GDX Audio and Video Door Entry

Installation Guide for systems with —

More than 32 Audio handsets

More than 16 Audio & Video handsets

Version 2.01 — January 2024

Wiring Specifications

Installation wiring must be in accordance with the country of installation's National Wiring regulations. E.g. For UK: BS7671, IET Wiring Standards and Regulations.

Injury or death by electric shock may result if ignored.

Wiring must be carried out by suitably qualified and competent personnel.

Audio Handset Wiring

3-pair CW1308 cable	Max. length – 50m	Handset connection to Audio Line Card

Video Handset Wiring

3-pair CW1308 cable (Video) 3-pair CW1308 cable (Audio)	Max. length – 50m	Handset connection to Video Line Card

Additional notes for installing handsets:

If radio interference is picked up on the handset cabling, any unconnected cores within a handset cable should be grounded to 0V (no. 3 screw) at **both ends** of the cable. It may be necessary to use a suitable screened cable.

If interference is still detected, add a ferrite core (Steward part no. 28B1020-100) should be added onto the handset cabling output within the control rack enclosure (grouped in 4s).

Standalone Reader Wiring

0.75mm min. flex	Max. length – 100m	Lock connections
3-pair CW1308 or Cat 5e/6 UTP min.	Max. length – 100m	Internal wiring

Call Control Unit Wiring

0.75mm min. flex	Max. length – 100m	Lock connections
6-pair CW1308 or Cat 5e/6 UTP min.	Max. length – 100m	Internal wiring

2-core 0.75mm min. flex	Max. length – 100m	Lock connections, Exit Devices (Push To Exit), Fire Switches
3-pair CW1308 cable (Video) 6-pair CW1308 cable (Audio)	Max. length – 100m	Internal wiring

Glossary

'2Audio' (channels)	Up to two audio channels are available for calls.
'7Audio' (channels)	Up to seven audio channels are available for calls.
'2Audio' & Video	Up to two audio channels (including a max. of two audio with video) are available for calls.
'7Audio' & Video	Up to seven audio channels (including a max. of four audio with video) are available for calls.
Audio Distribution Card	*Replaces 'Lite High Rise Audio Switching Card'.* Located in the SEU and provides the distribution of audio calls between CCUs.
Audio Line Card	*Replaces 'Linecard'.* Located in the CCU and supports audio calls from an Entrance Panel to up 16 handsets.
Call Control Unit (CCU)	Boxed enclosure that contains all of the necessary equipment (power, distribution and terminations) required to provide communications between Entrance Panels and end-user handsets.
Concierge Service	Remote management function for a centralised building management team to provide lobby/reception services and to access events logged on the system.
Entrance (or Door)	A secured entry point controlled via the GDX system.
Entrance Panel	Facilitates secure door entry for end-users and enables access control for visitors. • Entrance Panel: deployed on a perimeter entrance to manage secure access and enables visitor calling to the whole GDX system. • **Landing** Entrance Panel: deployed on an internal entrance to manage secure access to an area/zone and restricts visitor calling to specific GDX addresses.
Handset	End-user device to answer visitor calls and unlock doors remotely.
Line(s)	Wired connection required to support a call to a dedicated address on the GDX system.
Standalone Reader	Access Control reader for door control and access control on a secured entrance without visitor calling.
System Expansion Unit (SEU)	Boxed enclosure that contains all of the necessary equipment (power, distribution and terminations) required to provide communications between CCUs and Entrance Panels.
Video Distribution Card	*Replaces 'Video Splitter Card'.* Located in the SEU and provides the distribution of video calls between CCUs.
Video Line Card	*Replaces 'Video Distribution Card'.* Located in the CCU and supports video calls from an Entrance Panel to up to 8 video handsets.

GDX System Configurations—

More than 32 Audio handsets

More than 16 Audio & Video handsets

Select your GDX System from the options below to link to the relevant Installation Overview and instructions.

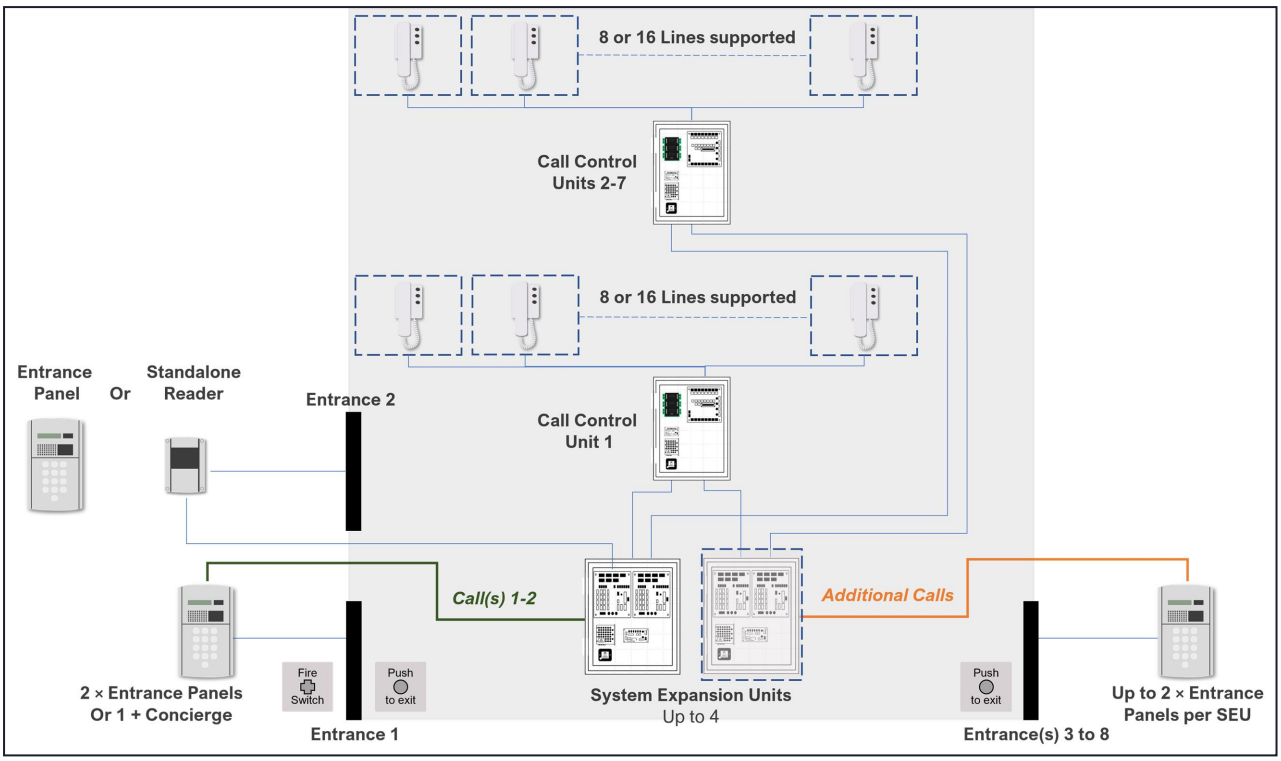
AUDIO – over 32 lines

'7Audio' channels
up to 112 lines (SEU)

VIDEO – over 16 lines

'7Audio' & Video channels
up to 56 lines (SEU)

'7Audio' installations up to 112 lines



The block schematic above shows an example configuration of a GDX Audio system. There are 2 × SEUs, which can support up to four entrances (only two entrances shown in diagram), also referred to as "doors" on Line Cards.

SYSTEM – maximum supported units
Up to 7 × Audio channels available • Max. 7 × Entrance Panels OR • 1 × Concierge option + max. 6 × Entrance panels
NOTES: If less than 6 Entrance Panels are used, the remaining Audio channels can be utilised to support landing Entrance Panels. E.g. 1 × Concierge + 4 × Entrance Panels = 2 remaining Audio channels available for landing Entrance Panels per CCU. Each CCU can support up to four landing (local) Entrance Panels.

[Return to GDX System Configuration]

Audio Only Installation Process – OVER 32 lines

STEP 1	Install CCU Audio
STEP 2	Install SEU Audio
STEP 3	Install Entrance Panel
STEP 4	Install Standalone Reader
STEP 5	Install Handset
STEP 6	Recommended checks
STEP 7	OPTIONAL: Token Administration

SIGN OFF

This installation guide is intended only as a summary and checklist for installers familiar with this equipment.

If you need to contact technical support, please make a note of the software versions currently installed. This information is provided on the Entrance Panel LCD during power up.

Health and Safety

Please read all these instructions and save them for later use.

The installation of this system must meet the requirements of the country of installation's National Wiring Regulations (BS7671, IET National Wiring Regulations in the UK) and EN60950-1. It must only be carried out by suitably competent, qualified and experienced personnel.

Injury or death by electric shock may result if ignored.

It must also comply with any local Fire, Health and Safety regulations. A secured door that may be part of an escape route must always be fitted with the following.

- A fail-safe lock so that the door will be released if the power fails. Ideally a magnetic lock should be used as these are less likely to jam or seize.
- A normally-closed break-glass or manual pull in the lock supply wiring so that in an emergency the fail-safe lock can be immediately powered off.

Risk of injury or death if ignored.

The controller must be earthed.

Isolate the controller power supply before working on the controller.

Failure to do so may damage the unit.

Cabling

The cabling used in the control systems, should be routed in a manner to avoid running alongside any heavy load switching signals either within equipment or wiring. Alternatively, you can use screened cable to reduce interference and/or cross the cable at right angles every 3.3–6.6ft / 1–2m to reduce the interference if possible.

Communications Cabling

Use CW1308 or a minimum of CAT5e U/UTP, multi-core, twisted pair with a bare/plain copper conductor.

Cabling for Lock Power

2-core 0.75mm standard flex

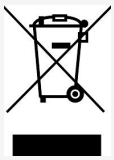
ESD Precautions

The product contains static-sensitive devices and earth grounding strap should be worn when handling the hardware.

RFID Devices

RFID technology is now widely used in a number of industries, it is possible that interaction between your credential and other devices in the vicinity may cause incorrect operation or recognition. Should you suspect that you have experienced such a problem, ensure the interfering device is out of range.
This only applies if any RFID devices have been fitted

WEEE Directive and Product Disposal



At the end of its serviceable life this product should not be treated as household or general waste.

It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment or returned to the supplier for disposal.

Lithium Batteries

Failure to read the following guidelines carefully may result in injury.

There is a danger of explosion if lithium batteries are incorrectly replaced or handled.

- Ensure that lithium batteries are never short circuited.
- Always store lithium batteries separately in non-conducting materials.
- Never replace a lithium battery with the incorrect type.
- Lithium batteries should be disposed of safely and legally according to your local area, state or country laws.

Equipment Electrical Rating

All electrical equipment should have electrical ratings clearly stated on an identification label and in any documentation provided. Any applicable fuse ratings will also be specified within the documentation.

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Continue to

CCU Audio Line Card Installation

Over 32 Audio handsets

[Return to GDX System Configuration]

1 CCU Audio Line Card

This section will list all relevant specifications and standards that apply to the GDX Audio Line Card.

Product Specifications

Weight	10 kg
Temperature	0 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	240 VAC, 50 Hz
Power	0.8A at 240VAC

Product Enclosure Dimensions

Suitable wall fixings must be used for the mounting of wall equipment depending on the wall surface.

Size (mm)	600 (h) × 400 (w) × 100 (d)
Wall type	Brick
Max weight	10kg

Use appropriate fixings for the wall type.

1.1 Product Mounting

All equipment should be located in a safe location whilst remaining accessible for competent service personnel. It is the responsibility of the competent personnel to observe appropriate precautions when handling, lifting or installing heavy loads that require wall mounting.

- Equipment supplied within a lockable enclosure need not be installed within an area of restricted access.
- However, equipment not within a lockable enclosure should be located within an area of restricted access to competent personnel only.

The enclosure should be located in a dry environment, mounted vertically on a flat wall.

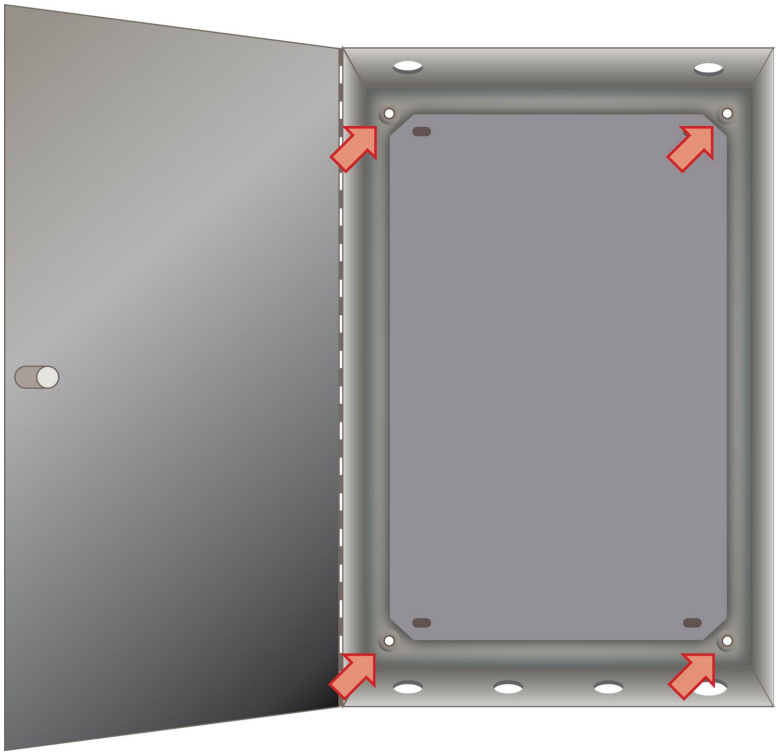
1. Open the enclosure (unlock with the key provided if necessary) but do NOT attempt to remove the door.
   - The galvanised back plate is removable, if this makes wall mounting easier, but it does not restrict access to the mounting holes.
   - Before fixing this unit to a wall remove any knock-outs that are required, located on the top and bottom of the line card enclosure, as these can be used for cable entries.
   - There are two × 20mm knockouts at the top and four × 20mm knockouts at the bottom of the enclosure.
   - Use appropriate grommets as required.

Only use the knock-outs provided to prevent potential damage to the line card.

1. Any attempt to create additional holes in the enclosure may cause metal shards from the drilling to cause electrical damage to the power supply and electronics contained within the line card.
2. Use the enclosure as a template to mark the four wall mounting holes.
3. Fix the enclosure securely to the wall using **appropriate** fixings for the wall surface.

GDX Enclosure

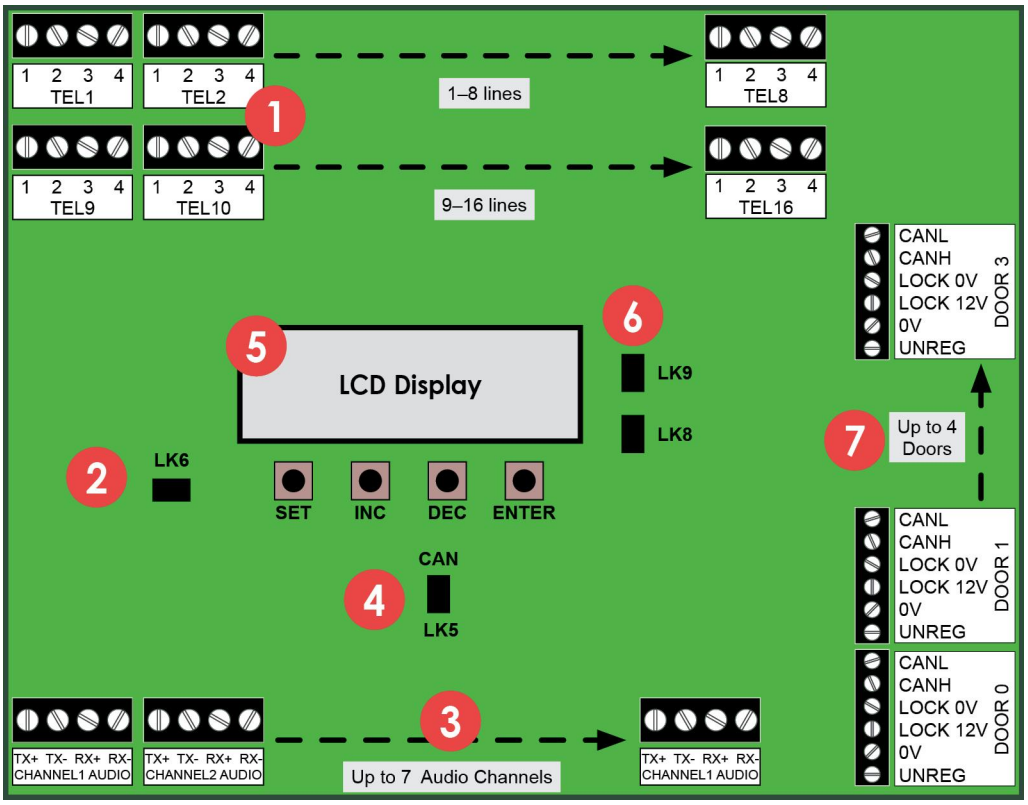
The four wall mounting holes are indicated below. Use appropriate wall fixings to secure the enclosure to the wall.



Enclosure mounting holes

The thermal resetting fuse for each handset will not require replacing if it activates. Resolve the problem and the fuse will reset itself once it cools in a few seconds.

Audio Line Card Layout and Legend



No.	Description
1	Telephone handset connections
2	LK6 Change / Protect header link
3	Audio channel connections
4	LK5 CAN data bus header link
5	LCD display and pushbuttons
6	LK8 and LK9 (DO NOT REMOVE)
7	Door power and control connections

1.2 Line Card Connections

The connections from a Line Card to a door Entrance Panel comprise of audio, power and data connections.

Entrance Panel connections

Cable run should be max. 100m.

Cable type	Cable use
6 pair	Door panel power, data and audio
2 core 0.75mm min. flex	Lock power

Door lock cabling (between Entrance Panel and Line Card) must be separate to cabling for door panel power, data and audio.

Cabling to Fire Switches and Push To Exit buttons must also be separate 2-core flex cables as they also carry lock power.

Door Entrance Panel	Line Card
UNREG	UNREG
0V	0V
LOCK PWR +12V	LOCK 12V
LOCK PWR 0V	LOCK 0V
CAN H	CAN H
CAN L	CAN L

CAN Header must be set to IN for Audio Line Card address 0.
All other Line Card CAN headers must be set to OUT.

CANH and CANL do not cross over.

The following fuses are fitted on a Line Card:

Fuse No	Fuse Value	Fuse Use
FS1	3A QB	Overall card fuse
FS2	1.6A QB	Door 00 electronics and lock
FS3	1.6A QB	Door 01 electronics and lock
FS6-FS21	500mA	Handsets 1-16 thermal resetting

Audio connections

Door Entrance Panel	Line Card
RX+	TX+
RX-	TX-
TX+	RX+
TX-	RX-

The RX and TX connections cross between the Line Card and the door Entrance Panel but the + and – connections do not.

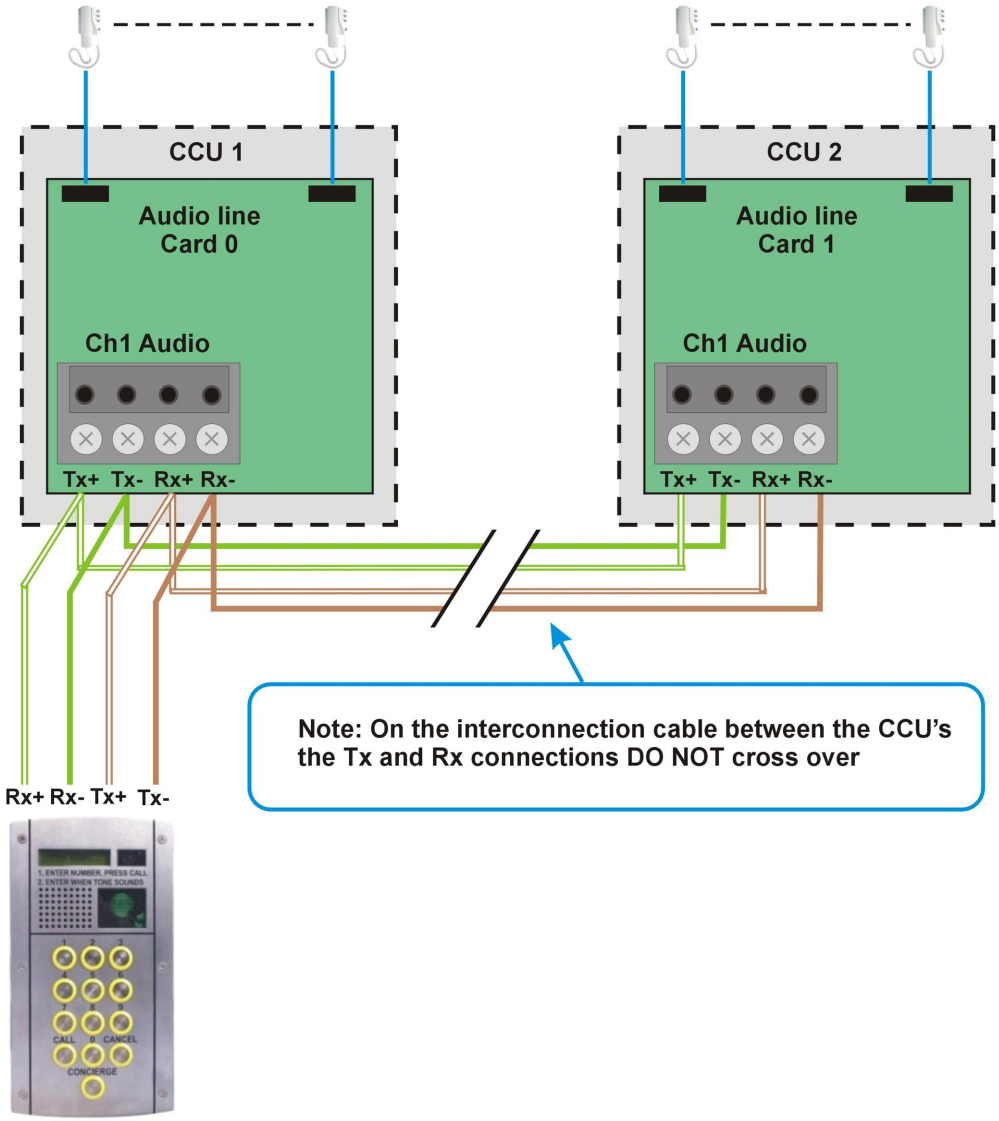
The “Audio Channel” for a door Entrance Panel is 1 or 2 for '2Audio' audio only systems and 1–7 for Audio & Video systems. This can be checked and set at the door Entry Panel LCD on power up. Use the matching Audio Channel on the Line Card for the door audio.

If a handset 'bleeps' when it is called and the green LED is illuminated but there is no audio or ring tone, check the following:
(1) the correct audio channel is selected in the line card and entrance panel
(2) the audio channel wiring are correct as per the Audio connections table above

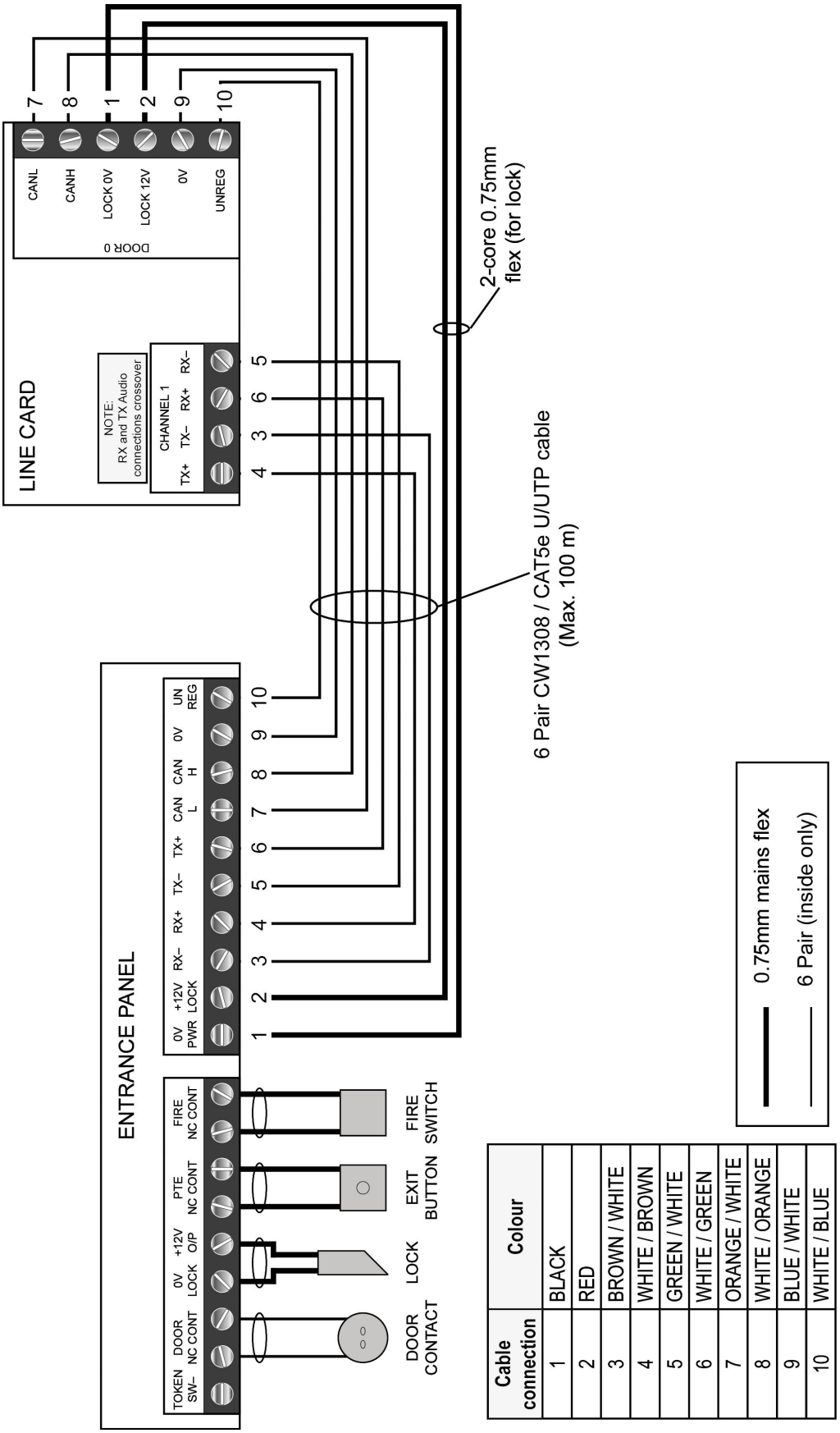
Connecting Audio Line Cards

This is the wiring diagram for additional Audio Line Card connections.

The wiring connection to another Audio Line Card is the same even if it is in a separate enclosure.



Ensure the CAN bus is wired in parallel across both Line Cards



Cable connection	Colour
1	BLACK
2	RED
3	BROWN / WHITE
4	WHITE / BROWN
5	GREEN / WHITE
6	WHITE / GREEN
7	ORANGE / WHITE
8	WHITE / ORANGE
9	BLUE / WHITE
10	WHITE / BLUE

Max. distance between CCU connections < 3m

Ensure the CAN bus is wired in parallel across both Line Cards

Telephone handset connections

Only GDX telephone handsets should be installed with this system.

Under no circumstances should handsets of any other type be connected onto a GDX Line Card as permanent damage may occur.

Cable type	Cable use
3 pair	Handset power, data and audio

The connections from the Line Card to the telephone handset are as follows:

Connection	Use
1	Handset audio to entrance panel
2	DTMF signals for handset buttons
3	0V
4	+12VDC

Telephone handsets **must** be connected to the Audio Line Card starting with the lowest postal address first, as per the front faceplate engraving. The entrance panel buttons have been factory-wired to accept this order.

For digital Entrance Panel orders, programming of the postal addressing of the handsets will be completed by the manufacturer.

The system will not work as expected if this connection sequence is not followed.

1.3 Power Up Checks

Complete these checks before and after system power up.

Before system power Up

1. Use a multi-meter (OHMS) to check the impedance between the CANH and CANL terminals is approx. 60 ohms, both at the Entrance Panel(s) and at the Line Card(s). This is **essential** for reliable system operation.

Headers are factory fitted on Line Card 00 and Entrance Panel 00.

- If impedance > 1K Ohms, no CAN headers are fitted.
- If impedance > 60 Ohms, only 1 CAN header is fitted.
- If impedance < 60 Ohms, too many CAN headers are fitted.

2. Check the audio connections between the door entrance panel(s) and the control unit crossover the TX and RX connections but not the + and – connections.

After system power up

1. Use a multi-meter (VOLTS DC) to check the voltage output of the PSU to the Line Card is set to +13.8 VDC and adjust PSU output to 13.8 VDC if required.

If the PSU is overloaded or adjusted too high, it may shut down temporarily to protect itself. Wait for 5 mins to reset.

2. The 1st Entrance Panel **must** be installed on Door 0 connection on the Audio Line Card.
3. Check the 1st Entrance Panel is set to Audio Channel 1, "AUD CHANNEL 001". Use the reset button on the door Entrance Panel or power down and up again to display.
4. Also check the 1st door Entrance Panel is connected into the correct audio channel on the Line Card.
5. Check the 2nd door Entrance Panel is set to Audio Channel 2, "AUD CHANNEL 002". Use the reset button on the door Entrance Panel or power down and up again to display.
6. Also check the 2nd door Entrance Panel is connected into the correct audio channel on the Line Card.

Power Up Display

At power up, the Line Card LCD will show version details of the installed software components:

- BOOTLOADER Vx.xx
- GDX LITE CARD
- VERSION GDXLCxx

These details will be requested if you contact Technical Support.

Card Addressing

For an 8 or 16 way system, the 1st Line Card default address is displayed on the LCD at power up or reset as “CARD NUMBER 000”.

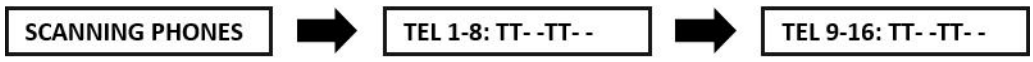
For a 24 or 32 way system, the 2nd Line Card default address is shown as "CARD NUMBER 01".

1.4 LCD Messages

The LCD will display useful messages about system activity and operation which can aid fault finding and commissioning.

Telephone handset scanning status

During standard operation the Line Card continuously monitors the attached telephone handsets and cycles every few seconds. An example sequence for the status displays is shown below:



TEL 1-8 and TEL 9-16 correspond to the numbered "TEL" connection on the Line Card. "T" means a handset is connected and "-" shows no connection is detected. In the previous example it shows handsets detected in positions 1,2,5,6,9,10,13,14.

When a handset is called from an door entrance panel, the “T” becomes a “C” for the duration. of the call.

During commissioning verify each "T" is on the correct numbered connection AND changes to "C" when called.

Privacy Period

The default setting is six hours and applies to all handsets on the Line Card. This can be changed using the settings pushbuttons on the Line Card and will not require a system power down.

Telephone handset operation status

The following messages will be shown depending on the handset operation. The number displayed is the position of the telephone handset on the control unit card, i.e. 1 to 16.

Call to flat/apartment handset

When a flat is called **CH1 CALL TEL 01** is displayed, indicating the channel (CH) and flat number (01). **CH1 RESET TEL 01** is displayed when the call ends.

Status LEDs

Red LED1 and red LED2 indicate a healthy +12V and +5V supply on the Line Card respectively.

1.5 Program Settings

The range of values allowed and the factory defaults supplied are shown below:

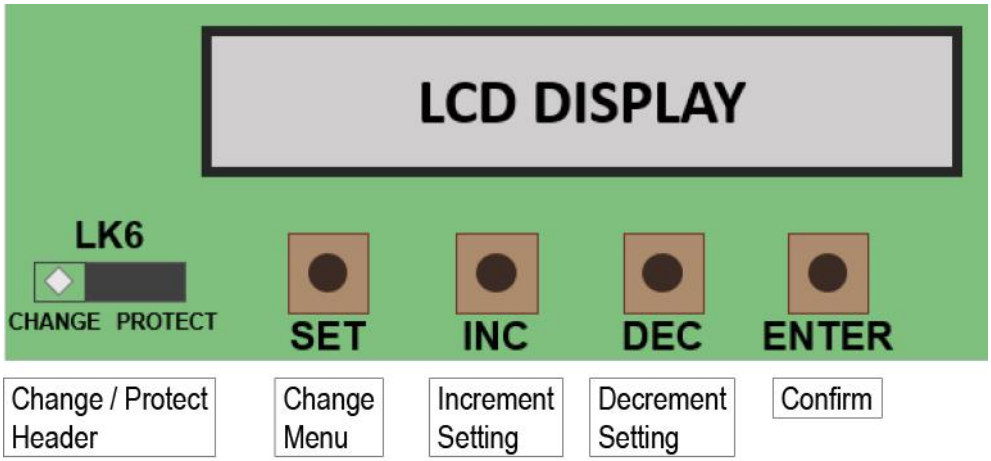
Setting	Range Allowed	Factory Default
Card number	00-01	00
Privacy time	01-15 Hours	06
Video On/Off	ON / OFF	OFF

Change Factory Settings (IC28 EEPROM)

Settings are stored in an EEPROM memory IC (IC28) on the Line Card. This IC can be swapped onto a replacement card to save re-programming all of the current card settings.

Settings pushbuttons

Settings can be displayed and changed by using the four pushbuttons below the LCD display.



Change settings

Move LK6 to CHANGE to amend settings.

1. Move LK6 to pins 1 and 2 (CHANGE).
2. Use INC and DEC to change the setting to the required value.
3. Confirm the change with the ENTER pushbutton.
4. Move LK6 back to pins 2 and 3 (PROTECT).

LK6 must be on PROTECT to function.

If the link is left in the “CHANGE” position then “SECURE SETTINGS” will be displayed on LCD display until LK6 is placed correctly.

Settings menu timeout is 8 secs after the last button press.

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Continue to

SEU Audio Installation

Over 32 Audio handsets

[Return to GDX System Configuration]

2 System Expansion Unit (SEU) Audio Overview

A standard SEU allows the connection of up to two doors to 7 separate CCUs (marked LJB on the pcb) where 2 × Audio Distribution Cards (ADC) inside the SEU will handle 1 door each. More SEUs can be added if additional doors are needed.

The first ADC should have a CAN pair and common ground to each CCU, additional ADCs have the can and ground wired to the previous ADC.

Where concierge audio communication is required the first Audio Distribution Card must be assigned to the VoIP (Voice over IP) unit.

7 × doors max. can be supported on a non-concierge system.
6 × doors max. can be supported on a system with concierge.

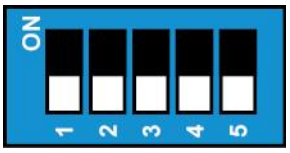
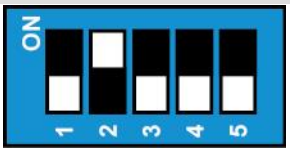
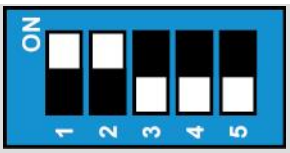
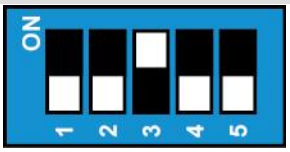
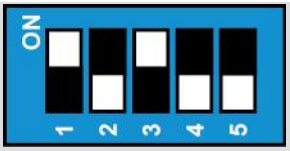
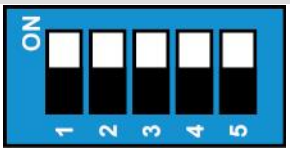
3 Audio Distribution Card Address

The cards are addressed using the DIP switch bank.

- The card connected to the VoIP must be set to address 31 (all switches set to the 'ON' position).
- Each of the cards connected to a door entry panel must be set to the address of its associated entry panel.

The first door entry panel must be set to address 0.

The DIP switches follow binary notation rules and are shown below.
Switch changes will only apply after power cycle

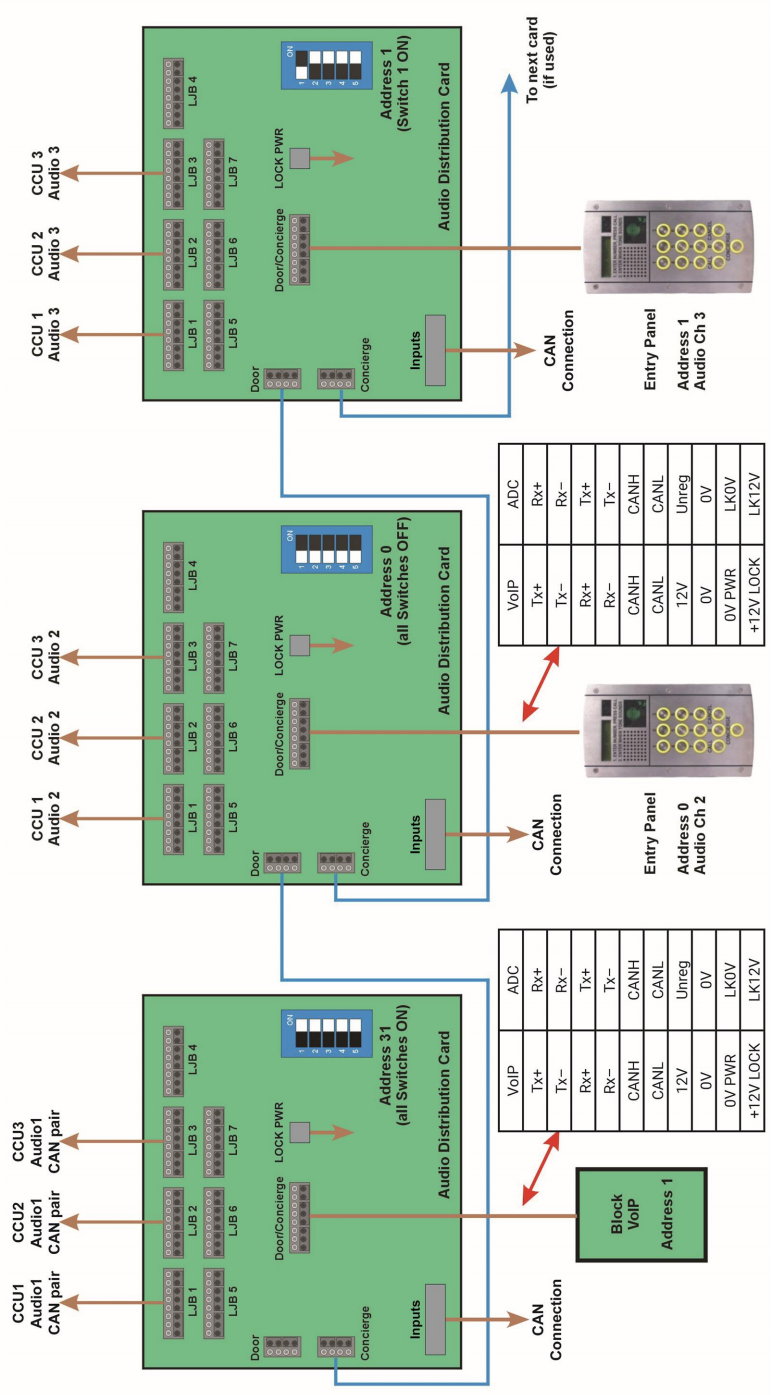
Door 0	All switches OFF	
Door 1	Switch 1 ON	
Door 2	Switch 2 ON	
Door 3	Switches 1 + 2 ON	
Door 4	Switch 3 ON	
Door 5	Switches 1 + 3 ON	
VoIP 31 **Used for concierge only**	All switches ON	

Please ensure there are enough cores to supply connections for both comms and locks

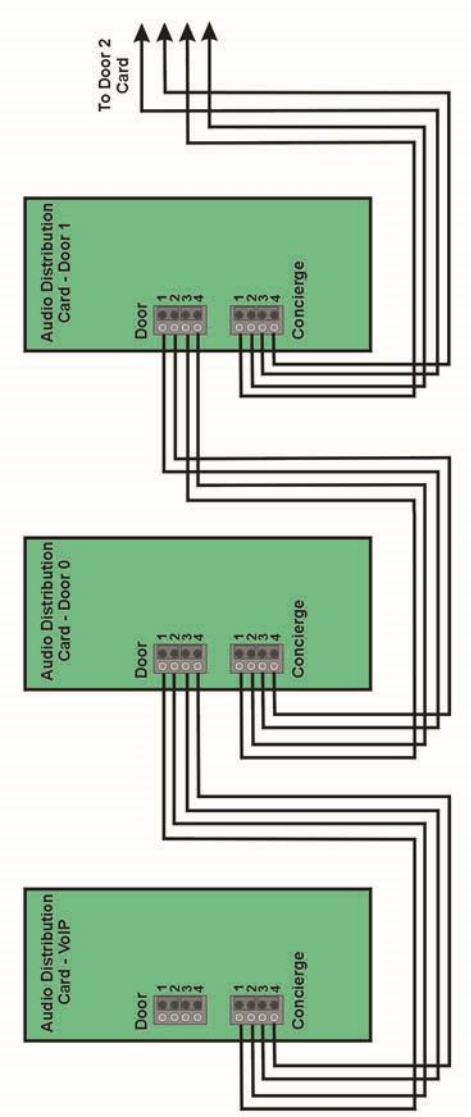
Audio Distribution Card Connection (with Concierge Audio)

For details of the audio connection between each card, refer to the Audio Connection from VoIP Card to Doors diagram.

LJB outputs on the VOIP Audio Switching Card must connect to Aud Ch. 1 on the Line Cards. The first door (Door 0) will use Audio channel 2.



Concierge Audio Connection from VoIP Card to Doors



The audio connection between the VoIP card and the first Door card is a direct 1:1, 2:2, etc. connection.

For remaining Doors: Concierge to Door connections are crossed over. See above diagram.

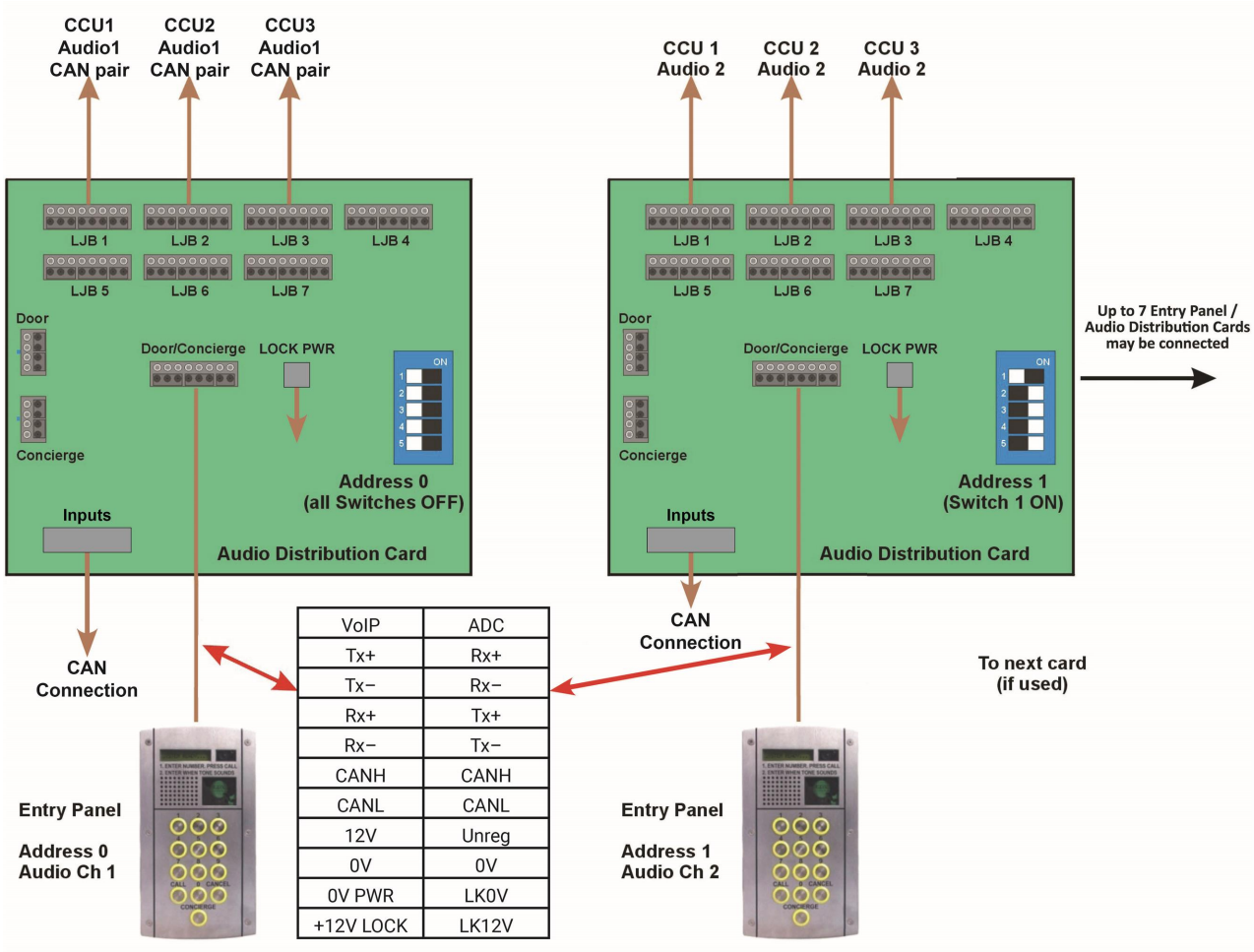
Concierge t-block connection pin	1	2	3	4
Door t-block connection pin	3	4	1	2

Audio Distribution Card Connection Options

This section shows the connections for a system that is **NOT** using Concierge audio.

> **When Concierge audio is not used you do not need the VoIP unit or the 4 wire connections between concierge and door.**

In this scenario it is possible to connect up to seven door entry panels. The method for connecting this, for an audio only system is shown below.



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Entrance Panel Installation

Over 32 Audio handsets

[Return to GDX System Configuration]

4 Entrance Panel Information

This section will list all relevant directives, regulations and specifications that apply to the GDX Audio & Video Entrance Panel.

Entrance Panel and Backbox Specifications

Dimensions mm	150 (w) × 280 (h) × 65 (d)
Weight	2.0 kg
Temperature	-10 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	12.0 VDC to 13.5 VDC
Input Current	0.35 Amps Standby (excl. locks)

Equipment Checklist

Part no.	Equipment
109012	Power Bit Monodrive 5 M4 screw for entrance panels

Contact Customer Services to order additional parts.

4.1 Product Mounting

The entrance panel is typically supplied with an attached standard backbox. This can be removed and discarded, as per the instructions in WEEE Directive and Product Disposal, if there is already a backbox fitted in the building.

Backbox types

GDX Audio Lite Entrance Panel plates will fix on to either backbox.

- Mitred – has a bezel, 75 mm deep and panel plate is inset
- Standard – no bezel 55 mm or 65 mm deep and panel plate is fixed directly to the front

Backbox installation (if required)

Only follow these steps if a backbox has not been fitted

1. Remove the panel from the packaging and release the six security screws fixing the faceplate to the backbox (fitting templates available on request).
2. Cut out a hole for the backbox 'inside' the fixing holes.
   - Hole dimensions for backbox are 255 mm (H) × 123 mm (W).
   - Depth depends on Mitred or Standard model.
3. Use the cable entry knock-outs provided in the backbox.

In metal backboxes, use rubber grommets in the knock-outs.

4. Secure the backbox with appropriate fixings for the intended mounting surface.
5. Affix the faceplate to the backbox.

GDX Faceplate Panel

THIS DRAWING IS **NOT** TO SCALE.

BEFORE DRILLING: The physical dimensions should be checked against the measurements shown here.

Cutting out backbox template

1. Drill six holes as indicated to accommodate the fixing screws for the panel faceplate. 6 mm holes at approx. 10 mm deep

2. Inside the six holes, cut out the aperture indicated of 123 (w) × 255 (h) mm.

   - For **COMPACT** panel: depth approx. 65 mm (or 55 mm if using earlier version of backbox).

   - For **MITRED** panel: depth approx. 75 mm

USE CABLE ENTRY KNOCKOUTS PROVIDED

Do not drill any other cable entries other than those provided as this may lead to water ingress into the panel. Failure to adhere to this will invalidate any warranty claim arising.

PLEASE NOTE:
The hinge is at the bottom of the box.

5 Electric Door Lock Specification and Rating

All electric door lock release(s) connected to the system **must** have back EMF suppression devices fitted, as recommended by the lock manufacturer. All GDX Entry Panels are shipped with a MOV for this purpose.

The MOV must be installed directly at the lock.

Lock Type Selection

Fail Open (FO) or Fail Closed (FC) lock operation is set by link header PLG11 on the door Entrance Panel pcb.

5.1 Line Card Connections

The connections from a Line Card to a door Entrance Panel comprise of audio, power and data connections.

Entrance Panel connections

Cable run should be max. 100m.

Cable type	Cable use
6 pair	Door panel power, data and audio
2 core 0.75mm min. flex	Lock power

Door lock cabling (Entrance Panel to Line Card) must be separate to cabling for door panel power, data and audio.

Cabling to Fire Switches and Push To Exit buttons must also be separate cables as they also carry lock power.

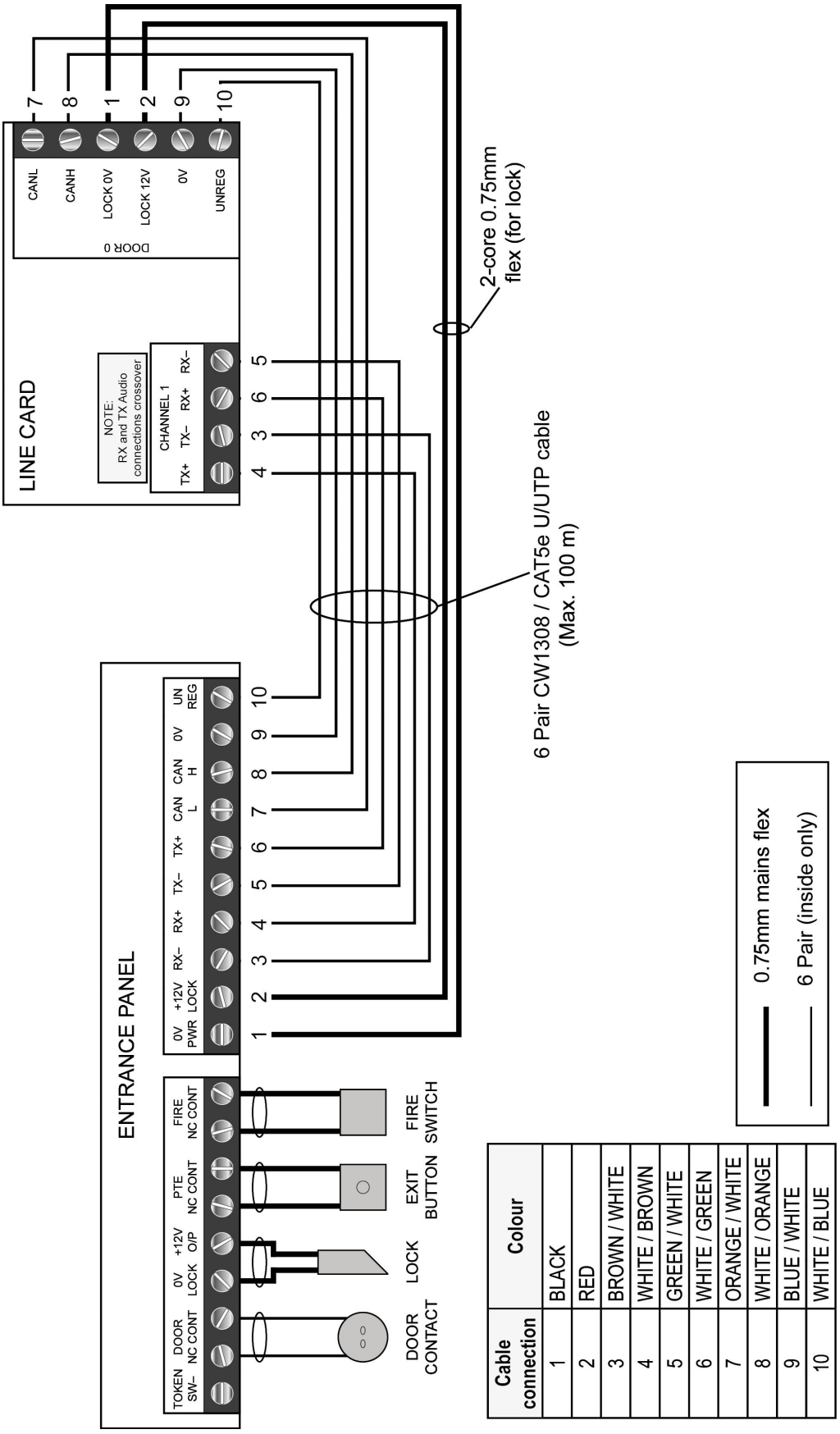
Door Entrance Panel	Line Card
UNREG	UNREG
0V	0V
LOCK PWR +12V	LOCK 12V
LOCK PWR 0V	LOCK 0V
CAN H	CAN H
CAN L	CAN L

CAN Header must be set to IN for Door Entry Panel address 0.
All other Door Entry Panel CAN headers must be set to OUT.

CANH and CANL do not cross over.

Ensure the CANL (7) & CANH (8) are wired in parallel if using two CCUs.
For systems with more than 32 Audio or 16 Video handsets,
you MUST use SEUs to support the required quantity of handsets

Door Entry Wiring



Cable connection	Colour
1	BLACK
2	RED
3	BROWN / WHITE
4	WHITE / BROWN
5	GREEN / WHITE
6	WHITE / GREEN
7	ORANGE / WHITE
8	WHITE / ORANGE
9	BLUE / WHITE
10	WHITE / BLUE

Max. distance between CCU connections < 3m

Ensure the CAN bus is wired in parallel across both Line Cards

5.2 Audio connections

Door Entrance Panel	Line Card
RX+	TX+
RX-	TX-
TX+	RX+
TX-	RX-

The RX and TX connections cross between the Line Card and the door Entrance Panel but the + and – connections do not.

The Audio Channel for a door Entrance Panel is factory-programmed (1 or 2) and can be checked on the door Entrance Panel LCD at power up. Use the matching Audio Channel on the Line Card for the door audio.

If a handset 'bleeps' when it is called and the green LED is lit but there is no audio or ring tone, check: (1) the correct audio channel is used; (2) audio channel settings and audio channel wiring are also correct.

To check the Audio Channel setting programmed into the Entry Panel either check the LCD at panel power up or use the Entrance Panel setup settings menu.

5.3 LCD Status Messages

The LCD will show various power up and operational status messages throughout normal operation. At power up, or reset, the LCD will display the following information in order :

GDX TECHNOLOGIES	Manufacturer
BOOTLOADER V XXX	Software Version
VERSION XXXXXXX	Software Version
GDX Audio Lite PANEL	Type Of Panel
ID : K(type)	Site Specific EEPROM ID
DOOR NUMBER XXX	Card Programmed Door Address. *Does not apply to '2Audio'*
AUD CHANNEL XXX	Programmed Audio Channel
DIGITAL DOOR	Door type (digital or functional)
NO OF BLOCKS XXX	No of blocks called from door. *Does not apply to '2Audio'*
NO OF TELS : XX	No of tels the door is set for
READER DISABLED	Displayed if not integrated access panel
MODE : COMMON	Integrated access mode of operation
TOKEN COUNT XXXX	Integrated access token storage count. *If tokens have been manually added*
BUTTON TEST MODE	Button test mode (see later)
SYSTEM READY	Normal operation
VIDEO	On or Off

Troubleshooting

LCD Message	Description
Code EE or WEE	Problem with the door panel flat address setings IC
Code CA	Problem with the CAN databus on system. Check wiring and termination headers, PLG7. (Two fitted per system).
Code SS	Programming menu security link in wrong setting, PLG10.
Not connected	A handset has been called from a door but the Line Card cannot detect a corresponding handset.
Comms problem	The door did not receive a reply from the Line Card. Check Line Card address and CAN data connections.
No Lock Supply	No Lock Supply voltage from the Line Card to the Entrance Panel. Check cabling and fuse.
No PTE Switch	No PTE Switch voltage from the Line Card to the PTE Switch. Check cabling and fuse.
No fire Switch	No Fire Switch voltage from the Line Card to the Fire Switch. Check cabling and fuse.

5.4 Door Numbers

Every door on a system must be uniquely addressed and there must be an Entrance Panel on the system addressed as Door 00.

'2Audio' Door configuration only:

The 1st Entry Panel MUST be connected to Door 0 on the Audio Line Card.

All GDX '2Audio' Entrance Panels are programmed for Audio Channel 1.

When a 2nd Audio Entry Panel is added the Audio Channel must be set to Channel 2 and connected to Door 01 on the CCU Audio Line Card.

'7Audio' Door configuration only:

All GDX '7Audio' Entrance Panels are programmed as Door 00.

The Door No. and Audio Channel must be selected on the Entrance Panel:

- Door 00 set to Audio Channel1
- Door 01 is set to Audio Channel2, etc.

All Audio Door Configurations

As Entrance Panels or Standalone Readers are added to the system they must be set to the next available Door number on that system.

To check the Door number setting programmed:

- Check the LCD at Entrance Panel power up or use the Entrance Panel setup settings menu
- Check the Standalone Reader using the Door No. button and count the LED flashes

Door Contact

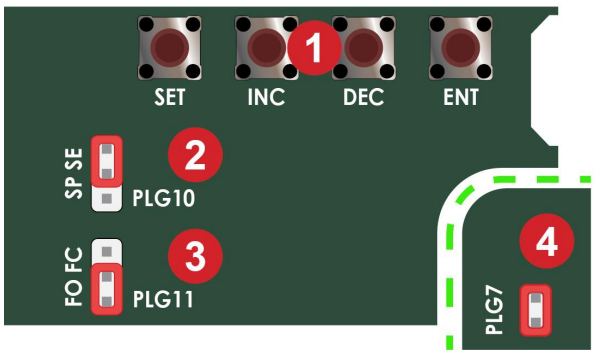
If door opening monitoring is required, do not use the contact within the magnetic locks as this will not operate satisfactorily. Use a standard normally closed security contact instead.

5.5 Panel Settings

Settings	Default	Range	Notes
Door Number	-	0-63	Not on '2Audio'
Audio Channel	-	1-7	1 or 2 For '2Audio'
Dav of week	-	Sun-Sat	
Date	-	0-31	
Month	-	1-12	
Year	-	0-99	
Hours (24 Hr)	-	0-23	
Minutes	-	0-59	
Pre Answer Call Length	30 secs	1-99 secs	
Post Answer Call Length	40 secs	1-99 secs	
Call Tone Ring Length	4 secs	1-20 secs	
Lock Release Length	8 secs	1-20 secs	
Door Alarm Activation Time	5 mins	1-99 mins	
Service Period 1 Start Hrs	07 hrs	0-23 hrs	
Service Period 1 Start Mins	00 mins	0-59 mins	
Service Period 1 Stop Hrs	09 hrs	0-23 hrs	
Service Period 1 Stop Mins	00 mins	0-59 mins	
Service Period 2 Start Hrs	00 hrs	0-23 hrs	
Service Period 2 Start Mins	00 mins	0-59 mins	
Service Period 2 Stop Hrs	00 hrs	0-23 hrs	
Service Period 2 Stop Mins	00 mins	0-59 mins	
Coded Access Digit 1	1-9	8	Not on '2Audio'
Coded Access Digit 2	1-9	8	Not on '2Audio'
Coded Access Digit 3	1-9	9	Not on '2Audio'
Coded Access Digit 4	1-9	2	Not on '2Audio'
Coded Access Digit 5	1-9	8	Not on '2Audio'
Coded Access Digit 6	1-9	3	Not on '2Audio'
Coded Access Digit 7	1-9	8	Not on '2Audio'
Coded Access Digit 8	1-9	-	Not on '2Audio'
Sunday Service Facility	On	On/Off	
Global Fire Switch	Off	On/Off	
Tailgating Lock Securing	Off	On/Off	

Panel Pushbuttons

GDX5 Entrance Panel Layout and Legend



Connection	Definition
1	LCD pushbuttons
2	PLG10 Protect/Enable link
3	PLG11 Lock select FO / FC
4	PLG7 CAN data bus header link *May be on REVERSE side of pcb*

These settings can be displayed and changed by using the four pushbuttons below the LCD display.

PLG10	SET	INC	DEC	ENT
Enables panel config. changes SP–Protect SE–Enable	Select menu	Increase menu value / option	Decrease menu value / option	Confirm menu value / option

Change settings

Move PLG10 to SE to amend settings.

To set the appropriate door number and audio channel follow the steps below:

1. Move PLG10 to SE (settings enable—pin 1 and 2).
2. Press SET to cycle around the menus.
3. Use INC and DEC to change the setting to the required value.
4. Confirm the change with the ENTER pushbutton.
5. Move PLG10 back to SP (settings protect—pin 2 and 3).

PLG10 must be on "SP" to return panel to normal operation.

Settings menu times out 8 seconds after the last button press.

[Return to GDX System Configuration]

Continue to

Standalone Reader Installation

Over 32 Audio handsets

Return to GDX System Configuration

6 Standalone Reader Information

This section will list all relevant specifications and standards that apply to the GDX Audio Standalone reader.

Product Specifications

Temperature	-10 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	12VDC
Power	0.35A

6.1 Standalone Reader Mounting

1. Use the back plate (shown below) as a template:
2. Mark the holes for the back plate wall fixing screws (× three) (**D**) and the cable entry holes (**B**). (Mark one or two depending on the number of cables required.)
3. Mark the holes for the metal cover fixing screws (× four) (**A**).
4. Affix the plastic back plate to the wall with the three screws supplied. Use wall plugs if required.
5. Affix the plastic casing lid to the plastic back plate with the machine screws (× five) provided.
6. Affix the metal cover to the wall with the Monodrive 4 security screws (× four) provided with appropriate Monodrive 4 driver.
   Use wall plugs if required.

Mounting Information

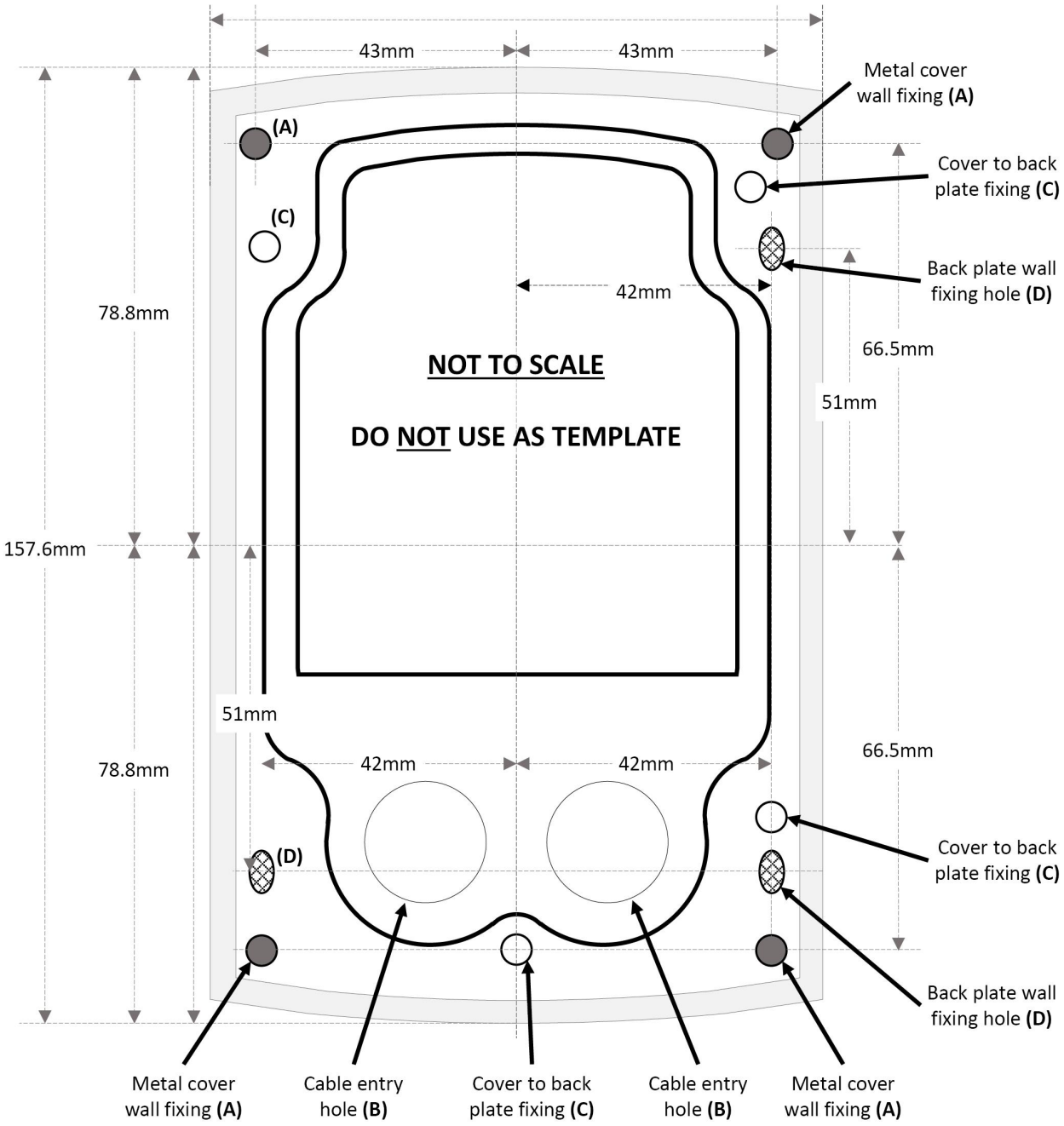
Wall type	Brick
Max weight	0.75 kg

Use appropriate fixings for the wall type

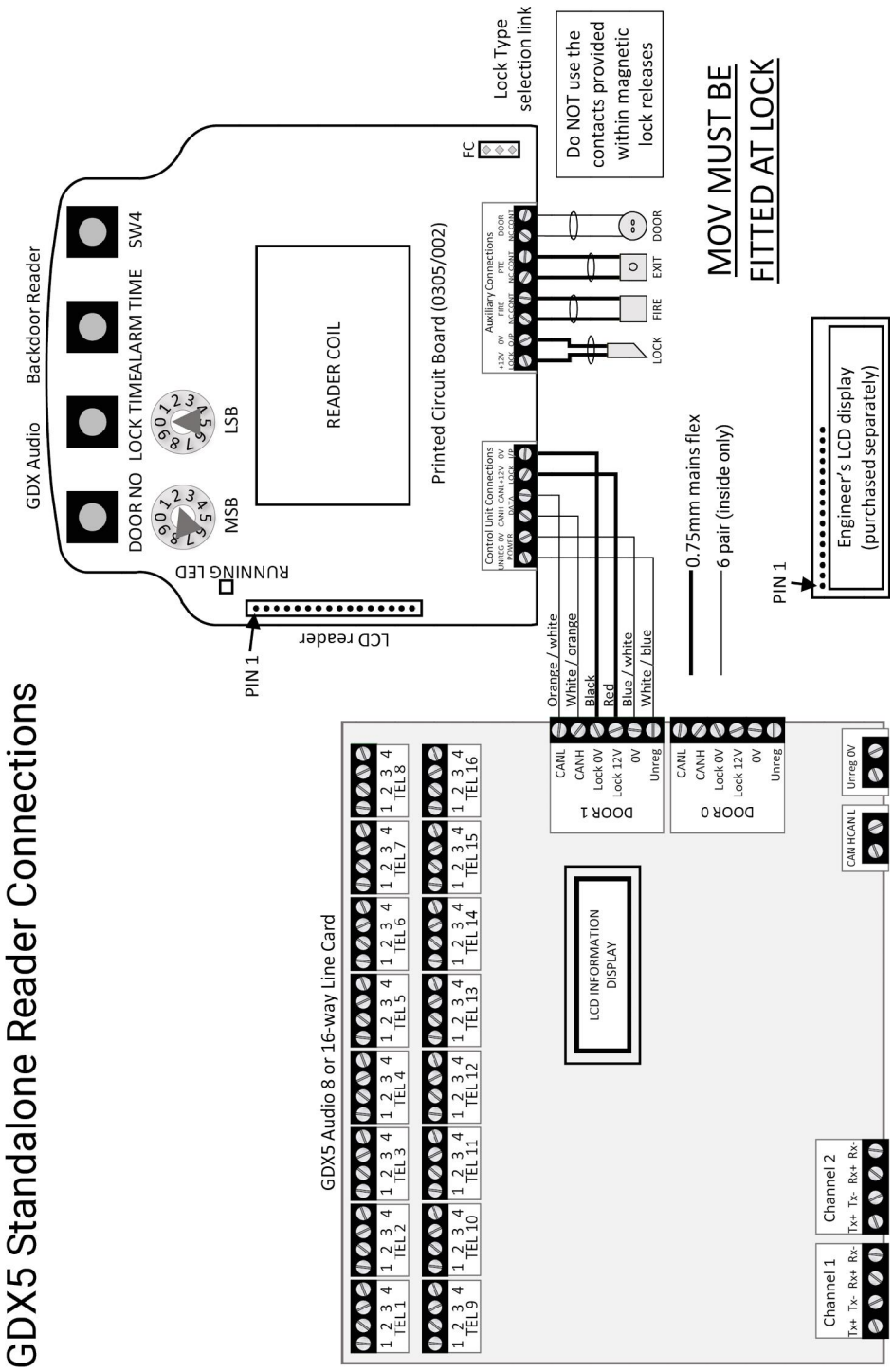
Standalone Reader Wiring

0.75mm min. flex	Max. length – 100m	Lock connections
3-pair CW1308 or Cat 5e/6 UTP min.	Max. length – 100m	Internal wiring

Reader Dimensions



Reader Connections



6.2 Power Supply Requirements

The reader requires a supply of 12VDC to 13.8VDC at 150mA maximum, excluding the door locks operated from the reader. The manufacturer's documentation for the door locks utilised will give the power consumption figure for the locks.

The Standalone Reader is rated to have a 1A max. load on the lock supply.

6.3 Engineer's LCD Display

An engineer's LCD display can be attached to the 16-way pin header, "PLG2" on the left hand edge of the reader control card, to show controller settings and operation statuses.

This LCD is not required or fitted in normal operation and is only useful as an engineering aid. The controller should not need a reset when an LCD is attached.

Pin1 of the LCD (top left corner of the LCD) must be connected to Pin1 of the pin header on the PCB (bottom pin of the header on the PCB).

6.4 Door No.

All standalone readers are factory shipped with 'Door No.' set to 01. Every door or standalone reader on a system must be **uniquely addressed**.

There must be an entrance panel on the system addressed as Door 00.

As standalone readers are added to the system they must be allocated the next available Door No. on the system. E.g. Entry panels should be addressed as 00 and 01. The standalone reader addresses can be started at address 02.

Check Door No.

1. Press the "Door No" button.
2. Count the LED flashes between the two bleeps emitted by the sounder.
   An engineer's LCD can also be used to display the setting after the button press.

Change Door No.

Set the Door No. using the two rotary switches, labelled "MSB" and "LSB" on the PCB to the required setting—MSB is used for the 'tens' and LSB for the 'units'. E.g. Set Door no. to 12.

1. Adjust MSB to 1.
2. Adjust LSB to 2.
3. Press and hold down the "Door No" button until the reader emits a long 'bleep'.
4. Press it once again to check the new setting has been stored successfully.
5. Count the LED flashes between the two bleeps emitted by the sounder.

   A long bleep is emitted by the sounder indicating the setting has been changed.

   An engineer's LCD can also be used to display the setting after the button press.

6.5 Lock Release

Check Lock Release

1. Press the "Lock Time" button.
2. Count the LED flashes between the two bleeps emitted by the sounder.

> **An engineer's LCD can also be used to display the setting after the button press.**

Change Lock Release

1. Adjust the two rotary switches at the top left of the controller PCB labelled "MSB" and "LSB" to the required setting—MSB is used for the 'tens' and LSB for the 'units'.
2. Press and hold down the "Lock Time" button.

   Current Lock Release Time will be displayed and a long bleep is emitted by the sounder indicating the setting has been changed.
3. Release the button and press it once again to check the new setting has been stored successfully.

6.6 Door Alarm

Check Alarm Time

1. Press the "Alarm Time" button.
2. Count the LED flashes between the two bleeps emitted by the sounder.

> **An engineer's LCD can also be used to display the setting after the button press.**

Change Alarm Time

1. Adjust the two rotary switches at the top left of the controller PCB labelled "MSB" and "LSB" to the required setting—MSB is used for the 'tens' and LSB for the 'units'.
2. Press and hold down the "Alarm Time" button.

   Alarm Time will be displayed and a long bleep is emitted by the sounder indicating the setting has been changed.
3. Release the button and press it once again to check the new setting has been stored successfully.

6.7 Check / Change Lock Type

The lock type is selected using the jumper link PLG4, labelled "FO" and "FC". The position of this jumper link selects "Fail Open" or "Fail Closed" lock type operation. The red LED3 above the "Lock O/P" screw terminals indicates the presence or not of a lock output voltage at these screws.

6.8 Engineer Reset Codes

1. Adjust "MSB" and "LSB" to required code—MSB is used for the 'tens' and LSB for the 'units'.
2. Restart the reader and wait for the reset 'bleep' from the sounder.

   The red LED labelled "Running" will illuminate for four seconds. Only during this time can the engineer code be set. You can also recycle power at the mains if you have another team member to assist.
3. Press and hold down the "SW4" button (right-hand pushbutton) for up to 10 seconds.
4. Wait for a long bleep and then release the pushbutton.
5. Count the LED flashes between the two bleeps emitted by the sounder.

An engineer's LCD can also be used to display the setting after the button press.

   A long bleep is emitted by the sounder indicating the setting has been changed.
6. Release the "Door No" button and press it once again to check the new setting has been stored successfully.

Code Action

Code	Description
55	Wipes token memory only and keeps all other settings.)
80	Toggle Global Fire On / Off
99	Returns unit to factory shipped defaults

6.9 Factory Default Settings

All units have the following factory default settings:

Setting	Setting Default	Setting Range
Door No. **Change as needed**	01	00–39
Lock Release Time	8 secs	01–99 secs
Door Alarm Time	5 mins	01–99 mins

6.10 Controller Mode Of Operation

Modes

A standalone reader can only have tokens administered from an entrance panel or a PC. It can only operate in "Common" or "Network" mode.

Default mode for standalone reader is "Common".

However, a door entrance panel can also operate in "Single" mode because tokens can be added or deleted directly into it, if restricted access through this door is required.

Common mode

When a standalone reader is in common mode, tokens can be added or deleted automatically from an entrance panel on the system. This will also update the stand alone reader automatically, as long as it is connected to the same system and powered up.

Network mode

The standalone reader controller is automatically switched into "Network" mode by the PC when the status of the reader is checked by the PC. It will remain in Network mode thereafter. The first time a reader is added to the system, this status check must be carried out from the PC to switch the unit into Network mode, before tokens can be added successfully to the unit from the PC.

Check mode

Count the sounder bleeps emitted after both the initial power up bleep and "Running" LED four second illumination or use the engineer's LCD display at power up.

- Two bleeps indicate "Common" mode.
- Three bleeps indicate "Network" mode.

Return to GDX System Configuration

Continue to

Audio Handset Installation

Over 32 Audio handsets

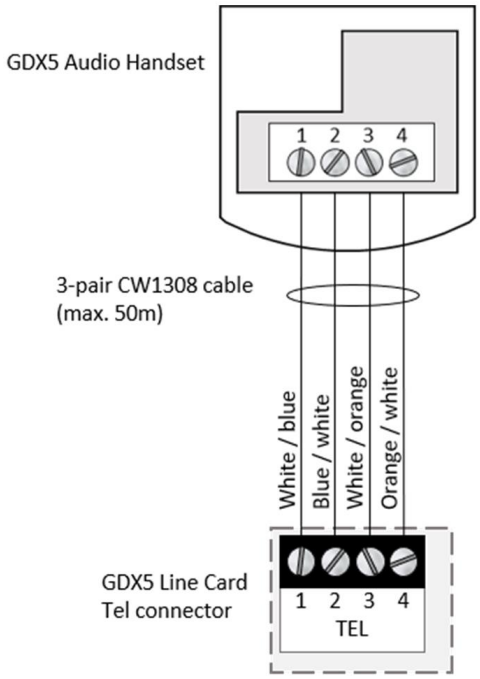
Return to GDX System Configuration

7 Handset Information

Dimensions	W:120 mm × H:200 mm × D:40 mm
Weight	0.40 kg
Temperature	0 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	12.0 VDC

7.1 Audio Handset Wiring

Audio handset basic wiring diagram is shown below.



Pin	Definition
1	Handset audio
2	DTMF signals for handset buttons
3	0V supply
4	+12V supply

The DC voltage level between pin1 and pin 3 is used to determine if a handset is connected and if a button has been pressed on the handset.

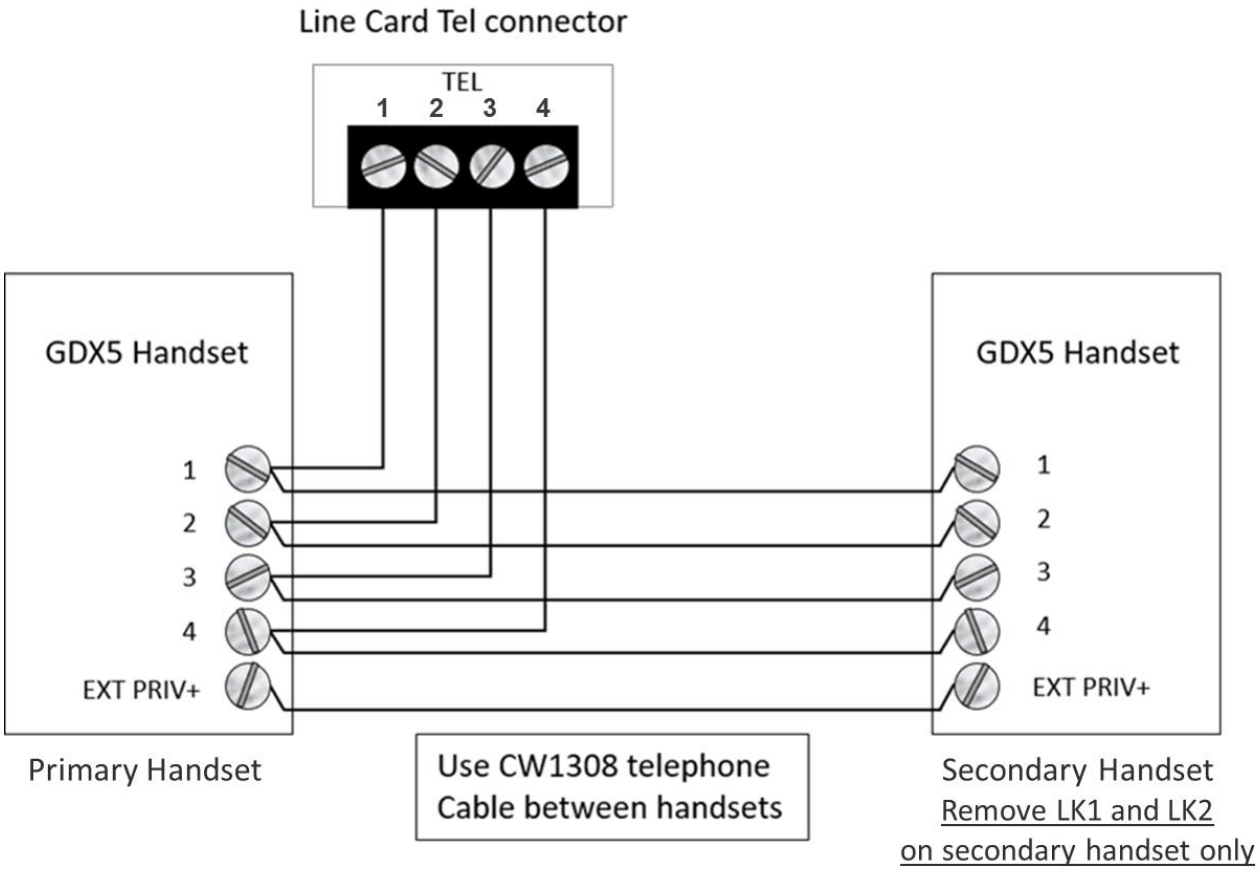
- 8V = on hook
- 5V = off hook

The max. length for cabling is 50m.

Secondary Handset connections can only be Audio handset

Use CW1308 telephone cable between handsets.

This is the basic wiring diagram to add a secondary handset to an existing installation.



[Return to GDX System Configuration]

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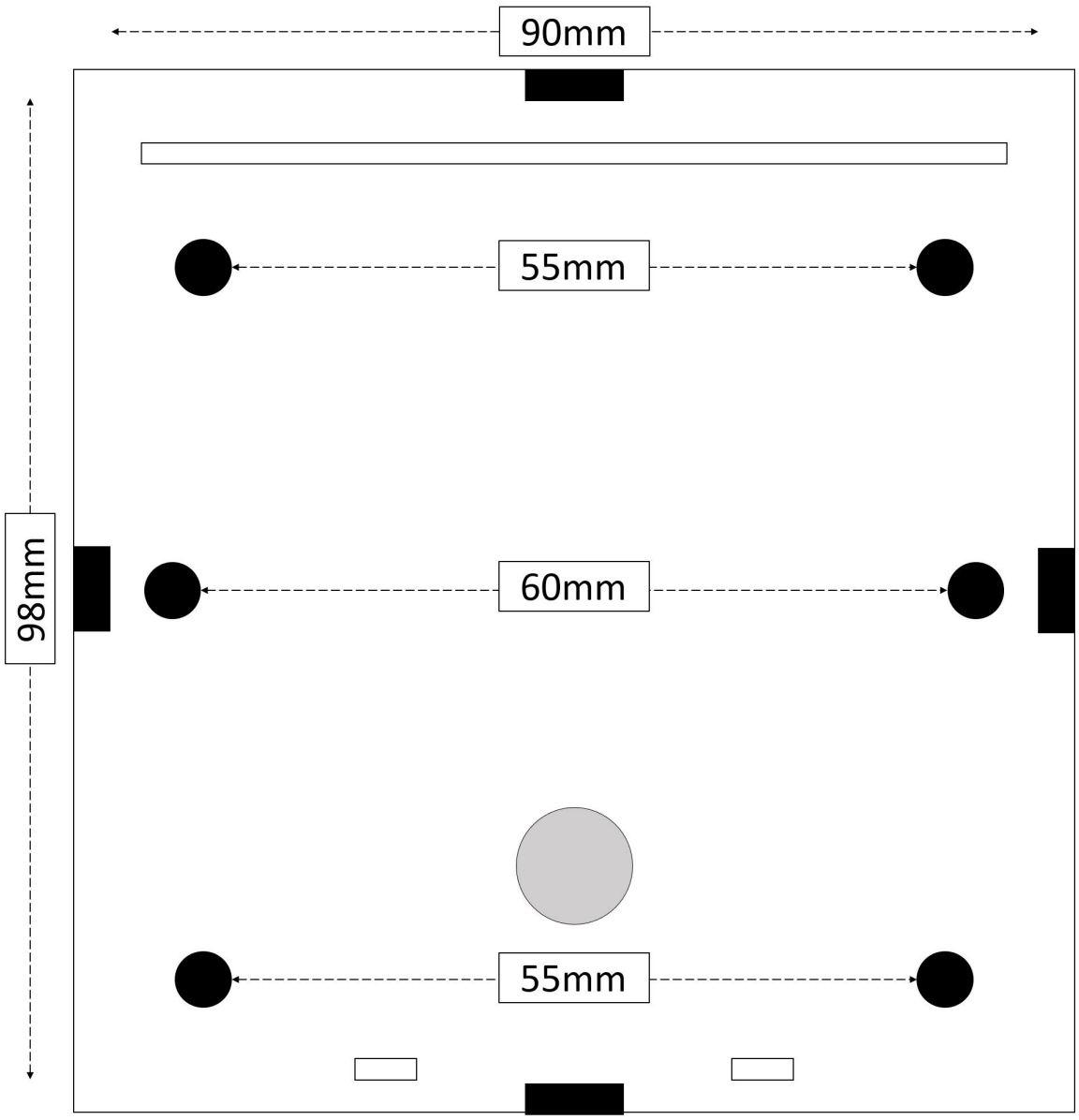
Continue to

Handset Beacon Installation

Up to 32 Audio handsets

Return to GDX System Configuration

8 Beacon Installation Dimensions (not to scale)



4.5mm holes for single gang backbox mounting

4.5mm mounting holes

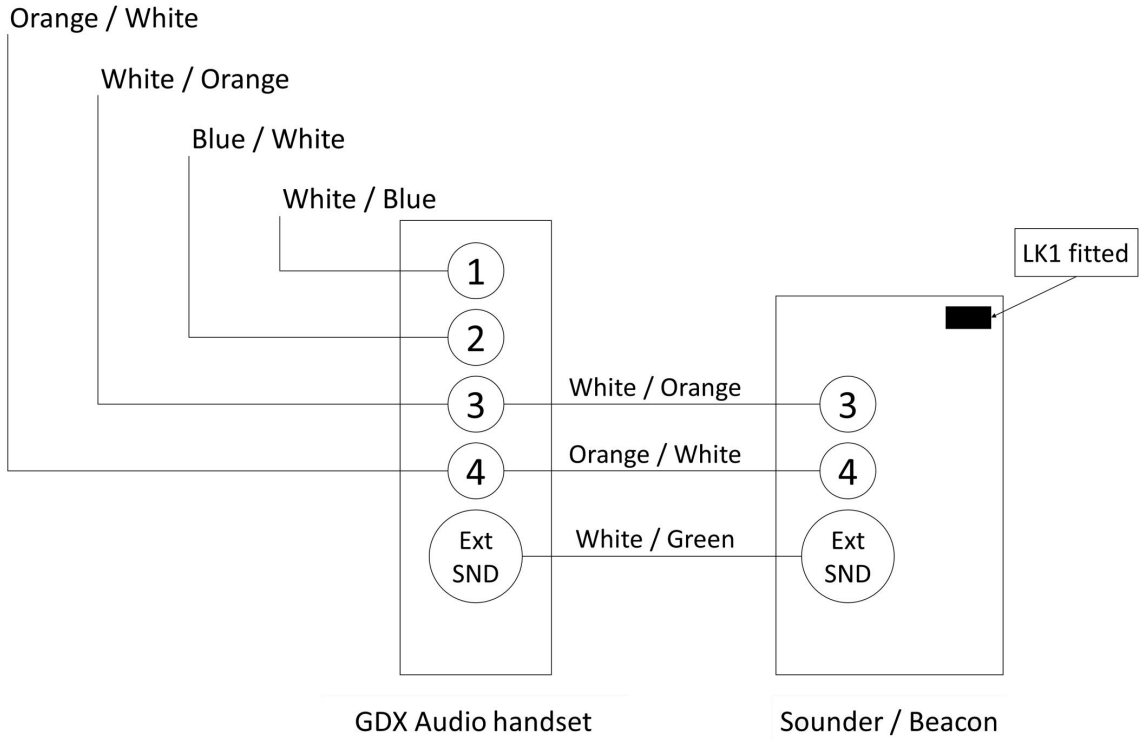
10mm cable entry point

Cable entry points

Beacon and Extension Sounder

If problems arise due to voltage drop, cables 3 & 4 should be doubled up between the handset and Beacon/Sounder unit.

Max. cable length of 25m (cumulative total)



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Continue to

Installation Checks

Over 32 Audio handsets

[Return to GDX System Configuration]

8.1 Entrance Panel Checks

Door Numbers

All GDX door Entrance Panels are shipped as Door 00.

The Door No. and Audio Channel must be selected on the Entrance Panel. Door 0 set to Audio Channel1, Door 1 is set to Audio Channel2.

If a 2nd Audio panel is added to a system the user must adjust the panel to Channel 2 to give Door 01.

Every door on a system must be uniquely addressed and there must be an Entrance Panel on the system addressed as Door 00.

As Entrance Panels are added to the system they must be allocated the next available Door No. on that system.

To check the Door No. setting programmed into the panel, either check the LCD at panel power up or use the Entrance Panel setup settings menu.

Door Contact

If door opening monitoring is required, do not use the contact within the magnetic locks as this will not operate satisfactorily. Use a standard normally closed security contact instead.

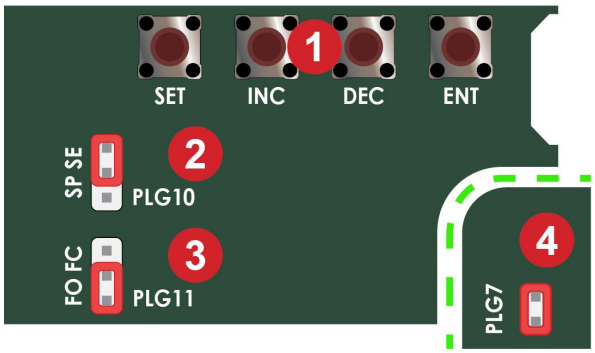
Panel Settings

Settings	Default	Range	Notes
Door Number	-	0-63	Not on '2Audio'
Audio Channel	-	1-7	1 or 2 on '2Audio'
Dav of week	-	Sun-Sat	
Date	-	0-31	
Month	-	1-12	
Year	-	0-99	
Hours (24 Hr)	-	0-23	
Minutes	-	0-59	
Pre Answer Call Length	30 secs	1-99 secs	
Post Answer Call Length	40 secs	1-99 secs	
Call Tone Ring Length	4 secs	1-20 secs	
Lock Release Length	8 secs	1-20 secs	
Door Alarm Activation Time	5 mins	1-99 mins	
Service Period 1 Start Hrs	07 hrs	0-23 hrs	
Service Period 1 Start Mins	00 mins	0-59 mins	
Service Period 1 Stop Hrs	09 hrs	0-23 hrs	
Service Period 1 Stop Mins	00 mins	0-59 mins	
Service Period 2 Start Hrs	00 hrs	0-23 hrs	
Service Period 2 Start Mins	00 mins	0-59 mins	
Service Period 2 Stop Hrs	00 hrs	0-23 hrs	
Service Period 2 Stop Mins	00 mins	0-59 mins	
Coded Access Digit 1	1-9	8	Not on '2Audio'
Coded Access Digit 2	1-9	8	Not on '2Audio'
Coded Access Digit 3	1-9	9	Not on '2Audio'
Coded Access Digit 4	1-9	2	Not on '2Audio'
Coded Access Digit 5	1-9	8	Not on '2Audio'
Coded Access Digit 6	1-9	3	Not on '2Audio'
Coded Access Digit 7	1-9	8	Not on '2Audio'
Coded Access Digit 8	1-9	-	Not on '2Audio'
Sunday Service Facility	On	On/Off	
Global Fire Switch	Off	On/Off	
Tailgating Lock Securing	Off	On/Off	

Panel Pushbuttons

These settings can be displayed and changed by using the four pushbuttons below the LCD display.

GDX5 Entrance Panel Layout and Legend



Connection	Definition
1	LCD pushbuttons
2	PLG10 Protect/Enable link
3	PLG11 Lock select FO / FC
4	PLG7 CAN data bus header link *May be on REVERSE side of pcb*

PLG10	SET	INC	DEC	ENT
Enables panel config. changes SP–Protect SE–Enable	Select menu	Increase menu value / option	Decrease menu value / option	Confirm menu value / option

Change settings

Move PLG10 to SE to amend settings.

1. Move PLG10 to SE (settings enable—pin 1 and 2).
2. Press SET to cycle around the menus.
3. Use INC and DEC to change the setting to the required value.
4. Confirm the change with the ENTER pushbutton.
5. Move PLG10 back to SP (settings protect—pin 2 and 3).

PLG10 must be on "SP" to return panel to normal operation.

Settings menu times out 8 seconds after the last button press.

8.2 CCU Checks

After power up

1. Use a multi-meter (VOLTS DC) to check the voltage output of the PSU to the Line Card is set to +13.8 VDC and adjust PSU output to 13.8 VDC if required.

If the PSU is overloaded or adjusted too high, it may shut down temporarily to protect itself. Wait for 5 mins to reset.

2. The 1st Entrance Panel **must** be installed on Door 0 connection on the Audio Line Card.
3. Check the 1st Entrance Panel is set to Audio Channel 1, "AUD CHANNEL 001". Use the reset button on the door Entrance Panel or power down and up again to display.
4. Also check the 1st door Entrance Panel is connected into the correct audio channel on the Line Card.
5. Check the 2nd door Entrance Panel is set to Audio Channel 2, "AUD CHANNEL 002". Use the reset button on the door Entrance Panel or power down and up again to display.
6. Also check the 2nd door Entrance Panel is connected into the correct audio channel on the Line Card.

LCD Messages

The LCD will display useful messages about system activity and operation which can aid fault finding and commissioning.

Telephone handset scanning status

During standard operation the Line Card continuously monitors the attached telephone handsets and cycles every few seconds. An example sequence for the status displays is shown below:

TEL 1-8 and TEL 9-16 correspond to the numbered "TEL" connection on the Line Card. "T" means a handset is connected and "-" shows no connection is detected. In the previous example it shows handsets detected in positions 1,2,5,6,9,10,13,14.

When a handset is called from an door entrance panel, the “T” becomes a “C” for the duration. of the call.

During commissioning verify each "T" is on the correct numbered connection AND changes to "C" when called.

Privacy Period
The default setting is six hours and applies to all handsets on the Line Card. This can be changed using the settings pushbuttons on the Line Card and will not require a system power down.

Telephone handset operation status
The following messages will be shown depending on the handset operation. The number displayed is the position of the telephone handset on the control unit card, i.e. 1 to 16.

Call to flat/apartment handset
When a flat is called **CH1 CALL TEL 01** is displayed, indicating the channel (CH) and flat number (01). **CH1 RESET TEL 01** is displayed when the call ends.

Card Fuse Ratings
The following fuses are fitted on a Line Card:

Fuse No	Fuse Value	Fuse Use
FS1	3A QB	Overall card fuse
FS2	1.6A QB	Door 00 electronics and lock
FS3	1.6A QB	Door 01 electronics and lock
FS6-FS21	500mA	Handsets 1-16 thermal resetting

Red LED1 and red LED2 indicate a healthy +12V and +5V supply on the Line Card respectively.

The thermal resetting fuse for each handset will not require replacing if it operates – resolve the problem and the fuse will reset itself once it cools in a few seconds.

Program Settings
The range of values allowed and the factory defaults supplied are shown below:

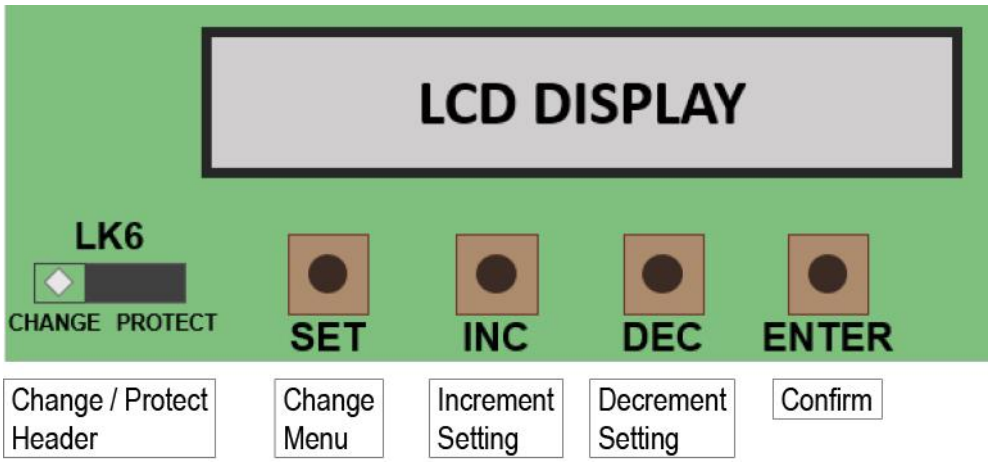
Setting	Range Allowed	Factory Default
Card number	00-01	00
Privacy time	01-15 Hours	06
Video On/Off	ON / OFF	OFF

IC28 EEPROM

Settings are stored in an EEPROM memory IC (IC28) on the Line Card. This IC can be swapped onto a replacement card to save re-programming all of the current card settings.

Settings pushbuttons

Settings can be displayed and changed by using the four pushbuttons below the LCD display.



Change settings

Move LK6 to CHANGE to amend settings.

1. Move LK6 to pins 1 and 2 (CHANGE).
2. Use INC and DEC to change the setting to the required value.
3. Confirm the change with the ENTER pushbutton.
4. Move LK6 back to pins 2 and 3 (PROTECT).

LK6 must be on PROTECT to function.

If the link is left in the “CHANGE” position then “SECURE SETTINGS” will be displayed on LCD display until LK6 is placed correctly.

Settings menu timeout is 8 secs after the last button press.

[Return to GDX System Configuration]

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Continue to

Token Administration

Over 32 Audio handsets

Return to GDX System Configuration

9 Token Administation

Entrance Panels can operate independently, as part of a 'network' or administered by a PC. Tokens cannot be added or deleted directly into a standalone reader and must be administered via either an entrance panel on the same system, a programming unit on the same system or from the GDX PC based administration software (via GSM or TCPIP Block Interface unit).

When using the PC based package, tokens CANNOT be administered from a front panel.

The mode of operation of a door Entrance Panel is displayed at power up on the panel LCD. It can also be checked or changed by in the token settings menu on the Entrance Panel.

Common mode

The default mode of operation of a door Entrance Panel is "Common" . This means tokens can be added or deleted from another Entrance Panel on the system. The update is automatically made at all other door Entrance Panels in common mode connected to the same system.

We recommend using the same Entrance Panel for token administration when you are using common mode. This will minimise any potential update errors that could occur if token administration was performed simultaneously at more than one Entrance Panel.

Single mode

In this mode tokens can only be added or deleted directly at that panel and it will ignore any changes made at other common mode panels on the same system. This would be used when restricted access through a door was needed for only certain tokens.

Network mode

The door Entrance Panel token controller is automatically switched into "Network" mode by a pc when it connects for the first time. The Entrance Panel will stay in Network mode thereafter.

9.1 Editor Tokens

Editor tokens are created by the installation engineer, during the initial commissioning of the system. These tokens are used to enable the programming modes for administering normal access tokens.

Up to three editor tokens can be registered on each Entrance Panel.

If less than three editor tokens are registered and additional editor tokens are required after commissioning, please contact your installer for assistance.

Token Setup

To enter Token Setup Mode:

1. Remove Entrance Panel front faceplate.
2. Hold SET pushbutton for five seconds until "TOKEN SETUP MODE" is shown on the LCD.
3. Use the INC and DEC pushbuttons to scroll up and down through the menu options:
   - CONTROLLER MODE OF OPERATION
   - EDITOR 1 TOKEN
   - EDITOR 2 TOKEN
   - EDITOR 3 TOKEN
   - ERASE ALL TOKENS ON THIS DOOR
   - ONLY COPY TOKENS TO DOOR
4. Press ENTER to select the required menu option
5. Use INC and DEC to cycle through predefined values in sub-menus or to enter numerical values as required.
6. Always use ENTER to confirm selection.
7. Scroll through all menu options to exit Token Setup menu.

9.2 Replace Editor token

To add a new editor token or to replace a current one:

1. Remove Entrance Panel front faceplate.
2. Enter Token Setup mode.
3. Scroll to required EDITOR menu option, e.g. EDITOR 1 TOKEN.
4. Present the new editor token to the Entrance Panel reader.

   The LCD with show the 8-digit token-ID if it is successfully read.

   This will either store the new token as an editor token or replace the current token that is stored there.
5. Press ENT to confirm the editor token details.
6. Scroll through all menu options to exit Token Setup menu.

9.3 Add Tokens

To add standard access tokens to the system:

1. Present an editor token to the Entrance Panel reader and "EDIT ADD MODE" will be displayed on the LCD.
2. Press any button on the Entrance Panel faceplate and the first available token record number will be shown. E.g. "0015: --------".

   This mean there is no token-ID stored in the 15th record slot.
3. Present the new token to the Entrance Panel reader.

   The new token-ID will be shown on the LCD and the next available record number will be displayed.
4. Continue adding tokens by presenting them to the Entrance Panel reader.
5. When all tokens required have been added, present the editor token to the Entrance Panel reader again to exit from editor mode.

   A count of the tokens stored in the controller will be displayed automatically as you exit from Add Token mode.

9.4 Delete Tokens

To delete standard access tokens to the system:

1. Present an editor token to the Entrance Panel reader twice.

   The first time "EDIT ADD MODE" will be displayed on the LCD.

   Then "EDIT DELETE MODE" will be displayed on the LCD.

2. Press any button on the panel and the first token number will be shown. E.g. "0001: --------".
3. Select the token to be deleted:
   - Press any Entrance Panel button to scroll through the token-IDs
   - Or present the actual token to de deleted to the Entrance Panel reader—if it is found the token-ID will be shown.
4. Present the editor token to delete the token ID from the system.
5. "TOKEN COUNT" will be displayed automatically as you exit from Delete Token mode.

9.5 Token Count

The current count of tokens stored in the Entrance Panel can be checked by noting the number displayed on the Entrance Panel LCD during power up or using an engineer's LCD display.

Alternatively to show the token count:

1. Present an editor token to the Entrance Panel reader three times.

   First "EDIT ADD MODE" will be displayed on the LCD.

   Then "EDIT DELETE MODE" will be displayed on the LCD.

2. On the third present, "TOKEN COUNT" will be displayed on the LCD with a count of how many tokens are stored.

If the Entrance Panel is in "Single" mode this will be the number of tokens stored for this door only.

9.6 Copy Tokens

The token database details can be transferred from an existing door Entrance Panel the same system if a new one is added at a later date.

Both Entrance Panels must be set to "Common" mode.

Copy tokens

1. Remove Entrance Panel front faceplate.
2. Select "TOKEN SETUP MENU" from the door Entrance Panel with the tokens currently stored in it.
3. Select "COPY TO DOOR --" option.
4. Enter the Door No. of the unit to be written to.

   The engineer's LCD unit is useful for confirmation of a transfer operation as it occurs.

9.7 Present Tokens

When a token is presented to the Entrance Panel reader it will indicate if it is recognised or not.

Valid token

When a token that is currently stored in that database is presented to a reader:

1. The green LED on the reader will illuminate.
2. A tone is emitted from the reader card sounder.
3. The door lock output will be switched to release the lock.

   "VALID TOKEN" will be shown on the Entrance Panel LCD.

Invalid token

When a token that is NOT currently stored in that database, is presented to a reader:

1. A single bleep is emitted from the reader card sounder.
2. The door lock output will not be switched.

   "INVALID TOKEN" will be shown on the Entrance Panel LCD.

Return to GDX System Configuration

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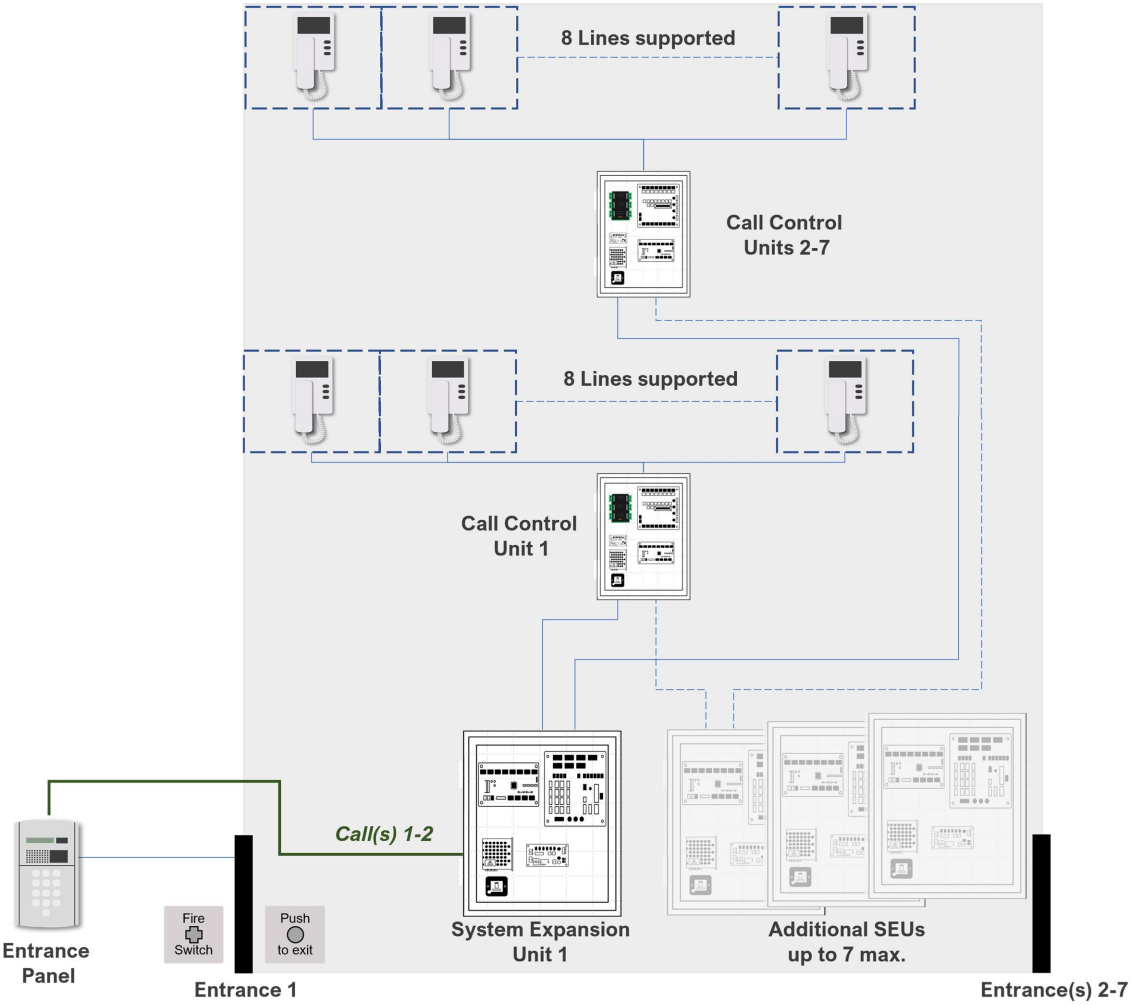
Continue to

System Installation

For OVER 32 Audio / 16 Video

Return to GDX System Configuration

'7Audio' & Video installations up to 56 lines



The block schematic above shows an example configuration of a GDX Audio & Video system. There are two entrances shown in diagram, also referred to as "doors" on Line Cards.

SYSTEM – maximum supported units

Up to 7 × Audio with up to 4 × Video channels available

- Max. 7 × Entrance Panels
  OR
- 1 × Concierge option + max. 6 Entrance Panels

NOTES:

If less than 6 × Entrance Panels are used, the remaining Audio channels can be utilised to support landing Entrance Panels.

E.g. 1 × Concierge + 4 × Entrance Panels = 2 remaining Audio (or Audio & Video if available) channels available for landing Entrance Panels per CCU.

Each CCU can support up to four landing (local) Entrance Panels.

[Return to GDX System Configuration]

Audio & Video Installation Process – OVER 16 lines

STEP 1	Install CCU Audio & Install CCU Video
STEP 2	Install SEU Audio & Install SEU Video
STEP 3	Install Entrance Panel
STEP 4	Install Standalone Reader
STEP 5	Install Handset
STEP 6	Recommended checks
STEP 7	OPTIONAL: Token Administration

SIGN OFF

This installation guide is intended only as a summary and checklist for installers familiar with this equipment.

If you need to contact technical support, please make a note of the software versions currently installed. This information is provided on the Entrance Panel LCD during power up.

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Continue to

CCU Video Line Card Installation

Over 16 Audio & Video handsets

[Return to GDX System Configuration]

10 CCU Audio Line Card

This section will list all relevant specifications and standards that apply to the GDX Audio Line Card.

Product Specifications

Weight	10 kg
Temperature	0 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	240 VAC, 50 Hz
Power	0.8A at 240VAC

Product Enclosure Dimensions

Suitable wall fixings must be used for the mounting of wall equipment depending on the wall surface.

Size (mm)	600 (h) × 400 (w) × 100 (d)
Wall type	Brick
Max weight	10kg

Use appropriate fixings for the wall type.

10.1 Product Mounting

All equipment should be located in a safe location whilst remaining accessible for competent service personnel. It is the responsibility of the competent personnel to observe appropriate precautions when handling, lifting or installing heavy loads that require wall mounting.

- Equipment supplied within a lockable enclosure need not be installed within an area of restricted access.
- However, equipment not within a lockable enclosure should be located within an area of restricted access to competent personnel only.

The enclosure should be located in a dry environment, mounted vertically on a flat wall.

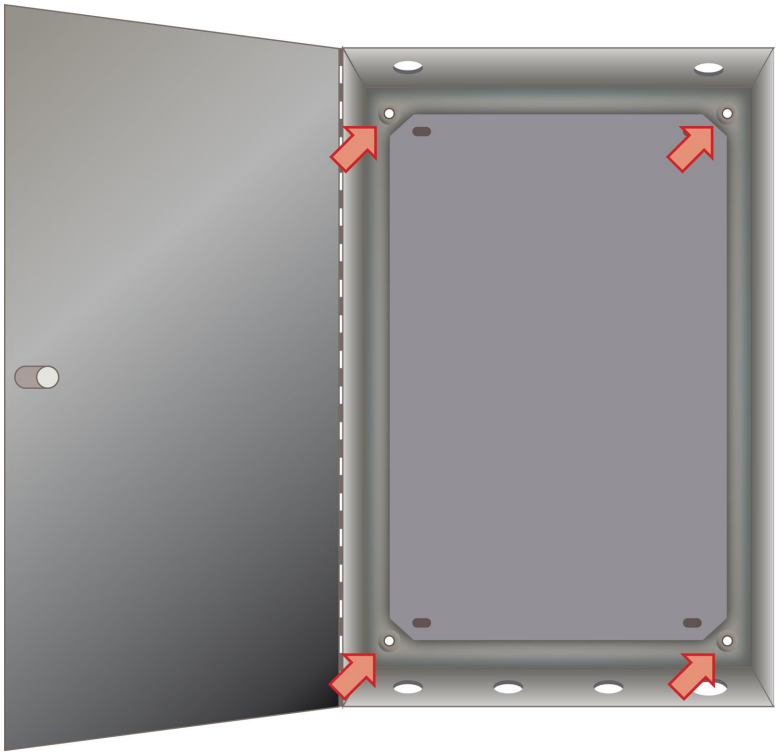
1. Open the enclosure (unlock with the key provided if necessary) but do NOT attempt to remove the door.
   - The galvanised back plate is removable, if this makes wall mounting easier, but it does not restrict access to the mounting holes.
   - Before fixing this unit to a wall remove any knock-outs that are required, located on the top and bottom of the line card enclosure, as these can be used for cable entries.
   - There are two × 20mm knockouts at the top and four × 20mm knockouts at the bottom of the enclosure.
   - Use appropriate grommets as required.

Only use the knock-outs provided to prevent potential damage to the line card.

1. Any attempt to create additional holes in the enclosure may cause metal shards from the drilling to cause electrical damage to the power supply and electronics contained within the line card.
2. Use the enclosure as a template to mark the four wall mounting holes.
3. Fix the enclosure securely to the wall using **appropriate** fixings for the wall surface.

GDX Enclosure

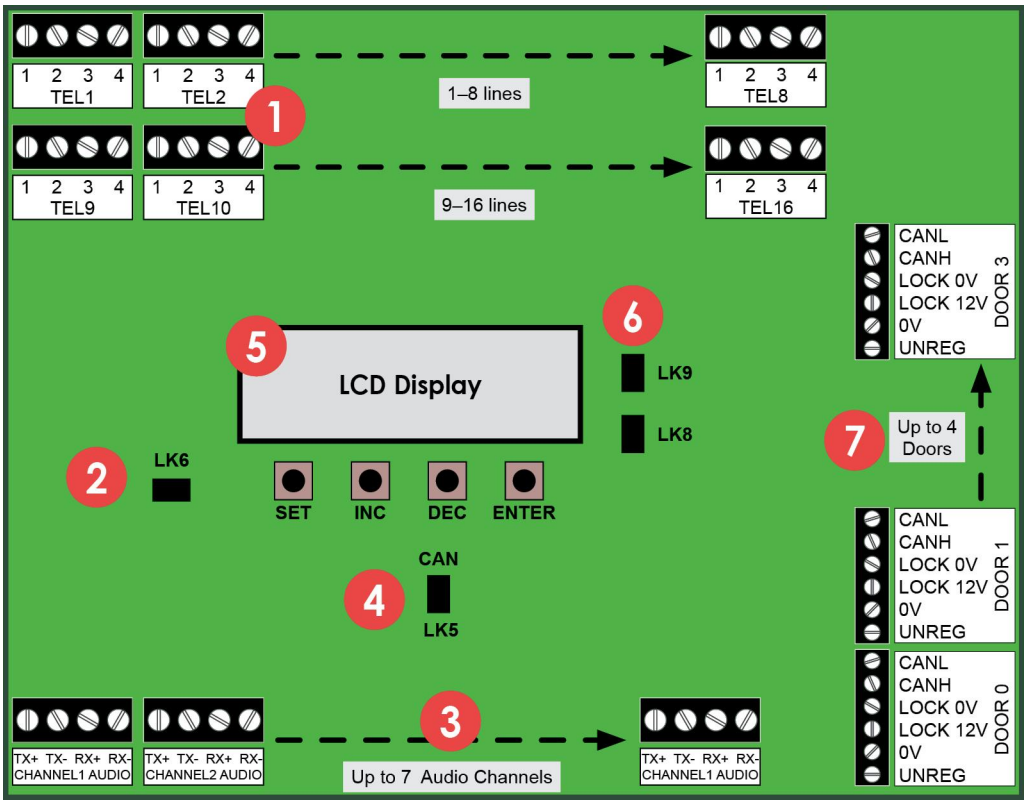
The four wall mounting holes are indicated below. Use appropriate wall fixings to secure the enclosure to the wall.



Enclosure mounting holes

The thermal resetting fuse for each handset will not require replacing if it activates. Resolve the problem and the fuse will reset itself once it cools in a few seconds.

Audio Line Card Layout and Legend



No.	Description
1	Telephone handset connections
2	LK6 Change / Protect header link
3	Audio channel connections
4	LK5 CAN data bus header link
5	LCD display and pushbuttons
6	LK8 and LK9 (DO NOT REMOVE)
7	Door power and control connections

10.2 Line Card Connections

The connections from a Line Card to a door Entrance Panel comprise of audio, power and data connections.

Entrance Panel connections

Cable run should be max. 100m.

Cable type	Cable use
6 pair	Door panel power, data and audio
2 core 0.75mm min. flex	Lock power

Door lock cabling (between Entrance Panel and Line Card) must be separate to cabling for door panel power, data and audio.

Cabling to Fire Switches and Push To Exit buttons must also be separate 2-core flex cables as they also carry lock power.

Door Entrance Panel	Line Card
UNREG	UNREG
0V	0V
LOCK PWR +12V	LOCK 12V
LOCK PWR 0V	LOCK 0V
CAN H	CAN H
CAN L	CAN L

CAN Header must be set to IN for Audio Line Card address 0.
All other Line Card CAN headers must be set to OUT.

CANH and CANL do not cross over.

The following fuses are fitted on a Line Card:

Fuse No	Fuse Value	Fuse Use
FS1	3A QB	Overall card fuse
FS2	1.6A QB	Door 00 electronics and lock
FS3	1.6A QB	Door 01 electronics and lock
FS6-FS21	500mA	Handsets 1-16 thermal resetting

Audio connections

Door Entrance Panel	Line Card
RX+	TX+
RX-	TX-
TX+	RX+
TX-	RX-

The RX and TX connections cross between the Line Card and the door Entrance Panel but the + and – connections do not.

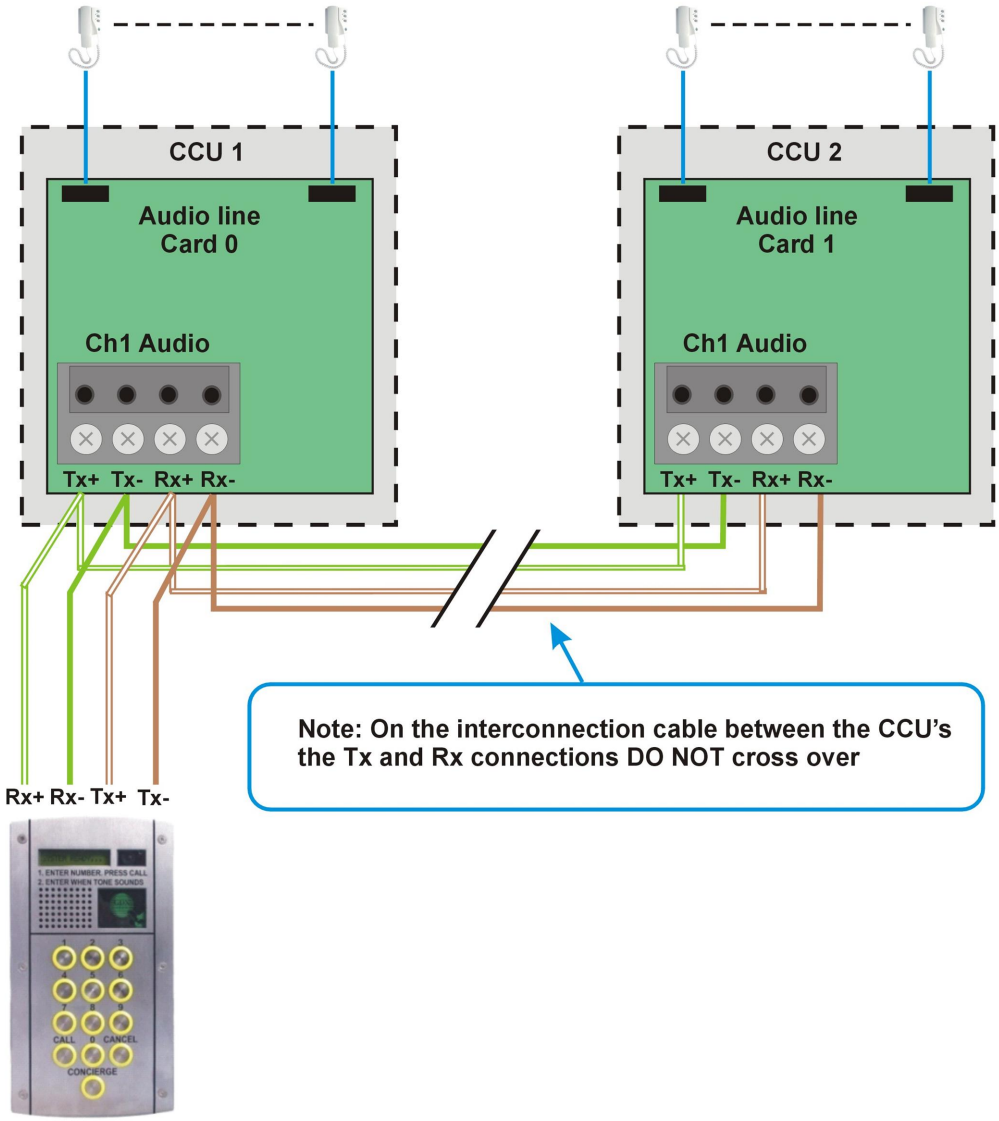
The “Audio Channel” for a door Entrance Panel is 1 or 2 for '2Audio' audio only systems and 1–7 for Audio & Video systems. This can be checked and set at the door Entry Panel LCD on power up. Use the matching Audio Channel on the Line Card for the door audio.

If a handset 'bleeps' when it is called and the green LED is illuminated but there is no audio or ring tone, check the following:
(1) the correct audio channel is selected in the line card and entrance panel
(2) the audio channel wiring are correct as per the Audio connections table above

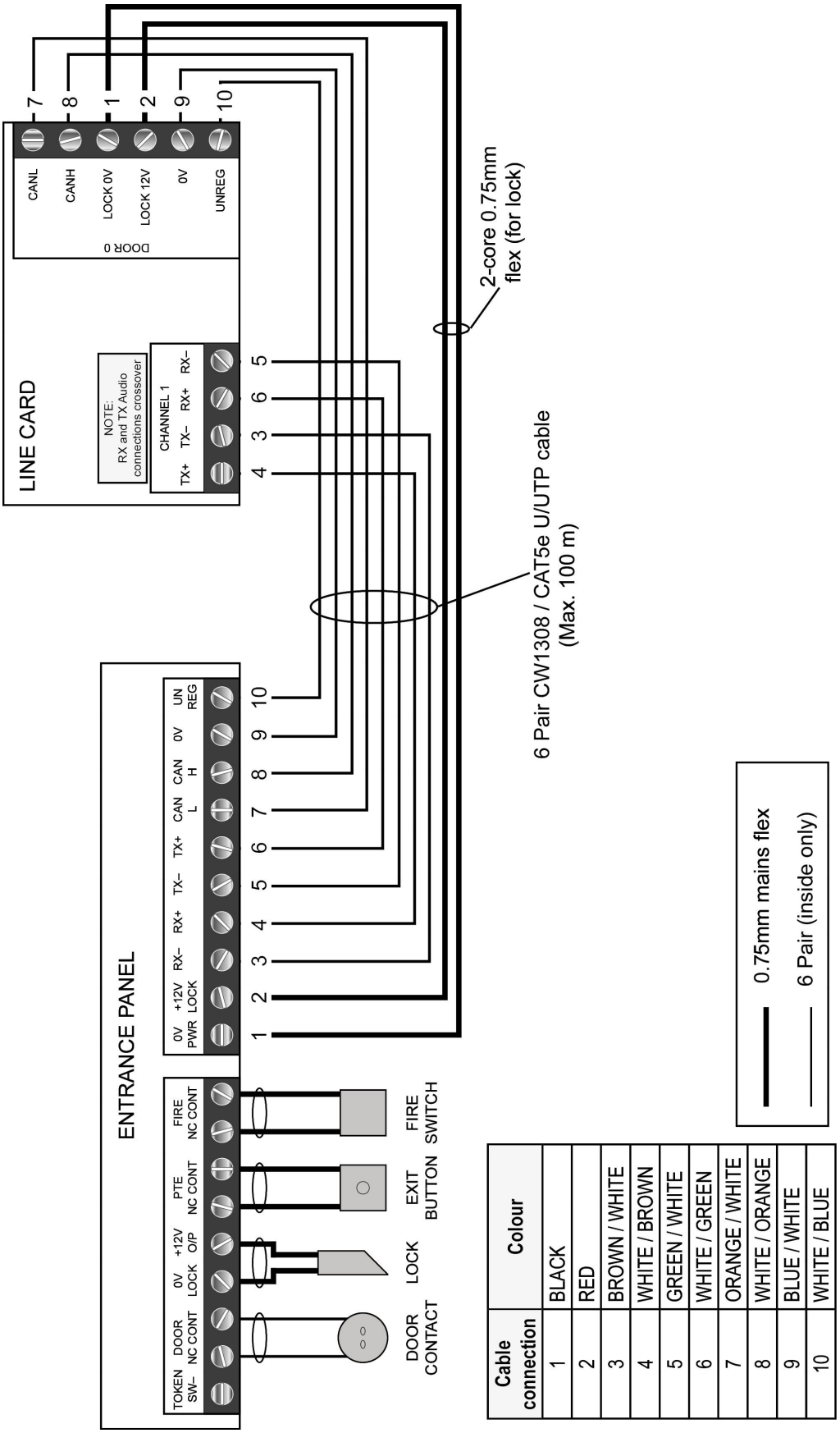
Connecting Audio Line Cards

This is the wiring diagram for additional Audio Line Card connections.

The wiring connection to another Audio Line Card is the same even if it is in a separate enclosure.



Ensure the CAN bus is wired in parallel across both Line Cards



Cable connection	Colour
1	BLACK
2	RED
3	BROWN / WHITE
4	WHITE / BROWN
5	GREEN / WHITE
6	WHITE / GREEN
7	ORANGE / WHITE
8	WHITE / ORANGE
9	BLUE / WHITE
10	WHITE / BLUE

Max. distance between CCU connections < 3m

Ensure the CAN bus is wired in parallel across both Line Cards

Telephone handset connections

Only GDX telephone handsets should be installed with this system.

Under no circumstances should handsets of any other type be connected onto a GDX Line Card as permanent damage may occur.

Cable type	Cable use
3 pair	Handset power, data and audio

The connections from the Line Card to the telephone handset are as follows:

Connection	Use
1	Handset audio to entrance panel
2	DTMF signals for handset buttons
3	0V
4	+12VDC

Telephone handsets **must** be connected to the Audio Line Card starting with the lowest postal address first, as per the front faceplate engraving. The entrance panel buttons have been factory-wired to accept this order.

For digital Entrance Panel orders, programming of the postal addressing of the handsets will be completed by the manufacturer.

The system will not work as expected if this connection sequence is not followed.

10.3 Power Up Checks

Complete these checks before and after system power up.

Before system power Up

1. Use a multi-meter (OHMS) to check the impedance between the CANH and CANL terminals is approx. 60 ohms, both at the Entrance Panel(s) and at the Line Card(s). This is **essential** for reliable system operation.

Headers are factory fitted on Line Card 00 and Entrance Panel 00.

- If impedance > 1K Ohms, no CAN headers are fitted.
- If impedance > 60 Ohms, only 1 CAN header is fitted.
- If impedance < 60 Ohms, too many CAN headers are fitted.

2. Check the audio connections between the door entrance panel(s) and the control unit crossover the TX and RX connections but not the + and – connections.

After system power up

1. Use a multi-meter (VOLTS DC) to check the voltage output of the PSU to the Line Card is set to +13.8 VDC and adjust PSU output to 13.8 VDC if required.

If the PSU is overloaded or adjusted too high, it may shut down temporarily to protect itself. Wait for 5 mins to reset.

2. The 1st Entrance Panel **must** be installed on Door 0 connection on the Audio Line Card.
3. Check the 1st Entrance Panel is set to Audio Channel 1, "AUD CHANNEL 001". Use the reset button on the door Entrance Panel or power down and up again to display.
4. Also check the 1st door Entrance Panel is connected into the correct audio channel on the Line Card.
5. Check the 2nd door Entrance Panel is set to Audio Channel 2, "AUD CHANNEL 002". Use the reset button on the door Entrance Panel or power down and up again to display.
6. Also check the 2nd door Entrance Panel is connected into the correct audio channel on the Line Card.

Power Up Display

At power up, the Line Card LCD will show version details of the installed software components:

- BOOTLOADER Vx.xx
- GDX LITE CARD
- VERSION GDXLCxx

These details will be requested if you contact Technical Support.

Card Addressing

For an 8 or 16 way system, the 1st Line Card default address is displayed on the LCD at power up or reset as “CARD NUMBER 000”.

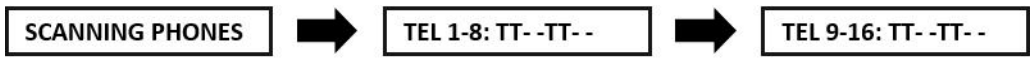
For a 24 or 32 way system, the 2nd Line Card default address is shown as "CARD NUMBER 01".

10.4 LCD Messages

The LCD will display useful messages about system activity and operation which can aid fault finding and commissioning.

Telephone handset scanning status

During standard operation the Line Card continuously monitors the attached telephone handsets and cycles every few seconds. An example sequence for the status displays is shown below:



TEL 1-8 and TEL 9-16 correspond to the numbered "TEL" connection on the Line Card. "T" means a handset is connected and "-" shows no connection is detected. In the previous example it shows handsets detected in positions 1,2,5,6,9,10,13,14.

When a handset is called from an door entrance panel, the “T” becomes a “C” for the duration. of the call.

During commissioning verify each "T" is on the correct numbered connection AND changes to "C" when called.

Privacy Period

The default setting is six hours and applies to all handsets on the Line Card. This can be changed using the settings pushbuttons on the Line Card and will not require a system power down.

Telephone handset operation status

The following messages will be shown depending on the handset operation. The number displayed is the position of the telephone handset on the control unit card, i.e. 1 to 16.

Call to flat/apartment handset

When a flat is called **CH1 CALL TEL 01** is displayed, indicating the channel (CH) and flat number (01). **CH1 RESET TEL 01** is displayed when the call ends.

Status LEDs

Red LED1 and red LED2 indicate a healthy +12V and +5V supply on the Line Card respectively.

10.5 Program Settings

The range of values allowed and the factory defaults supplied are shown below:

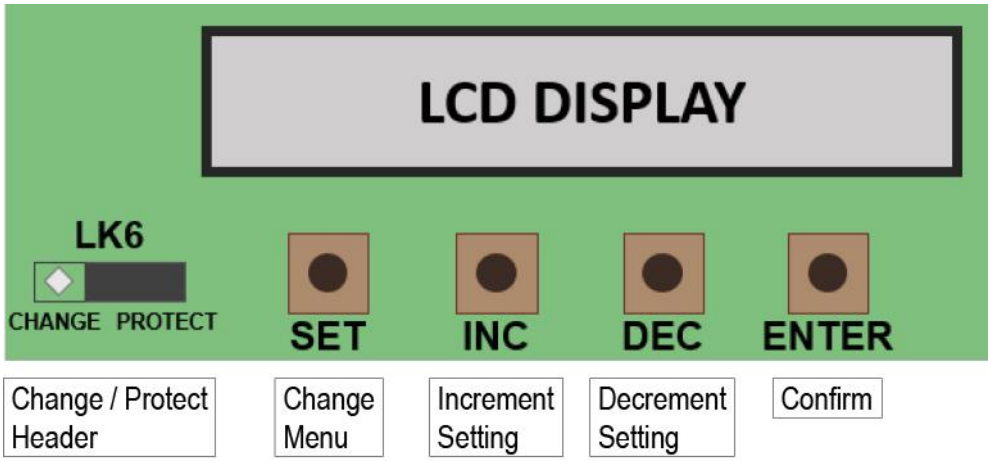
Setting	Range Allowed	Factory Default
Card number	00-01	00
Privacy time	01-15 Hours	06
Video On/Off	ON / OFF	OFF

Change Factory Settings (IC28 EEPROM)

Settings are stored in an EEPROM memory IC (IC28) on the Line Card. This IC can be swapped onto a replacement card to save re-programming all of the current card settings.

Settings pushbuttons

Settings can be displayed and changed by using the four pushbuttons below the LCD display.



Change settings

Move LK6 to CHANGE to amend settings.

1. Move LK6 to pins 1 and 2 (CHANGE).
2. Use INC and DEC to change the setting to the required value.
3. Confirm the change with the ENTER pushbutton.
4. Move LK6 back to pins 2 and 3 (PROTECT).

LK6 must be on PROTECT to function.

If the link is left in the “CHANGE” position then “SECURE SETTINGS” will be displayed on LCD display until LK6 is placed correctly.

Settings menu timeout is 8 secs after the last button press.

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Continue to

CCU Video Line Card Installation

Over 16 Audio & Video handsets

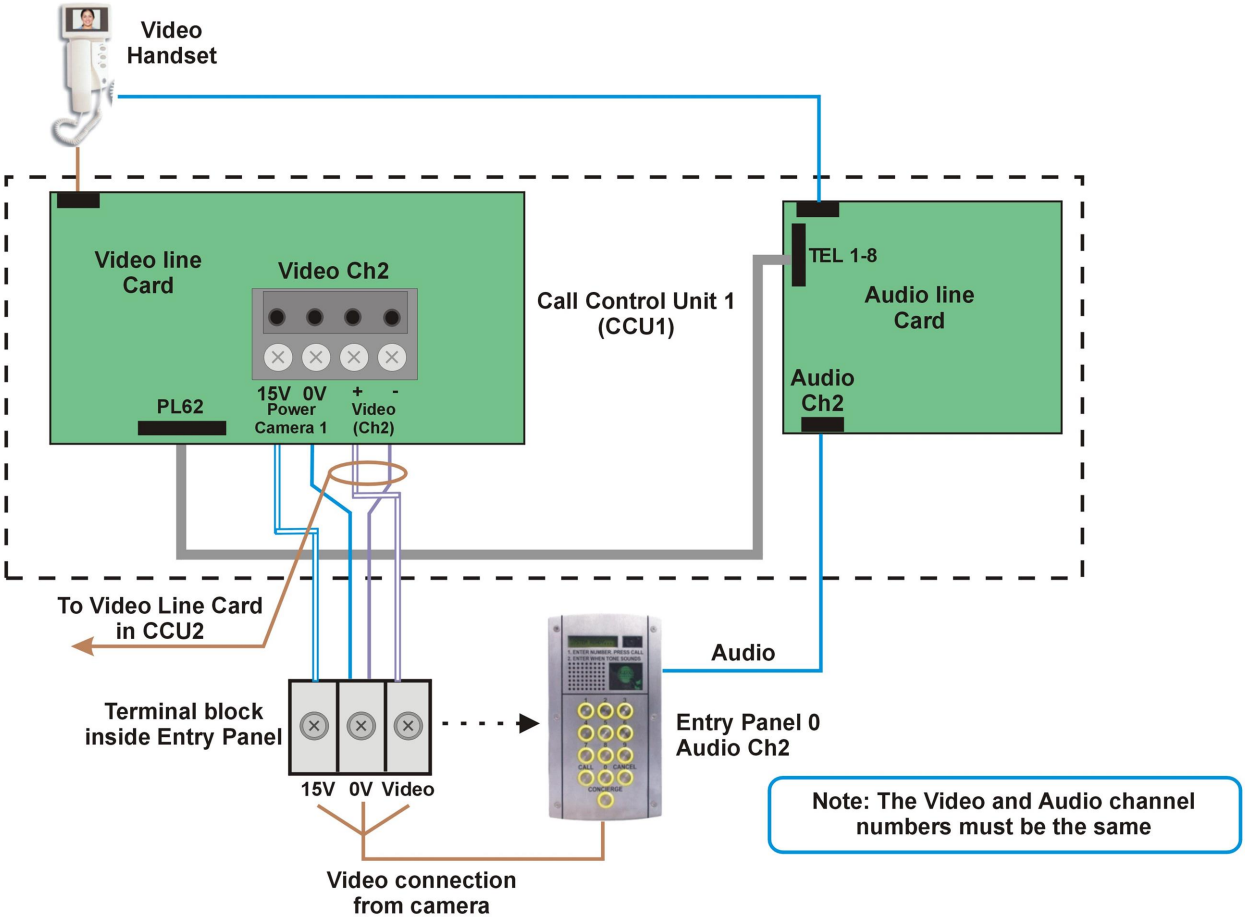
Return to GDX System Configuration

Video connections

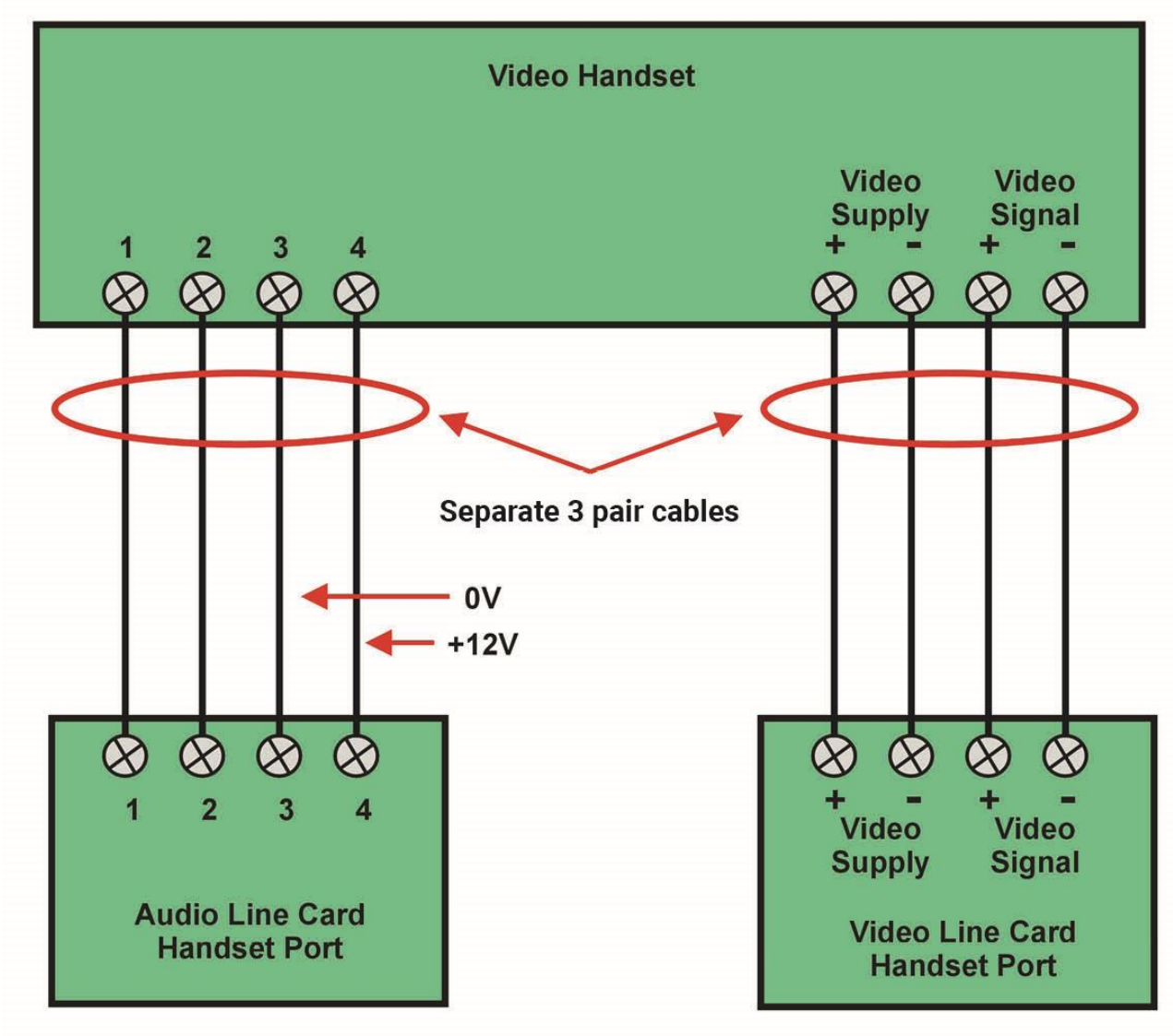
The block schematic below shows the main components and how to connect them.

Additional Video Line Cards must be connected Video+ to Video+ and Video– to Video– on the same Video channel

Each Video Line Card can support up to 8 handsets



Video Handset Connections



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Continue to

SEU Audio Installation

Over 16 Audio & Video handsets

[Return to GDX System Configuration]

11 System Expansion Unit (SEU) Audio Overview

A standard SEU allows the connection of up to two doors to 7 separate CCUs (marked LJB on the pcb) where 2 × Audio Distribution Cards (ADC) inside the SEU will handle 1 door each. More SEUs can be added if additional doors are needed.

The first ADC should have a CAN pair and common ground to each CCU, additional ADCs have the can and ground wired to the previous ADC.

Where concierge audio communication is required the first Audio Distribution Card must be assigned to the VoIP (Voice over IP) unit.

7 × doors max. can be supported on a non-concierge system.
6 × doors max. can be supported on a system with concierge.

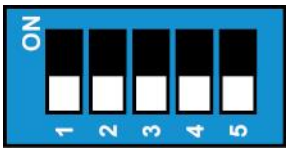
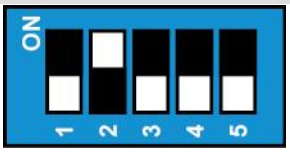
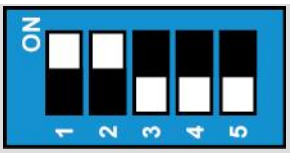
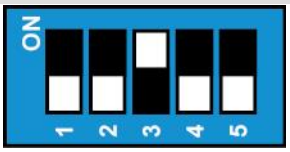
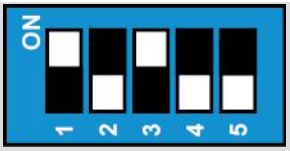
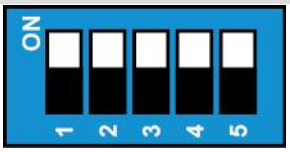
12 Audio Distribution Card Address

The cards are addressed using the DIP switch bank.

- The card connected to the VoIP must be set to address 31 (all switches set to the 'ON' position).
- Each of the cards connected to a door entry panel must be set to the address of its associated entry panel.

The first door entry panel must be set to address 0.

The DIP switches follow binary notation rules and are shown below.
Switch changes will only apply after power cycle

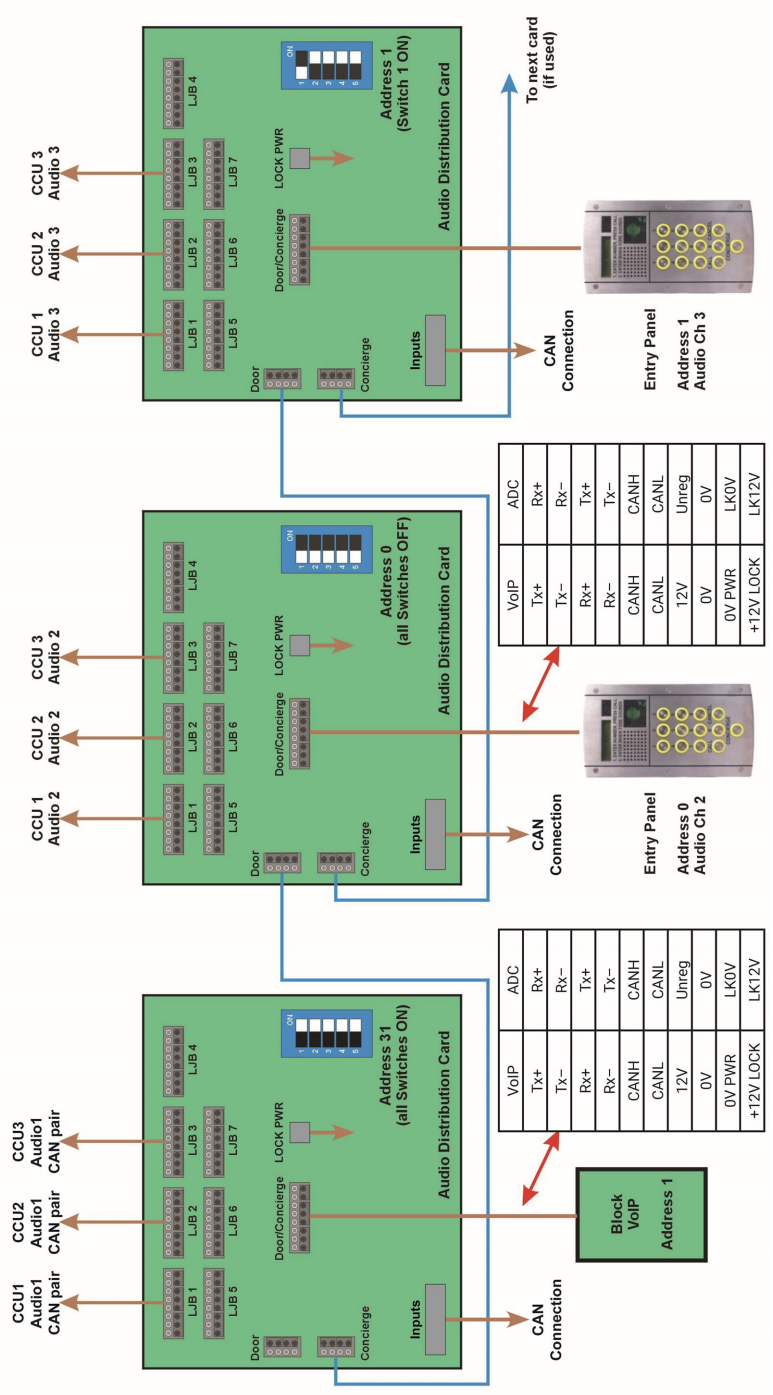
Door 0	All switches OFF	
Door 1	Switch 1 ON	
Door 2	Switch 2 ON	
Door 3	Switches 1 + 2 ON	
Door 4	Switch 3 ON	
Door 5	Switches 1 + 3 ON	
VoIP 31 **Used for concierge only**	All switches ON	

Please ensure there are enough cores to supply connections for both comms and locks

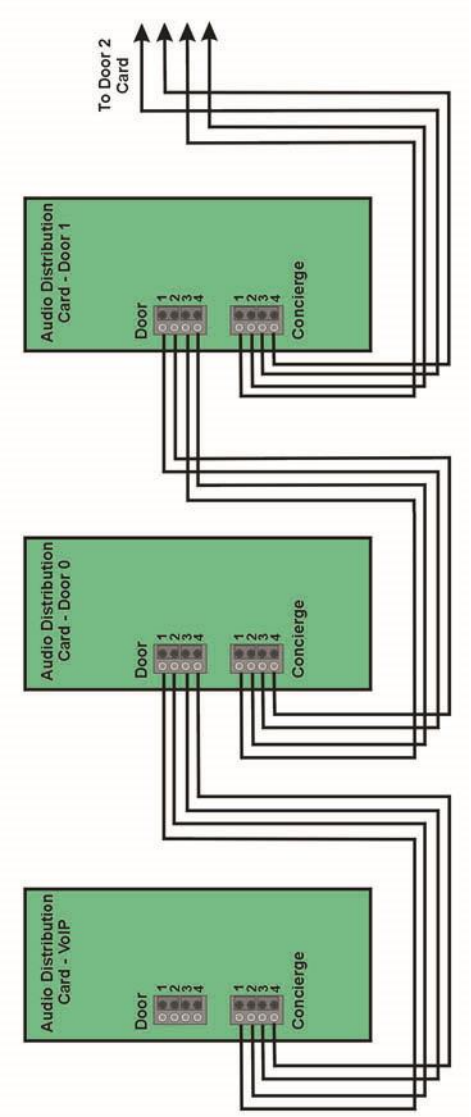
Audio Distribution Card Connection (with Concierge Audio)

For details of the audio connection between each card, refer to the Audio Connection from VoIP Card to Doors diagram.

LJB outputs on the VOIP Audio Switching Card must connect to Aud Ch. 1 on the Line Cards. The first door (Door 0) will use Audio channel 2.



Concierge Audio Connection from VoIP Card to Doors



The audio connection between the VoIP card and the first Door card is a direct 1:1, 2:2, etc. connection.

For remaining Doors: Concierge to Door connections are crossed over. See above diagram.

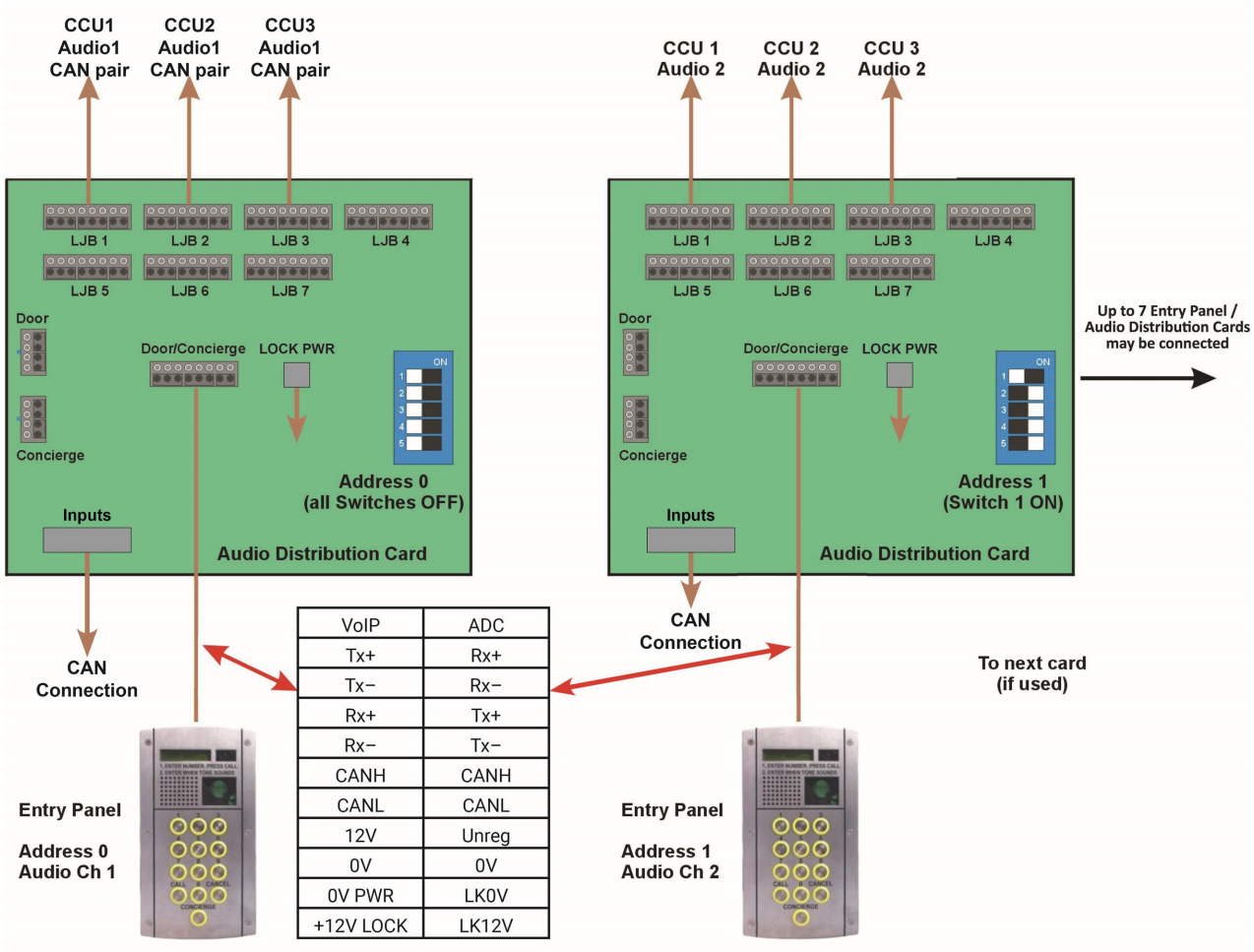
Concierge t-block connection pin	1	2	3	4
Door t-block connection pin	3	4	1	2

Audio Distribution Card Connection Options

This section shows the connections for a system that is **NOT** using Concierge audio.

> **When Concierge audio is not used you do not need the VoIP unit or the 4 wire connections between concierge and door.**

In this scenario it is possible to connect up to seven door entry panels. The method for connecting this, for an audio only system is shown below.



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Continue to

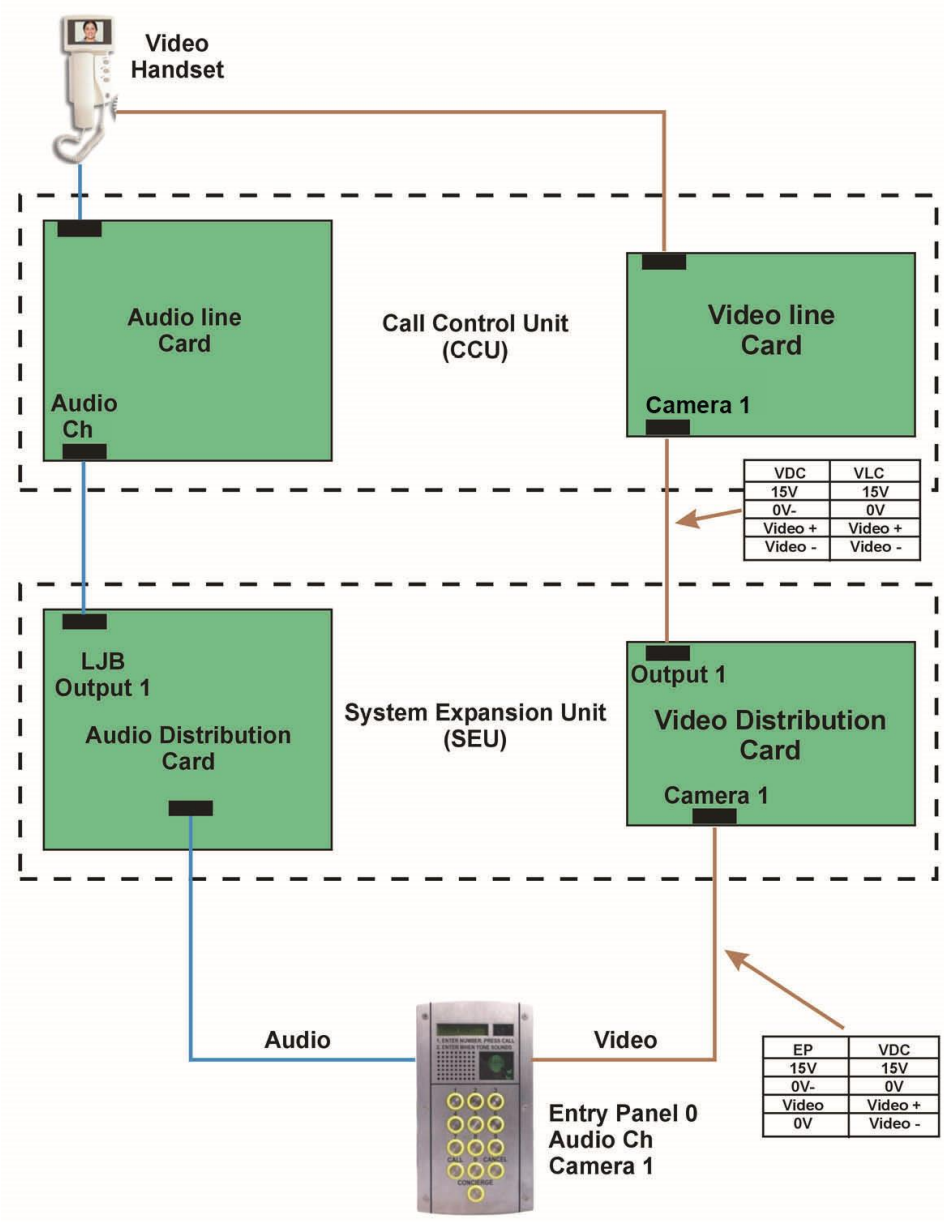
SEU Video Installation

Over 16 Audio & Video handsets

Return to GDX System Configuration

13 System Expansion Unit (SEU) Video Overview

The signal path connections are outlined below.



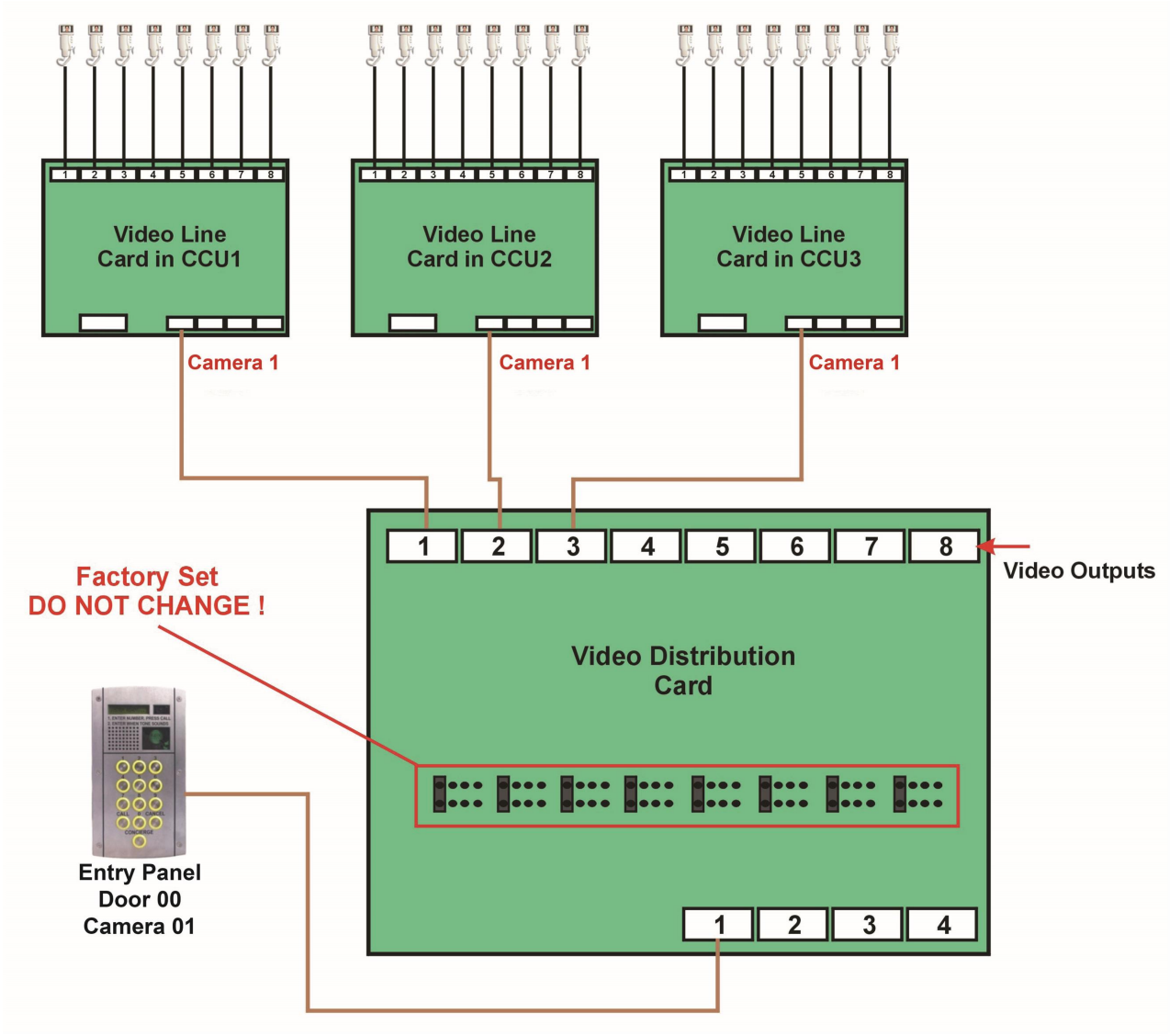
Video Cable Requirements

All Video and Audio connections must use separate cables.

- Minimum 3 Pair Cable required between Camera and Video Line Card Board.
- Minimum 3 Pair Cable Required Between Video Line Card Board and Video Handset.

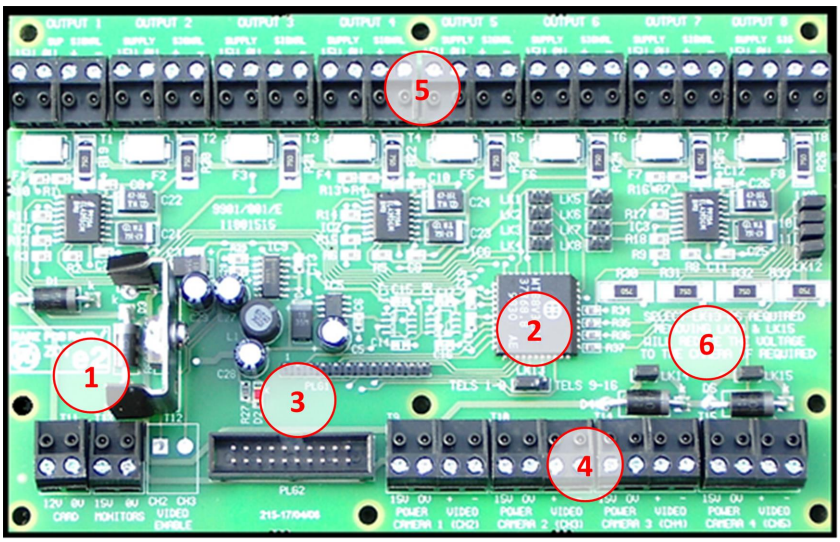
Video Distribution Card

The Video Distribution Card performs the same function for the video signals as the Audio Distribution Card does for the audio signals. It enables connection of each entry panel camera to one or more CCU enclosures.



Video Line Card

This card works in conjunction with the Audio Line Card. It connects up to four entry panel camera inputs to the selected telephone outputs.



1. The card requires two dc supplies that are provided by a single power supply.
2. The default factory setting for Handset Selection jumpers set the video cards to handsets 1–8.
3. Control bus between Audio Line Card and Video Line Card. **DO NOT REMOVE**.
4. Each camera input channel is associated with the corresponding door e.g., Camera1 : Door0, Camera2: Door1, etc.

This leaves a number of possible configurations:

i) Audio Ch1 **MUST** be used for concierge when it is used. If Audio Ch1 is used for another connection, then **concierge cannot be used in the future**.

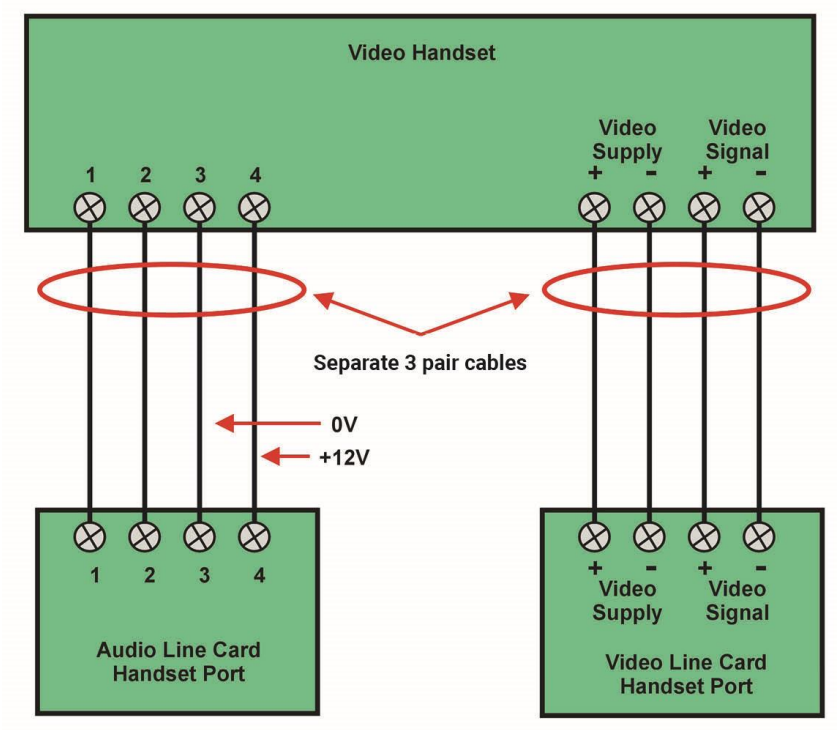
ii) When using video and an Audio7 Linecard WITHOUT concierge, the entry panel on Audio Ch1 will be audio only, because it has no associated video channel on the video cards (does not apply to Audio2 Linecards).

iii) Door 00 uses Camera 01, DR01 uses Camera 02.

5. Telephone outputs.
6. These links must be left in the factory position (i.e. pins not linked).
   - These links set the camera power to 15V / 13.8V
   - All cameras are now 13.8Vdc

Handset Connection

Use SEPARATE cables for the audio and video connections to avoid excessive noise in the audio.



[Return to GDX System Configuration]

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Continue to

Entrance Panel Installation

Over 16 Audio & Video handsets

Return to GDX System Configuration

14 Entrance Panel Information

This section will list all relevant directives, regulations and specifications that apply to the GDX Audio & Video Entrance Panel.

Entrance Panel and Backbox Specifications

Dimensions mm	150 (w) × 280 (h) × 65 (d)
Weight	2.0 kg
Temperature	-10 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	12.0 VDC to 13.5 VDC
Input Current	0.35 Amps Standby (excl. locks)

Equipment Checklist

Part no.	Equipment
109012	Power Bit Monodrive 5 M4 screw for entrance panels

Contact Customer Services to order additional parts.

14.1 Product Mounting

The entrance panel is typically supplied with an attached standard backbox. This can be removed and discarded, as per the instructions in WEEE Directive and Product Disposal, if there is already a backbox fitted in the building.

Backbox types

GDX Audio Lite Entrance Panel plates will fix on to either backbox.

- Mitred – has a bezel, 75 mm deep and panel plate is inset
- Standard – no bezel 55 mm or 65 mm deep and panel plate is fixed directly to the front

Backbox installation (if required)

Only follow these steps if a backbox has not been fitted

1. Remove the panel from the packaging and release the six security screws fixing the faceplate to the backbox (fitting templates available on request).
2. Cut out a hole for the backbox 'inside' the fixing holes.
   - Hole dimensions for backbox are 255 mm (H) × 123 mm (W).
   - Depth depends on Mitred or Standard model.
3. Use the cable entry knock-outs provided in the backbox.

In metal backboxes, use rubber grommets in the knock-outs.

4. Secure the backbox with appropriate fixings for the intended mounting surface.
5. Affix the faceplate to the backbox.

GDX Faceplate Panel

THIS DRAWING IS **NOT** TO SCALE.

BEFORE DRILLING: The physical dimensions should be checked against the measurements shown here.

Cutting out backbox template

1. Drill six holes as indicated to accommodate the fixing screws for the panel faceplate. 6 mm holes at approx. 10 mm deep

2. Inside the six holes, cut out the aperture indicated of 123 (w) × 255 (h) mm.

   - For **COMPACT** panel: depth approx. 65 mm (or 55 mm if using earlier version of backbox).

   - For **MITRED** panel: depth approx. 75 mm

USE CABLE ENTRY KNOCKOUTS PROVIDED

Do not drill any other cable entries other than those provided as this may lead to water ingress into the panel. Failure to adhere to this will invalidate any warranty claim arising.

PLEASE NOTE:
The hinge is at the bottom of the box.

15 Electric Door Lock Specification and Rating

All electric door lock release(s) connected to the system **must** have back EMF suppression devices fitted, as recommended by the lock manufacturer. All GDX Entry Panels are shipped with a MOV for this purpose.

The MOV must be installed directly at the lock.

Lock Type Selection
Fail Open (FO) or Fail Closed (FC) lock operation is set by link header PLG11 on the door Entrance Panel pcb.

15.1 Lock Type Selection

Fail Open (FO) or Fail Closed (FC) lock operation is set by link header PLG11 on the door Entrance Panel pcb.

15.2 Line Card Connections

The connections from a Line Card to a door Entrance Panel comprise of audio, power and data connections.

Entrance Panel connections
Cable run should be max. 100m.

Cable type	Cable use
6 pair	Door panel power, data and audio
2 core 0.75mm min. flex	Lock power

Door lock cabling (Entrance Panel to Line Card) must be separate to cabling for door panel power, data and audio.

Cabling to Fire Switches and Push To Exit buttons must also be separate cables as they also carry lock power.

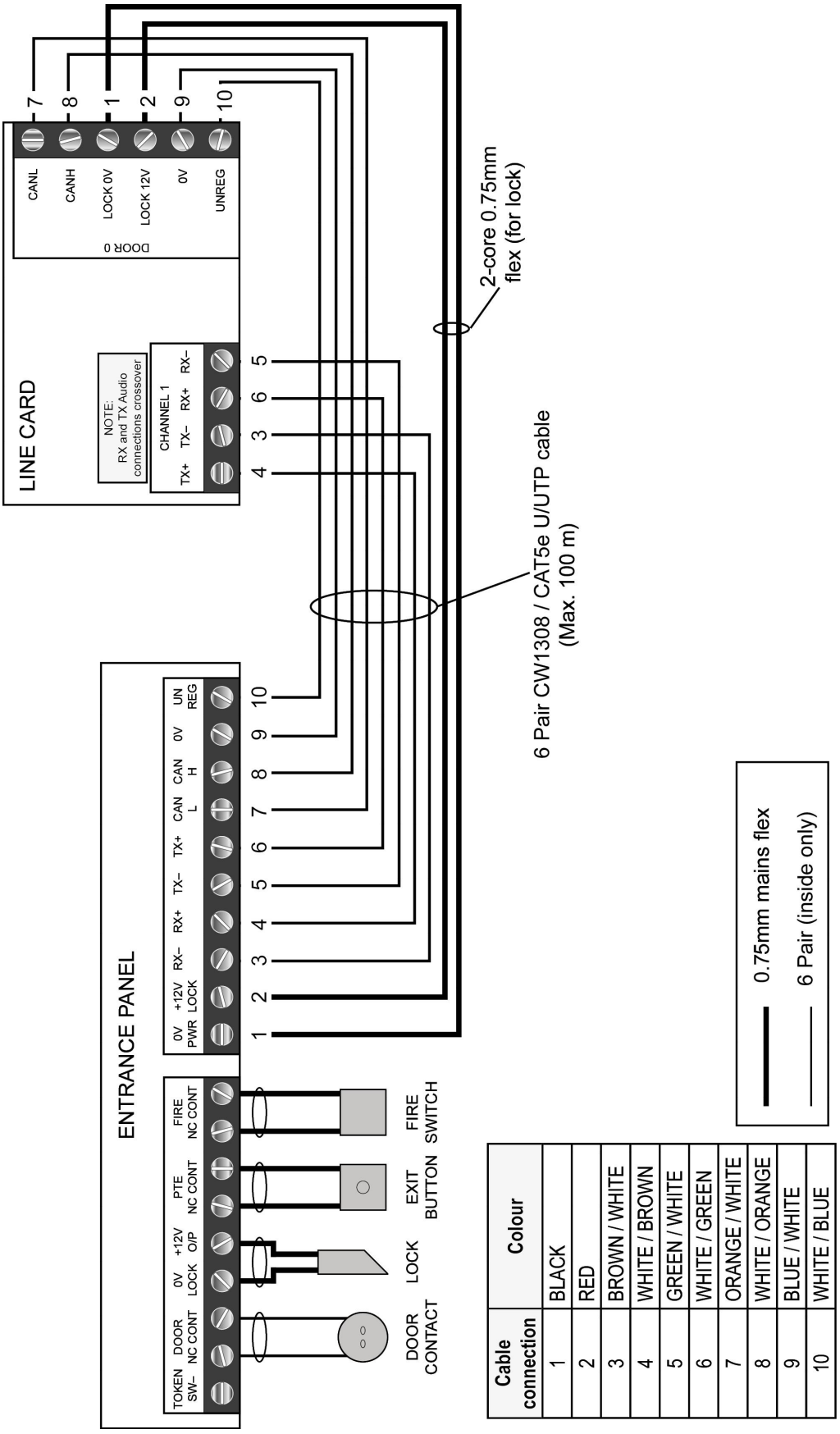
Door Entrance Panel	Line Card
UNREG	UNREG
0V	0V
LOCK PWR +12V	LOCK 12V
LOCK PWR 0V	LOCK 0V
CAN H	CAN H
CAN L	CAN L

CAN Header must be set to IN for Door Entry Panel address 0.
All other Door Entry Panel CAN headers must be set to OUT.

CANH and CANL do not cross over.

Ensure the CANL (7) & CANH (8) are wired in parallel if using two CCUs.
For systems with more than 32 Audio or 16 Video handsets,
you MUST use SEUs to support the required quantity of handsets

Door Entry Wiring



Cable connection	Colour
1	BLACK
2	RED
3	BROWN / WHITE
4	WHITE / BROWN
5	GREEN / WHITE
6	WHITE / GREEN
7	ORANGE / WHITE
8	WHITE / ORANGE
9	BLUE / WHITE
10	WHITE / BLUE

Max. distance between CCU connections < 3m

Ensure the CAN bus is wired in parallel across both Line Cards

15.3 Audio connections

Door Entrance Panel	Line Card
RX+	TX+
RX-	TX-
TX+	RX+
TX-	RX-

The RX and TX connections cross between the Line Card and the door Entrance Panel but the + and – connections do not.

The Audio Channel for a door Entrance Panel is factory-programmed (1 or 2) and can be checked on the door Entrance Panel LCD at power up. Use the matching Audio Channel on the Line Card for the door audio.

If a handset 'bleeps' when it is called and the green LED is lit but there is no audio or ring tone, check: (1) the correct audio channel is used; (2) audio channel settings and audio channel wiring are also correct.

To check the Audio Channel setting programmed into the Entry Panel either check the LCD at panel power up or use the Entrance Panel setup settings menu.

15.4 LCD Status Messages

The LCD will show various power up and operational status messages throughout normal operation. At power up, or reset, the LCD will display the following information in order :

GDX TECHNOLOGIES	Manufacturer
BOOTLOADER V XXX	Software Version
VERSION XXXXXXX	Software Version
GDX Audio Lite PANEL	Type Of Panel
ID : K(type)	Site Specific EEPROM ID
DOOR NUMBER XXX	Card Programmed Door Address. *Does not apply to '2Audio'*
AUD CHANNEL XXX	Programmed Audio Channel
DIGITAL DOOR	Door type (digital or functional)
NO OF BLOCKS XXX	No of blocks called from door. *Does not apply to '2Audio'*
NO OF TELS : XX	No of tels the door is set for
READER DISABLED	Displayed if not integrated access panel
MODE : COMMON	Integrated access mode of operation
TOKEN COUNT XXXX	Integrated access token storage count. *If tokens have been manually added*
BUTTON TEST MODE	Button test mode (see later)
SYSTEM READY	Normal operation
VIDEO	On or Off

Troubleshooting

LCD Message	Description
Code EE or WEE	Problem with the door panel flat address setings IC
Code CA	Problem with the CAN databus on system. Check wiring and termination headers, PLG7. (Two fitted per system).
Code SS	Programming menu security link in wrong setting, PLG10.
Not connected	A handset has been called from a door but the Line Card cannot detect a corresponding handset.
Comms problem	The door did not receive a reply from the Line Card. Check Line Card address and CAN data connections.
No Lock Supply	No Lock Supply voltage from the Line Card to the Entrance Panel. Check cabling and fuse.
No PTE Switch	No PTE Switch voltage from the Line Card to the PTE Switch. Check cabling and fuse.
No fire Switch	No Fire Switch voltage from the Line Card to the Fire Switch. Check cabling and fuse.

15.5 Door Numbers

Every door on a system must be uniquely addressed and there must be an Entrance Panel on the system addressed as Door 00.

'2Audio' Door configuration only:

The 1st Entry Panel MUST be connected to Door 0 on the Audio Line Card.

All GDX '2Audio' Entrance Panels are programmed for Audio Channel 1.

When a 2nd Audio Entry Panel is added the Audio Channel must be set to Channel 2 and connected to Door 01 on the CCU Audio Line Card.

'7Audio' Door configuration only:

All GDX '7Audio' Entrance Panels are programmed as Door 00.

The Door No. and Audio Channel must be selected on the Entrance Panel:

- Door 00 set to Audio Channel1
- Door 01 is set to Audio Channel2, etc.

All Audio Door Configurations

As Entrance Panels or Standalone Readers are added to the system they must be set to the next available Door number on that system.

To check the Door number setting programmed:

- Check the LCD at Entrance Panel power up or use the Entrance Panel setup settings menu
- Check the Standalone Reader using the Door No. button and count the LED flashes

Door Contact

If door opening monitoring is required, do not use the contact within the magnetic locks as this will not operate satisfactorily. Use a standard normally closed security contact instead.

Door Contact

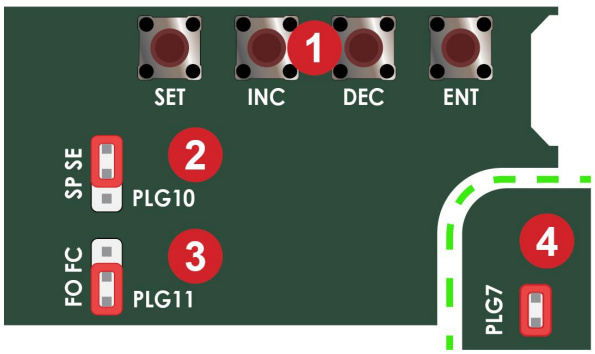
If door opening monitoring is required, do not use the contact within the magnetic locks as this will not operate satisfactorily. Use a standard normally closed security contact instead.

15.6 Panel Settings

Settings	Default	Range	Notes
Door Number	-	0-63	Not on '2Audio'
Audio Channel	-	1-7	1 or 2 For '2Audio'
Dav of week	-	Sun-Sat	
Date	-	0-31	
Month	-	1-12	
Year	-	0-99	
Hours (24 Hr)	-	0-23	
Minutes	-	0-59	
Pre Answer Call Length	30 secs	1-99 secs	
Post Answer Call Length	40 secs	1-99 secs	
Call Tone Ring Length	4 secs	1-20 secs	
Lock Release Length	8 secs	1-20 secs	
Door Alarm Activation Time	5 mins	1-99 mins	
Service Period 1 Start Hrs	07 hrs	0-23 hrs	
Service Period 1 Start Mins	00 mins	0-59 mins	
Service Period 1 Stop Hrs	09 hrs	0-23 hrs	
Service Period 1 Stop Mins	00 mins	0-59 mins	
Service Period 2 Start Hrs	00 hrs	0-23 hrs	
Service Period 2 Start Mins	00 mins	0-59 mins	
Service Period 2 Stop Hrs	00 hrs	0-23 hrs	
Service Period 2 Stop Mins	00 mins	0-59 mins	
Coded Access Digit 1	1-9	8	Not on '2Audio'
Coded Access Digit 2	1-9	8	Not on '2Audio'
Coded Access Digit 3	1-9	9	Not on '2Audio'
Coded Access Digit 4	1-9	2	Not on '2Audio'
Coded Access Digit 5	1-9	8	Not on '2Audio'
Coded Access Digit 6	1-9	3	Not on '2Audio'
Coded Access Digit 7	1-9	8	Not on '2Audio'
Coded Access Digit 8	1-9	-	Not on '2Audio'
Sunday Service Facility	On	On/Off	
Global Fire Switch	Off	On/Off	
Tailgating Lock Securing	Off	On/Off	

Panel Pushbuttons

GDX5 Entrance Panel Layout and Legend



Connection	Definition
1	LCD pushbuttons
2	PLG10 Protect/Enable link
3	PLG11 Lock select FO / FC
4	PLG7 CAN data bus header link *May be on REVERSE side of pcb*

These settings can be displayed and changed by using the four pushbuttons below the LCD display.

PLG10	SET	INC	DEC	ENT
Enables panel config. changes SP–Protect SE–Enable	Select menu	Increase menu value / option	Decrease menu value / option	Confirm menu value / option

Change settings

Move PLG10 to SE to amend settings.

To set the appropriate door number and audio channel follow the steps below:

1. Move PLG10 to SE (settings enable—pin 1 and 2).
2. Press SET to cycle around the menus.
3. Use INC and DEC to change the setting to the required value.
4. Confirm the change with the ENTER pushbutton.
5. Move PLG10 back to SP (settings protect—pin 2 and 3).

PLG10 must be on "SP" to return panel to normal operation.

Settings menu times out 8 seconds after the last button press.

[Return to GDX System Configuration]

Continue to

Standalone Reader Installation

Over 16 Audio & Video handsets

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16 Standalone Reader Information

This section will list all relevant specifications and standards that apply to the GDX Audio Standalone reader.

Product Specifications

Temperature	-10 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	12VDC
Power	0.35A

16.1 Standalone Reader Mounting

1. Use the back plate (shown below) as a template:
2. Mark the holes for the back plate wall fixing screws (× three) (**D**) and the cable entry holes (**B**). (Mark one or two depending on the number of cables required.)
3. Mark the holes for the metal cover fixing screws (× four) (**A**).
4. Affix the plastic back plate to the wall with the three screws supplied. Use wall plugs if required.
5. Affix the plastic casing lid to the plastic back plate with the machine screws (× five) provided.
6. Affix the metal cover to the wall with the Monodrive 4 security screws (× four) provided with appropriate Monodrive 4 driver.
   Use wall plugs if required.

Mounting Information

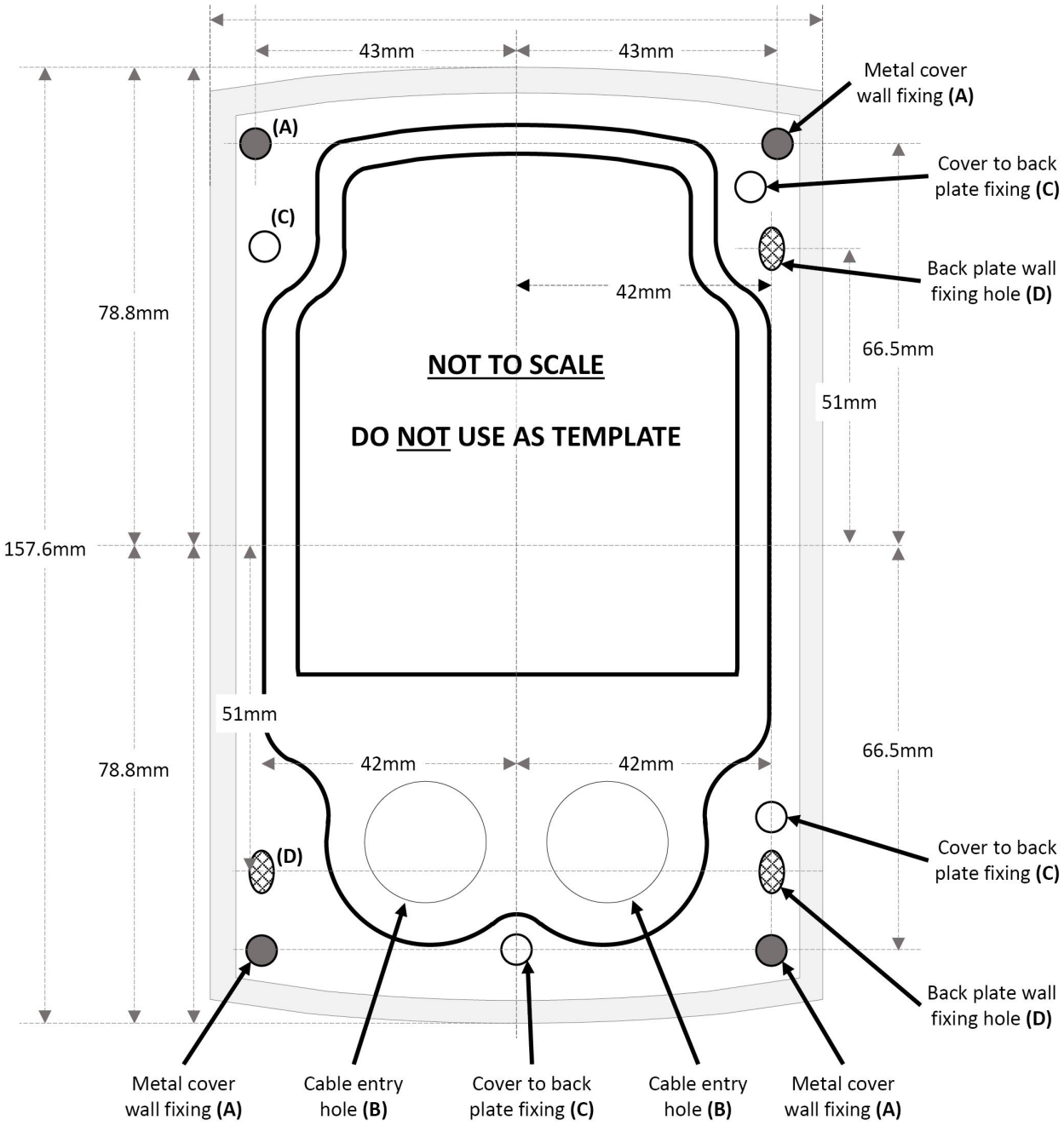
Wall type	Brick
Max weight	0.75 kg

Use appropriate fixings for the wall type

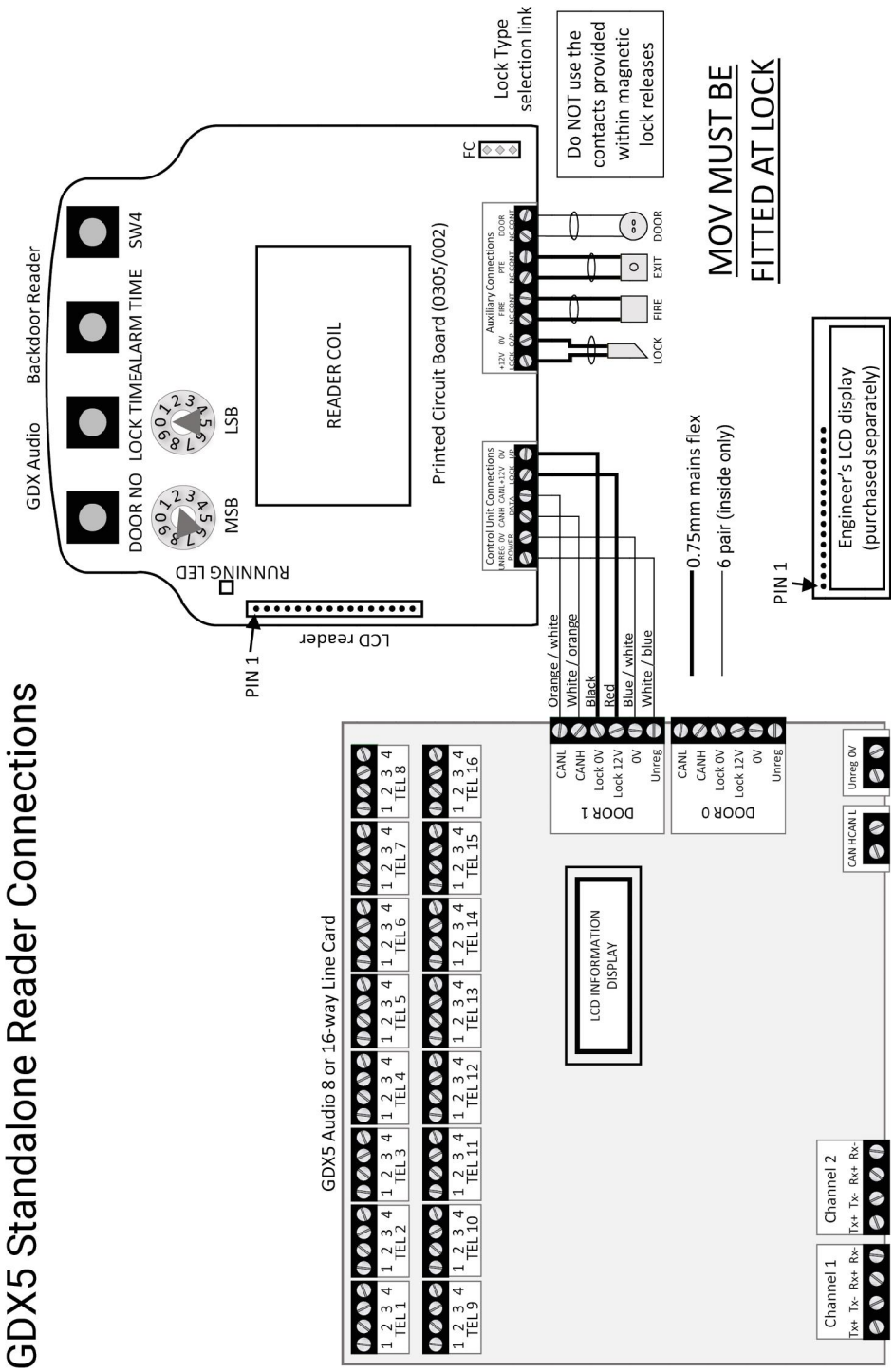
Standalone Reader Wiring

0.75mm min. flex	Max. length – 100m	Lock connections
3-pair CW1308 or Cat 5e/6 UTP min.	Max. length – 100m	Internal wiring

Reader Dimensions



Reader Connections



16.2 Power Supply Requirements

The reader requires a supply of 12VDC to 13.8VDC at 150mA maximum, excluding the door locks operated from the reader. The manufacturer's documentation for the door locks utilised will give the power consumption figure for the locks.

The Standalone Reader is rated to have a 1A max. load on the lock supply.

16.3 Engineer's LCD Display

An engineer's LCD display can be attached to the 16-way pin header, "PLG2" on the left hand edge of the reader control card, to show controller settings and operation statuses.

This LCD is not required or fitted in normal operation and is only useful as an engineering aid. The controller should not need a reset when an LCD is attached.

Pin1 of the LCD (top left corner of the LCD) must be connected to Pin1 of the pin header on the PCB (bottom pin of the header on the PCB).

16.4 Door No.

All standalone readers are factory shipped with 'Door No.' set to 01. Every door or standalone reader on a system must be **uniquely addressed**.

There must be an entrance panel on the system addressed as Door 00.

As standalone readers are added to the system they must be allocated the next available Door No. on the system. E.g. Entry panels should be addressed as 00 and 01. The standalone reader addresses can be started at address 02.

Check Door No.

1. Press the "Door No" button.
2. Count the LED flashes between the two bleeps emitted by the sounder.
   An engineer's LCD can also be used to display the setting after the button press.

Change Door No.

Set the Door No. using the two rotary switches, labelled "MSB" and "LSB" on the PCB to the required setting—MSB is used for the 'tens' and LSB for the 'units'. E.g. Set Door no. to 12.

1. Adjust MSB to 1.
2. Adjust LSB to 2.
3. Press and hold down the "Door No" button until the reader emits a long 'bleep'.
4. Press it once again to check the new setting has been stored successfully.
5. Count the LED flashes between the two bleeps emitted by the sounder.

   A long bleep is emitted by the sounder indicating the setting has been changed.

   An engineer's LCD can also be used to display the setting after the button press.

16.5 Lock Release

Check Lock Release

1. Press the "Lock Time" button.
2. Count the LED flashes between the two bleeps emitted by the sounder.

> **An engineer's LCD can also be used to display the setting after the button press.**

Change Lock Release

1. Adjust the two rotary switches at the top left of the controller PCB labelled "MSB" and "LSB" to the required setting—MSB is used for the 'tens' and LSB for the 'units'.
2. Press and hold down the "Lock Time" button.

   Current Lock Release Time will be displayed and a long bleep is emitted by the sounder indicating the setting has been changed.
3. Release the button and press it once again to check the new setting has been stored successfully.

16.6 Door Alarm

Check Alarm Time

1. Press the "Alarm Time" button.
2. Count the LED flashes between the two bleeps emitted by the sounder.

> **An engineer's LCD can also be used to display the setting after the button press.**

Change Alarm Time

1. Adjust the two rotary switches at the top left of the controller PCB labelled "MSB" and "LSB" to the required setting—MSB is used for the 'tens' and LSB for the 'units'.
2. Press and hold down the "Alarm Time" button.

   Alarm Time will be displayed and a long bleep is emitted by the sounder indicating the setting has been changed.
3. Release the button and press it once again to check the new setting has been stored successfully.

16.7 Check / Change Lock Type

The lock type is selected using the jumper link PLG4, labelled "FO" and "FC". The position of this jumper link selects "Fail Open" or "Fail Closed" lock type operation. The red LED3 above the "Lock O/P" screw terminals indicates the presence or not of a lock output voltage at these screws.

16.8 Engineer Reset Codes

1. Adjust "MSB" and "LSB" to required code—MSB is used for the 'tens' and LSB for the 'units'.
2. Restart the reader and wait for the reset 'bleep' from the sounder.

   The red LED labelled "Running" will illuminate for four seconds. Only during this time can the engineer code be set. You can also recycle power at the mains if you have another team member to assist.
3. Press and hold down the "SW4" button (right-hand pushbutton) for up to 10 seconds.
4. Wait for a long bleep and then release the pushbutton.
5. Count the LED flashes between the two bleeps emitted by the sounder.

An engineer's LCD can also be used to display the setting after the button press.

   A long bleep is emitted by the sounder indicating the setting has been changed.
6. Release the "Door No" button and press it once again to check the new setting has been stored successfully.

Code Action

Code	Description
55	Wipes token memory only and keeps all other settings.)
80	Toggle Global Fire On / Off
99	Returns unit to factory shipped defaults

16.9 Factory Default Settings

All units have the following factory default settings:

Setting	Setting Default	Setting Range
Door No. **Change as needed**	01	00–39
Lock Release Time	8 secs	01–99 secs
Door Alarm Time	5 mins	01–99 mins

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Audio & Video Handset Installation

Over 16 Audio & Video handsets

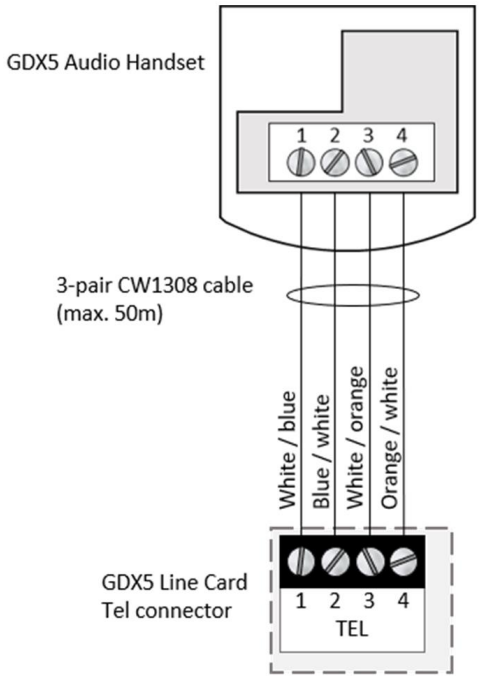
Return to GDX System Configuration

17 Handset Information

Dimensions	W:120 mm × H:200 mm × D:40 mm
Weight	0.40 kg
Temperature	0 °C to +35 °C
Humidity	0% to 90% Relative Humidity
Input Voltage	12.0 VDC

17.1 Audio Handset Wiring

Audio handset basic wiring diagram is shown below.



Pin	Definition
1	Handset audio
2	DTMF signals for handset buttons
3	0V supply
4	+12V supply

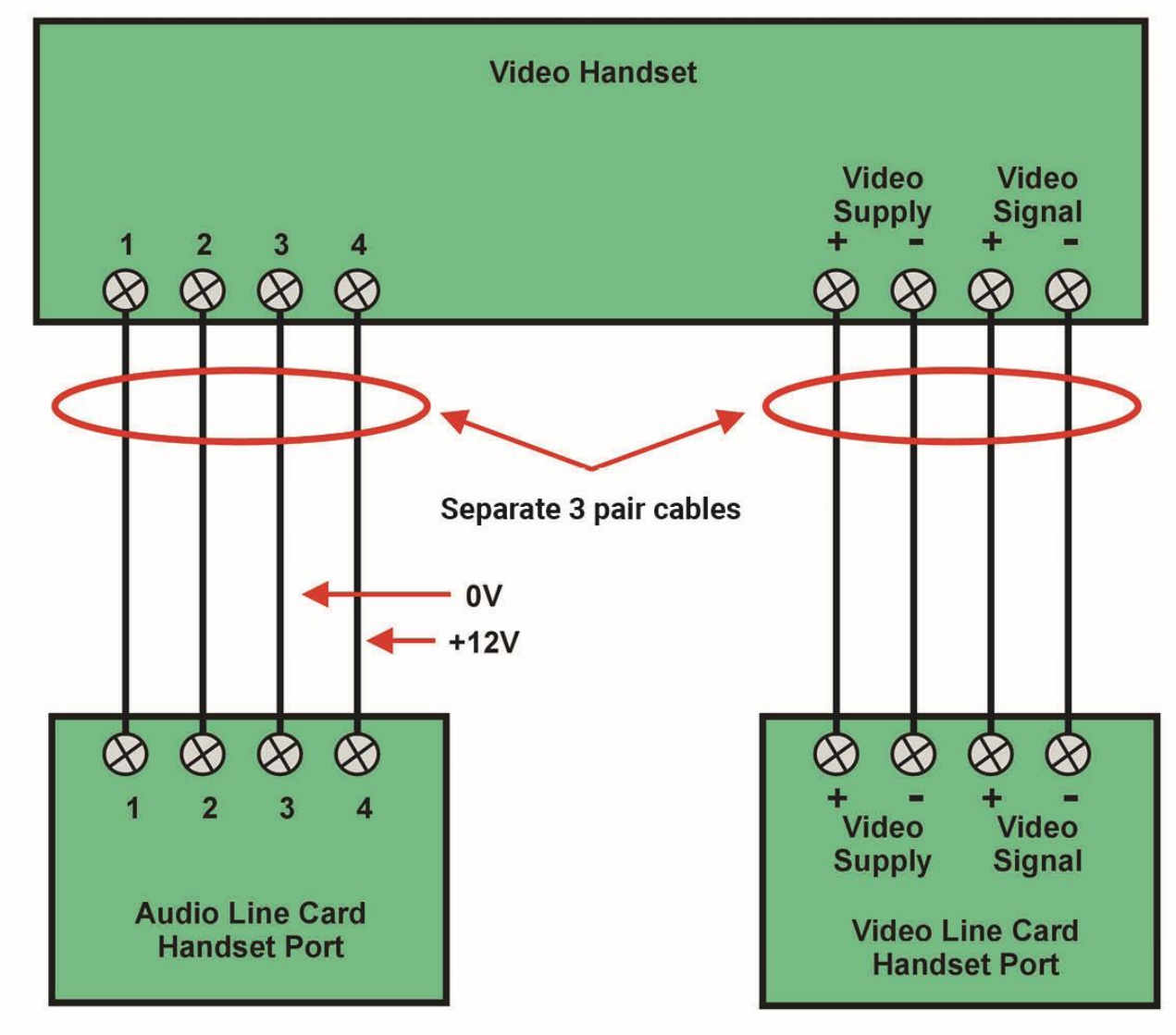
The DC voltage level between pin1 and pin 3 is used to determine if a handset is connected and if a button has been pressed on the handset.

- 8V = on hook
- 5V = off hook

The max. length for cabling is 50m.

Video Handset Connections

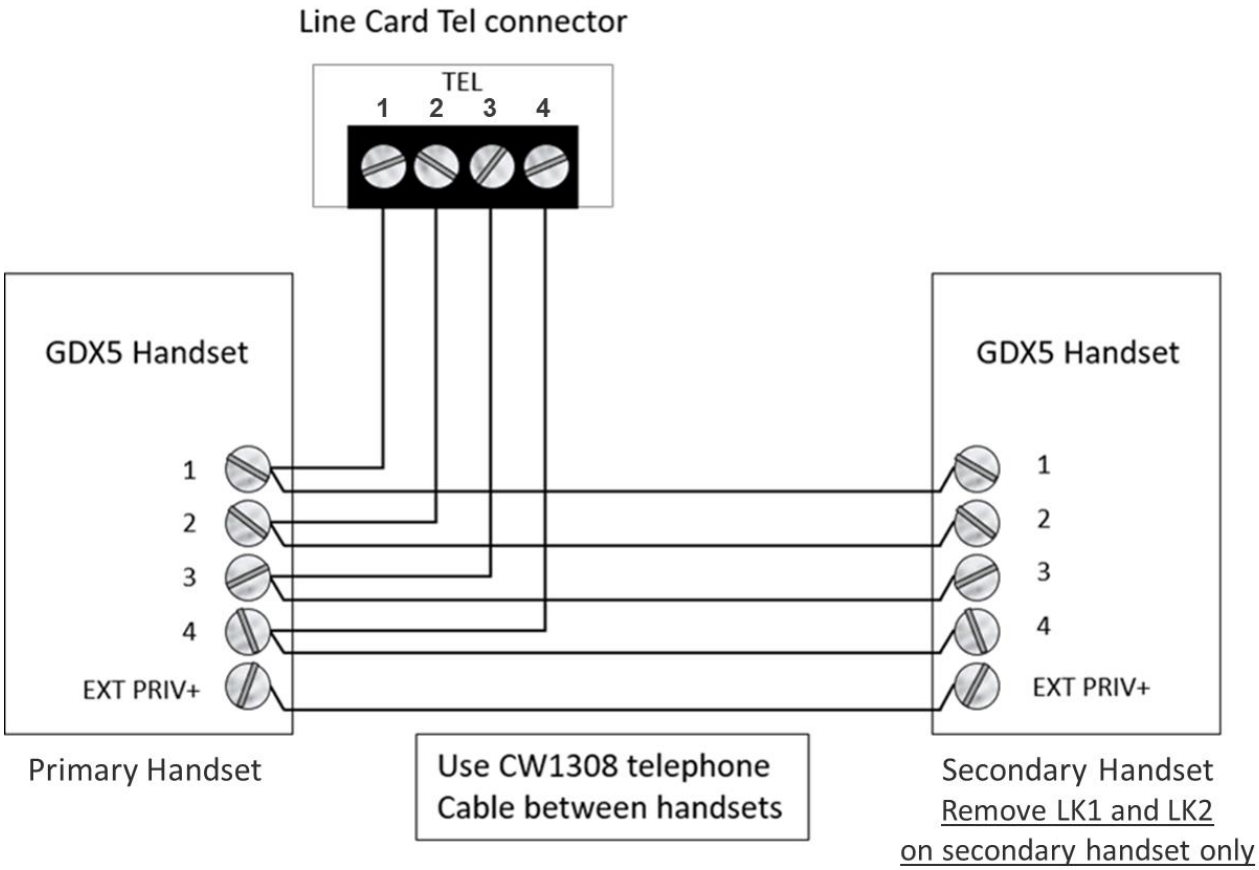
Use the same audio connections for Audio and Video handsets



Secondary Handset connections can only be Audio handset

Use CW1308 telephone cable between handsets.

This is the basic wiring diagram to add a secondary handset to an existing installation.



[Return to GDX System Configuration]

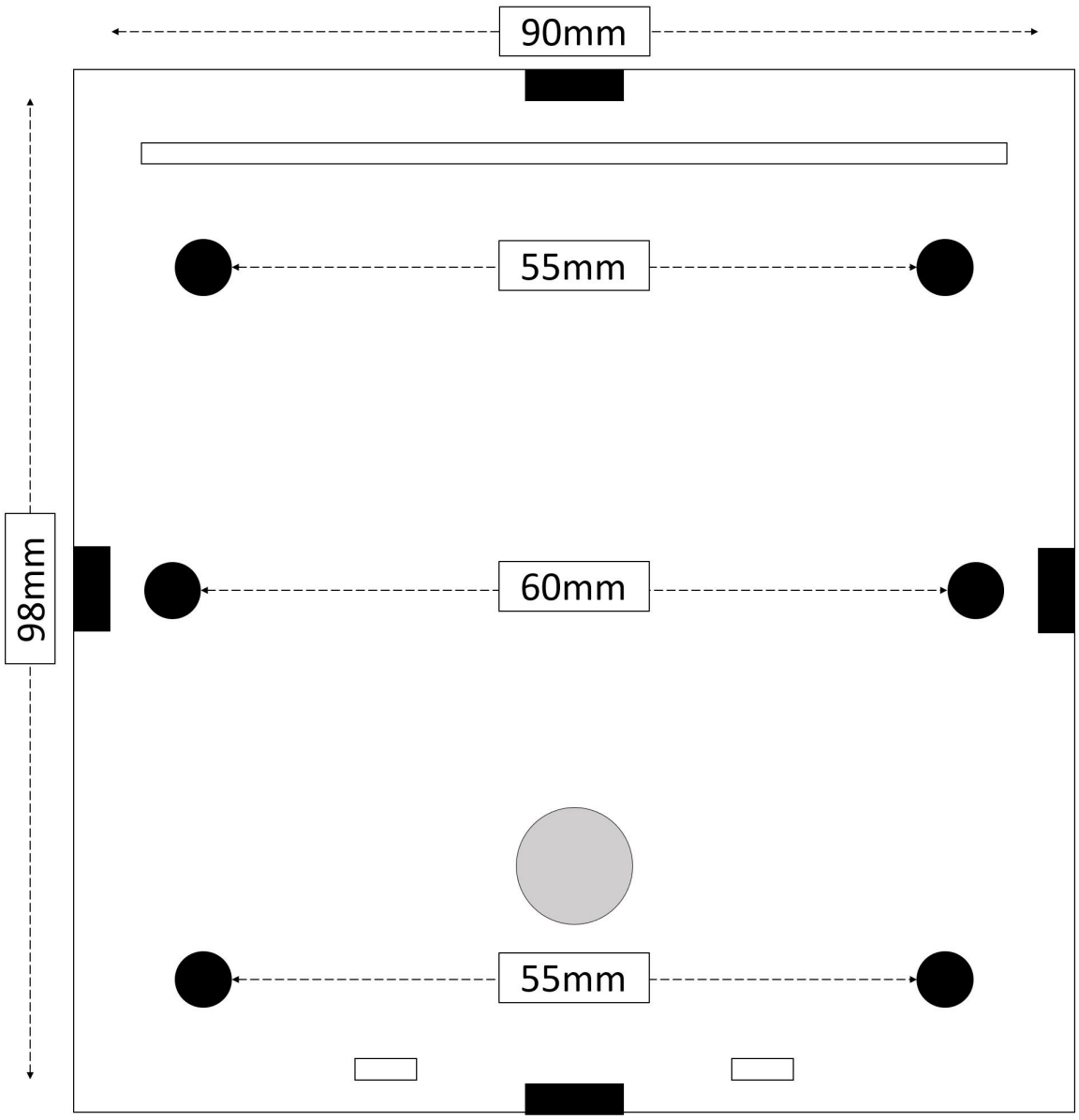
Continue to

Handset Beacon Installation

Up to 32 Audio handsets

Return to GDX System Configuration

18 Beacon Installation Dimensions (not to scale)



4.5mm holes for single gang backbox mounting

4.5mm mounting holes

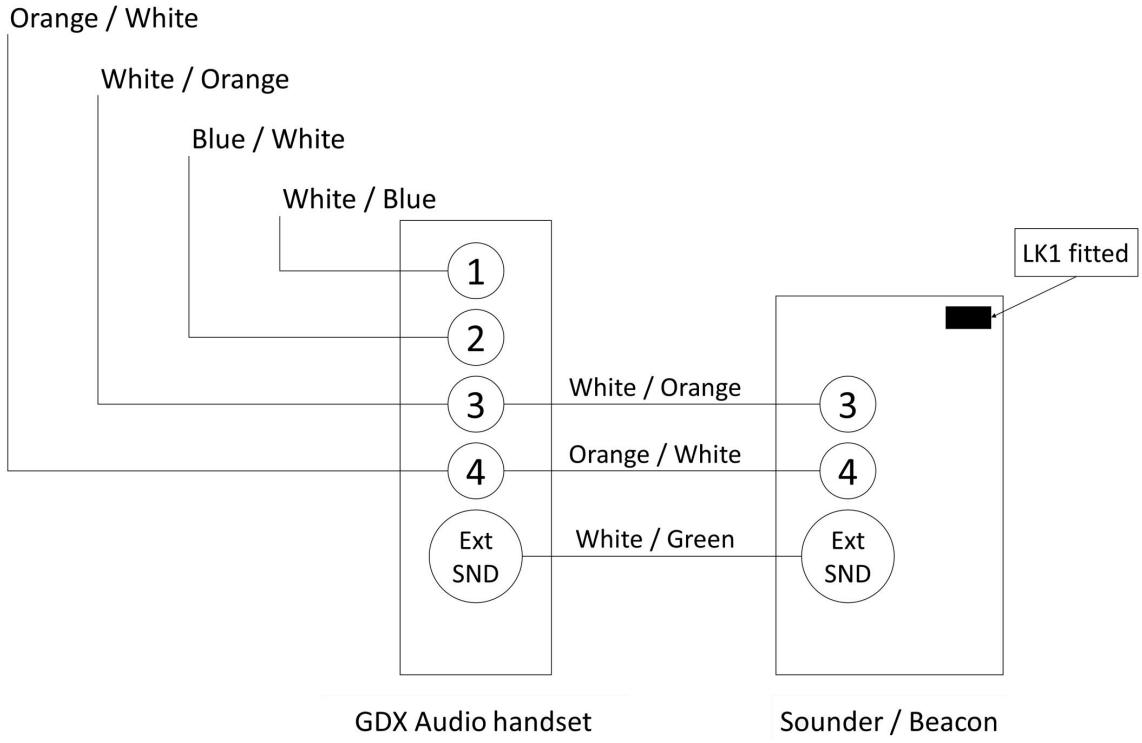
10mm cable entry point

Cable entry points

Beacon and Extension Sounder

If problems arise due to voltage drop, cables 3 & 4 should be doubled up between the handset and Beacon/Sounder unit.

Max. cable length of 25m (cumulative total)



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Continue to

Installation Checks

Over 16 Audio & Video handsets

Return to GDX System Configuration

18.1 Entrance Panel Checks

Door Numbers

All GDX door Entrance Panels are shipped as Door 00.

The Door No. and Audio Channel must be selected on the Entrance Panel. Door 0 set to Audio Channel1, Door 1 is set to Audio Channel2.

If a 2nd Audio panel is added to a system the user must adjust the panel to Channel 2 to give Door 01.

Every door on a system must be uniquely addressed and there must be an Entrance Panel on the system addressed as Door 00.

As Entrance Panels are added to the system they must be allocated the next available Door No. on that system.

To check the Door No. setting programmed into the panel, either check the LCD at panel power up or use the Entrance Panel setup settings menu.

Door Contact

If door opening monitoring is required, do not use the contact within the magnetic locks as this will not operate satisfactorily. Use a standard normally closed security contact instead.

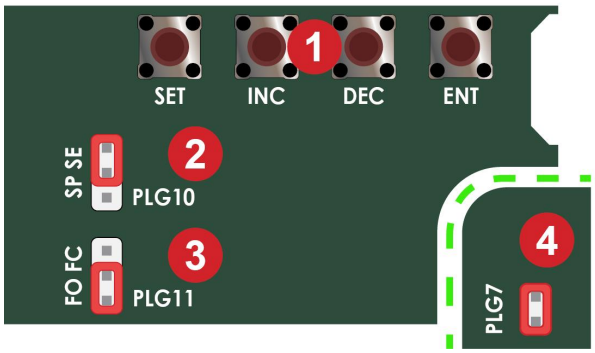
Panel Settings

Settings	Default	Range	Notes
Door Number	-	0-63	Not on '2Audio'
Audio Channel	-	1-7	1 or 2 on '2Audio'
Dav of week	-	Sun-Sat	
Date	-	0-31	
Month	-	1-12	
Year	-	0-99	
Hours (24 Hr)	-	0-23	
Minutes	-	0-59	
Pre Answer Call Length	30 secs	1-99 secs	
Post Answer Call Length	40 secs	1-99 secs	
Call Tone Ring Length	4 secs	1-20 secs	
Lock Release Length	8 secs	1-20 secs	
Door Alarm Activation Time	5 mins	1-99 mins	
Service Period 1 Start Hrs	07 hrs	0-23 hrs	
Service Period 1 Start Mins	00 mins	0-59 mins	
Service Period 1 Stop Hrs	09 hrs	0-23 hrs	
Service Period 1 Stop Mins	00 mins	0-59 mins	
Service Period 2 Start Hrs	00 hrs	0-23 hrs	
Service Period 2 Start Mins	00 mins	0-59 mins	
Service Period 2 Stop Hrs	00 hrs	0-23 hrs	
Service Period 2 Stop Mins	00 mins	0-59 mins	
Coded Access Digit 1	1-9	8	Not on '2Audio'
Coded Access Digit 2	1-9	8	Not on '2Audio'
Coded Access Digit 3	1-9	9	Not on '2Audio'
Coded Access Digit 4	1-9	2	Not on '2Audio'
Coded Access Digit 5	1-9	8	Not on '2Audio'
Coded Access Digit 6	1-9	3	Not on '2Audio'
Coded Access Digit 7	1-9	8	Not on '2Audio'
Coded Access Digit 8	1-9	-	Not on '2Audio'
Sunday Service Facility	On	On/Off	
Global Fire Switch	Off	On/Off	
Tailgating Lock Securing	Off	On/Off	

Panel Pushbuttons

These settings can be displayed and changed by using the four pushbuttons below the LCD display.

GDX5 Entrance Panel Layout and Legend



Connection	Definition
1	LCD pushbuttons
2	PLG10 Protect/Enable link
3	PLG11 Lock select FO / FC
4	PLG7 CAN data bus header link *May be on REVERSE side of pcb*

PLG10	SET	INC	DEC	ENT
Enables panel config. changes SP–Protect SE–Enable	Select menu	Increase menu value / option	Decrease menu value / option	Confirm menu value / option

Change settings

Move PLG10 to SE to amend settings.

1. Move PLG10 to SE (settings enable—pin 1 and 2).
2. Press SET to cycle around the menus.
3. Use INC and DEC to change the setting to the required value.
4. Confirm the change with the ENTER pushbutton.
5. Move PLG10 back to SP (settings protect—pin 2 and 3).

PLG10 must be on "SP" to return panel to normal operation.

Settings menu times out 8 seconds after the last button press.

18.2 CCU Checks

After power up

1. Use a multi-meter (VOLTS DC) to check the voltage output of the PSU to the Line Card is set to +13.8 VDC and adjust PSU output to 13.8 VDC if required.

If the PSU is overloaded or adjusted too high, it may shut down temporarily to protect itself. Wait for 5 mins to reset.

2. The 1st Entrance Panel **must** be installed on Door 0 connection on the Audio Line Card.
3. Check the 1st Entrance Panel is set to Audio Channel 1, "AUD CHANNEL 001". Use the reset button on the door Entrance Panel or power down and up again to display.
4. Also check the 1st door Entrance Panel is connected into the correct audio channel on the Line Card.
5. Check the 2nd door Entrance Panel is set to Audio Channel 2, "AUD CHANNEL 002". Use the reset button on the door Entrance Panel or power down and up again to display.
6. Also check the 2nd door Entrance Panel is connected into the correct audio channel on the Line Card.

LCD Messages

The LCD will display useful messages about system activity and operation which can aid fault finding and commissioning.

Telephone handset scanning status

During standard operation the Line Card continuously monitors the attached telephone handsets and cycles every few seconds. An example sequence for the status displays is shown below:

TEL 1-8 and TEL 9-16 correspond to the numbered "TEL" connection on the Line Card. "T" means a handset is connected and "-" shows no connection is detected. In the previous example it shows handsets detected in positions 1,2,5,6,9,10,13,14.

When a handset is called from an door entrance panel, the “T” becomes a “C” for the duration. of the call.

During commissioning verify each "T" is on the correct numbered connection AND changes to "C" when called.

Privacy Period
The default setting is six hours and applies to all handsets on the Line Card. This can be changed using the settings pushbuttons on the Line Card and will not require a system power down.

Telephone handset operation status
The following messages will be shown depending on the handset operation. The number displayed is the position of the telephone handset on the control unit card, i.e. 1 to 16.

Call to flat/apartment handset
When a flat is called **CH1 CALL TEL 01** is displayed, indicating the channel (CH) and flat number (01). **CH1 RESET TEL 01** is displayed when the call ends.

Card Fuse Ratings
The following fuses are fitted on a Line Card:

Fuse No	Fuse Value	Fuse Use
FS1	3A QB	Overall card fuse
FS2	1.6A QB	Door 00 electronics and lock
FS3	1.6A QB	Door 01 electronics and lock
FS6-FS21	500mA	Handsets 1-16 thermal resetting

Red LED1 and red LED2 indicate a healthy +12V and +5V supply on the Line Card respectively.

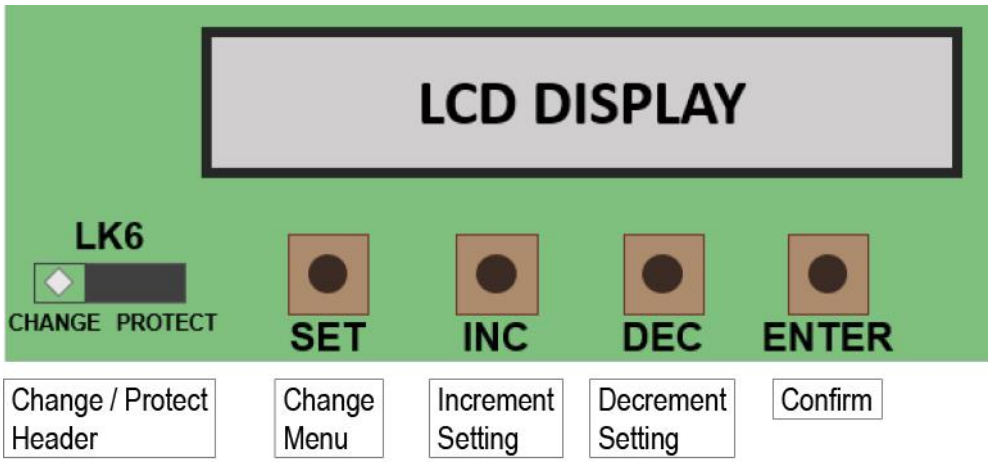
The thermal resetting fuse for each handset will not require replacing if it operates – resolve the problem and the fuse will reset itself once it cools in a few seconds.

Program Settings
The range of values allowed and the factory defaults supplied are shown below:

Setting	Range Allowed	Factory Default
Card number	00-01	00
Privacy time	01-15 Hours	06
Video On/Off	ON / OFF	OFF

IC28 EEPROM
Settings are stored in an EEPROM memory IC (IC28) on the Line Card. This IC can be swapped onto a replacement card to save re-programming all of the current card settings.

Settings pushbuttons
Settings can be displayed and changed by using the four pushbuttons below the LCD display.



Change settings

Move LK6 to CHANGE to amend settings.

1. Move LK6 to pins 1 and 2 (CHANGE).
2. Use INC and DEC to change the setting to the required value.
3. Confirm the change with the ENTER pushbutton.
4. Move LK6 back to pins 2 and 3 (PROTECT).

LK6 must be on PROTECT to function.

If the link is left in the “CHANGE” position then “SECURE SETTINGS” will be displayed on LCD display until LK6 is placed correctly.

Settings menu timeout is 8 secs after the last button press.

[Return to GDX System Configuration]

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Continue to

Token Administration

Over 16 Audio & Video handsets

[Return to GDX System Configuration]

19 Token Administation

Entrance Panels can operate independently, as part of a 'network' or administered by a PC. Tokens cannot be added or deleted directly into a standalone reader and must be administered via either an entrance panel on the same system, a programming unit on the same system or from the GDX PC based administration software (via GSM or TCPIP Block Interface unit).

When using the PC based package, tokens CANNOT be administered from a front panel.

The mode of operation of a door Entrance Panel is displayed at power up on the panel LCD. It can also be checked or changed by in the token settings menu on the Entrance Panel.

Common mode

The default mode of operation of a door Entrance Panel is "Common" . This means tokens can be added or deleted from another Entrance Panel on the system. The update is automatically made at all other door Entrance Panels in common mode connected to the same system.

We recommend using the same Entrance Panel for token administration when you are using common mode. This will minimise any potential update errors that could occur if token administration was performed simultaneously at more than one Entrance Panel.

Single mode

In this mode tokens can only be added or deleted directly at that panel and it will ignore any changes made at other common mode panels on the same system. This would be used when restricted access through a door was needed for only certain tokens.

Network mode

The door Entrance Panel token controller is automatically switched into "Network" mode by a pc when it connects for the first time. The Entrance Panel will stay in Network mode thereafter.

19.1 Editor Tokens

Editor tokens are created by the installation engineer, during the initial commissioning of the system. These tokens are used to enable the programming modes for administering normal access tokens.

Up to three editor tokens can be registered on each Entrance Panel.

If less than three editor tokens are registered and additional editor tokens are required after commissioning, please contact your installer for assistance.

Token Setup

To enter Token Setup Mode:

1. Remove Entrance Panel front faceplate.
2. Hold SET pushbutton for five seconds until "TOKEN SETUP MODE" is shown on the LCD.
3. Use the INC and DEC pushbuttons to scroll up and down through the menu options:
   - CONTROLLER MODE OF OPERATION
   - EDITOR 1 TOKEN
   - EDITOR 2 TOKEN
   - EDITOR 3 TOKEN
   - ERASE ALL TOKENS ON THIS DOOR
   - ONLY COPY TOKENS TO DOOR
4. Press ENTER to select the required menu option
5. Use INC and DEC to cycle through predefined values in sub-menus or to enter numerical values as required.
6. Always use ENTER to confirm selection.
7. Scroll through all menu options to exit Token Setup menu.

19.2 Replace Editor token

To add a new editor token or to replace a current one:

1. Remove Entrance Panel front faceplate.
2. Enter Token Setup mode.
3. Scroll to required EDITOR menu option, e.g. EDITOR 1 TOKEN.
4. Present the new editor token to the Entrance Panel reader.

   The LCD with show the 8-digit token-ID if it is successfully read.

   This will either store the new token as an editor token or replace the current token that is stored there.
5. Press ENT to confirm the editor token details.
6. Scroll through all menu options to exit Token Setup menu.

19.3 Add Tokens

To add standard access tokens to the system:

1. Present an editor token to the Entrance Panel reader and "EDIT ADD MODE" will be displayed on the LCD.
2. Press any button on the Entrance Panel faceplate and the first available token record number will be shown. E.g. "0015: --------".

   This mean there is no token-ID stored in the 15th record slot.
3. Present the new token to the Entrance Panel reader.

   The new token-ID will be shown on the LCD and the next available record number will be displayed.
4. Continue adding tokens by presenting them to the Entrance Panel reader.
5. When all tokens required have been added, present the editor token to the Entrance Panel reader again to exit from editor mode.

   A count of the tokens stored in the controller will be displayed automatically as you exit from Add Token mode.

19.4 Delete Tokens

To delete standard access tokens to the system:

1. Present an editor token to the Entrance Panel reader twice.

   The first time "EDIT ADD MODE" will be displayed on the LCD.

   Then "EDIT DELETE MODE" will be displayed on the LCD.

2. Press any button on the panel and the first token number will be shown. E.g. "0001: --------".
3. Select the token to be deleted:
   - Press any Entrance Panel button to scroll through the token-IDs
   - Or present the actual token to de deleted to the Entrance Panel reader—if it is found the token-ID will be shown.
4. Present the editor token to delete the token ID from the system.
5. "TOKEN COUNT" will be displayed automatically as you exit from Delete Token mode.

19.5 Token Count

The current count of tokens stored in the Entrance Panel can be checked by noting the number displayed on the Entrance Panel LCD during power up or using an engineer's LCD display.

Alternatively to show the token count:

1. Present an editor token to the Entrance Panel reader three times.

   First "EDIT ADD MODE" will be displayed on the LCD.

   Then "EDIT DELETE MODE" will be displayed on the LCD.

2. On the third present, "TOKEN COUNT" will be displayed on the LCD with a count of how many tokens are stored.

If the Entrance Panel is in "Single" mode this will be the number of tokens stored for this door only.

19.6 Copy Tokens

The token database details can be transferred from an existing door Entrance Panel the same system if a new one is added at a later date.

Both Entrance Panels must be set to "Common" mode.

Copy tokens

1. Remove Entrance Panel front faceplate.
2. Select "TOKEN SETUP MENU" from the door Entrance Panel with the tokens currently stored in it.
3. Select "COPY TO DOOR --" option.
4. Enter the Door No. of the unit to be written to.

   The engineer's LCD unit is useful for confirmation of a transfer operation as it occurs.

19.7 Present Tokens

When a token is presented to the Entrance Panel reader it will indicate if it is recognised or not.

Valid token

When a token that is currently stored in that database is presented to a reader:

1. The green LED on the reader will illuminate.
2. A tone is emitted from the reader card sounder.
3. The door lock output will be switched to release the lock.

   "VALID TOKEN" will be shown on the Entrance Panel LCD.

Invalid token

When a token that is NOT currently stored in that database, is presented to a reader:

1. A single bleep is emitted from the reader card sounder.
2. The door lock output will not be switched.

   "INVALID TOKEN" will be shown on the Entrance Panel LCD.

Return to GDX System Configuration

If you need to talk...

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