APX
INSTALLATION GUIDE

Issue 002 – June 2026

CAME ENTROTEC

CAME.COM/ENTROTEC

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GENERAL PRECAUTIONS

- This equipment must be installed by a skilled and competent person, i.e. a person with suitable training, experience and competence; with access to the requisite tools, equipment and information, and capable of carrying out a defined task.
- Read the instructions carefully before beginning the installation and carry out the actions as specified by the manufacturer.
- The installation, programming, commissioning and maintenance of the product must only be carried out by qualified technicians, properly trained in compliance with the regulations in force, including health and safety measures and the disposal of packaging.
- Before carrying out any cleaning or maintenance operation, disconnect the device from the power supply.
- The equipment must be destined solely for the use for which it was expressly designed.
- The manufacturer declines all liability for any damage as a result of improper, incorrect or unreasonable use.

⚠ WARNING - ISOLATION OF ELECTRICAL EQUIPMENT

As per **Clause L.2** of **BS EN 62368-14** an appropriate external disconnect device MUST be fitted as part of the system installation within the building. This device could be a fused switched spur, a dedicated RCD or other mechanical device to isolate the system in the event of fault or fire. It is the responsibility of the installer to supply and fit this device; it will not be supplied by CAME Entrotec. Markings should be clear and the device operable without special tools nor expose users to hazard.

In accordance with **The Electricity at Work Regulations 1989,** electrical equipment and conductors should be made dead to prevent danger while work is carried out on or near that equipment. Verification of safe isolation should be carried out before commencing work.

INTENDED INSTALLATION LOCATION

This equipment is intended for installation within both communal and restricted access areas, it is the installers responsibility to ensure any equipment located within a communal space must be left safe, locked and prevent tamper.

INSTALLATION SPECIFICATION

It is the responsibility of the installer to follow CAME Entrotec's installation and cable specification as well as ALL relevant regulations. Failure to comply with CAME Entrotec installation and cable specifications may result in unreliable operation and may invalidate the product warranty.

Installers should assess **BS 6701:2016+A1:2017:** The Standard for Telecommunications equipment and telecommunications cabling; a standard that helps meet legal **CPR** obligations for cable fire performance.

Installations must comply with **BS 7671:2018+A3:2024 - SET:** Requirements for Electrical Installations. IET Wiring Regulations (18th Edition):

- Regulation 444 (MEASURES AGAINST ELECTROMAGNETIC DISTURBANCES) imposes requirements for segregation of circuits.
- Regulation 528 (PROXIMITY TO WIRING SYSTEMS TO OTHER SERVICES) imposes requirements for segregation of door entry / access control circuits (Band I), 230 VAC mains circuits (Band II) and other higher voltage circuits.
- APX signalling and control circuits operate as SELV circuits and must be installed in accordance with the segregation requirements of BS 7671.
- Regulations 541 and 542 impose requirements for earthing and bonding conductors. Ensure all metalwork is bonded to the building's protective earth (PE), this includes call panels, exit switches, cabinets and metal conduit. Ring terminals and earth points are provided on call panels and cabinets to terminate earth cables. Ensure these connections are made.

WARRANTY AND SUPPORT

CAME Entrotec equipment is supplied with a 2-year warranty as standard. This warranty does not cover water damage, vandalism, mains electrical faults, lightning strikes, damage caused by miswiring or cable faults.

CAME Entrotec offer complimentary training courses and telephone support:
01506 886 235 - 9:00am to 5pm Mon-Fri. **ceuk.technicalsupport@came.com**

CONTENTS

1 SYSTEM CABLE SPECIFICATION

- Failure to comply with this cable specification may result in unreliable system operation.
- The cabling system is based on Unshielded Twisted Pair (UTP) cable meeting **Cat5e** or **Cat6** performance requirements.
- UTP cable must use **annealed pure copper** with a **conductor diameter ≥ 0.485mm**.
- Cables routed outside the building fabric (e.g. to a gate) must be protected by metallic containment, such as Class 4 galvanised steel conduit, bonded to earth at both ends.
- The cable specification below defines **minimum electrical requirements only**.
- Installers must select cable types that meet **project-specific fire performance classifications** (e.g. EuroClass Cca-s1b,d2,a2) and **comply with applicable standards** including **BS 6701** and **BS EN 50174**.

	Connection	Cable
A	Controller to each ED5, EV5 or EV6 receiver:	1 x Cat5e or Cat6 (UTP - 4 pair min). Maximum cable run 90 m.
B	Controller with PSU to controller with PSU:	2 x Cat5e or Cat6 (UTP - 4 pair min). 1 x Single-Core Flex 4 mm² Blue LSZH (0VDC Common). Maximum cable run 50 m.
C	Controller with PSU to controller without PSU:	2 x Cat5e or Cat6 (UTP - 4 pair min). 1 x 2-Core Flex 1.5 mm² LSZH (stranded). 1 x Single-Core Flex 4 mm² Blue LSZH (0VDC Common). Maximum cable run 50 m.
D	Main controller with PSU to each call panel:	1 x Cat5e or Cat6 (UTP - 4 pair min). 1 x 3-Core Flex 0.75 mm² LSZH (stranded). Maximum cable run 50 m.
E	Access controller to proximity reader:	1 x Cat5e or Cat6. Max cable run 90 m. NOT required for Call Panels with EasiTag reader.
F	Access controller to access controller:	1 x Cat6 - Max cable run 90 m (system dependant, CAME KMS SK4 total bus length 700 m max.) NOT required for EasiTag.
G	Lock Relay to locks:	1 x 3-Core Flex 1.5 mm² (stranded) - 90 m max. Route through exit / fire switch or break glass for fail-safe operation.
H	Lock Relay to exit / fire switch, and/or break glass:	1 x Cat5e or Cat6 (UTP - 4 pair min). Maximum cable run 50 m.
J	Call panel to external or secondary camera:	1 x RG59 coax (75 Ohm). 1 x Cat5e or Cat6 (UTP - 4 pair min).
K	3A Fused Spur to Controller with PSU:	1 x 3-Core Flex 1.5 mm² LSZH (Mains Cable).
L	Circuit Protective Conductor	4 mm² PE/CPC cable (6 mm² can be used).

⚠ WARNING

DO NOT USE Copper Clad Steel (**CCS**), Copper Clad Magnesium (**CCAM**), or Copper Clad Aluminium (sometimes marked with **CCA** – not related to EuroClass **Cca** regulatory requirements). These cables have significantly higher resistance than pure copper cable and may cause erratic operation.

ⓘ TEST FOR PURE COPPER CABLE

The typical DC resistance of each core of UTP cable is ≤ 10 Ohms/100 m.

1.1 TYPICAL CONFIGURATION

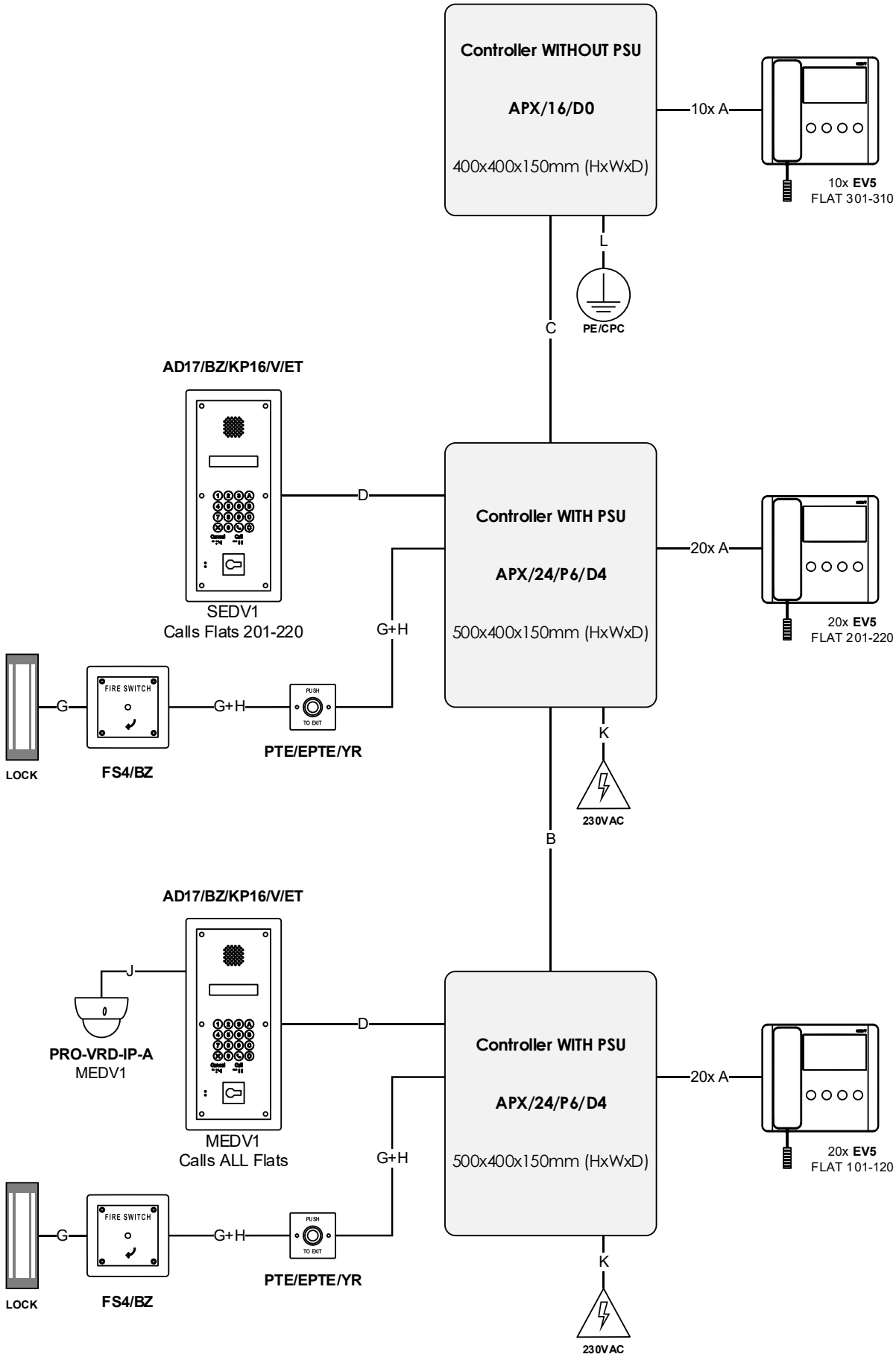


FIGURE 1 - MINIMUM CABLE REQUIREMENTS

2 OVERVIEW

2.1 TYPICAL CALL PANEL

2.1.1 Front View

FIGURE 2

A	Security Screw, M4, Pin Hex
B	Panel Camera
C	Speaker
D	OLED Display
E	Microphone
F	Keypad
G	RFID Proximity Reader

PRODUCT MAY VARY

Systems are configured to order.

2.1.2 Back View

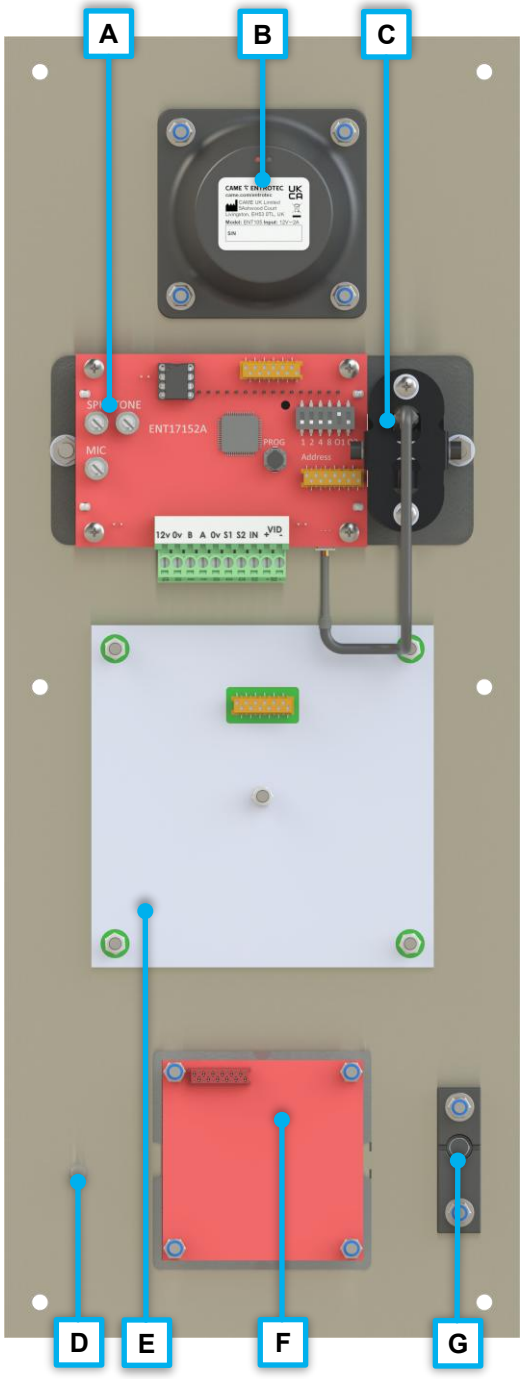


FIGURE 3

A	OLED PCB - ASS17152
B	Speaker
C	Panel Camera
D	Protective Earth Point
E	Keypad
F	RFID Proximity Reader
G	Microphone

2.2 TYPICAL CONTROLLER

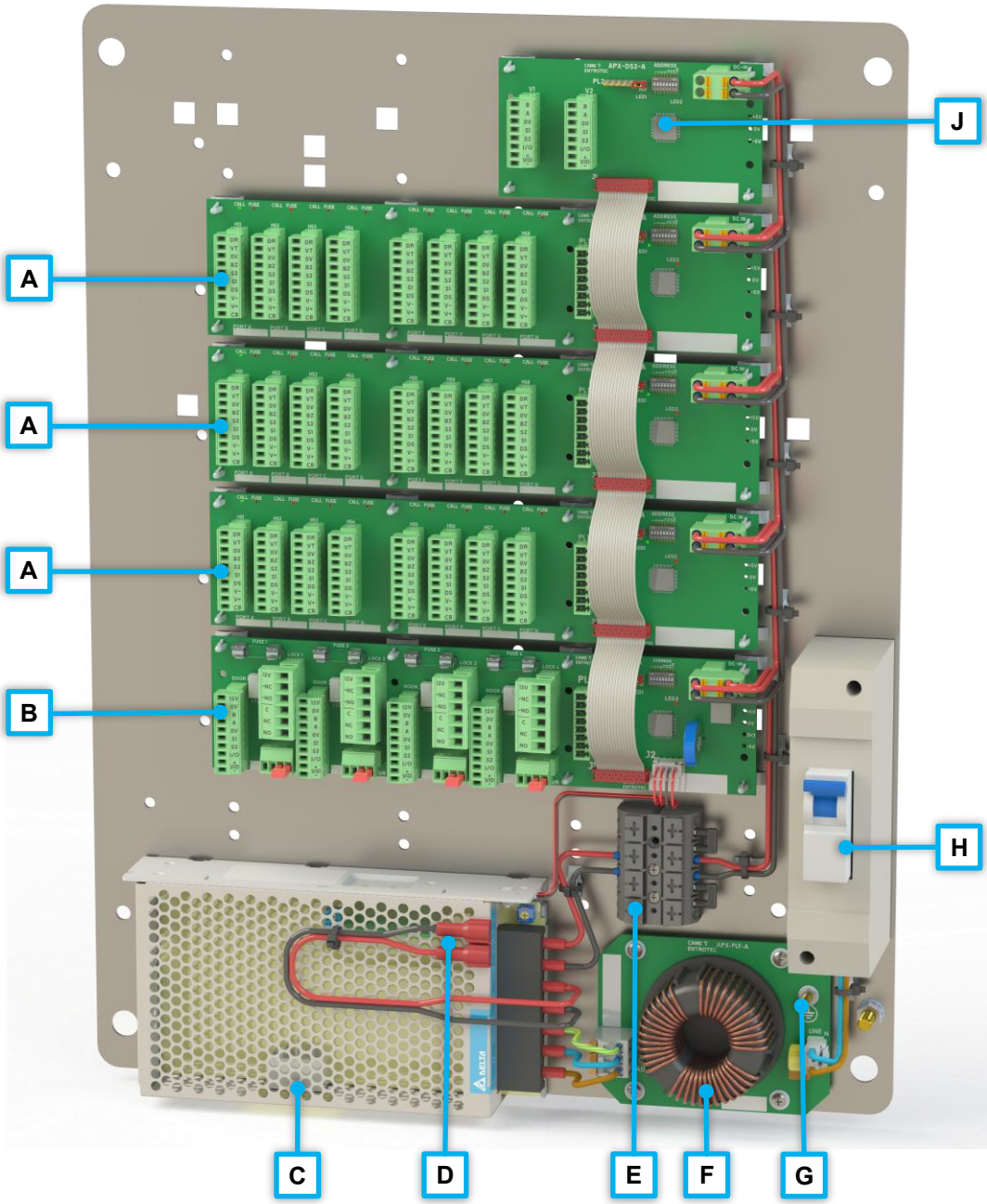


FIGURE 4

Item	Description	Detail
A	8-Channel Handset Control Board (**APX-HC8**)	Section 9
B	4-Channel Lock Control Board (**APX-LC4**)	Section 6
C	Power Supply Unit (**PSU**)	Section 3
D	Backup Battery Terminals	12VDC Sealed Lead Acid (SLA) batteries
E	Power Distribution Terminal Block	Section 3.2
F	Power Line Filter Board (**APX-PLF**)	Section 3.1
G	Protective Earth Point and Ring Terminal	
H	Miniature Circuit Breaker (**MCB**)	
J	Deck Switch Board (**APX-DS2**)	Section 8.5

3 POWER SUPPLY

3.1 MAINS SUPPLY CONNECTIONS

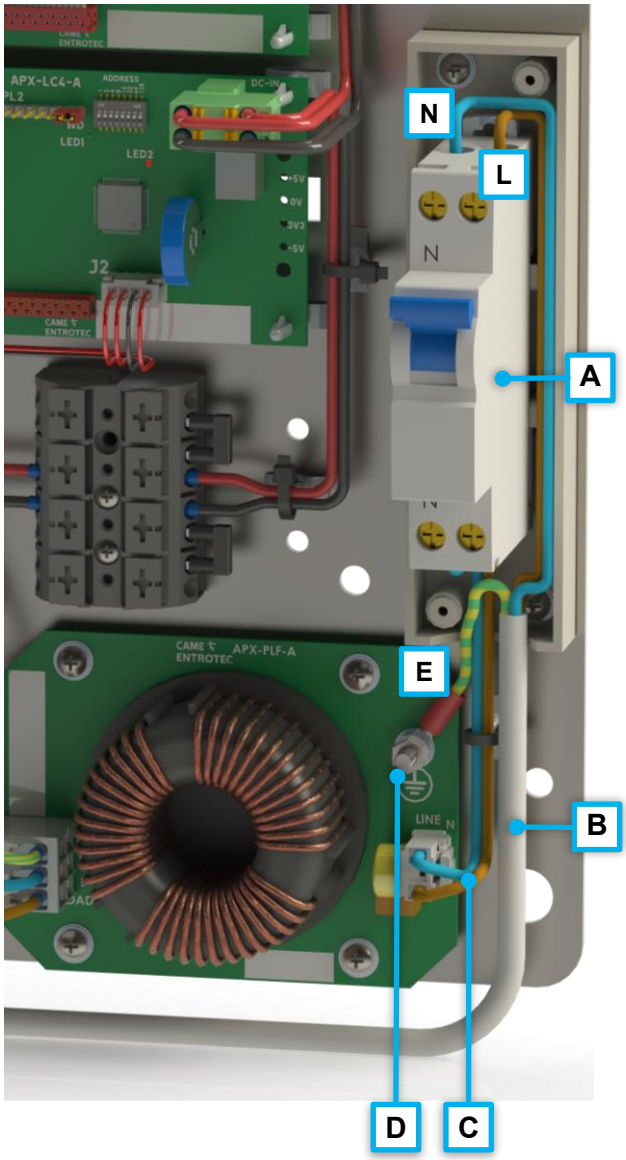


FIGURE 5

A	Miniature Circuit Breaker
B	Mains Supply Cable from 3A Fused Spur – 3 Core 1.5 mm² Flexible Cable
C	Pre-Wired Load Cable to PSU
D	Main Protective Earth Point
N	NEUTRAL - BLUE
L	LIVE - BROWN
E	PROTECTIVE EARTH - GREEN/YELLOW

⚠ WARNING

Isolate mains supply before connecting.

3.2 OUTPUT CONNECTIONS

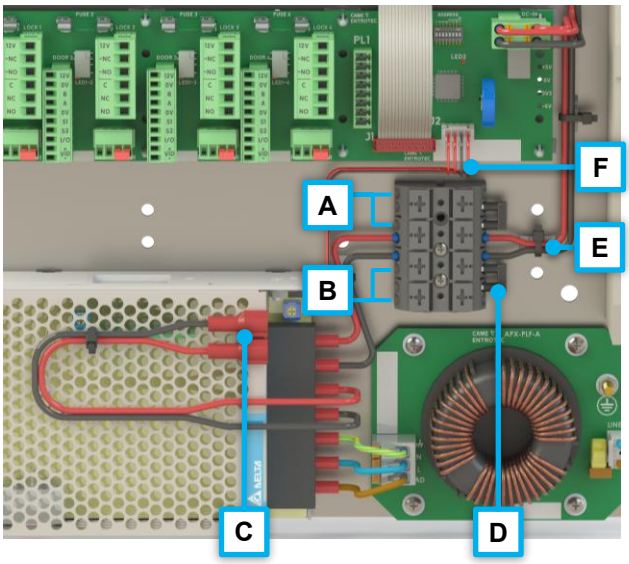
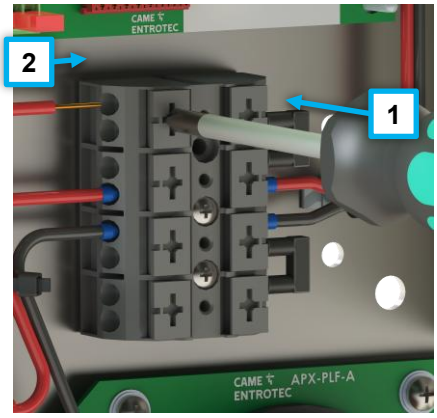


FIGURE 6

A	12V to Extra Devices, 12V to Controllers without PSU
B	0V to Extra Devices, 0V to Controllers without PSU, System 0V Common to Additional Controllers: 4mm² Single-Core Flex
C	Backup Battery Connections for Sealed Lead Acid Battery
D	Jumper Link
E	Pre-Wired 12V and 0V to Internal Devices
F	Pre-Wired PSU Status Cable

3.2.1 Power Distribution Terminal Block



- Strip cable 10mm.
- 4 conductors per pole.
- Accepts stranded or solid core.

1 Push Lever
2 Insert Cable

FIGURE 7

3.3 GROUND RULES

3.3.1 Protective Earth (PE)

- The **Green/Yellow** conductor connected to the **building's electrical safety earth**.
- **Provides protection** against electric shock by ensuring all exposed conductive parts are bonded and cannot become live during a fault.
- Originates from the fused spur or distribution board.

Must be connected to:

- The **Main Earth Terminal** on the **Power Line Filter** (or the earth stud on the chassis for controllers with no PSU).
- All exposed conductive parts (e.g. call panels, metal backboxes, etc).

3.3.2 Chassis Earth

- The physical connection between the metal enclosure / chassis and the Protective Earth (PE).
- Ensures any metal parts that can be touched are bonded to earth.
- Typically achieved via an earth stud, bonding wire, or earth terminal within the enclosure.
- Not a separate earth, but a continuation of the PE to metalwork.

3.3.3 System 0VDC Common (SELV)

- The reference 0V rail for the SELV DC power and signalling circuits.
- Used internally by controllers and externally between interconnected equipment (e.g. Call Panels and Controllers).
- **Not connected to PE** in Separated Extra Low Voltage (SELV) systems such as APX.
- Functionally separate from Protective Earth (PE) and Chassis Earth.
- Must never be used as a substitute for PE/CPC.

⚠ WARNING

The SELV 0VDC Common conductor is not a Protective Earth (PE/CPC) conductor.

Never use the 0VDC Common in place of Protective Earth.

3.3.4 SELV 0V Common Connections Between Controllers

Function: SELV 0VDC common interconnection between controllers and associated power supplies.

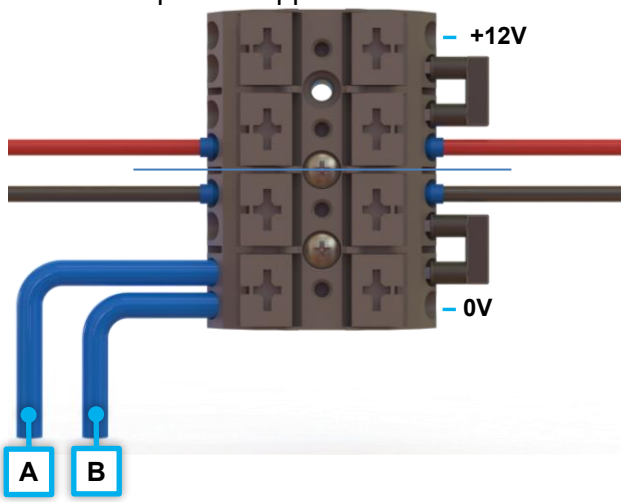


FIGURE 8

A	SELV 0V Common Connection to Next Controller(s)
B	SELV 0V Common Connection from Previous Controller(s)

SYSTEM 0V COMMON CABLE

Recommended Cable:
Single-core Flex, 4 mm², Blue, LSZH.
Important:

- NOT a Protective Earth (PE/CPC).
- Route with SELV wiring only.
- Clearly label both ends: e.g. '**0VDC COMMON - SELV**'

3.3.5 Output Voltage Setting

SYSTEM VOLTAGE 13.8VDC

Always test the output voltage.
Only adjust if required.

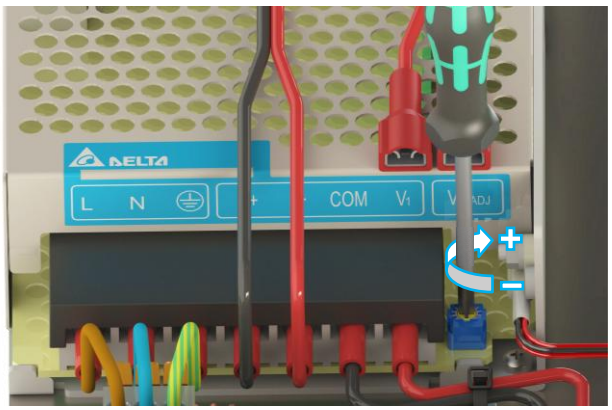


FIGURE 9

4 CALL PANEL

4.1 CALL PANEL CONNECTIONS

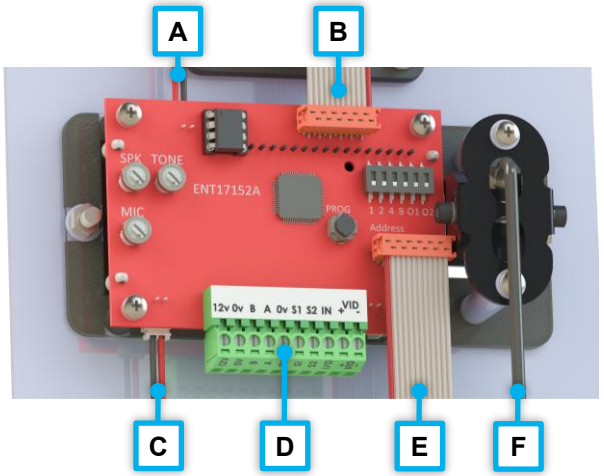


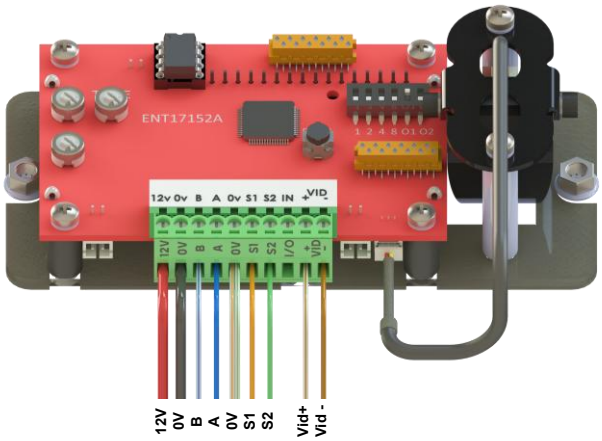
FIGURE 10

A	**PL2** - Speaker Connection
B	**PL6** - EasiTag Reader and Auxiliary Connection
C	**PL3** - Microphone Connection
D	**PL1** - Power Input + APX Door Bus Connection
E	**PL8** - Keypad / Button Connection
F	Panel Camera Connection

⚠ WARNING

Switch off PSU before making connections.

4.1.1 Connections to Controller



Connection	Type	Cable / Colour
12V	Power *	0.75mm²
0V		0.75mm²
B	Data (Diff.**)	UTP White / Blue
A		UTP Blue
0V	Power	UTP White / Orange
		UTP White / Green
S1	Audio	UTP Orange
S2		UTP Green
I/O	Input	(Not Connected to Door Bus)
Vid+	Video (Diff.**)	UTP White / Brown
Vid-		UTP Brown

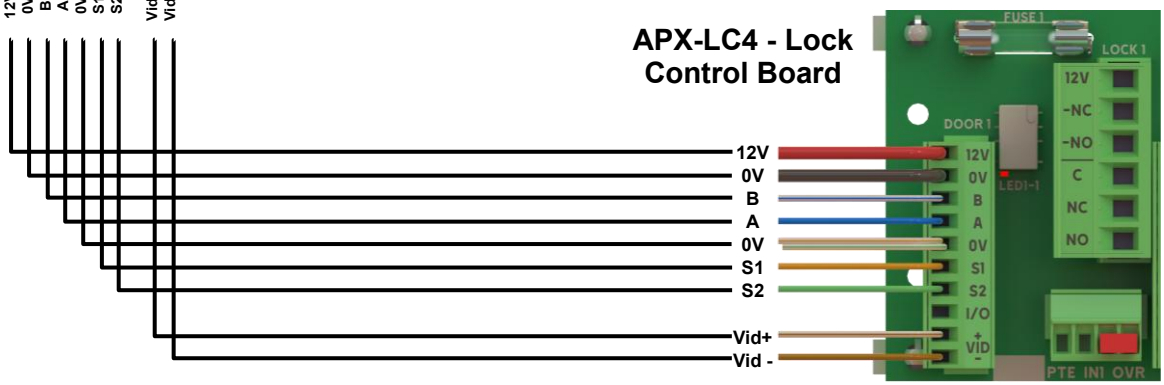


FIGURE 11

⚠ * WARNING

Ensure the correct cable size is used for power (≥0.75 mm²); voltage drop may cause erratic operation.

ℹ ** DIFFERENTIAL SIGNALS

Connections for RS-485 data signals (**B**, **A**) and Video (**Vid+**, **Vid-**) must use a Twisted Pair.

4.1.2 External Camera Connection

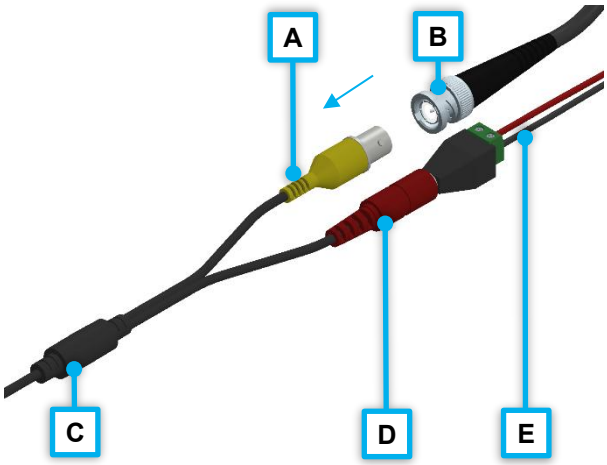


FIGURE 12 – TYPICAL DOME CAMERA CONNECTIONS

A	BNC Video Output
B	BNC (Male) - RG59 Coax Cable to Call Panel
C	Typical Connections at Camera
D	12VDC Input to Camera
E	12VDC Connection from Call Panel

BNC ACCESSORY

Use the supplied BNC Cable to Connect to Call Panel. Insulate the BNC connector with a shroud or cover with insulating tape.

4.2 CALL PANEL SETTINGS

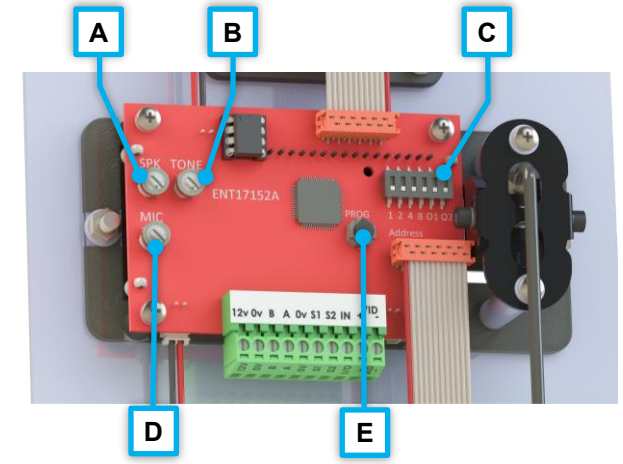


FIGURE 13

A	**VR1** - Speaker Volume: adjusts speech level
B	**VR2** - Tone Volume: adjusts tone level e.g. door open tone
C	**SW1** - RS485 Address + Options
D	**VR3** - Microphone Volume: adjusts speech volume
E	**SW2** - Programming Switch

4.2.1 SW1 – RS485 Address and Options

- Each Call Panel shall be assigned an RS485 address 1-4 corresponding to the associated lock control channel.
- SW1 Switches A1, A2, A4 and A8 set the binary address (0-15).
- ON = 1, OFF = 0.

Switch	A1	A2	A4	A8
Binary Value	1	2	4	8
Address 1	1	0	0	0
Address 2	0	1	0	0
Address 3	1	1	0	0
Address 4	0	0	1	0

- Switch O1 is factory set to select button array layout.
- Switch O2 is for future use.

4.2.2 Programming Switch / Setup Menu

The programming switch enters the Call Panel to various menus that adjust both Call Panel and system wide settings, these are covered in **section 10.1**.

To enter the Setup Menu, press and hold the programming switch for 5 seconds.

5 ACCESS CONTROL

When APX is supplied with an integrated KMS or third-party Access Control System (ACS), the APX Lock Control Board may be factory configured either to control the door lock directly or to interface with the ACS, depending on the project specification.

Before commissioning, verify which system is intended to control the lock release function and complete the lock, exit switch, fire switch and break-glass wiring accordingly. Failure to do so may result in incorrect lock operation.

6 LOCK CONTROL BOARD

6.1 APX-LC4 – 4 CHANNEL LOCK CONTROL BOARD

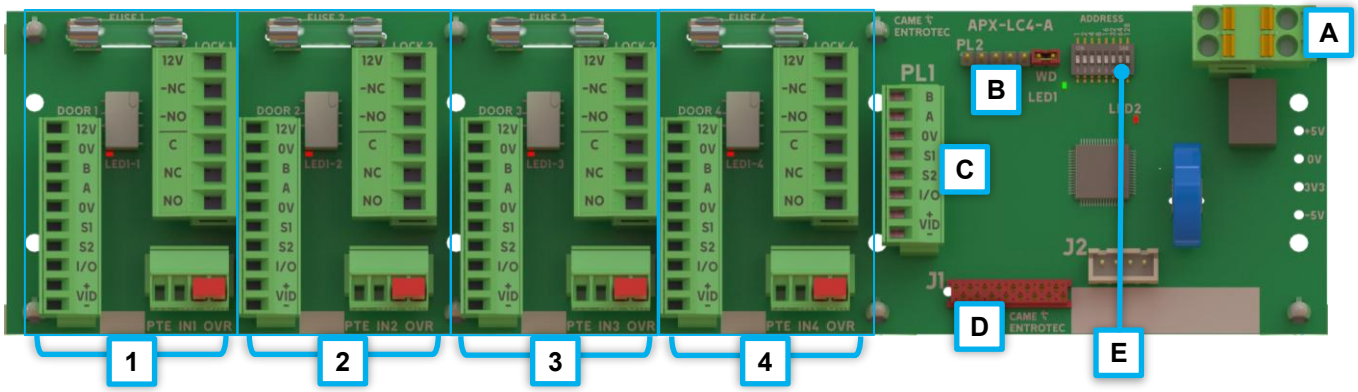


FIGURE 14 – APX-LC4

1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
A	**DC IN** - Power Input
B	**PL2** - Watchdog Link (Right pins) and Heartbeat LED
C	**PL1** - Bus Connection
D	**J1** - Control Board Interconnection
E	**SW1** - RS485 Address

6.1.1 Input + Exit Switch Connections

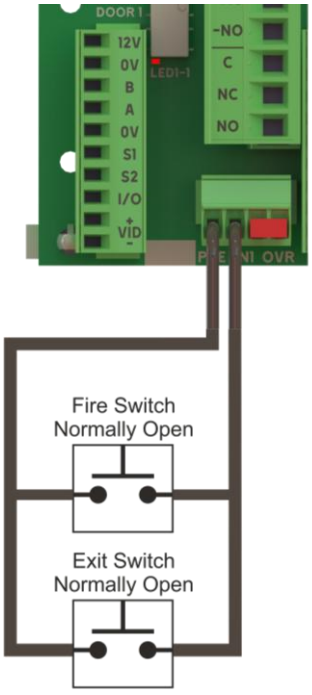


FIGURE 15

For double pole push to exit / fire switches with fail open locks, see section 6.1.2.

6.1.2 Fail Open Lock Connection

Connection for fail open locks (power to hold), e.g. magnetic locks.

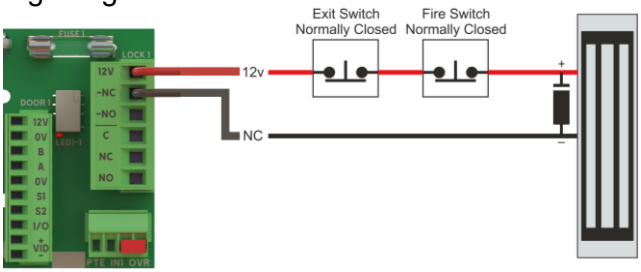


FIGURE 16

6.1.3 Fail Closed Lock Connection

Connection for fail closed locks (power to release), e.g. electric strike.

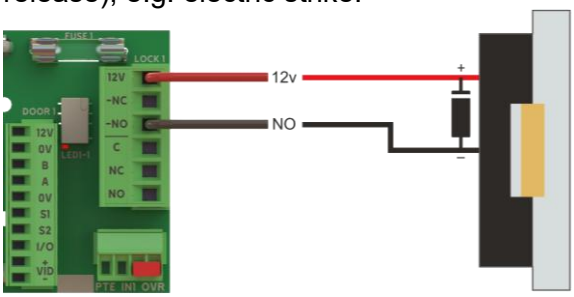


FIGURE 17

6.1.4 Override

For fail-safe door release operation, remove **OVR** link and connect a Volt-free Normally Closed circuit (open-circuit to unlock).

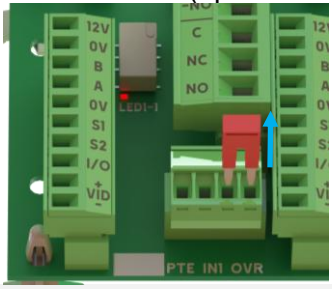


FIGURE 18 – E.G. OVERRIDE KEY SWITCH APPLICATIONS

6.2 LOCK SUPPRESSION

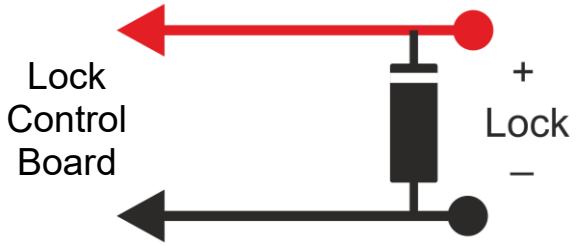


FIGURE 19 - 1N4007 DIODE FITTED AT LOCK

CAME Entrotec recommends locks with built-in suppression. If such a lock is not being used it is ESSENTIAL to fit suitable suppression, as close to the lock as possible. This prevents back EMF and spikes from damaging equipment and causing erratic operation.

⚠ WARNING

Failure to fit adequate suppression may invalidate any warranty.

SUITABLE SUPPRESSION

CAME Entrotec supply 1N4007 diodes with each Call Panel.

6.2.1 Unlock Time

For an entrance with a Call Panel, the unlock time is adjusted at the Call Panel by accessing the settings menu, see **section 10.1.5**.

7 EASITAG READER

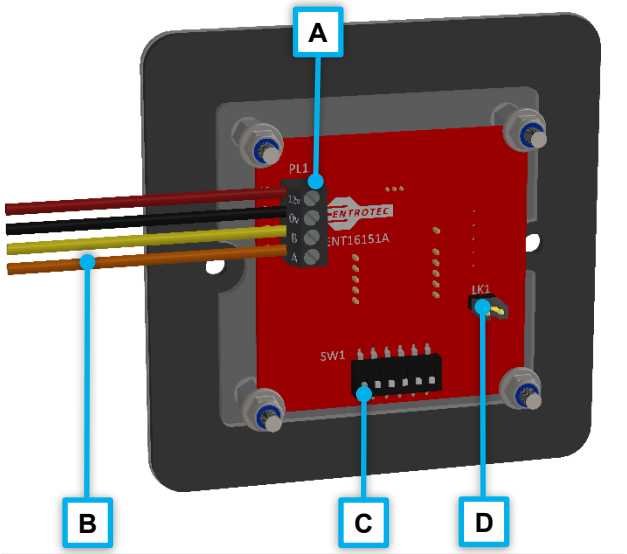


FIGURE 20 – ETA READER

A	**PL1** - Input Connections: Power, RS485 Data
B	Connection to APX-LC4 Lock Control Board: 12v, 0v, B, A
C	**SW1** - RS485 Address + Options
D	**LK1** – Tone On/Off Link, remove to disable

7.1 READER RS485 ADDRESS + OPTIONS

- Each reader must be assigned an RS485 address 1-4 corresponding to the associated lock control channel.
- SW1 Switches A1, A2, A4 and A8 set the binary address (0-15).
- O1 is for future use, O2 is OFF for normal use.

8 CONTROLLER NETWORK

The APX controller network uses an RS485 multi-drop communications bus. Controllers shall be connected in a linear daisy-chain topology. Star, ring and spur wiring arrangements are not supported.

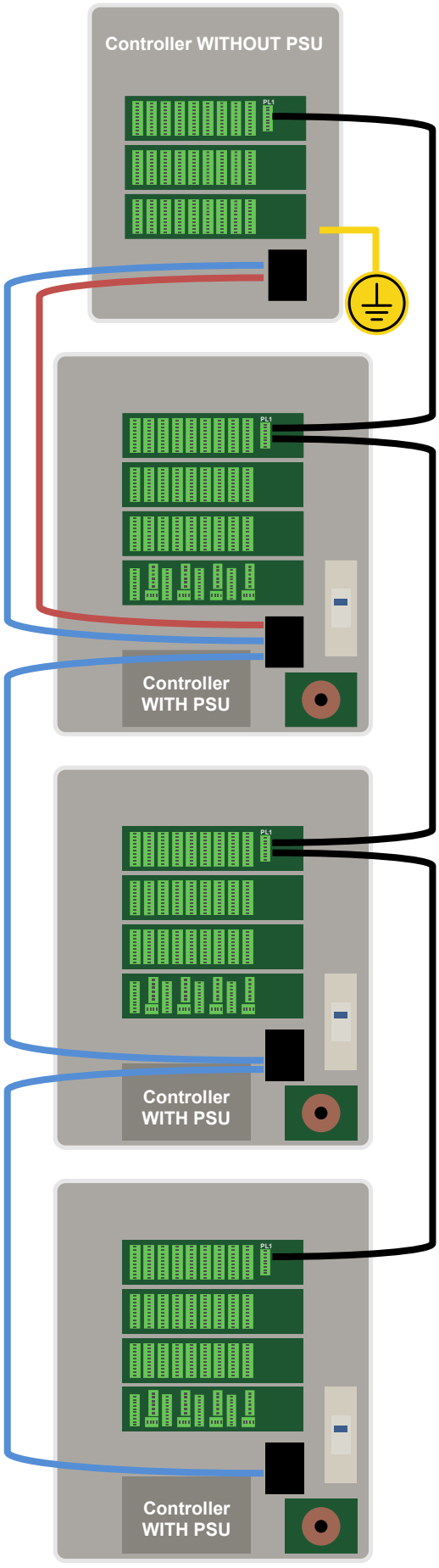
8.1 CONTROLLER ADDRESSING

- Each controller is a node on the APX Communications Bus and shall have a unique network address (factory set where possible).
- Each control board within a controller set to this address using the DIP switches SW1.
- Switches marked 1, 2, 4, 8, 16, 32, 64 and 128 set the binary address (0-255).

Switch	1	2	4	8	16	32	64	128
Address 0	0	0	0	0	0	0	0	0
Address 1	1	0	0	0	0	0	0	0
Address 3	1	1	0	0	0	0	0	0
Address 7	1	1	1	0	0	0	0	0
Address 15	1	1	1	1	0	0	0	0
Address 31	1	1	1	1	1	0	0	0
Address 63	1	1	1	1	1	1	0	0
Address 127	1	1	1	1	1	1	1	0
Address 255	1	1	1	1	1	1	1	1

ON = 1
OFF = 0

8.2 CONTROLLER TOPOLOGY - CONTROLLERS WITHOUT DS2



Connection	Type	Cable
	APX Bus	Cat5e or Cat6 (UTP - 4 pair min).
	System 0V Common	1 x 4 mm² Blue LSZH Single-Core Flex
	Power	2-Core Flex 1.5 mm²
	Protective Earth	4 mm² PE/CPC cable

APX CONTROLLER NETWORK

The APX controller network uses an RS-485 multi-drop communications bus.

Controllers are connected IN / OUT of PL1 in a linear daisy-chain topology. Star, ring and spur wiring arrangements are not supported.

FIGURE 21 - CONTROLLERS SHALL BE CONNECTED AS NODES ON A LINEAR DAISY-CHAIN COMMUNICATIONS BUS

8.3 APX COMMUNICATION BUS - INTERCONNECTION OF CONTROLLERS WITHOUT DS2

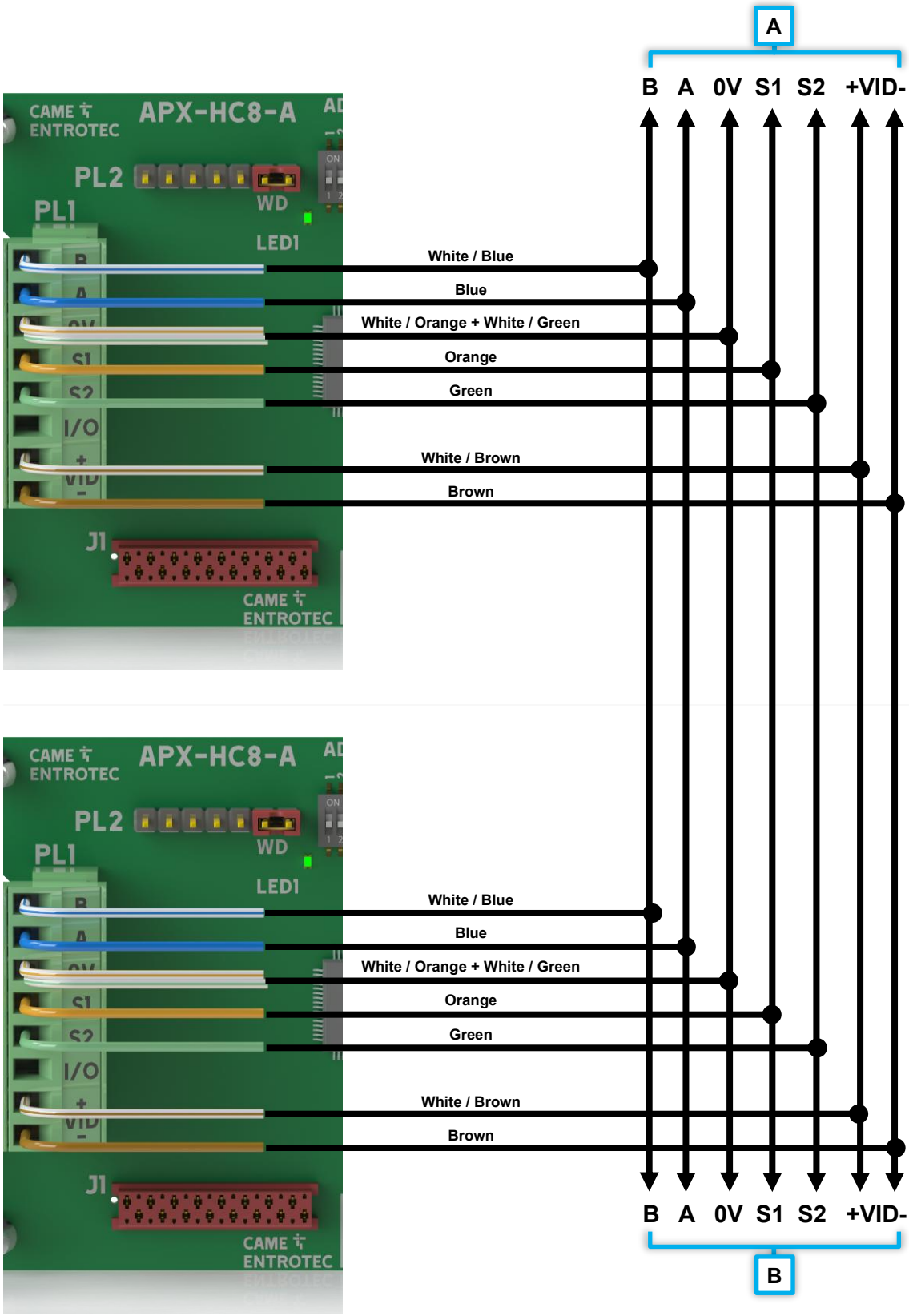
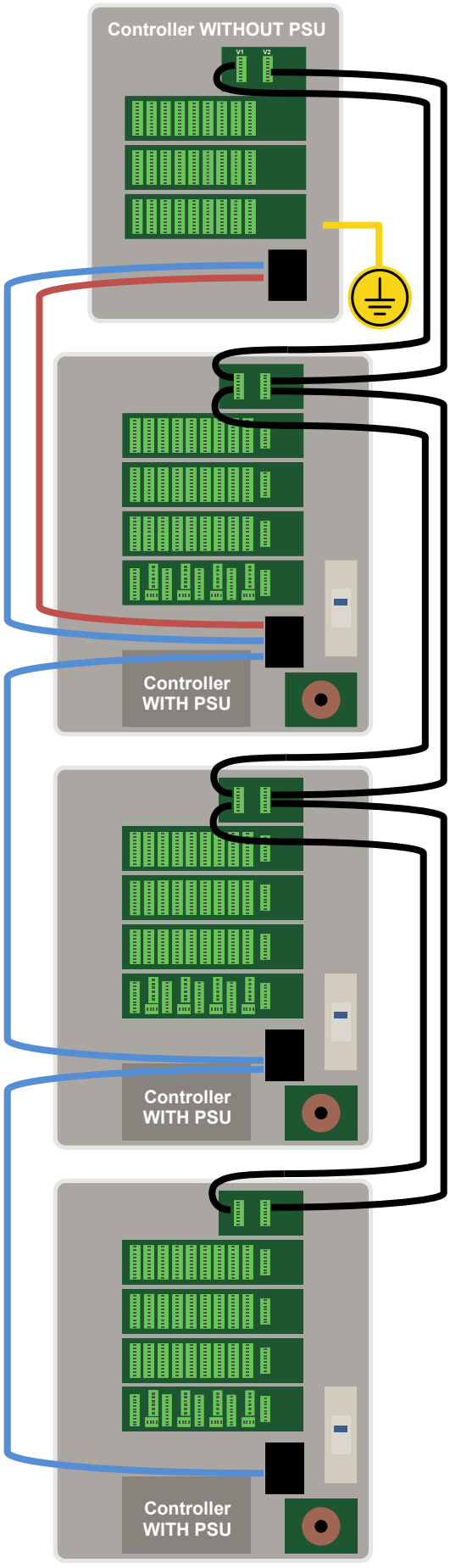


FIGURE 22

A	APX Communication Bus Connection to Next Controller(s)
B	APX Communication Bus Connection from Previous Controller(s)

8.4 CONTROLLER TOPOLOGY - CONTROLLERS WITH DS2



Connection	Type	Cable
	APX Bus	Cat5e or Cat6 (UTP - 4 pair min).
	System 0V Common	1 x 4 mm² Blue LSZH Single-Core Flex
	Power	2-Core Flex 1.5 mm²
	Protective Earth	4 mm² PE/CPC cable

APX CONTROLLER NETWORK

The APX controller network uses an RS-485 multi-drop communications bus.

Controllers are connected IN / OUT of V1 and IN / OUT of V2 in a linear daisy-chain topology. Star, ring and spur wiring arrangements are not supported.

FIGURE 23 - CONTROLLERS SHALL BE CONNECTED AS NODES ON 2 LINEAR DAISY-CHAIN COMMUNICATIONS BUS

8.5 APX COMMUNICATION BUS - INTERCONNECTION OF CONTROLLERS WITH DS2

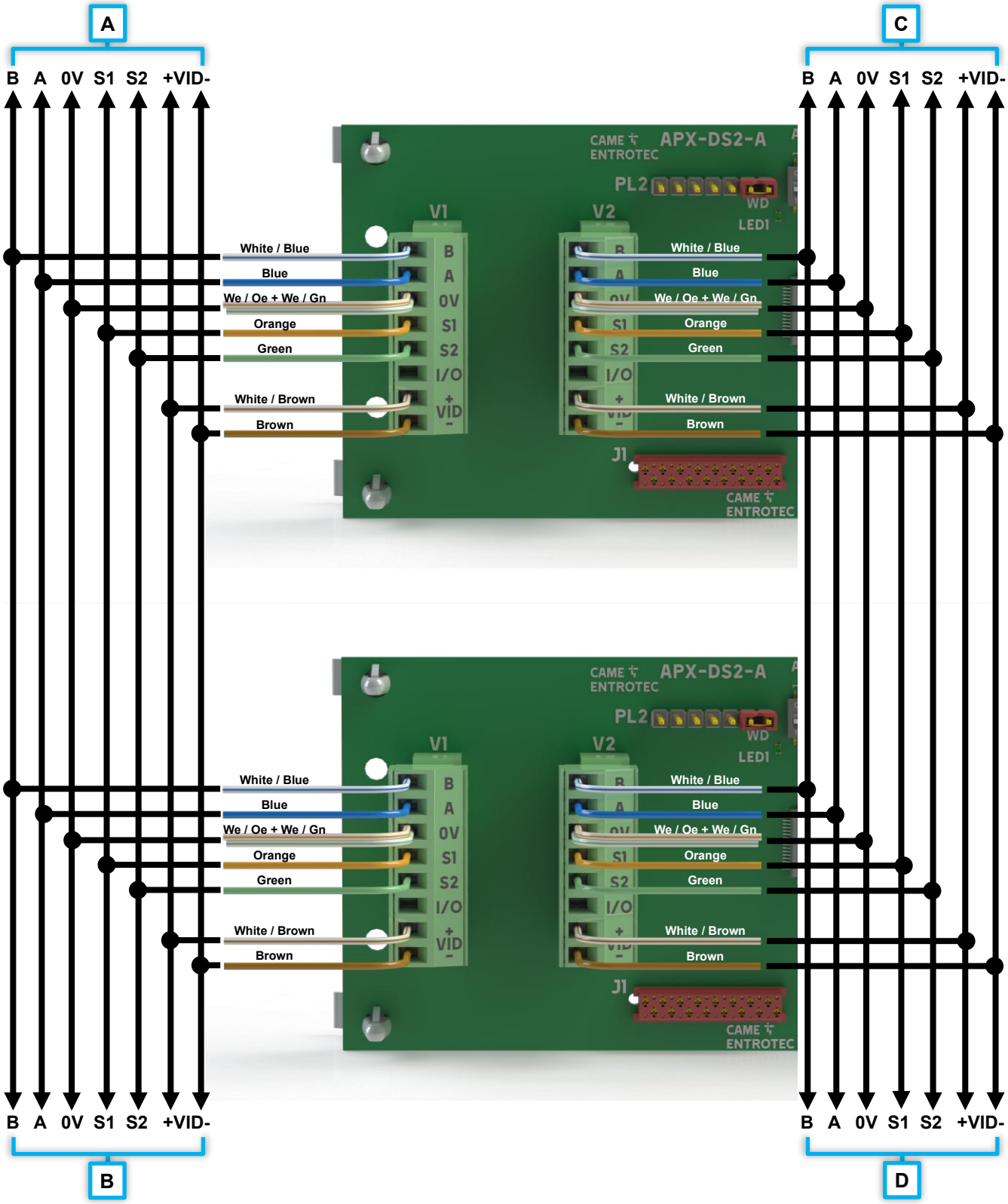


FIGURE 24

A	V-Bus 1 Connection to Next Controller(s)
B	V-Bus 1 Connection from Previous Controller(s)
C	V-Bus 2 Connection to Next Controller(s)
D	V-Bus 2 Connection from Previous Controller(s)

9 HANDSET CONTROL BOARD

9.1 APX-HC8 - 8 CHANNEL HANDSET CONTROL BOARD

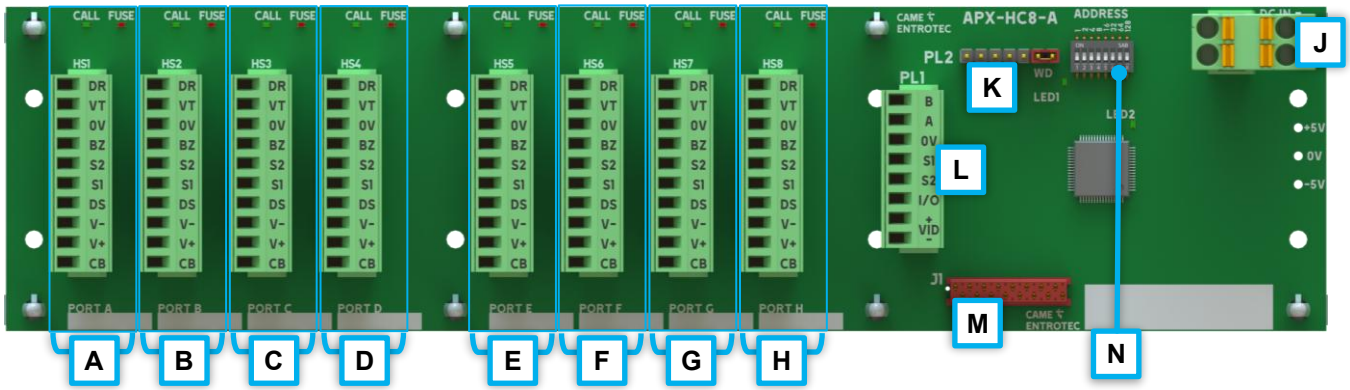
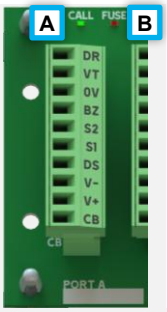


FIGURE 25

A - H	Handset Ports A to H
J	**DC IN** - Power Input
K	**PL2** - Watchdog Link (Right pins) and Heartbeat LED
L	**PL1** - Bus Connections
M	**J1** - Control Board Interconnection
N	**SW1** - RS485 Address

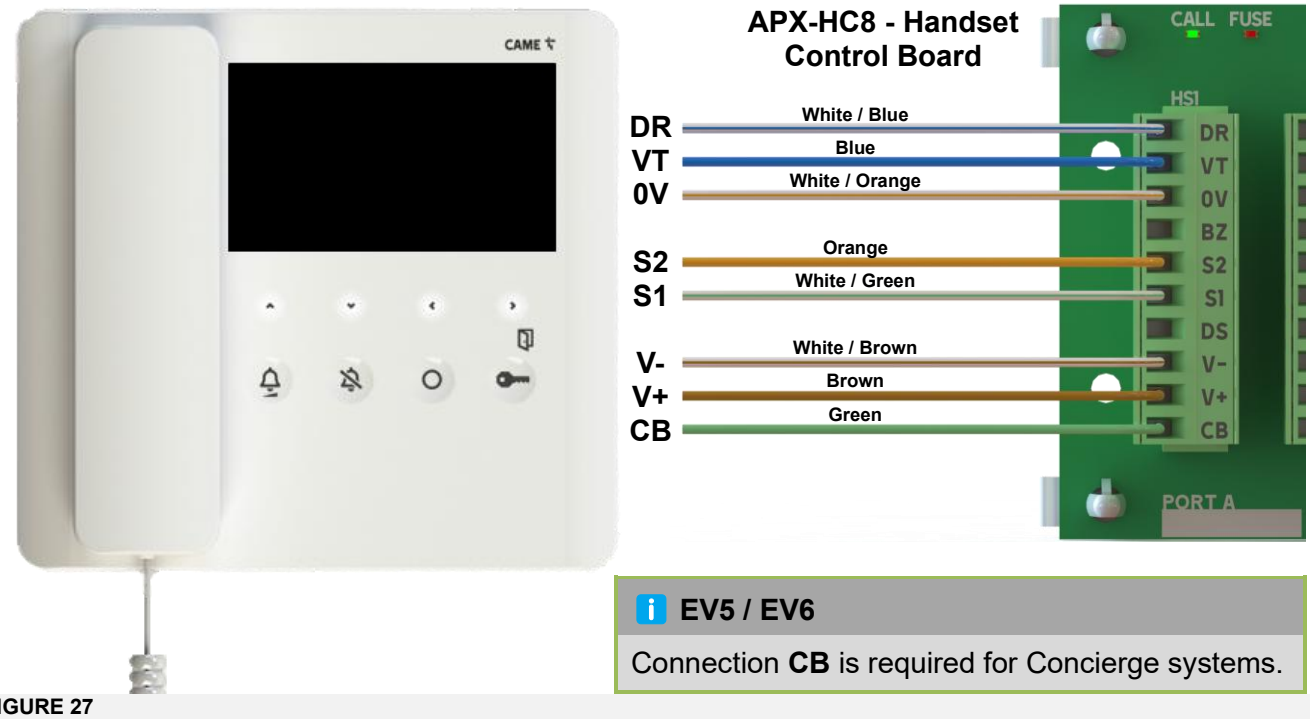
9.1.1 Handset Port



A	**CALL LED** – Illuminates green during an active call to this handset port.
B	**FUSE LED** – Illuminates red when there is a fault on this handset port.

FIGURE 26

9.2 EV5 / EV6 RECEIVER CONNECTIONS



EV5 / EV6

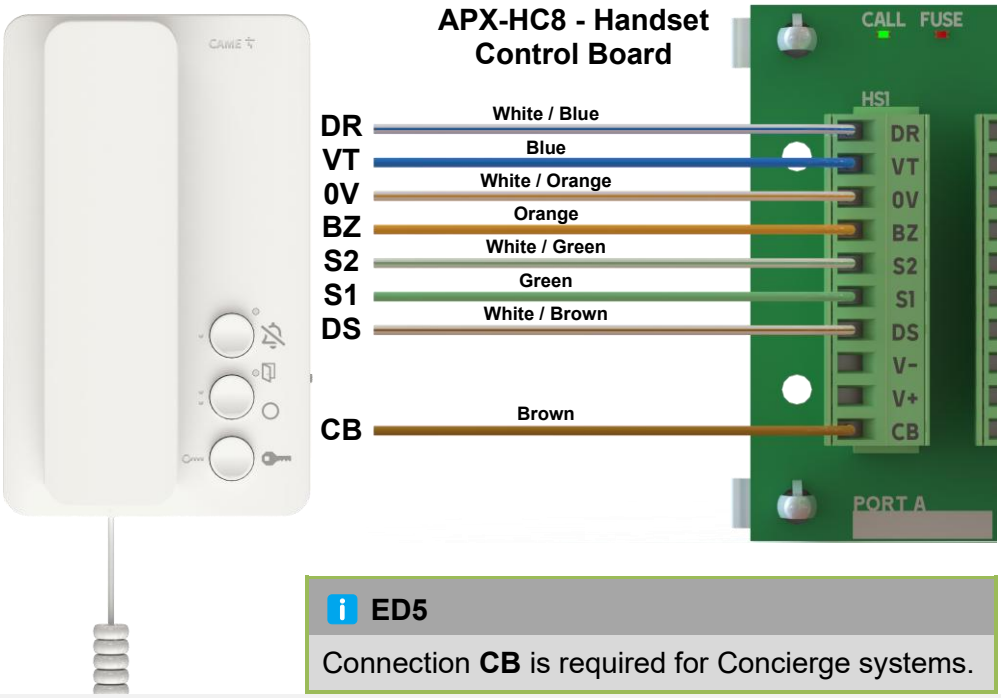
Connection **CB** is required for Concierge systems.

FIGURE 27

USING WITH 4 PAIR CABLE

Where **BZ** connection is not used, the internal ringer on the receiver must be enabled.

9.3 ED5 RECEIVER CONNECTIONS



ED5

Connection **CB** is required for Concierge systems.

FIGURE 28

10 SYSTEM SETUP

10.1 CALL PANEL SETUP MENU

10.1.1 Entering the Menu

To enter the Setup menu, press and hold the programming switch on the Call Panel PCB (Figure 13) for 5 seconds.

If the Call Panel has an EasiTag reader, present the EasiTag Programming Card 3 times.

10.1.2 Navigating the Menu

Use the Call Panel buttons to Scroll through the menu.

To confirm or enter the selected option, press the programming switch or press Call (digital call panels only).

To cancel or exit the selected option, allow the call panel to time out or press Cancel (digital call panels only).

10.1.3 Menu Structure

- > **Settings**
  - > Autocall
  - > Unlock time
  - > Voice Vol.
  - > Mode
- > **Commission**
  - > Set target
  - > Edit target
  - > Save changes
- > **Coded access**
  - > User codes
  - > Prog. code
  - > Trades code
- > **Timeclock**
  - > Set date
  - > Set time
  - > Time profile 1
  - > Time profile 2
  - > Current time

AVAILABLE OPTIONS

Menu may differ depending on call panel type.

10.1.4 Autocall

This sets the feature ON or OFF. Autocall automatically places a call after the visitor has dialled at the panel. There is no need to press Call. When this feature is enabled, any button will clear down the call.
Navigate to **Settings > Autocall**

- > **On**
- > **Off**

Press **Call** to store.

10.1.5 Unlock Time

This sets the length of time the entrance is unlocked for once triggered 1-60 seconds.
Navigate to **Settings > Unlock Time**

- > **1 second**
- > **…** (1 second increments)
- > **60 seconds**

Press **Call** to store.

10.1.6 Voice Volume

This sets the volume for the optional Voice Over Module (VOM). Refer to VOM Installation Guide.

10.1.7 Mode

Factory set, do not adjust.

10.1.8 Commission

This feature allows flat numbers to be programmed or re-programmed in system.

Prior to use, note the RS485 address of each controller and which flat numbers are to be programmed to each controller.

Each controller has 24 possible slots, even if there are 8 or 16 receiver ports, slots 1-24 will be available. Unused slots are programmed as empty.

Navigate to **Commission > Set Target**

> Enter the Target Controller Address.
> Press **Call**

The existing flat numbers are downloaded, and the call panel will enter **Edit Target** mode starting at slot 1 of 24.

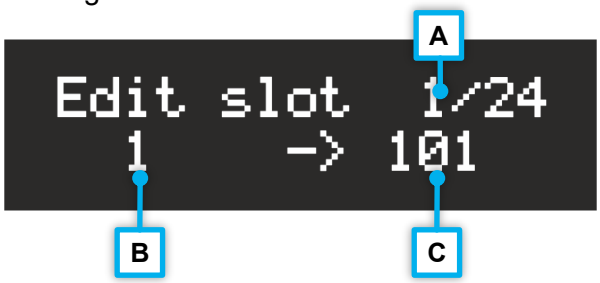


FIGURE 29

A	Slot Number
B	Existing Flat Number
C	New Flat Number

> Enter the new flat number
> Press **Call** to jump to the next slot.
  - To program a slot as Empty, press **Call** without entering a new flat number.
> Repeat for each of the 24 slots.

Once all 24 slots are programmed, the call panel will prompt to **Save Changes**.

Press **Call** to write the new flat numbers to the target controller.

10.1.9 Coded Access

Digital call panels have coded access feature as standard, allowing a user access by entering a secret code.

There are 9 programmable User Codes and 1 programmable timed / trades entry code, these can be easily re-programmed at the call panel using the Prog. code.

DEFAULT CODES

It is strongly recommended that the codes are changed from default.

Navigate to **Coded access > Prog. code**

> Enter the current Prog. Code
  - Default = 1, 2, 3, 4, 5, 6
> Press **Call**
> Enter a new Prog. Code
> Press **Call** to store.

Navigate to **Coded access > User codes**

> Enter the Prog. Code
> Press **Call**
> Select a code slot: 1-9.
> Press **Call**
> Enter a new User Code
  - To delete a code, press **Call** without entering a new code.
> Press **Call** to store.

Navigate to **Coded access > Trades code**

> Enter the Prog. Code
> Press **Call**
> Enter a new Trades Code
  - To delete, press **Call** without entering a new code.
> Press **Call** to store.

CODES AFTER SETUP

To unlock: press **Call**, enter a user code, then **Call**.
To enter the **User codes** menu: press **Call**, enter the Prog. code, then **Call**.

10.1.10 Timeclock

APX has a built-in real-time clock with automatic British Summer Time correction, battery backup and 2 separate time profiles.

The date, time and time profile settings are system wide and only need to be setup once. However, the function that each call panel uses for both times profile must be set separately.

Navigate to **Timeclock > Set Date**

> Use the Call Panel buttons to increment the selected parameter (shown with blinking cursor).
> Press **Call** to move the cursor to the next parameter.
  - On the last parameter (Year), **Call** will store the new date.

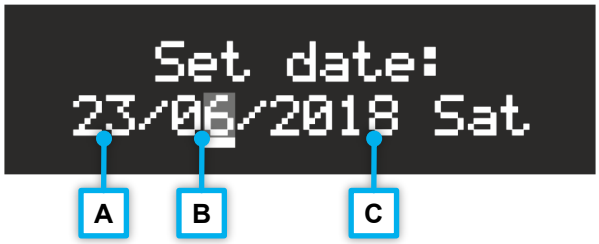


FIGURE 30 - SET DATE MENU SHOWING MONTH SELECTED

A	Date
B	Month (shown selected with cursor)
C	Year

Navigate to **Timeclock > Set Time**

> Use the Call Panel buttons to increment the selected parameter (shown with blinking cursor).
> Press **Call** to move the cursor to the next parameter.
  - On the last parameter (Minutes), **Call** will store the new time.

FIGURE 31 - SET TIME MENU SHOWING HOUR (TENS) SELECTED

Navigate to **Timeclock > Time profile 1**

> Use the Call Panel buttons to increment the selected parameter (shown with blinking cursor).
> Press **Call** to move the cursor to the next parameter.
  - On the last parameter (Function), **Call** will store the Time Profile.

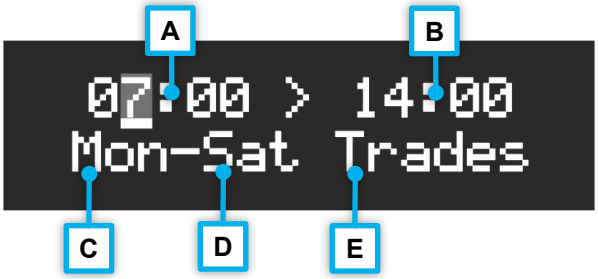


FIGURE 32 - TIME PROFILE MENU SHOWING START TIME SELECTED

A	Start Time
B	End Time
C	First Day
D	Last Day
E	**Function:** **Trades** (Trades Period) **Voice** (used to enable Voice Over Feature at certain times to avoid disturbance) **Off** (Disabled)

Figure 32 shows a Trades Period active 7am-2pm - Monday to Saturday

To verify settings and see which profiles are active, navigate to **Timeclock > Current Time**

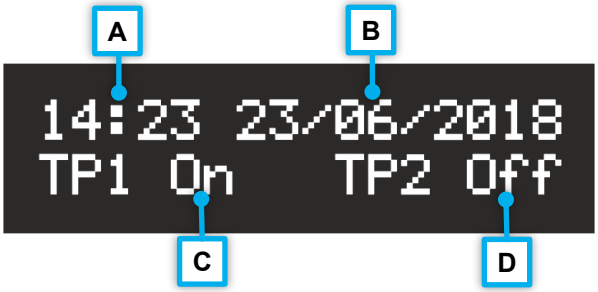


FIGURE 33

A	Current Time
B	Current Date
C	Time Profile 1 Status
D	Time Profile 2 Status

11 CABLE COLOUR CODES

11.1 UTP COLOUR SEQUENCE

CAME Entrotec's suggested colour code typically follows the industry standard colour sequence.

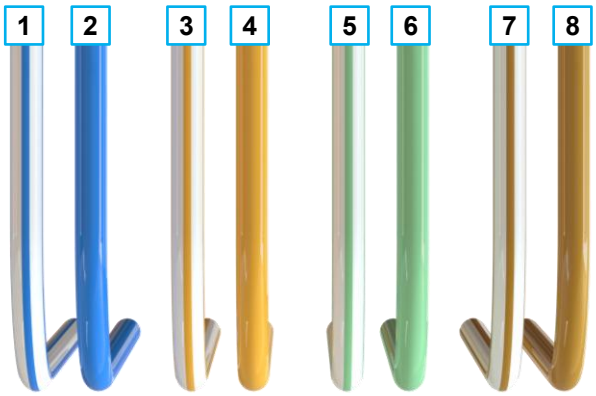


FIGURE 34 - UTP COLOUR CODE: PAIRS 1-4

Wire	Colour
1	White/Blue
2	Blue
3	White/Orange
4	Orange
5	White/Green
6	Green
7	White/Brown
8	Brown

11.2 SUGGESTED COLOUR CODES

11.2.1 APX Door Bus

Wire	Colour	Connection
1	White/Blue	B
2	Blue	A
3	White/Orange	0V
4	Orange	S1
5	White/Green	S2
6	Green	0V
7	White/Brown	VID +
8	Brown	VID -

11.2.2 APX Bus / V-Bus

Wire	Colour	Connection
1	White/Blue	B
2	Blue/White	A
3	White/Orange	0v
4	Orange	S1
5	White/Green	S2
6	Green/White	0v
7	White/Brown	VID +
8	Brown/White	VID -

11.2.3 Audio Receivers

Wire	Colour	Connection
1	White/Blue	DR
2	Blue	VT
3	White/Orange	0V
4	Orange	BZ
5	White/Green	S2
6	Green	S1
7	White/Brown	DS
8	Brown	CB

11.2.4 Video Receivers

Wire	Colour	Connection
1	White/Blue	DR
2	Blue	VT
3	White/Orange	0V
4	Orange	S2
5	White/Green	S1
6	Green	CB
7	White/Brown	V-
8	Brown	V+

SPARE CORES

It is good practice to connect any spare cores to 0v at both ends of the cable.

CAME ENTROTEC

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