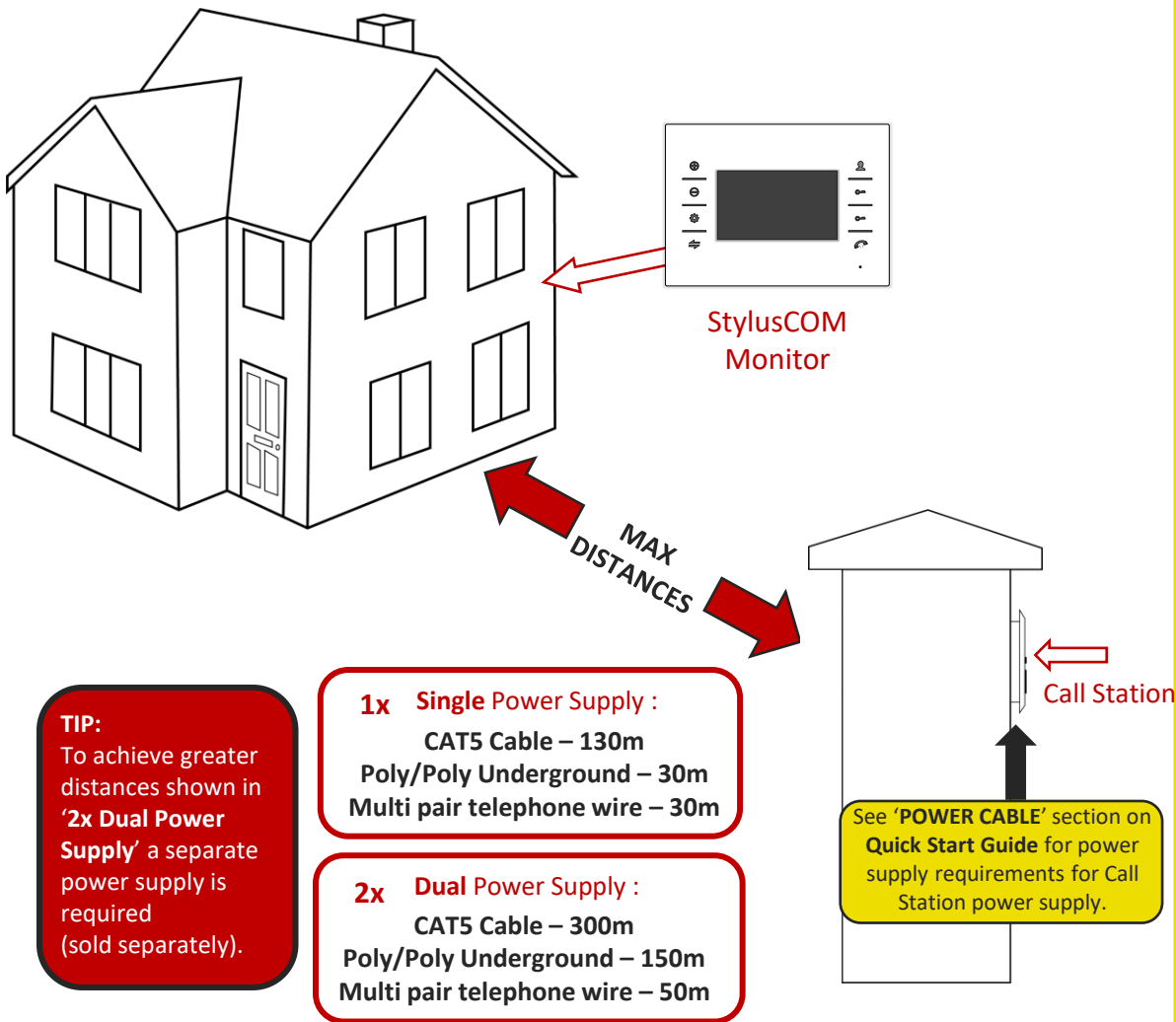# StylusCOM Video *- Hardwired System*

AES GLOBAL

* ALWAYS FULLY TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RESTOCKING FEES *

STYLUSCOM - WIRING DIAGRAM

StylusCOM Monitor

MAX DISTANCES

Call Station

TIP:
To achieve greater distances shown in '**2x Dual Power Supply**' a separate power supply is required (sold separately).

1x Single Power Supply :
CAT5 Cable – 130m
Poly/Poly Underground – 30m
Multi pair telephone wire – 30m

2x   Dual Power Supply :
CAT5 Cable – 300m
Poly/Poly Underground – 150m
Multi pair telephone wire – 50m

See '**POWER CABLE**' section on **Quick Start Guide** for power supply requirements for Call Station power supply.

⚡ **LIGHTNING PRONE AREAS <u>MUST</u> USE SURGE PROTECTION FOR POWER SUPPLY!**

See overleaf for more PCB details
Turn Over

SITE SURVEY

RESTOCKING FEES MAY APPLY IF RETURNED AFTER INSTALL DUE TO SITE ISSUES. PLEASE SEE FULL T&C'S ON OUR WEBSITE

TIP: It is recommended that the system be fully tested on site **BEFORE** installation. You must test to ensure that the system is capable of operating on the desired site. Power the system on and place the monitors in their expected locations around the property and then test that everything is working **BEFORE** mounting any items to the walls.

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

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 / 16 gauge)

INGRESS PROTECTION

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

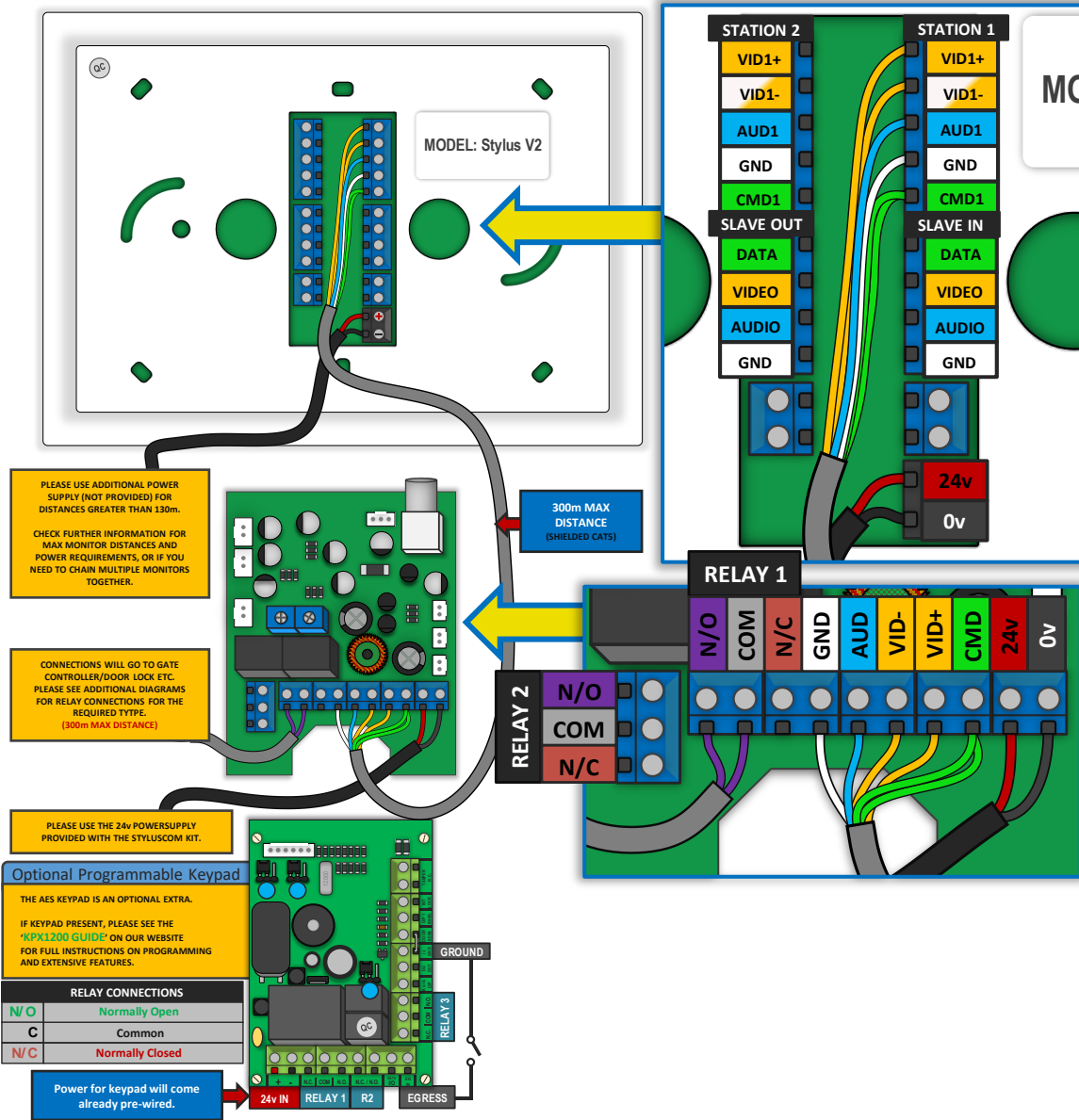To maintain the IP55 rating please follow the sealing instructions included. (also available online)

StylusCOM Video   *- Hardwired System*

AES GLOBAL

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STYLUSCOM - WIRING DIAGRAM

MODEL: Stylus V2

STATION 2
- VID1+
- VID1-
- AUD1
- GND
- CMD1

SLAVE OUT
- DATA
- VIDEO
- AUDIO
- GND

STATION 1
- VID1+
- VID1-
- AUD1
- GND
- CMD1

SLAVE IN
- DATA
- VIDEO
- AUDIO
- GND

MO

24v / 0v

RELAY 1
N/O | COM | N/C | GND | AUD | VID- | VID+ | CMD | 24v | 0v

RELAY 2
- N/O
- COM
- N/C

PLEASE USE ADDITIONAL POWER SUPPLY (NOT PROVIDED) FOR DISTANCES GREATER THAN 130m.

CHECK FURTHER INFORMATION FOR MAX MONITOR DISTANCES AND POWER REQUIREMENTS, OR IF YOU NEED TO CHAIN MULTIPLE MONITORS TOGETHER.

300m MAX DISTANCE
(SHIELDED CAT5)

CONNECTIONS WILL GO TO GATE CONTROLLER/DOOR LOCK ETC. PLEASE SEE ADDITIONAL DIAGRAMS FOR RELAY CONNECTIONS FOR THE REQUIRED TYTPE.
(300m MAX DISTANCE)

PLEASE USE THE 24v POWERSUPPLY PROVIDED WITH THE STYLUSCOM KIT.

Optional Programmable Keypad

THE AES KEYPAD IS AN OPTIONAL EXTRA.

IF KEYPAD PRESENT, PLEASE SEE THE 'KPX1200 GUIDE' ON OUR WEBSITE FOR FULL INSTRUCTIONS ON PROGRAMMING AND EXTENSIVE FEATURES.

GROUND

RELAY 3

RELAY CONNECTIONS	
N/O	Normally Open
C	Common
N/C	Normally Closed

Power for keypad will come already pre-wired.

24v IN | RELAY 1 | R2 | EGRESS

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)
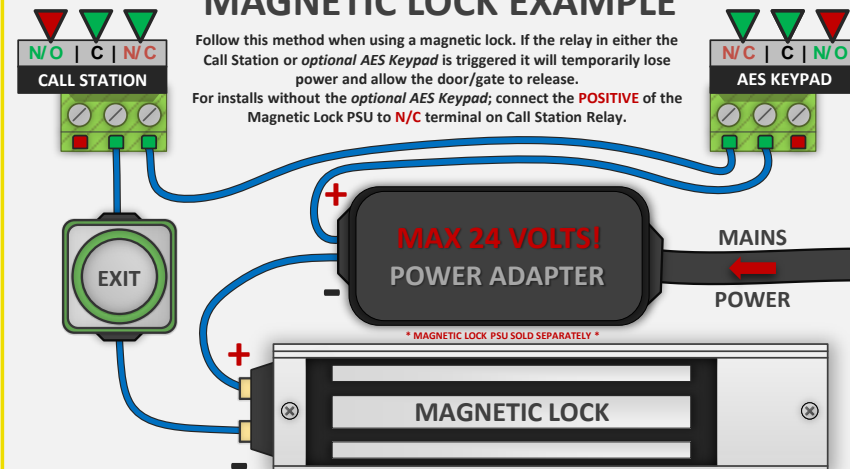Up to 8 metres (24 feet)   – Use minimum **1.0mm²**   (14 / 16 gauge)

OPTIMAL RANGE   **SHIELDED CABLE IS ALWAYS RECOMMENDED**

TIP: To get the most range out of the system we would recommend keeping the separate power supply as close as possible to the video monitor. If chaining multiple monitors together use the SLAVE inputs and outputs - see supplement wiring diagram which will provide more information on the specific requirements and max distances.
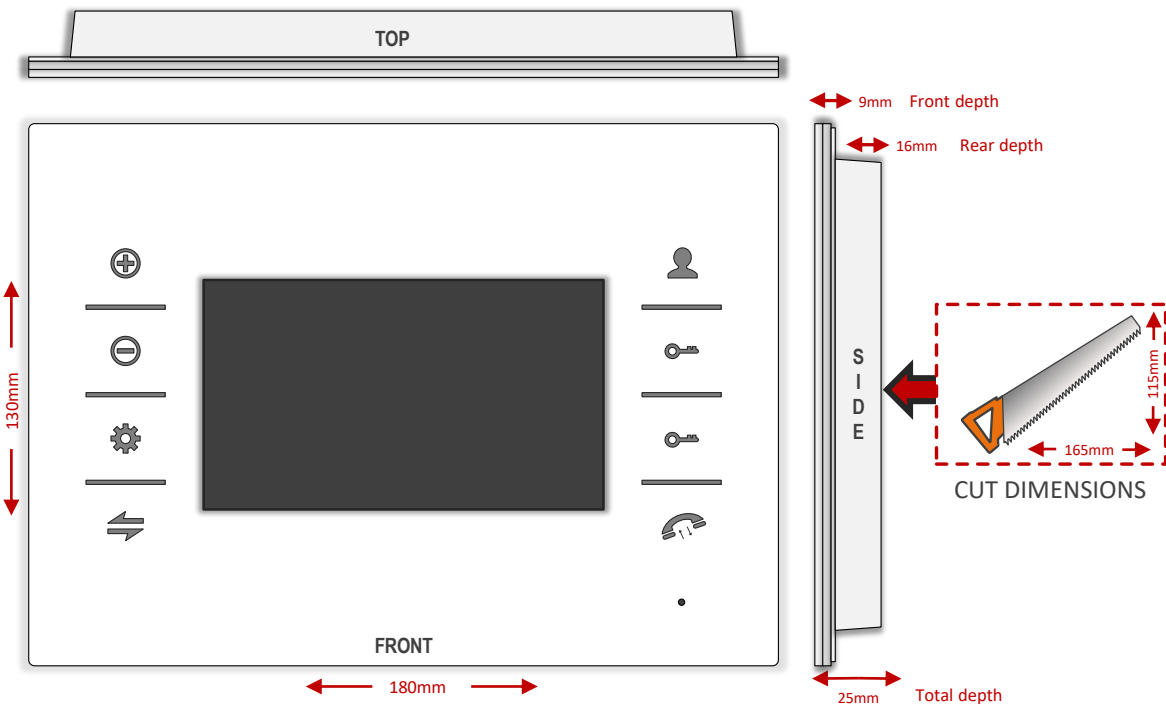
MAGNETIC LOCK EXAMPLE

Follow this method when using a magnetic lock. If the relay in either the Call Station or *optional AES Keypad* is triggered it will temporarily lose power and allow the door/gate to release.
For installs without the *optional AES Keypad*; connect the **POSITIVE** of the Magnetic Lock PSU to **N/C** terminal on Call Station Relay.
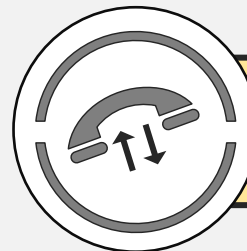
N/O | C | N/C
CALL STATION

N/C | C | N/O
AES KEYPAD

EXIT

MAX 24 VOLTS!
POWER ADAPTER

MAINS

POWER

* MAGNETIC LOCK PSU SOLD SEPARATELY *

MAGNETIC LOCK

StylusCOM Video   *- Hardwired System*

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WWW.AESGLOBALONLINE.COM

* ALWAYS FULLY TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RESTOCKING FEES *

INFORMATION ABOUT YOUR VIDEO MONITOR

TOP

9mm   Front depth

16mm   Rear depth

SIDE

115mm

165mm

CUT DIMENSIONS

130mm

180mm

FRONT

25mm   Total depth

HOW TO USE THE STYLUSCOM MONITOR

ANSWER CALL BUTTON
Tap to answer incoming call.
(tap again to hang up call)

INCREASE IN CALL VOLUME
Tap to increase volume of monitor.

DECREASE IN CALL VOLUME
Tap to decrease volume of monitor.

TRANSFER THE CALL
Tap to transfer the call to other monitor(s).

MONITORING MODE
Tap to monitor the intercom video & audio.

ACTIVATE RELAY 1
Tap to activate Relay 1.

ACTIVATE RELAY 2
Tap to activate Relay 2.

AC/DC STRIKE LOCK WIRING EXAMPLE

Follow this method when using a Strike Lock with the system. If used it will mean that if a relay in either the Call Station or *optional AES Keypad* is triggered it will temporarily allow the door/gate to release.
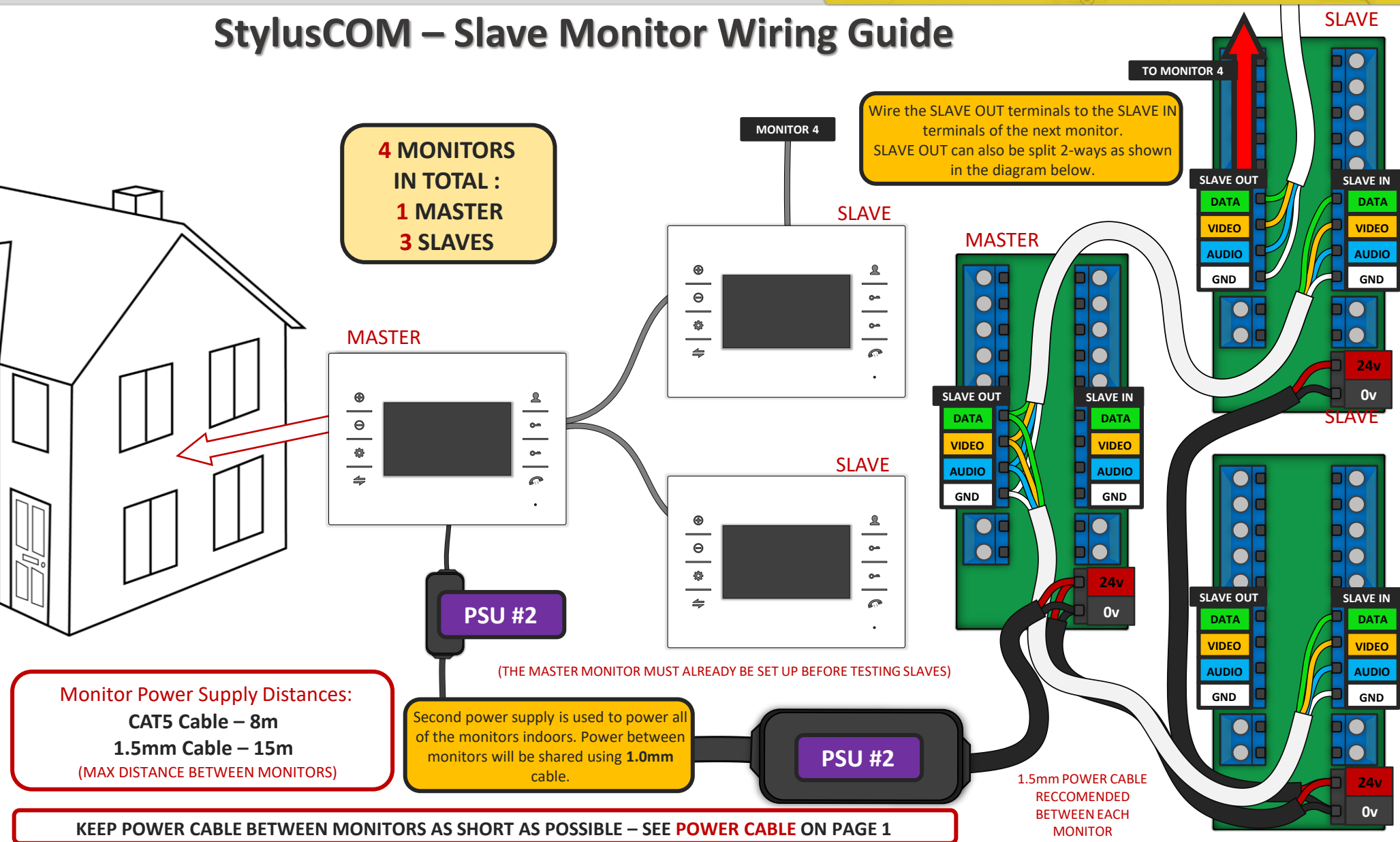
Do you require a custom wiring diagram for your site? Please send all requests to diagrams@aesglobalonline.com and we will do our best to provide you with a supplement diagram suitable for your chosen equipment.

We are constantly using your customer feedback to enhance all of our guides / learning material for installers.
If you have any suggestions regarding this please send any suggestions to feedback@aesglobalonline.com
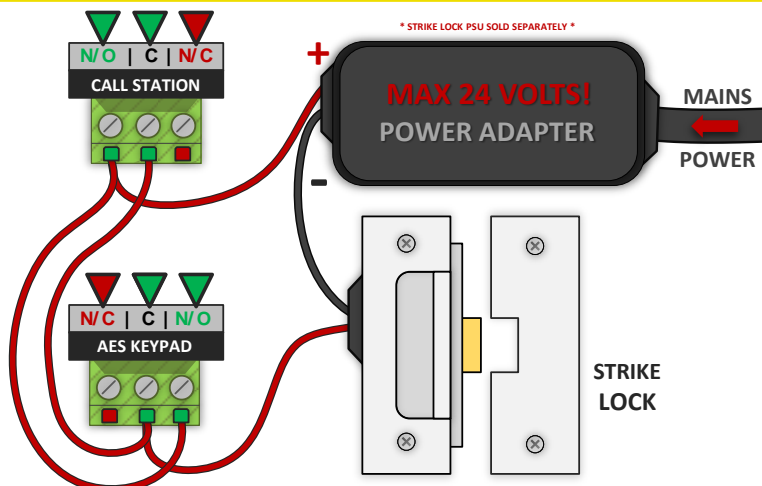
N/O | C | N/C
CALL STATION

N/C | C | N/O
AES KEYPAD

* STRIKE LOCK PSU SOLD SEPARATELY *

MAX 24 VOLTS!
POWER ADAPTER

MAINS

POWER

STRIKE LOCK

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StylusCOM – Slave Monitor Wiring Guide

4 MONITORS IN TOTAL :
1 MASTER
3 SLAVES

SLAVE

TO MONITOR 4

MONITOR 4

Wire the SLAVE OUT terminals to the SLAVE IN terminals of the next monitor.
SLAVE OUT can also be split 2-ways as shown in the diagram below.

SLAVE

SLAVE OUT
- DATA
- VIDEO
- AUDIO
- GND

SLAVE IN
- DATA
- VIDEO
- AUDIO
- GND

MASTER

MASTER

SLAVE OUT
- DATA
- VIDEO
- AUDIO
- GND

SLAVE IN
- DATA
- VIDEO
- AUDIO
- GND

24v
0v

SLAVE

SLAVE

SLAVE OUT
- DATA
- VIDEO
- AUDIO
- GND

SLAVE IN
- DATA
- VIDEO
- AUDIO
- GND

24v
0v

PSU #2

(THE MASTER MONITOR MUST ALREADY BE SET UP BEFORE TESTING SLAVES)

Monitor Power Supply Distances:
CAT5 Cable – 8m
1.5mm Cable – 15m
(MAX DISTANCE BETWEEN MONITORS)

Second power supply is used to power all of the monitors indoors. Power between monitors will be shared using **1.0mm** cable.

PSU #2

1.5mm POWER CABLE RECCOMENDED BETWEEN EACH MONITOR

24v
0v

KEEP POWER CABLE BETWEEN MONITORS AS SHORT AS POSSIBLE – SEE POWER CABLE ON PAGE 1

* ALWAYS FULLY TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RESTOCKING FEES *

AES KPX1200 STANDARD OPERATIONS

1 **2** **3**

(LEDs ABOVE KEYPAD FRONT)

LED 1 = RED/GREEN. It lights up in **RED** while one of the outputs is inhibited. It is flashing during inhibition paused. It is also the *Wiegand* LED for feedback indication and will light up in **GREEN**.
LED 2 = AMBER. It flashes in Standby. It shows the system status in synchronization with the beeps.
LED 3 = RED/GREEN. It lights up in **GREEN** for **OUTPUT 1** activation; and **RED** for **OUTPUT 2** activation.
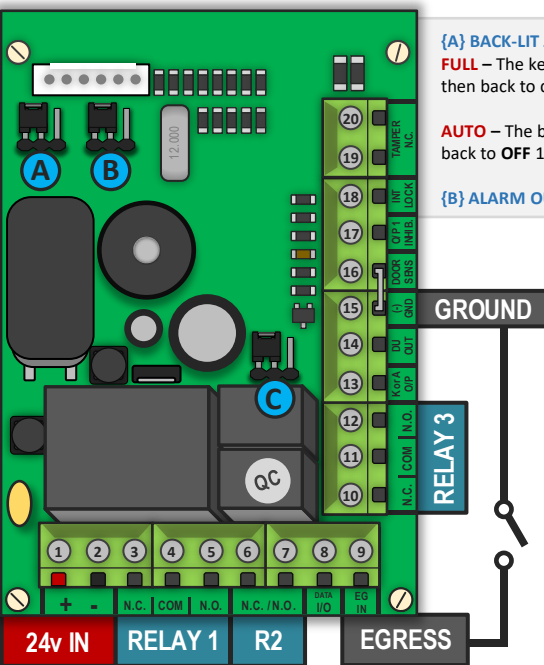
{A} BACK-LIT JUMPER = FULL/AUTO.
FULL – The keypad gives dim backlit in standby. It turns to full backlit when a button is pressed, then back to dim backlit 10 secs after the last button is pressed.

AUTO – The backlit is **OFF** in standby. It turns to **FULL** backlit when a button is pressed, then back to **OFF** 10 seconds after the last button is pressed.

{B} ALARM OUTPUT SETTING = (RESOURCES PAGE - ADVANCED WIRING OPTIONS)

GROUND

RELAY 3

QC

24v IN **RELAY 1** **R2** **EGRESS**

{1,2} 24v 2Amp = Regulated PSU
(Pre-wired for inside an AES Intercom System)

{9,15} Egress for PTE (Push To Exit)
If you wish to make use of this feature you must wire your PTE switch using terminals 9 & 15 marked as ' EG IN ' and ' (-) GND.

Note: The egress feature on the keypad is designed to only activate **Output 1**. Ensure that the entry you wish to gain access to via the PTE switch is connected to this output. Programmable for Instant, Delay with Warning and/or Alarm Momentary or Holding Contact for Exit Delay.

AES KPX1200 RELAY OUTPUT INFORMATION

{3,4,5} RELAY 1 = 5A/24VDC Max. N.C. & N.O. dry contacts.
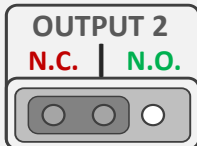**1,000 (Codes) + 50 Duress Codes**

{6,7,C} RELAY 2 = 1A/24VDC Max. N.C. & N.O. dry contacts.
100 (Codes) + 10 Duress Codes (COMMON port is determined by the Shunt Jumper marked as C on the diagram. Connect your device to N.C. and N.O. and then move the jumper to the required position and test.)

{10,11,12} RELAY 3 = 1A/24VDC Max. N.C. & N.O. dry contacts.
100 (Codes) + 10 Duress Codes

{19,20} Tamper Switch = 50mA/24VDC Max.
N.C. dry contact.

RELAY CONNECTIONS	
N/O	Normally Open
C	Common
N/C	Normally Closed

ALL THREE OUTPUTS ARE VOLT-FREE CONTACTS.

OUTPUT 2
N.C. | **N.O.**

^MOVE JUMPER LINK^

Did you know?

Extra **Prox cards** and **Prox Tags** can be purchased in packs of 10 & 50.
(PROX versions only)

NEED MORE ASSISTANCE?
Please scan this QR Code to be brought to our Resources page where you can find all of our guides and available resources.

EXTRA RESOURCES

SITE SURVEY

TIP: If fitting this keypad as an independent system then no site survey is required. If the keypad is included inside a callpoint then please follow the site survey details included on the main product guide.
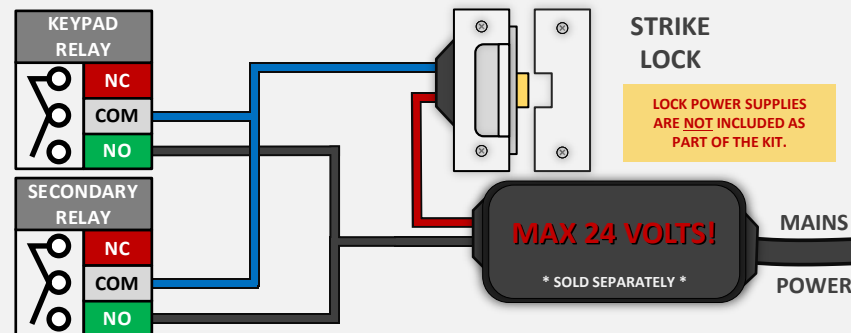
POWER CABLE

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.
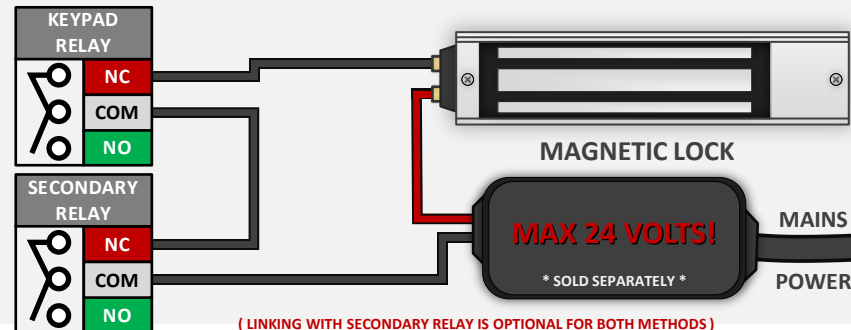**NEITHER** are rated to carry enough power! **(1.2amp peak)**
Please use the following cable:

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 / 16 gauge**)

STRIKE LOCK WIRING METHOD

KEYPAD RELAY
NC
COM
NO

SECONDARY RELAY
NC
COM
NO

STRIKE LOCK

LOCK POWER SUPPLIES ARE NOT INCLUDED AS PART OF THE KIT.

MAX 24 VOLTS!
* SOLD SEPARATELY *
MAINS
POWER

MAGNETIC LOCK WIRING METHOD

KEYPAD RELAY
NC
COM
NO

SECONDARY RELAY
NC
COM
NO

MAGNETIC LOCK

MAX 24 VOLTS!
* SOLD SEPARATELY *
MAINS
POWER

(LINKING WITH SECONDARY RELAY IS OPTIONAL FOR BOTH METHODS)

StylusCOM Video *- Hardwired System*

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KEYPAD PROGRAMMING

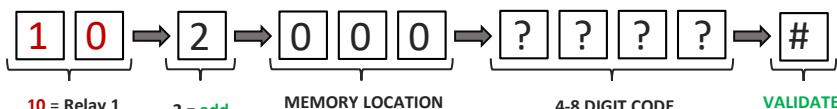*Note: Programming can only begin 60 seconds after powering the device on.*

1) Enter programming mode:

`0 0 0 0` ➡ `* *`

The amber LED will remain **SOLID** once you enter programming mode successfully. Press ** again to leave programming mode.

DEFAULT PROGRAMMING CODE

ENTER / EXIT PROGRAMMING

2) Adding and deleting a new keypad entry code:

`1 0` ➡ `2` ➡ `0 0 0` ➡ `? ? ? ?` ➡ `#`

10 = Relay 1 *(1000 limit)*
20 = Relay 2 *(100 limit)*
30 = Relay 3 *(100 limit)*

2 = add
5 = delete

MEMORY LOCATION
000 to 999 = Relay 1
001 to 100 = Relay 2
001 to 100 = Relay 3

4-8 DIGIT CODE

VALIDATE

Note: After using '5' to delete a code just type the memory location followed by #

* This example will add code '????' to location 000 on Relay 1 *

3) Delete **ALL** of the codes & cards saved in a relay group:

`1 0` ➡ `0 9 9 9` ➡ `#`

10 = Relay 1 *(1000 limit)*
20 = Relay 2 *(100 limit)*
30 = Relay 3 *(100 limit)*

SUPER DELETE CODE

VALIDATE

Note: Take care when deleting full relay groups because once deleted there is no way to restore these previously stored codes to the keypad.

** This example will delete **ALL** of the codes stored for Relay 1 **

4) Change relay output times & modes:

`5 1` ➡ `0` OR `9 9 9 9 9` ➡ `#`
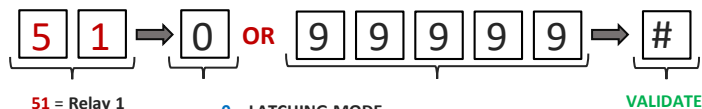
51 = Relay 1
52 = Relay 2
53 = Relay 3

0 = LATCHING MODE
1-99999 = MOMENTARY TRIGGER TIME (SECONDS)

* For example: '515#' will set Relay 1 to trigger for 5 seconds *

Note: Setting the relay time to 0 will change all codes for this output to latching codes, re-enter same code again to unlatch.

KEYPAD PROGRAMMING CONTINUED

5) Adding a SUPER user code: (1 MAX)

`0 2` ➡ `? ? ? ?` ➡ `#`
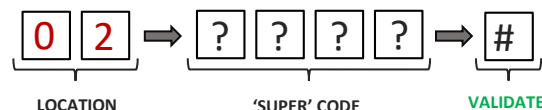
LOCATION

'SUPER' CODE

VALIDATE

Note: You can add <u>one</u> SUPER code as an optional feature which allows a single code to operate all 3 outputs. To use input **SUPER** code followed by # then **1, 2 or 3** to select.
Example - 5555#2

6) Change the programming code:

`0 1` ➡ `? ? ? ?` ➡ `#`

LOCATION

4-8 DIGIT CODE

VALIDATE

* ALWAYS MAKE NOTE OF NEW CODE ONCE CHANGED *

Note: If you set a 4-8 digit code then user codes <u>must</u> also be the same amount of digits.

Example: If you set a 6 digit programming code <u>all</u> access codes <u>must</u> also be 6 digits long.

(OPTIONAL PROGRAMMING FOR PROX MODELS ONLY)

7) Adding a new PROX card or tag:

`1 0` ➡ `1` ➡ `0 0 1` ➡ `PROX CARD` ➡ `#`

10 = Relay 1 *(1000 limit)*
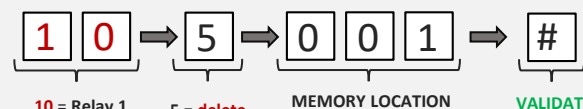**20** = Relay 2 *(100 limit)*
30 = Relay 3 *(100 limit)*

1 = add

MEMORY LOCATION
000 to 999 = Relay 1
001 to 100 = Relay 2
001 to 100 = Relay 3

SWIPE PROX CARD or TAG

VALIDATE

* This example will add a PROX card/tag to location 001 on Relay 1 *

8) Deleting a new PROX card or tag:

`1 0` ➡ `5` ➡ `0 0 1` ➡ `#`

10 = Relay 1 *(1000 limit)*
20 = Relay 2 *(100 limit)*
30 = Relay 3 *(100 limit)*

5 = delete

MEMORY LOCATION
000 to 999 = Relay 1
001 to 100 = Relay 2
001 to 100 = Relay 3

VALIDATE

Note: Keep in mind that keypad codes and PROX card/tags must be saved in their own separate memory locations.

If a keypad code is stored on location 035 this means a card cannot be added to location 035.

* This example will delete a PROX card/tag from location 001 on Relay 1 *

PROGRAMMING CODE NOT WORKING?

Note: In the event that the programming code has been forgotten or changed by accident, a **DAP Reset** of the keypad can be performed during the **60 second bootup phase**. Pressing the PTE during this time or replicating this by shorting terminals **9** & **15** together with a jumper link the keypad will emit 2 short beeps if this step has been performed successfully. Then enter the **DAP** Code (**D**irectly **A**ccess **P**rogramming Code) **(8080**)** on the front of the keypad as a backdoor into programming mode which will allow you to now set a new programming code, as per **Step 6** above.

KEYPAD CODES

PROX ID's

KEYPAD CODE LIST TEMPLATE

PROX ID LIST TEMPLATE

CLIENT NAME	MEMORY LOCATION	KEYPAD CODE	RELAY USED (CIRCLE)
James	000	1234	1 – ②– 3
Mary	001	4321	1 – 2 – ③
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3

CLIENT NAME	MEMORY LOCATION	PROX ID	RELAY USED (CIRCLE)
James	005	0001548796	1 – 2 – ③
Mary	006	0001589678	1 – ②– 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3
			1 – 2 – 3

StylusCOM Video *- Hardwired System*

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TROUBLESHOOTING

Q: I cannot hear the visitor at the gate/door.
A: Check that the cable distance and type between the monitor and gate is within spec.
A: Check that the gate/door station and monitor are powered separately for cable distances of more than 10 metres.
A: Check that the gate/door station microphone sensitivity is at minimum, and the speaker in the gate/door station is turned below 1/3rd volume, and that the monitor speaker volume is at 1/3rd and try again.
A: Check cable cores are not mixed up.
A: Try trimming and re-stripping the cable ends in case of a break. Use a multi-meter on Bell mode to check for breaks.
A: If using additional monitors, try it with only one monitor connected first.
A: Test the gate/door station and the monitor on a test bench or workshop, or inside the house on a shorter cable run (note feedback may prevent sound in one or both direction unless devices are in separate rooms).

Q: I can only hear the visitor faintly, but if I increase the volume on the monitor, I can hear interference and noise.
A: The cable type is not ideal, or too long. Try doubling up cores on the audio wires to see if that helps. If not, you may need to consider upgrading the cable.

Q: Only one monitor is working.
A: Check that the first connected monitor is setup as a MASTER monitor, and that subsequent monitors are configured as SLAVE devices in the onscreen menu.

Q: The intercom is calling, and there is audio, but no video.
A: Check that the cable is proper twisted pair cable, and that it is within spec of this manual. If in doubt, remove either the monitor or gate/door station, and bring to the other side, and test on a few metres of CAT5. If it works, then it is likely the cable is a problem. If it does not work, check wiring connections again and contact technical support.

Q: The video has interference on the picture, or it is not showing colour picture during daytime.
A: This is usually caused by improper cable being used.
A: Check that the monitor and the gate/door station have power supplies connected with proper power cable and within the specified distance in this manual. Poor power cable can cause transmission problems.
A: Upgrade the cable to a shielded CAT5 and connect the shield as shown in the wiring diagram.

Q: The keypad accepts a code, but does not open the gates / door.
A: Check the relay is closing with a multi-meter on bell mode. If the relay changes state, then check wiring and ensure the keypad is connected to the gate system or lock as well as the communication part of the gate/door station (connect in parallel for gates or strike lock, series for magnetic door lock). If the relay does not change state when a code is entered, then the problem is most commonly cause by the keypad not getting enough current draw on the power cable being used. Check the power cable is within spec of this manual.

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)**

Ensure that the transmitter box (603/703) or antenna (705) do not get blocked by trees, shrubs or other obstacles overtime as this may disrupt the signal to the handsets.

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 dis-colour over time. This can be polished with a suitable stainless-steel cleaner and cloth.

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 health and 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 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.

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".

Note: 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!