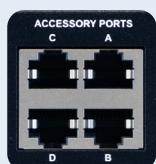# WIRING GUIDE

Z624

INTRODUCTION

The Z624 accessory ports allow for the connection of wall panels, a paging station and audio input sources. Please follow the guide below to set up your system.
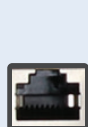
Key:

Z624

Wall Controllers

Audio Sources

Paging Station

Each port supports 2 wall controllers and 2 audio sources, or 1 audio source and a paging station

OR

Each accessory port supports:

TWO WALL CONTROLLERS
In default mode, the wall controllers will only control the sources and levels for the corresponding zone. e.g. Accessory Port A controls ZONE A, Accessory Port D controls ZONE D
Advanced Mode: Use the configuration software to customise the wall panel functions.

AND

TWO AUDIO SOURCES
The two audio sources SUM together in the Z624 and replace INPUT 6 for that zone. (Local input DIP switch setting must be ON)

Note: The audio sources are locked to the zone.
If the audio source is required in other zones, the audio source should be connected to one of the shared inputs 1-5 instead of using the accessory port audio input.

OR

ONE Z624PS PAGING STATION AND ONE AUDIO SOURCE
Only one paging station is supported in the system and can be connected to any accessory port. When a paging station is used the remaining local audio input is used for the audio input source.

STEP 1: CONFIRM YOU DO NOT EXCEED THE FOLLOWING LIMITS

Maximum cable length per port	Accessories per port	Maximum Accessories in system
250m	4	
350m	3	16
500m	2	

The maximum distances quoted in the table above are due to DC current limitations.
The paging station and wall panels can be locally powered to increase the cable length
to a maximum of 500m.

Z624

STEP 2: 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.**
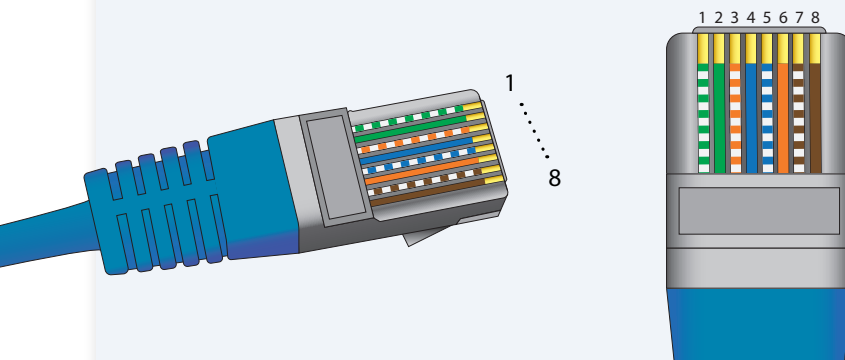
Z624 AND Z624PS WIRING STANDARDS

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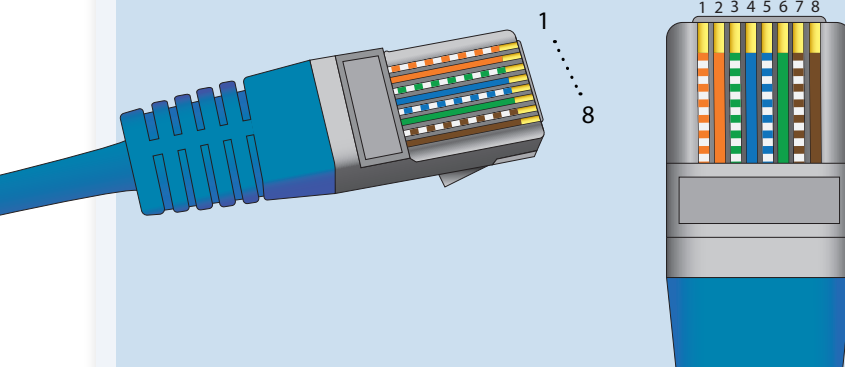
Pin	Colour	Signal
1	Orange/White	Paging Audio + or Remote Input 2 +
2	Orange	Paging Audio - or Remote Input 2 -
3	Green/White	RS485 B
4	Blue	+24V DC
5	Blue/White	GND
6	Green	RS485 A
7	Brown/White	Remote Input 1 +
8	Brown	Remote Input 1 -

*T-568B wiring standard recommended

T-568A STANDARD

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

Z624
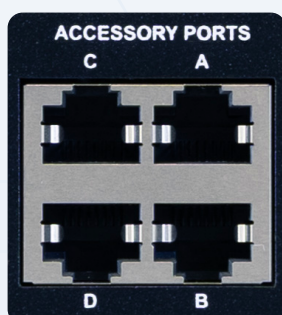
Z624PS
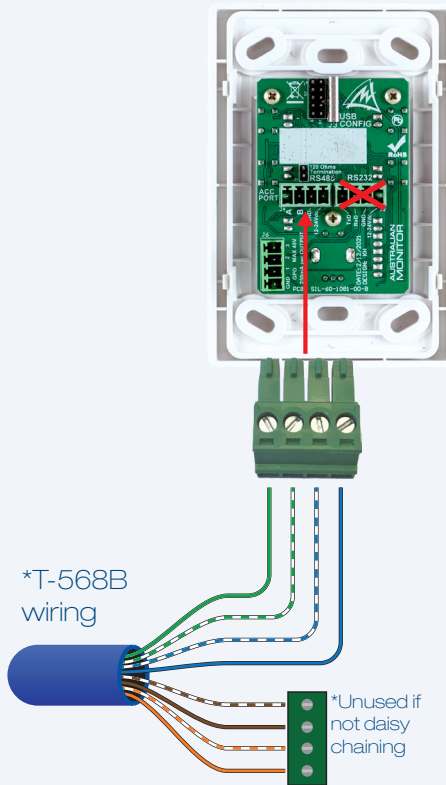
Z624

STEP 2: ACCESSORY PORT WIRING (CONT.)

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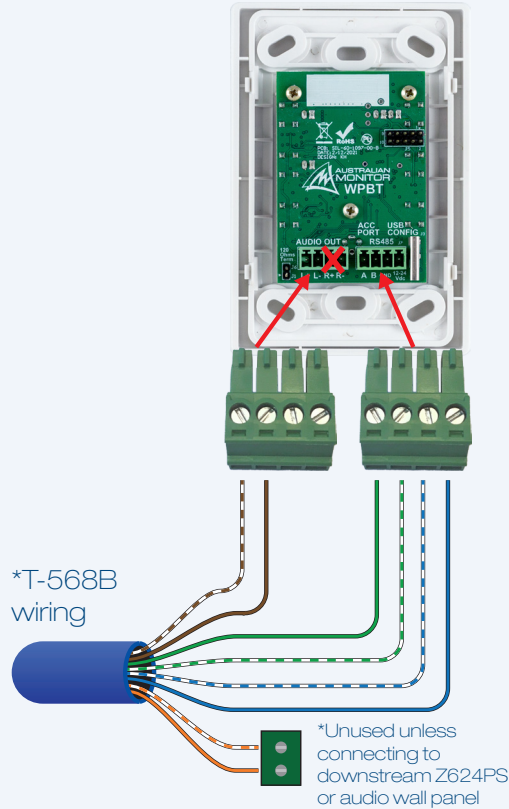- T-568B wiring recommended. However, T-568A also supported.

T-568B wiring

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

WP4R, WP10, WPVOL WIRING

*T-568B wiring

*Unused if not daisy chaining

WPBT WIRING

*T-568B wiring

*Unused unless connecting to downstream Z624PS or audio wall panel

WPML WIRING

*T-568B wiring

*Unused if not daisy chaining

*Set the WPML DIP switches to output MONO mode
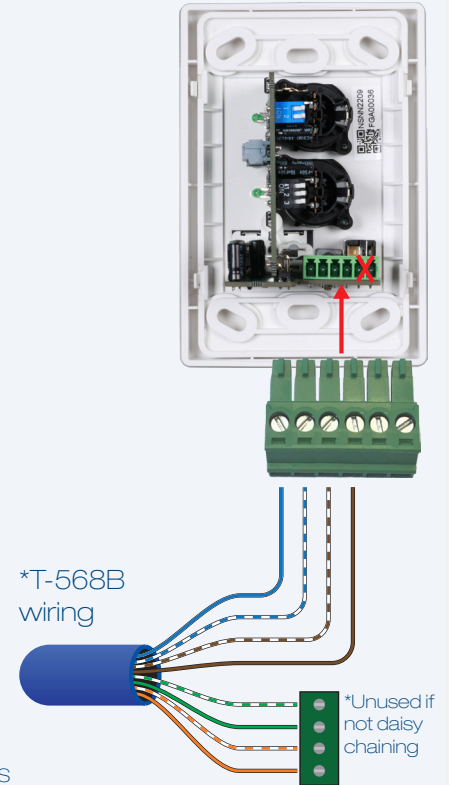
WPBT daisy chain wiring

WP4R, WP10, WPVOL daisy chain wiring
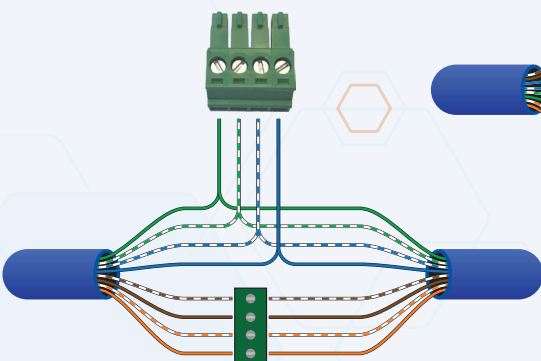
WPML daisy chain wiring
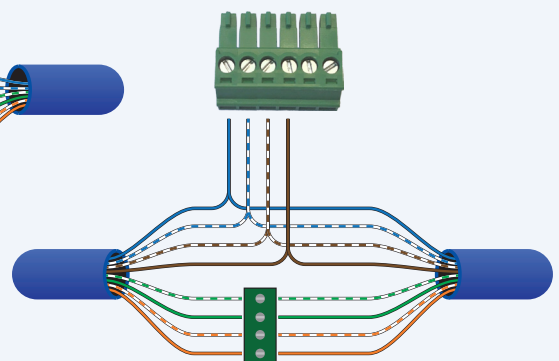
STEP 2: ACCESSORY PORT WIRING (CONT.)

Wire the Z624PS as per the image below.
- Category 5, 5e and 6 cabling supported.
- T-568B wiring recommended. However, T-568A also supported.

Z624PS WIRING

Z624

The Z624PS can be attached to any ONE of the accessory ports

# STEP 3: PORT TERMINATION – <u>DO NOT SKIP THIS STEP</u>

The Z624 uses the RS485 standard to communicate to wall panels and paging stations. RS485 requires that the end of the cable run is terminated to prevent signal corruption due to signal reflections in the cable.

• If the paging station is the last device, turn on it's PORT TERM switches as shown below.

• If a wall panel is the last device, add the jumper to the connector as shown below.
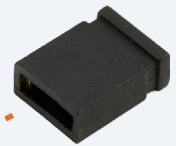
1. Terminate the <u>LAST</u> RS485 accessory on the port cable run.
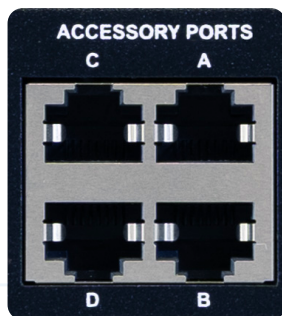
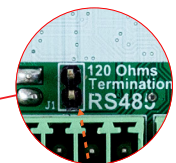Paging station termination

Z624PS
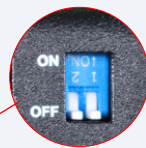
Wall panel termination

Note: WPML and WPXLR wall panels do not require termination

Example:

ACCESSORY PORTS

Terminate end points

Z624PS