ZONEMIX WIRING GUIDE

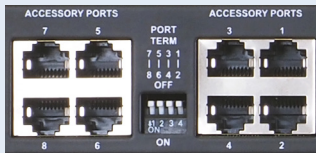ZONING ● PAGING ● CONTROL

INTRODUCTION

The ZONEMIX accessory ports allow for the connection of wall panels, paging stations and audio input sources. Please follow the guide below to set up your system.
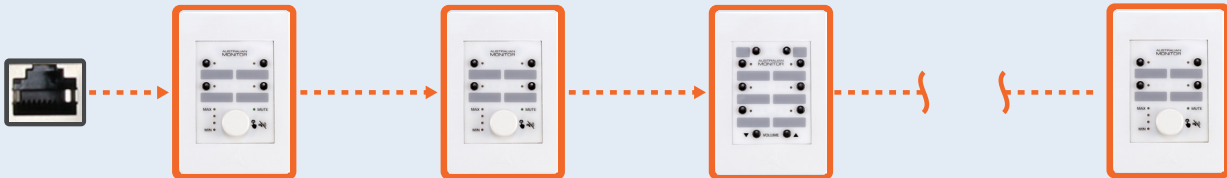
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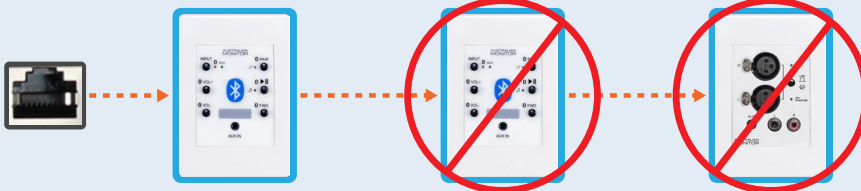
ZONEMIX 4   **ZONEMIX 8**   **Wall Controllers**   **Audio Sources**

Supports up to 8 controllers per port. (see page 2 for details)

Supports ONE audio input PER accessory port.

Supports up to 8 paging stations per port. (see page 2 for details) Note: Supports one active page at a time.
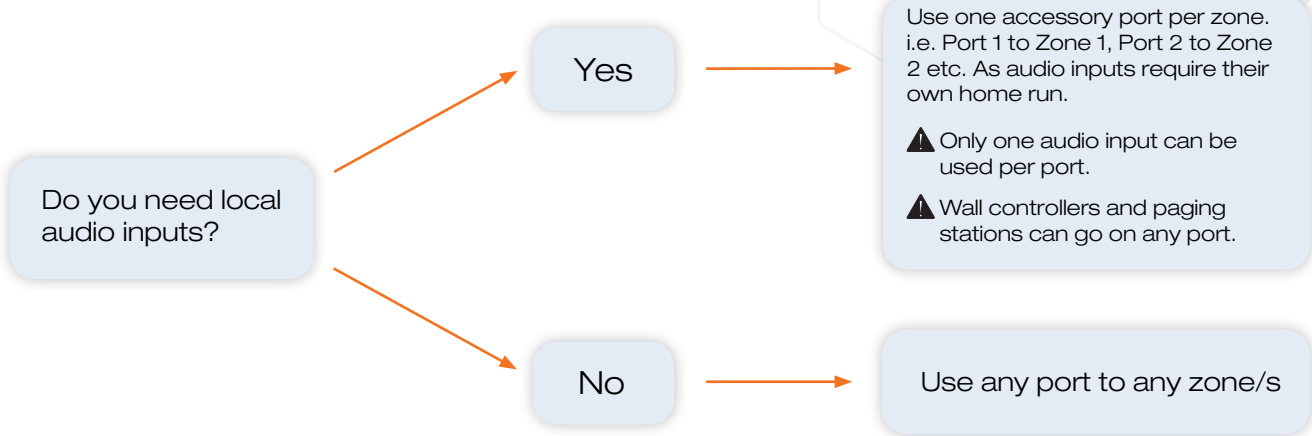

Example setup: Lots of controllers, lots of paging stations and ONE audio input.

⚠ Please note that accessory port local audio input channels are locked to the corresponding output zone and only one can be used per zone. E.g. Accessory port 1 local input connects to Zone 1. However, multiple wall panels and paging stations can be connected on the same accessory port.

STEP 1: DECIDE PORT WIRING LAYOUT

Do you need local audio inputs?

Yes → Use one accessory port per zone. i.e. Port 1 to Zone 1, Port 2 to Zone 2 etc. As audio inputs require their own home run.

⚠ Only one audio input can be used per port.

⚠ Wall controllers and paging stations can go on any port.

No → Use any port to any zone/s

STEP 2: CONFIRM YOU DO NOT EXCEED THE FOLLOWING LIMITS

Maximum cable length per port	Accessories per port	Maximum Accessories in system
130m	8	
150m	7	
170m	6	
200m	5	24
250m	4	
350m	3	
500m	2	

The maximum distances quoted in the table are due to DC current limitations.
The paging stations and wall panels can be locally powered to increase the cable length to a maximum of 500m. Please read the following additional document: **Advanced accessory port wiring guide.**

STEP 3: ACCESSORY PORT WIRING

There are two wiring standards which can be used, T-568B and T-568A.
The difference between the two standards are the orange and green wiring pairs are different.

- T-568B (orange pair are on pins 1+2, green pair are on pins 3+6)
- T-568A (orange pair are on pins 3+6, green pair are on pins 1+2)
- We recommend using T-568B but either standard is supported.
- **Pick one standard only and use it for all connections.**
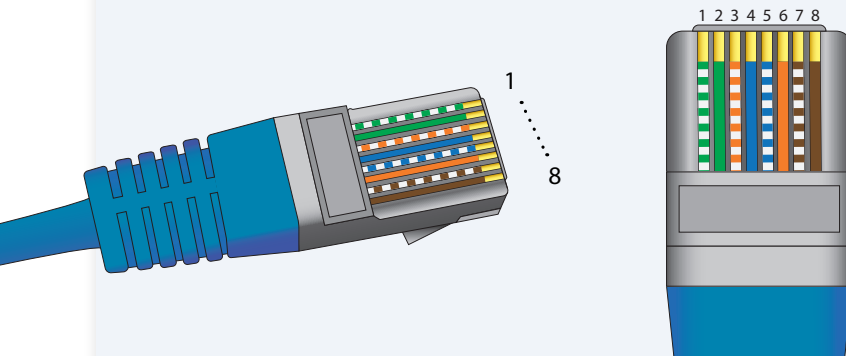
ZONEMIX AND ZMPS WIRING STANDARDS

T-568B STANDARD (RECOMMENDED)
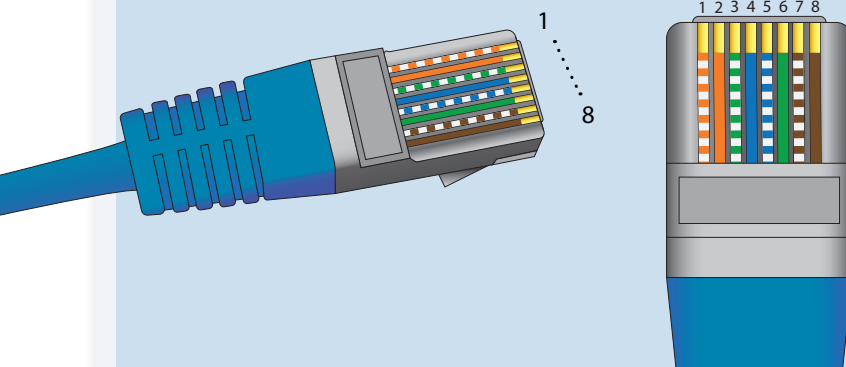
Pin	Colour	Signal
1	Orange/White	Paging Audio +
2	Orange	Paging Audio -
3	Green/White	RS485 B
4	Blue	+24V DC
5	Blue/White	GND
6	Green	RS485 A
7	Brown/White	Remote Input +
8	Brown	Remote Input -

*T-568B wiring standard recommended

T-568A STANDARD

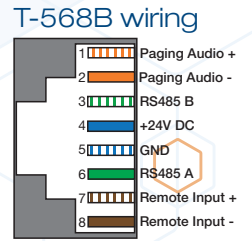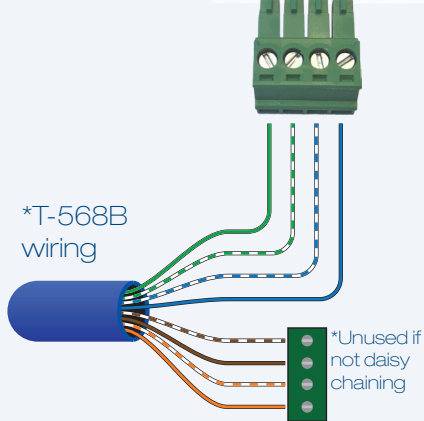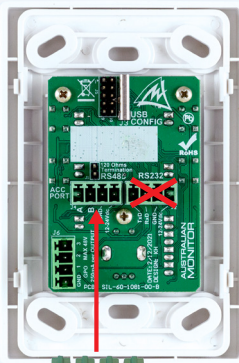| Pin	Colour	Signal
1	Green/White	Paging Audio +
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ZONEMIX
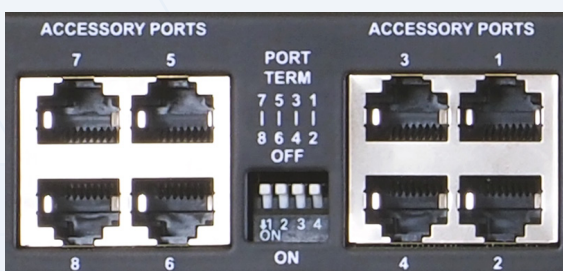
ZMPS

STEP 3: ACCESSORY PORT WIRING (CONT.)

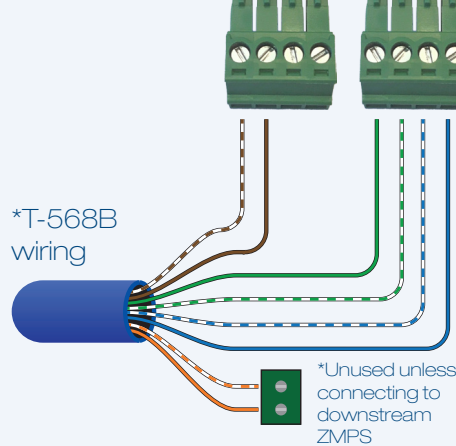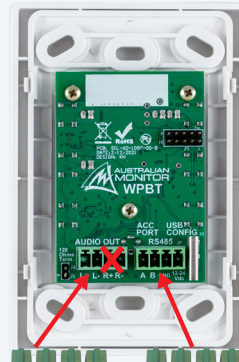Wire the wall panels as per the images below.
- Category 5, 5e and 6 cabling supported.
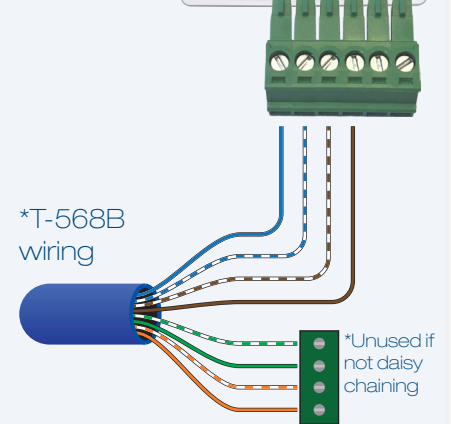- T-568B wiring recommended. However, T-568A also supported.

T-568B wiring

1		Paging Audio +
2		Paging Audio -
3		RS485 B
4		+24V DC
5		GND
6		RS485 A
7		Remote Input +
8		Remote Input -

WP4R, WP10, WPVOL WIRING

*T-568B wiring

*Unused if not daisy chaining

WPBT WIRING

*T-568B wiring

*Unused unless connecting to downstream ZMPS

WPML WIRING

*T-568B wiring

*Unused if not daisy chaining
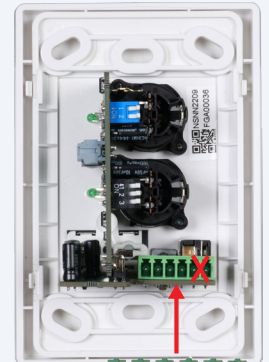
WPBT daisy chain wiring
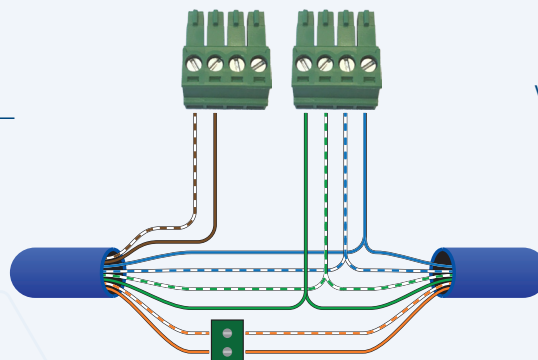
WP4R, WP10, WPVOL daisy chain wiring

WPML daisy chain wiring

Wire the ZMPS as per the image below.
- Category 5, 5e and 6 cabling supported.
- T-568B wiring recommended. However, T-568A also supported.

ZMPS DAISY CHAIN WIRING

Use an RJ45 splitter or terminal block if daisy chain wiring required

ZONEMIX

STEP 4: PORT TERMINATION – <u>DO NOT SKIP THIS STEP</u>

The ZONEMIX uses the RS485 standard to communicate to wall panels and paging stations. RS485 requires that each end of the cable run is terminated to prevent signal corruption due to signal reflections in the cable.

The Accessory Ports are grouped in Pairs. 1+2, 3+4, 5+6, 7+8. You must terminate the ZONEMIX and Accessories based on which ports you use.

1. Terminate the ZONEMIX accessory ports, as per the table, using the PORT TERM switches

ACCESSORY PORT TERMINAL SWITCH SETTING			
ONE PORT USED	TERM	BOTH PORTS USED	TERM
Port 1 **OR** Port 2 used	ON	Port 1 **AND** Port 2 used	OFF
Port 3 **OR** Port 4 used	ON	Port 3 **AND** Port 4 used	OFF
Port 5 **OR** Port 6 used	ON	Port 5 **AND** Port 6 used	OFF
Port 7 **OR** Port 8 used	ON	Port 7 **AND** Port 8 used	OFF
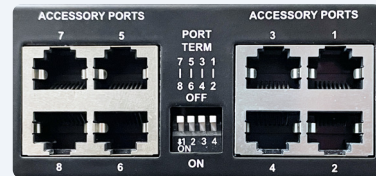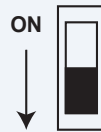
2. Terminate the <u>LAST</u> RS485 accessory on the port cable run.
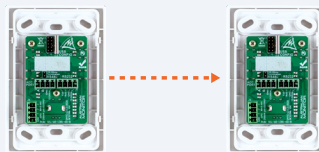
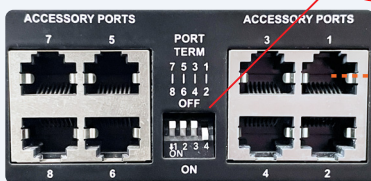Paging station termination

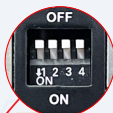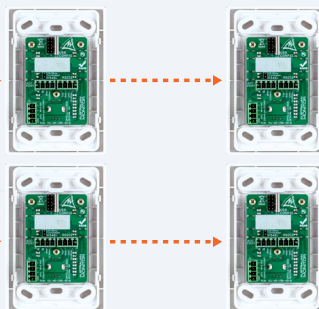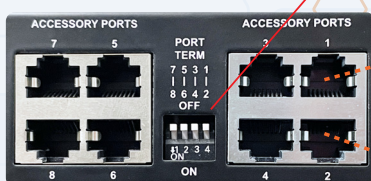Wall panel termination

Examples:
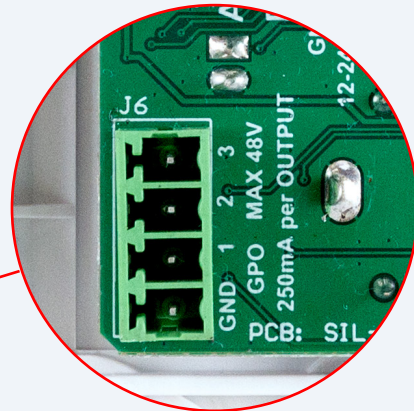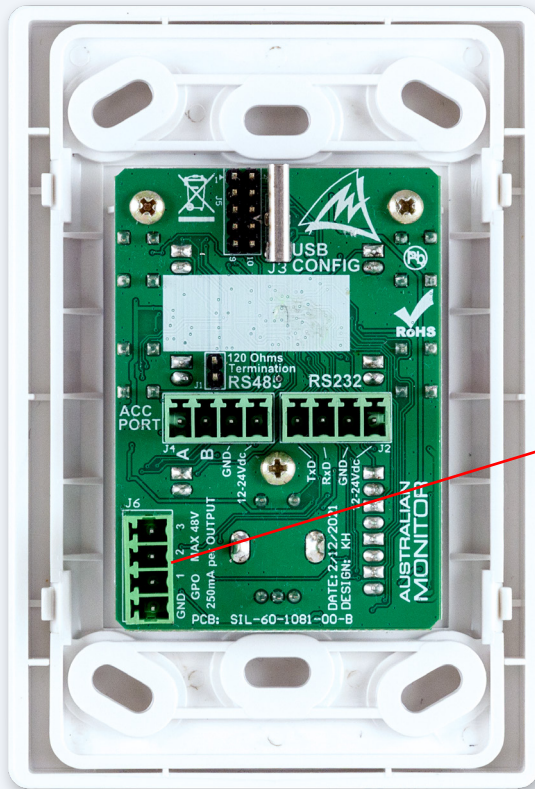
ONE port used:

PORT TERM = ON

Terminate end points

BOTH Ports used:

PORT TERM = OFF

The WP4R and WP10 both have 3 general purpose outputs which can be controlled from the wall panel buttons to trigger external devices such as projectors.

GPO Schematic

Each Output is an open collector transistor.
Maximum Voltage: 48V
Maximum Sink Current: 250mA

Example:
Relay Connection

24V

GPO1   GPO2   GPO3

Internal Logic

GND