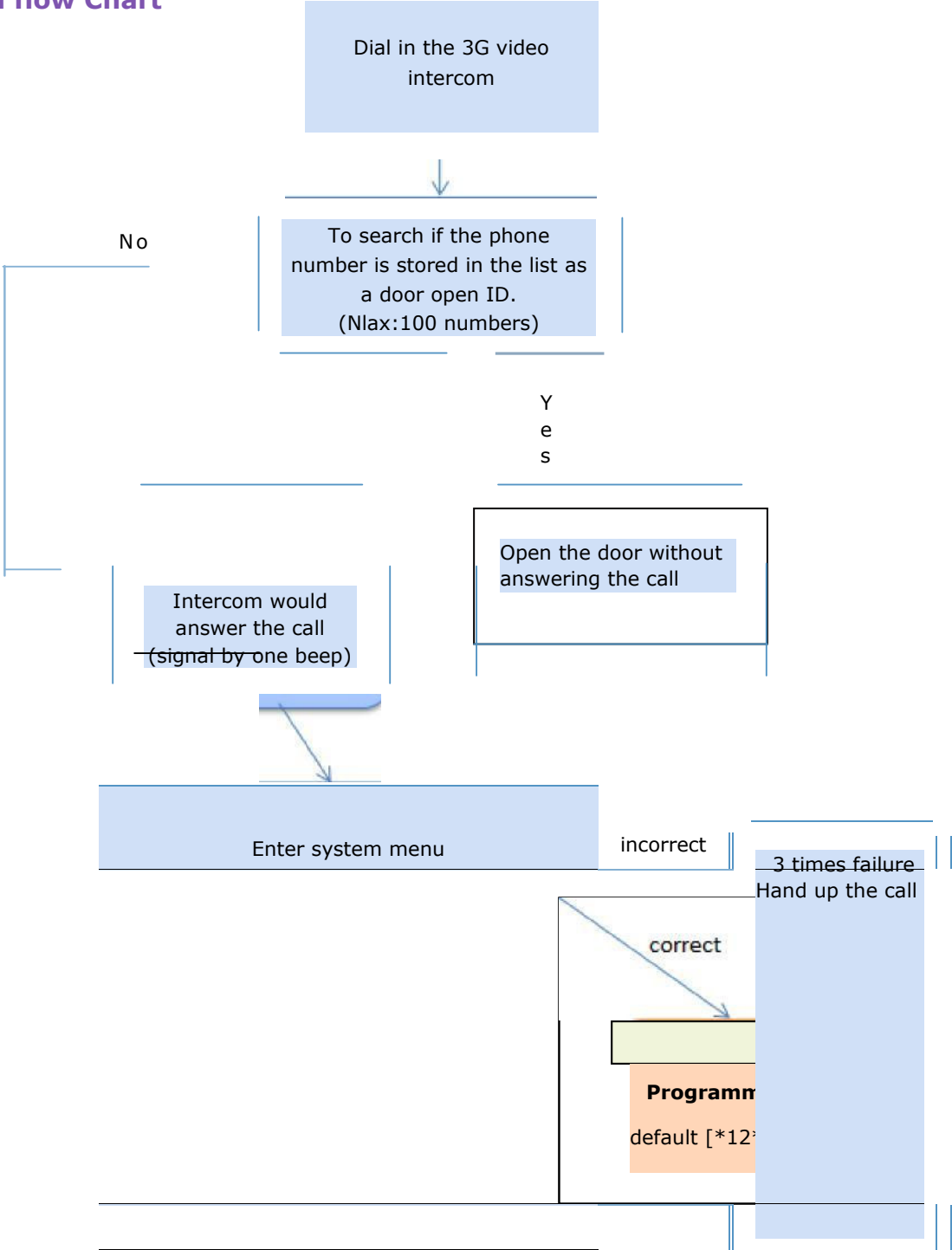
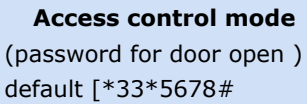default [*12

correct   correct

monitoring mode
default   *13*1212#
     (audio only)
default   *14*1212#
     (audio & video)

Access control mode
(password for door open)
default [*33*5678#

Enter Monitoring Mode

1. Call the telephone number of the 3G Video Intercom

2. This device will then verify your phone number with your predefined numbers.

3. You will hear a "Do" tone to enter video monitoring mode by pressing[***14*1212$k**] where 1212 is the password.

4. The unit will then hang up the call and call you back with a video call and you will be able to hear the live sound and see the video of the intercom's surrounding environment.

5. If you only wish to hear the live sound of the intercom surrounding environment by pressing[***13*1212$~**]where 1212 is the password.

* Video monitoring may not work in some countries duo to restriction by the service providers * Under the monitoring mode speaker is OFF.(press **35$~to turn on** speaker)

* You can still press * to active relay under this mode but speaker must be ON status.

Enter Access Control Mode

1. Call the telephone number of the 3G Video Intercom.

2. This device will then verify your phone number with your predefined numbers.

3. You will hear a "Do" tone to enter access control mode by pressing[***33*5678$~**]where 5678 is the password.

4. The door will be opened after enter the correct password

 *(To open the door by password, if the number is not stored in the access control section)

Enter Programming Mode

1. Call the telephone number of the 3G Video Intercom

2. This device will then verify your phone number with your predefined numbers.

3. You will hear a "Do" tone to enter into programming mode by pressing[***12* 1234$~**]where 1234 is the password.

4. You are now in the "programming mode"
    Note: At the end of each command there can be one of the two indications:
    Successful: a long "**beep**" tone, failed**:** three short "**beep**" tone.

5. To make changes on settings please refer to the user commands.(P16~ P18)

6. To end programming mode just hang up.

NOTE:

*To be successful in programming, originate a call from a land line and enter the digits slowly or using programming by text message.

Programming

Programming can be carried out either by dial into the 3G Video Intercom or by text message (Certain programming feature can only be set up by text message, please refer to user commands P.16)

Programming by text message

Programming by text message is the simplest way to customize the settings of the 3G Video Intercom and add or delete telephone numbers. Simply send texts in the format to the telephone number of the SIM within the 3G Video Intercom.

Note:

1. A SMS text messages is limited to 140 characters.
2. You can program many different user command codes in one text message with SMS command format. ***12*1234 # [command Code1] # [command Code 2] # [command Code3] # ......**
3. Refer to user command table on P.16~18

Program a call button phone number and choose to use audio or video call via SMS

The users have the options either to use video or audio calls by pre-programming the 3G video intercom

For video calls it can only work with mobile phone has ability to make video calls; currently most of Nokia and Samsung mobiles can support this feature. iPhone does not support video calls but audio only due to restrictions by Apple Inc.

Check if your mobile phone has ability to make video calls

Example:

Program a call button phone number and choose to use audio or video call via SMS

058 57235 (landline number 1)
086 5682554 (mobile number 2)███ ▮obile has ability to make video call.
086 2235644 (mobile number 3)███ ▮obile has no ability to make video
call.

SMS format:
*12*1234#**111**05857235#**122**0865682554#**131**0862235644#

Other examples:

**Delete 2&3 phone numbers from a call
button** SMS format:
*12*1234#**12*#13*#**

User command code CORRECT

SMS format:

*12*1234#11105857235#1220865682554#1310862235644#

SMS reply:

11105857235#1220865682554#1310862235644# OK

User command code ERROR (user command 129

error) SMS format:

  *12*1234#11105857235#1**29**0865682554#1310862235644#

SMS reply:

  1110587235#1**29**0865682554# Error

Programming by dial in

Note: programming dial in can't be used from telephones which are already programmed to open the door when they dial the 3G Video Intercom but you can disable Caller ID display (withhold the number) on the mobile before using.

To gain access to the programming mode via dial in, follows these steps:

Example:

Storing a telephone number for dial in door release

Enter Programming Mode by Pressing .....
   *12***1234**# (1234 is default password)

A successful pass code will produce a single long beep. A failed attempt will produce 3 short bleeps.

You may now program up to 100 telephone numbers into memory.
Use the following commands to program the unit

   * Insert international country code (1~3 digits): **71 [country code] #**

   * Add a number (up to 100 numbers): **72 [telephone number] #** *

   Delete a number: **73 [telephone number] #**

   * Delete all numbers: **73*#**

Door /Gate Release (ring in to open)

This 3G Video Intercom also has an extra feature to allow user to gain access from their phone by two methods.

1. by Caller ID recognition
2. by access control password mode

1. Caller ID recognition to open

Ring in to open the door for authorized telephone number. It can support for up to 100 users.

When 3G Video Intercom receives a call from user, it will check the calling number and if the number is in the list, the 3G Video Intercom will drop the call and then open the gate / door. The 3G Video Intercom doesn't answer the call, it simply checks the caller ID, and so it won't cost you anything to open the gate / door.

For Caller ID recognition to open the door or gate you need to program the mobile numbers and country code into the memory before using.

*To be successful we strongly suggest programming via text message.

Example:

Ireland Country code: 353 (UK: 44 / USA: 1)

086 5683624 (mobile number 1)

086 5682554 (mobile number 2)

086 2235644 (mobile number 3)

SMS format:

*12*1234#**71**353#**72**0865683624#**72**0865682554#**72**0862235644#

To delete phone numbers of dialing in to open

SMS format: (to delete phone number 1 and 2)

*12*1234#**73**0865683624#**73**0865682554#

SMS format: (to delete all numbers)

*12*1234#**73*#**

After the numbers are programmed you can also send the text message to check the stored numbers by sending SMS format *21# , then the 3G Video Intercom will reply the phone number list text message.

2. Access control password to open

Dial the SIM card telephone number. The unit will answer the call and you will hear a bleep tone.

To activate relay by pressing *33*5678# (5678 is default password), the door can be opened after enter correct command code.

 *This is for door open option for telephone numbers not stored.

Check signal strength (0~31 levels)

When a request for signal strength SMS is sent to the 3G Video Intercom it will reply with a signal strength code, service provider name and current network (GSM or WCDMA).The signal strength code will be between 0~31 means the signal level is from poor to best. When the unit detects the WCDMA network signal is poor will automatically switch to GSM to get better signal.

Example

SMS format: *20#

SMS reply: Vodafone , WCDMA, Signal Level = 31 ⌈Signal is very strong⌋

Check Relay & Detect (input) Status

You can send SMS command code to check relay status and Detect status.(checking door is opened or closed)

SMS format: *22#

SMS reply: Relay=ON Detect = ON⌈Relay=Hold , Detect=GND⌋

Door opening detection

Terminal mark" DET" input" (see wiring diagram P6) is for you to connect a door sensor. The gate would have a door sensor wired through "DET" input to ground. When the door sensor is triggered, a SMS message" **door open alarm**" is sent to the predefined call button phone numbers.

Panel opening detection

A panel opening sensor is built inside the electronic board, once the panel of 3G video intercom has been removed, the alarm will go off from the speaker and a SMS message" **panel open alarm**" is sent to the predefined call button phone numbers.

Administrator Number

Once the administrator number is stored in the unit whether programming via dialing in or text messages, can only be carried out by this number.

Example:

Program a mobile number as an administrator number via SMS
Mobile number: 0865682554

SMS format *12*1234#**74**0865682554#

To gain access to the different modes and control relay (via dial in)

No.	Function	Command	Description	Default
1	Enter Programming Mode	*12* [password] #	Programming by calling	1234
2	Enter Monitoring Mode	*13* [password] #	To hear the surroundings where the intercom installed via audio call	1212
		14 [password] #	To hear and see the surroundings where the intercom installed via video call	1212
3	Enter Access control Mode (Trigger relay)	*33* [password] #	Access control password mode	5678
4	Hold Relay	*34* [password] #	To hold relay to keep door opened	5678
5	Release Relay	*35* [password] #	To release relay for door close	5678

User commands list (to check system info & control relay via SMS)

| No.	Function	Command	Reply
1	Programming by text message format	*12*1234 # [command Code1] # [command Code 2] # [command Code 3] #[command code 4]#......	Successful: command Code#......OK Failed: command Code#.......... Error (default password:1234)
2	Check signal strength	*20#	Signal Level 0~31(from poor to best) Service provider name, network
3	Check stored numbers	*21#	O [number]...I [number].... E (N) O~call button numbers list I: dial in to open numbers list E: End N~Next SMS
4	Check relay status	*22#	Relay [status], Detect [status] Status: ON / OFF
5	Trigger relay	*33* [password] #	No reply (default password:5678) (Latch on when relay is on hold status)
6	Hold relay	*34* [password] #	No reply (default password:5678)
7	Release relay	*35* [password] #	No reply (default password:5678)
	● SMS data error	(Only 0~9~*~# are available)	SMS Data Error
	● Function code error		Function Code Error

User commands table

No.	Feature	Command	Description	Default
1	Change password of Programming Mode	01 [new password] #	password:4 digit codes	1234
2	Change password of Access control Mode	02 [new password] #	password:4 digit codes	5678
3	Change password of Monitoring Mode	03 [new password] #	password:4 digit codes	1212
4	Store a call button phone number	1 [Y][X][phone number] #	Y:1~3 (sequence of phone number) X:1 (audio call) X:2 (video call) Phone No. : 3~15 digit codes	None
5	Delete a call button Phone number	1 [Y] *#	Y:1~3 (sequence of phone number)	None
6	Speaker Volume	3 [speaker volume] #	volume: 0~4 levels	3
7	Microphone Volume	4 [microphone volume] #	volume: 0~4 levels	3
8	Relay Time	51 [relay time] #	relay time: 1~9999 sec	1
9	Divert to second no. time	52 [divert time] #	divert time :10~99 sec (2 digit codes)	20 sec
10	Call Time	53 [call time] #	call time:005~999 sec (3 digit codes)	060 sec
11	Monitoring duration time	55 [time] #	time:00~60 minutes 00 (no restriction)	10 mins
12	Change trigger relay code	61 [X] #	X: 0~9 / * /#	*
13	Change hold relay code	63 [X] #	X: 0~9 / * /#	#
14	Change release relay code	64 [X] #	X: 0~9 / * /#	1
15	Ring in to open the door (Max: 100 numbers)	71 [country code] # 72 [Add a phone number] # 73 [Del a phone number] # 73*#	Country code:1~3 digit codes Add a number: 3~15 digit codes Del a number: 3~15 digit codes Del all phone numbers	886
16	Add administrator phone number	74 [admin number] #	admin number: 3~15 digit codes (no number no restriction)	None
17	Delete administrator phone number	74*#	delete administrator phone number	None
18	Door opening detection	81 [X] #	X: 0, 1 ,2 0 = OFF / 1=GND 2= EOL (10Kohm)	Off

19	Panel opening alarm	82 [X] #	X: 1 , 2 1= alarm / 2= SMS & alarm	alarm
20	Reset	999#	reset default	None

How To Reset The Hardware When You Forget your Password

Reset the hardware
1. first keep reset button (RED) pressed
2. then press engress button
3. release all buttons after you hearing
   continuous "Dou" tones
4. hardware reset finished
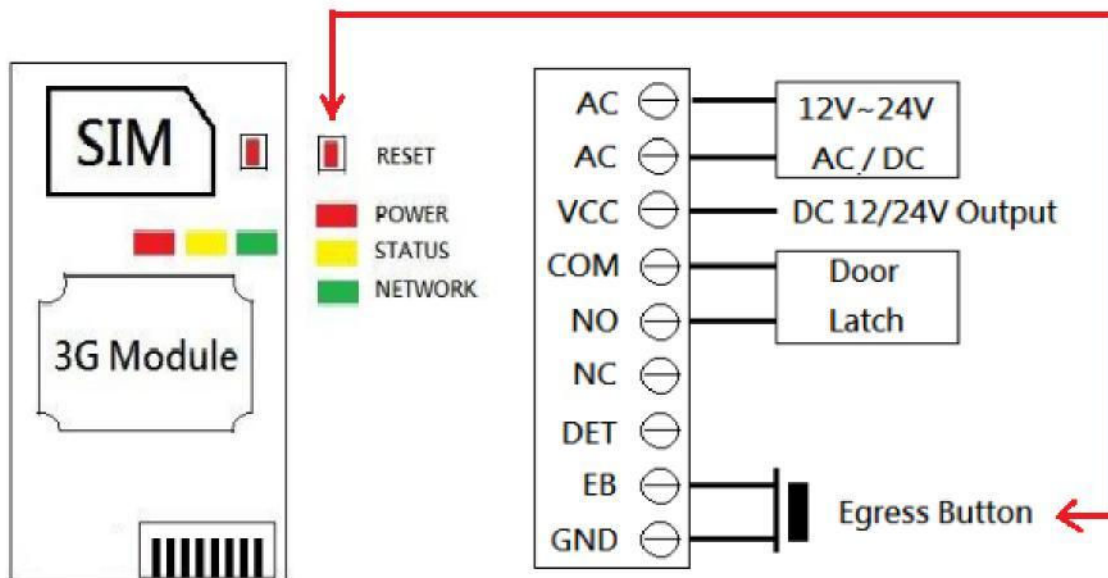
AN1104 3G Video Intercom Specification	
Operating Voltage	12 ~ 24 Volt AC/DC
Operating Current	Maximum 250mA, Typically 55mA
UMTS Frequency	850/1900 MHz for Telstra & Vodafone or 900/2100 MHz for Optus.
Camera	CMOS camera module / 2 megapixel / lens angle 65.5°
Physical material	Stainless Steel and ABS
Physical size	164 x 81 x 20 mm
Weight	265g
Humidity	Less than 80% RH
Operating Temperature	-20°C to +50°C
Protection Index	IP 65

Aristel AN1104 SIM Card Installation

1. Place the cardboard box in which the plug pack power supply comes directly to the left of the Door Station.
2. Use the supplied Allen Key to remove the four fascia screws.
3. Carefully lift off the fascia, lifting it as little as possible, and slowly rotate the fascia from right to left.
4. Place the fascia face-down on the power supply box. (If you don't use the cardboard box, the short ribbon cable will not be long enough to sit the fascia directly on your bench.)
5. Select and prepare your SIM card as per the AN1104 installation instruction manual, then insert it into the SIM card holder on the main PCB in the white enclosure.
6. Carefully remove the adhesive protective film on the front of the fascia.
7. Place the fascia back into the white door station enclosure, being careful not to pull on the short ribbon cable, and to ensure the ribbon cable is not caught between the fascia and the enclosure.
8. Use the supplied Allen Key to put the four fascia screws back in place to secure the fascia.
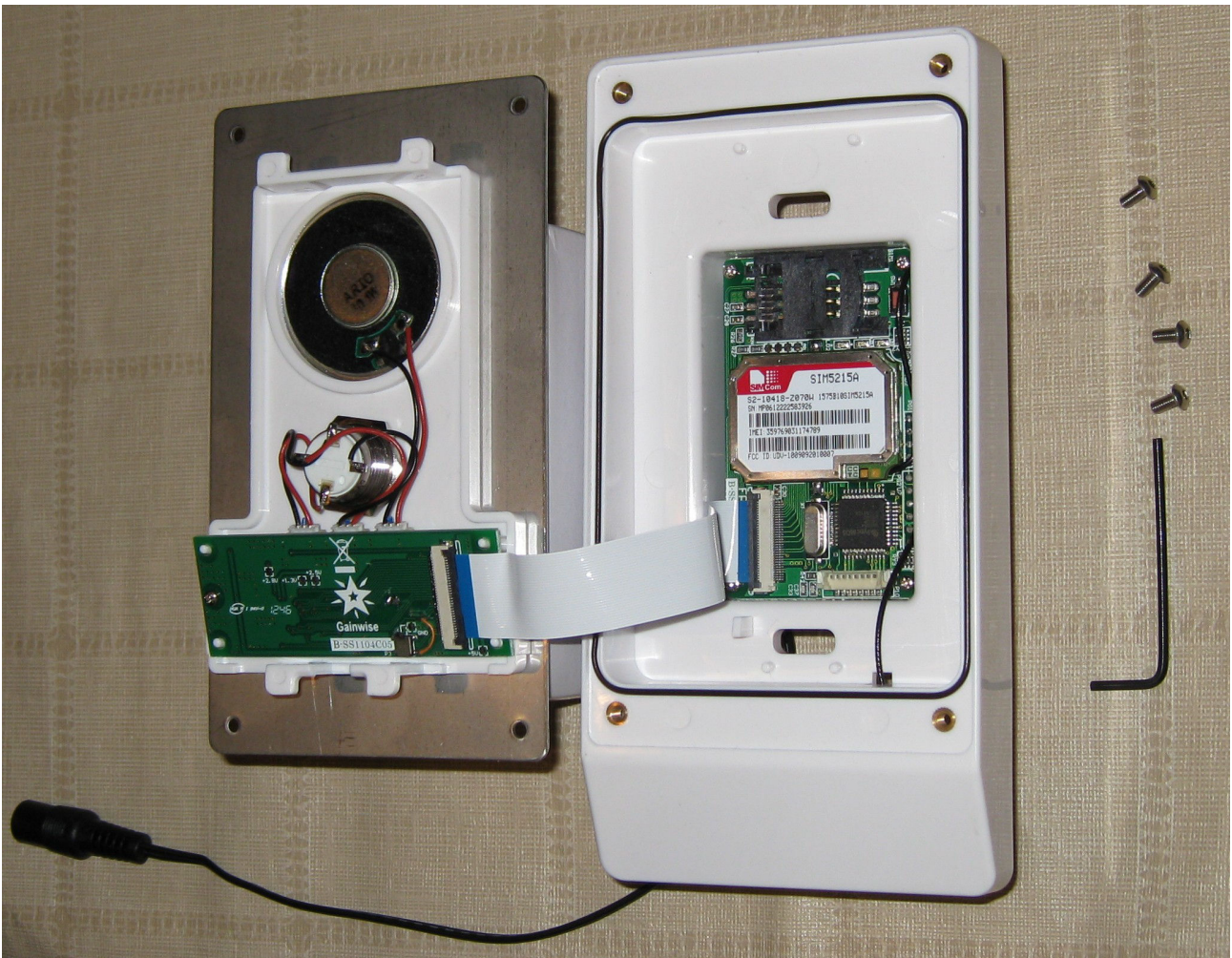
If you accidentally pull the ribbon cable out of one of its end connectors, very carefully re-insert the ribbon cable back into the connector in the same direction as it was initially connected (without any twists, as shown in the above photo).