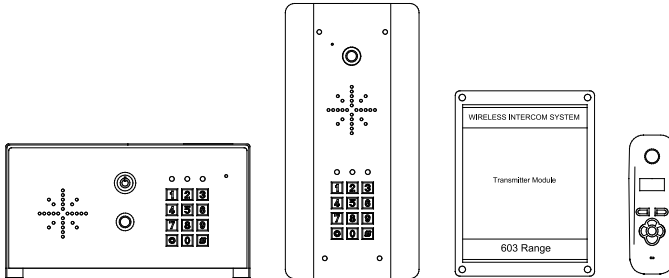# Installation Instructions
603 DECT Intercom

PROFESSIONAL INSTALL ONLY
Do NOT give this manual to end user!

Models 603-IBK, AB, ABK, HB, HBK, FB, FBK, IMP, IMPK

The manufacturer cannot legally offer technical support to non-qualified gate or door installers. End users should employ the services of a professional install company to commission or support this product!

Tip: Site Survey BEFORE you begin. See Page 3!

AUTOMATIC SOLUTIONS

Contents

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 installer.
It is recommended that the system be range tested on site **BEFORE** being fully installed.
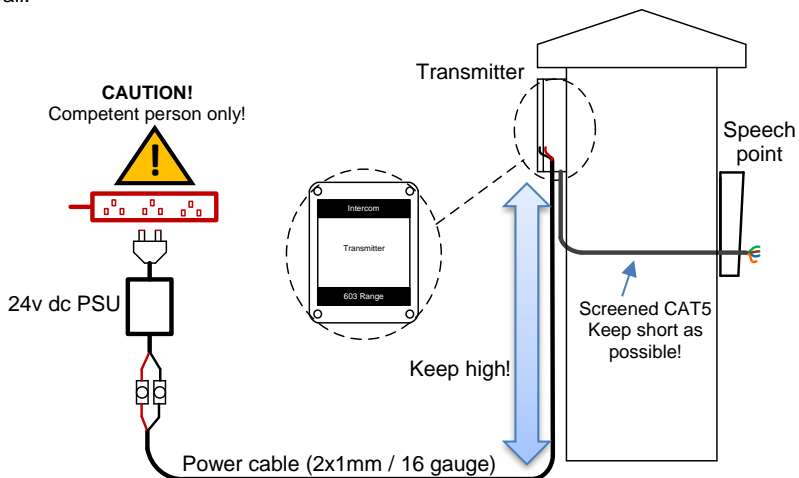
Site Survey

Before installing this system, you need to be sure that the range of the system will be sufficient. The transmitter and speech unit can be powered up, call button pressed, and then check that the handset will ring from all areas in which it will be used.

Wall/Pillar Mounting

Up to 200m / yards

Walls causing weak signal

Speech panel
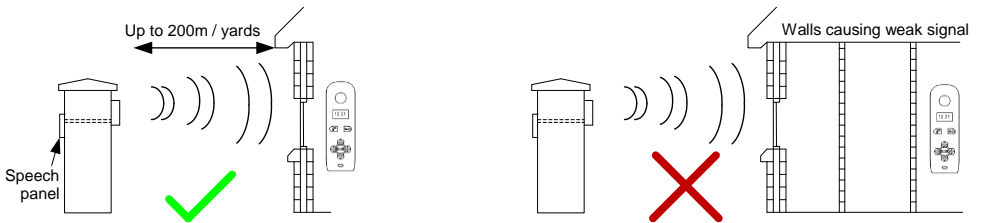
Tip: For longer range installations, locate the handset close to the front of the property, near a window if possible. Concrete walls can reduce the open-air range of 400 metres/yards by 30-50% per wall.

Transmitter

CAUTION!
Competent person only!

Speech point

Intercom

Transmitter

603 Range

24v dc PSU

Screened CAT5
Keep short as possible!

Keep high!

Power cable (2x1mm / 16 gauge)

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 (1.2 amp peak). Please use following cable…
Up to 2 metres (6 feet) – Use minimum $0.5mm^2$ (20 gauge)
Up to 4 metres (12 feet) – Use minimum $0.75mm^2$ (18 gauge)
Up to 8 metres (24 feet) – Use minimum $1.0mm^2$ (16 gauge)

Gooseneck / Pedestal Mounting

Lightning prone areas must use Surge protector

24v dc PSU

transmitter

Intercom
Transmitter
603 Range

Keep High!

Speech point

Power (2x1mm / 16 gauge)

Power cable (2x1mm / 16 gauge)

Screened CAT5 included. (8m / yards MAX)

Tip: For shorter distances, some installs may mount transmitter on pedestal for convenience. Range test first! For high security applications, it is recommended to locate the transmitter INSIDE the property perimeter.

24v dc PSU

Intercom
Transmitter
603 Range

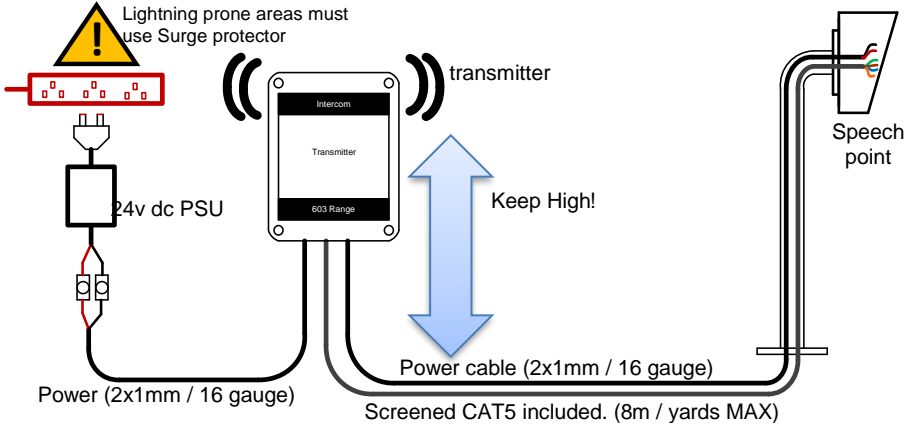Keep High!

Power (2x1mm / 16 gauge)

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 (1.2 amp peak). Please use following cable…
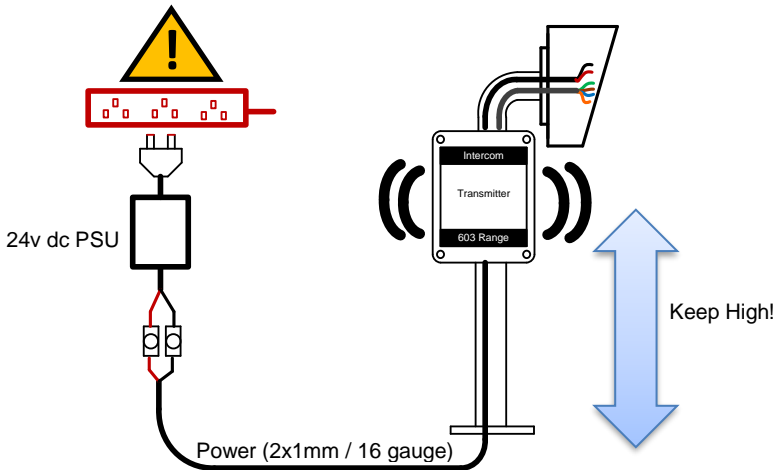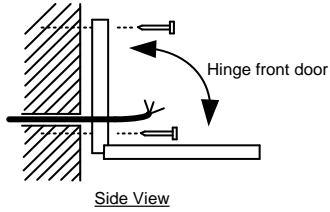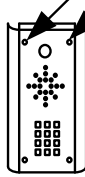Up to 2 metres (6 feet) – Use minimum 0.5mm^2 (20 gauge)
Up to 4 metres (12 feet) – Use minimum 0.75mm^2 (18 gauge)
Up to 8 metres (24 feet) – Use minimum 1.0mm^2 (16 gauge)

Mounting Architectural Panels

Loosen top 2 screws only

Hinge front door

Side View

Mounting Hooded Panels

Loosen top 2 screws only

Call Button

Optional keypad module

Hinge front door

Side View

Mounting Flush Panels

Call Button

Optional keypad module

Remove

Side View

Flush with surface
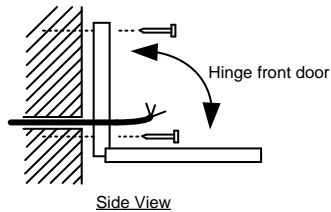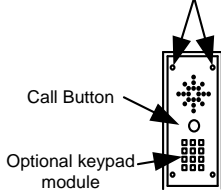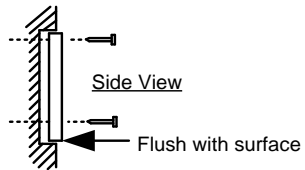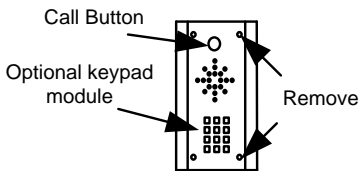
Tip: Use appropriate fixings to ensure the intercom cannot be removed from the wall.

Pedestal Style Mounting

3" hole centres

Hinge front door

Wall mount

5/16 (M8) bolts

3" hole centres

Hinge front door

Gooseneck mount
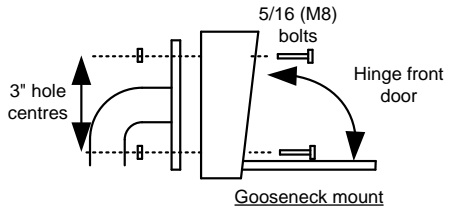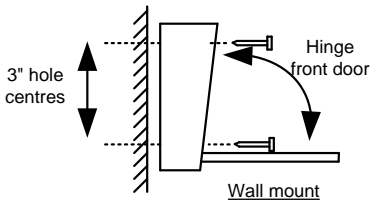
Tip: Use key provided to unlock front door.

Wiring

Transmitter

IMPORTANT
Screen connection

Speaker
Volume

Speech Unit

12v
0v
1
2
3
4
C

+
-

12v
dc

Code

Relays
2   1

N/C
N/O
N/C
N/O

- +
24v DC

To Gate
controller
or lock

WARNING:
ESD Sensitive
components

Relays

Optional extra
antenna

2x1mm
(16AWG)

SCREENED CAT5
8 metres/yards max)

Optional Keypad

Relay2 setting

N/C N/O

Relay3
N/O
COM
N/C

+ 12-24vdc
1   2

Power
Pre-wired

N/C
COM
N/O
N/C
N/O

egress
Data I/O

WARNING:
Do not use any other power
source other than that
provided.

Output Connections Example

Intercom board

Keypad board

Electric Gates

N/O
COM

COM
N/C

COM
N/O

Gate

Separate lock
PSU
(Not supplied)

N/C

Other control
device

Magnetic
Lock
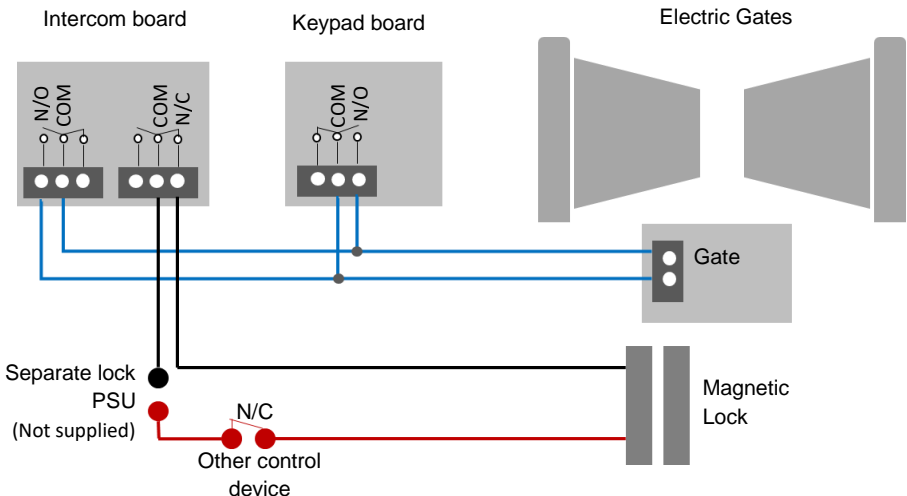
Keypad overview

This keypad has 3 outputs. The diagram below shows the LED indicators which indicate programming and relay status information.

RED when incorrect codes entered and outputs are locked out.
GREEN when output 1 activated.
RED when output 2 activated.
CLEAR when output 3 activated

FAST FLASHING – Wrong code entered / error.
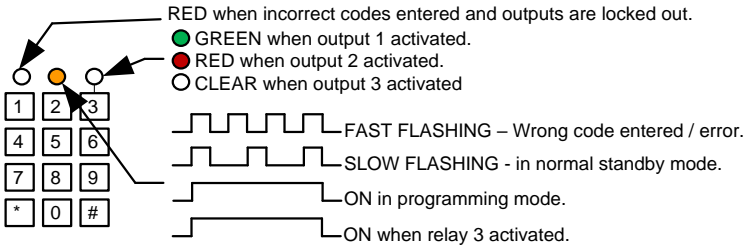SLOW FLASHING - in normal standby mode.
ON in programming mode.
ON when relay 3 activated.

TIP: After power up, as a security precaution, the keypad cannot be programmed for 60 seconds. Once this time elapses, you may begin.

TIP: Flashing amber LED is normal standby mode!

Basic Keypad Programming

Quick start guide

1) Enter programming mode (amber LED should be ON)

| 0 | 0 | 0 | 0 | * | * |

2) Enter a new user code...

| 1 | 0 | 2 | 0 | 0 | 0 | ? | ? | ? | ? | # |

3) Exit programming mode

| * | * |

4) Enter the new user code to check the relay clicks.

Tip: The engineer code must be the same length as user codes. So if using a 6 digit engineers code, then user codes must also be 6 digits long etc.

Full Keypad programming

Enter programming mode..

| 0 | 0 | 0 | 0 | * | * |

The unit is now in programming mode. Amber LED on the keypad should remain permanently on. 0000 is the default programming passcode.

Exit programming mode..

| * | * |

The unit should exit programming mode and the amber LED should start flashing again.

Enter a new ENGINEERS code…

Go into programming mode firstly then enter the following sequence…

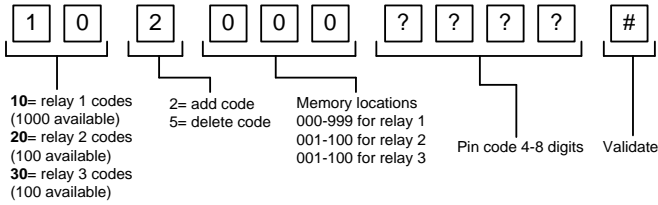| 0 | 1 | ? | ? | ? | ? | # |

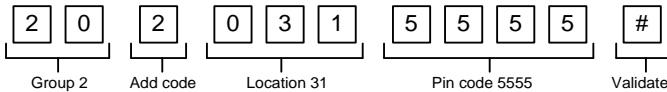Location   4-8 digit code   Validate

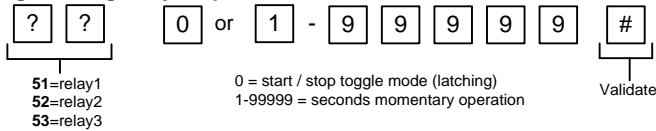Replace ???? with your new ENGINEERS code.

Enter or delete new <u>user</u> codes

There are 3 groups of user codes. Group 10 for relay 1, group 20 for relay 2, and group 30 for relay 3. The programming sequence is shown below…
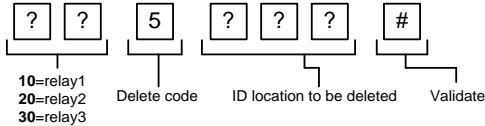
| 1 | 0 | | 2 | | 0 | 0 | 0 | | ? | ? | ? | ? | | # |

10= relay 1 codes (1000 available)
20= relay 2 codes (100 available)
30= relay 3 codes (100 available)

2= add code
5= delete code

Memory locations
000-999 for relay 1
001-100 for relay 2
001-100 for relay 3

Pin code 4-8 digits   Validate

Example: Add user 31 to have access code 5555 operating relay 2….

| 2 | 0 | | 2 | | 0 | 3 | 1 | | 5 | 5 | 5 | 5 | | # |

Group 2   Add code   Location 31   Pin code 5555   Validate

Programming relay output times and modes…

| ? | ? | | 0 | or | 1 | - | 9 | 9 | 9 | 9 | 9 | | # |

51=relay1
52=relay2
53=relay3

0 = start / stop toggle mode (latching)
1-99999 = seconds momentary operation

Validate

Delete a user code even if you don't know the code…

| ? | ? | | 5 | | ? | ? | ? | | # |

10=relay1
20=relay2
30=relay3

Delete code   ID location to be deleted   Validate

Delete an entire group of codes

| ? | ? | | 0 | 9 | 9 | 9 | | # |

10=relay1 group
20=relay2 group
30=relay3 group

Super delete code   Validate
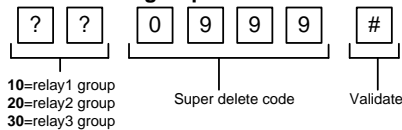
Programming super user codes…

A super user code can activate any of the 3 relays

| 0 | 2 | | ? | ? | ? | ? | | # |

Location   4-8 digit code   Validate
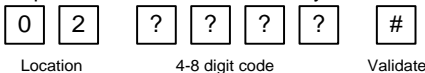
Restoring defaults

When in programming mode, you can enter the following sequence…

| 9 | 9 | 9 | 9 | | # |
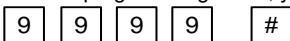
When the master code is forgotten….

1) Wire a push button (or replicate with wire link) across the Egress terminal and (-)GND.

2) Switch off power for 1 minute.

3) Switch ON power.

4) during the first 60 seconds, press the EG button once to enable the function.

5) Enter the following code..

| 8 | 0 | 8 | 0 | | * | * |
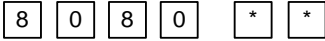
The keypad should now be in programming mode, ready to accept new data. The master code will need changed at this point to something memorable before proceeding.

Using the keypad

Using the standard codes…
Once you have exited out of programming mode, simply enter the user code.

Using super user codes

| ? | ? | ? | ? | | # | 1 | Activate output 1

| ? | ? | ? | ? | | # | 2 | Activate output 2

| ? | ? | ? | ? | | # | 3 | Activate output 3
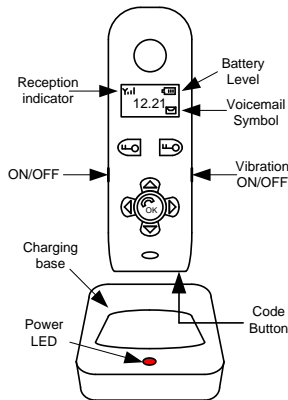
The Handset

The handset should be charged for 8 hours before use. It is recommended to give it at least 1 hour charge before range testing.

Ring Another Handset
Press ▷ and the unit will display HS1-5 depending on how many handsets are coded. Press ▽ and △ to select and then OK to call that handset.

Voicemail
When a call is not answered within 40 seconds, the visitor can leave a message. Once complete, the handset will display the ✉ symbol. The unit can store up to 16 messages.

Change Ring Volume
Press △and▽ to increase and decrease ring volume and press OK to save.

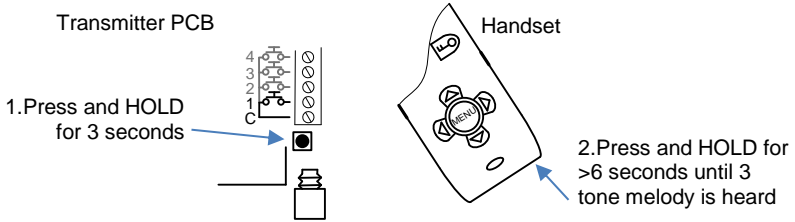**Change Ring Tone**
Press ◁ and the handset will ring with its currently selected tone.
Press△ and ▽ to cycle through available ring tones and press OK to select and save.

To listen to voicemail, press OK to play. If there are more than 1 message, press △ and ▽ to select the message required and press OK to play. ⌐o = Delete (Relay 1). Long press = delete all.

Re-coding Handset/Adding Extra Handset

Occasionally a system may need re-coded once installed. If the handset does not ring when the call button is pressed, it may need re-coded. The procedure for doing this is the same as for adding an additional handset as follows…

Transmitter PCB

Handset

1.Press and HOLD for 3 seconds

2.Press and HOLD for >6 seconds until 3 tone melody is heard

Once the melody is heard, the handset should then be working. The system should now be ready for testing.

Testing

Press the call button on the intercom and all coded handsets should ring (max 4 handsets).

Calling…..
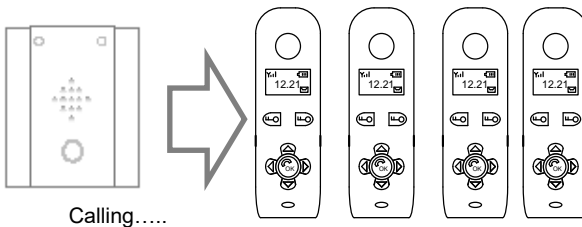
Answer the call on any handset by pressing (OK) , and check for good 2 way speech. Adjust volume while on a call with up and down arrow buttons on the handset and press the same button again to end the call. The gate/door release button can be pressed at any time, either while on or off a call. The relay on the transmitter should then pulse on for 4 seconds.

Using the intercom Handset

Relay 2

Relay 1

Answer / end call

Internal call another handset

Change ring tone

Up and down arrows increase / decrease ring and speech volume

Select or enter
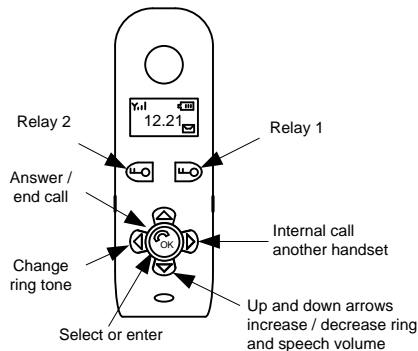
Adjusting Relay time

Press Relay 2 button for 3 seconds, scroll through menu until you see 'ti'. Press OK to select 'ti' and adjust your relay times. Press OK to select your relay time. Press the right arrow end the process. Both relays will have the same relay time.

Adjusting time on Handset

Press OK for more than 2 seconds, and then use up and down arrow keys to set hour. Press OK again to cycle to minutes and adjust. Press OK once more to end the process.

Voicemail

To turn your voicemail ON, press and hold Relay 2 button for 3 seconds, scroll through the menu until you see 'Re'. Press OK to select 'Re' and adjust your setting to ON or OFF. Press OK to select. Press the right arrow end the process.

Troubleshooting guide

Q. The unit will not ring the handset.
A. Try re-coding the handset and transmitter as per instructions.
- Check push button wiring to the transmitter with multi-meter.
-Check power cable distance from power adaptor to transmitter is less than 4 metres.

Q. The person on the handset can hear interference on the call.
A. Check cable distance between the speech unit and transmitter. Shorten this if possible.
-Check cable used between the speech unit and transmitter is screened CAT5.
-Check that the screen of the CAT5 is connected to ground in the transmitter as per wiring instructions.

Q. Keypad code not operating the gate or door
A. Check if the corresponding relay indicator light comes on. If it does, then the fault is either a power problem with excessive cable run, or wiring. If the relay can be heard clicking, then it is a wiring problem. If a click cannot be heard, then it is likely a power problem. If the light does not activate and the keypad emits an error tone, then the issue is likely a programming error.

Q. My handset will not recode
Try the process again. If it still does not work, delete the code from the transmitter. To delete code, press the code button for 3 seconds and release. Then press it 7 times after which a tone should be heard. Then press another 7 times. Now try re-coding the handset again as per the procedure.

Q. Range problem – Handset works beside the intercom, but not from inside the building
A. Check that the power cable to the transmitter is within guidelines and is heavy enough gauge. Insufficient power cabling will reduce transmission power! Check that there are not excessive objects blocking the signal, like large dense shrubs, vehicles, foil lined wall insulation etc. Try to achieve line of sight between both devices.

Q. No speech in either direction
A. Check CAT5 wiring between speech panel and transmitter. Disconnect, re-strip cables and re-connect again.

Q. Handset will not charge
A. Try replacing both batteries with equivalent Ni-Mh batteries firstly. It is possible to have a dead cell in a battery which can prevent both batteries from charging.
-Check for contamination or grease on the charging pins at the base of the handset (gently scratch with screwdriver or wire wool).

Regulatory Compliance

FCC Id: 2ALPX-603TX and 2ALPX-603EH
Grantee: Advanced Electronic Solutions Global Ltd
This device complies with Part 15D of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Output power listed is conducted. This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance. This device has 20MHz and 40 MHz bandwidth modes.

EU-RED Declaration of Conformity

Manufacturer: Advanced Electronic Solutions Global Ltd
Address: Unit 4C, Kilcronagh Business Park, Cookstown, Co Tyrone, BT809HJ, United Kingdom

We/I declare, that the following equipment (DECT intercom), part numbers:
603-EH, 603-TX
Multiple Models: 603-AB, 603-ABK, 603-AB-AU, 603-ABK-AU, 603-ABP, 603-AS,
603-AS-AU, 603-ASK, 603-ASK-AU, 603-BE, 603-BE-AU, 603-BEK, 603-BEK-AU,
603-EDF, 603-EDG, 603-HB, 603-NB-AU, 603-HBK, 603-HBK-AU, 603-HS, 603-HSAU,
603-HSK, 603-HSK-AU, 603-IB, 603-IBK, 603-iBK-AU, 603-IBK-BFT-US, 603-
IB-BFT-US, 703-HS2, 703-HS2-AU, 703-HS3, 703-HS3-AU, 703-HS4, 703-HS4-AU,
703-HSK2, 703-HSK2-AU, 703-HSK3, 703-HSK3-AU, 703-HSK4, 703-HSK4-AU
Complies with the following essential requirements:
ETSI EN 301 489-1 V2.2.0 (2017-03)
ETSI EN 301 489-6 V2.2.0 (2017-03)
ETSI EN 301 406 V2.2.2 (2016-09)
EN 62311:2008
EN 62479:2010
EN 60065

Australia / New Zealand Approvals:
AZ/NZS CISPR 32 :2015

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"

The manufacturer cannot legally offer technical support to non-qualified gate or door installers. End users should employ the services of a professional install company to commission or support this product!